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 : Q3447

ATTENTION : Smita Sumbaly

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q3447

Project ID : RFP 905

Client : Weston Solutions, Inc.

Lab Sample Number	Client Sample Number
Q3447-01	P001-TW1-251023-01
Q3447-02	P001-TW1-251023-01
Q3447-03	P001-TW2-251023-01
Q3447-04	P001-TW2-251023-01
Q3447-05	P001-TW3-251023-01
Q3447-06	P001-TW3-251023-01
Q3447-07	P001-TW4-251023-01
Q3447-08	P001-TW4-251023-01

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 10:09 am, Nov 06, 2025

Date: 11/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions, Inc.
Project Name: RFP 905
Project # N/A
Order ID # Q3447
Test Name: TCLP ICP Metals,TCLP Mercury

A. Number of Samples and Date of Receipt:
8 Solid samples were received on 10/23/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: TCLP ICP Metals,TCLP Mercury. This data package contains results for TCLP ICP Metals,TCLP Mercury.

C. Analytical Techniques:
The analysis of TCLP ICP Metals was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of TCLP Mercury was based on method 7470A and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all compounds.
The Duplicate analysis met criteria for all compounds.
The Matrix Spike analysis met criteria for all compounds.
The Matrix Spike Duplicate analysis met criteria for all compounds.
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 TCLP ICP:

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

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 TCLP HG:

Concentration or Result (µg/L) = $C \times \frac{Vf}{Vi} \times DF$

Where,

C = Instrument value in ppb
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

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 10:09 am, Nov 06, 2025

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q3447 MATRIX: TCLP

METHOD: 6010D,7470A,1311

		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:

APPROVED
By Nimisha Pandya, QA/QC Supervisor at 10:10 am, Nov 06, 2025

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3447

	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:** 11/04/2025

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LAB CHRONICLE

OrderID:	Q3447	**OrderDate:**	10/23/2025 1:50:00 PM
Client:	Weston Solutions, Inc.	**Project:**	RFP 905
Contact:	Smita Sumbaly	**Location:**	D41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3447-01	**P001-TW1-251023-01**	**SOIL**			**10/23/25**			**10/23/25**
			Mercury	7471B		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/28/25	
Q3447-02	**P001-TW1-251023-01**	**TCLP**			**10/23/25**			**10/23/25**
			TCLP ICP Metals	6010D		10/27/25	10/28/25	
			TCLP Mercury	7470A		10/27/25	10/28/25	
Q3447-03	**P001-TW2-251023-01**	**SOIL**			**10/23/25**			**10/23/25**
			Mercury	7471B		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/28/25	
Q3447-04	**P001-TW2-251023-01**	**TCLP**			**10/23/25**			**10/23/25**
			TCLP ICP Metals	6010D		10/27/25	10/28/25	
			TCLP Mercury	7470A		10/27/25	10/28/25	
Q3447-05	**P001-TW3-251023-01**	**SOIL**			**10/23/25**			**10/23/25**
			Mercury	7471B		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/29/25	
Q3447-06	**P001-TW3-251023-01**	**TCLP**			**10/23/25**			**10/23/25**
			TCLP ICP Metals	6010D		10/27/25	10/28/25	
			TCLP Mercury	7470A		10/27/25	10/28/25	
Q3447-07	**P001-TW4-251023-01**	**SOIL**			**10/23/25**			**10/23/25**
			Mercury	7471B		10/24/25	10/24/25	
			Metals ICP-TAL	6010D		10/24/25	10/24/25	
Q3447-08	**P001-TW4-251023-01**	**TCLP**			**10/23/25**			**10/23/25**

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LAB CHRONICLE

TCLP ICP Metals	6010D	10/27/25	10/28/25
TCLP Mercury	7470A	10/27/25	10/28/25

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Hit Summary Sheet
SW-846

SDG No.: Q3447 **Order ID:** Q3447

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : P001-TW1-251023-01								
Q3447-02	P001-TW1-251023-01	TCLP	Barium	489	J	72.8	500	ug/L
Q3447-02	P001-TW1-251023-01	TCLP	Chromium	13.2	J	10.6	50.0	ug/L
Q3447-02	P001-TW1-251023-01	TCLP	Lead	71.6		11.5	60.0	ug/L
Client ID : P001-TW2-251023-01								
Q3447-04	P001-TW2-251023-01	TCLP	Barium	1090		72.8	500	ug/L
Q3447-04	P001-TW2-251023-01	TCLP	Cadmium	231		2.50	30.0	ug/L
Q3447-04	P001-TW2-251023-01	TCLP	Chromium	11.9	J	10.6	50.0	ug/L
Q3447-04	P001-TW2-251023-01	TCLP	Lead	18300		11.5	60.0	ug/L
Client ID : P001-TW3-251023-01								
Q3447-06	P001-TW3-251023-01	TCLP	Barium	133	J	72.8	500	ug/L
Q3447-06	P001-TW3-251023-01	TCLP	Cadmium	14.5	J	2.50	30.0	ug/L
Q3447-06	P001-TW3-251023-01	TCLP	Chromium	29.2	J	10.6	50.0	ug/L
Q3447-06	P001-TW3-251023-01	TCLP	Lead	301000		11.5	60.0	ug/L
Client ID : P001-TW4-251023-01								
Q3447-08	P001-TW4-251023-01	TCLP	Barium	512		72.8	500	ug/L
Q3447-08	P001-TW4-251023-01	TCLP	Chromium	12.2	J	10.6	50.0	ug/L
Q3447-08	P001-TW4-251023-01	TCLP	Lead	24.9	J	11.5	60.0	ug/L

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	10/23/25
Project:	RFP 905	Date Received:	10/23/25
Client Sample ID:	P001-TW1-251023-01	SDG No.:	Q3447
Lab Sample ID:	Q3447-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	25.6	U	1	25.6	100	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7440-39-3	Barium	489	J	1	72.8	500	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7440-43-9	Cadmium	2.50	U	1	2.50	30.0	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7440-47-3	Chromium	13.2	J	1	10.6	50.0	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7439-92-1	Lead	71.6		1	11.5	60.0	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/27/25 12:30	10/28/25 10:21	7470A	7470A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/27/25 12:30	10/28/25 14:49	6010D	SW3010A

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

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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	10/23/25
Project:	RFP 905	Date Received:	10/23/25
Client Sample ID:	P001-TW2-251023-01	SDG No.:	Q3447
Lab Sample ID:	Q3447-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	25.6	U	1	25.6	100	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7440-39-3	Barium	1090		1	72.8	500	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7440-43-9	Cadmium	231		1	2.50	30.0	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7440-47-3	Chromium	11.9	J	1	10.6	50.0	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7439-92-1	Lead	18300		1	11.5	60.0	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/27/25 12:30	10/28/25 10:23	7470A	7470A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/27/25 12:30	10/28/25 15:01	6010D	SW3010A

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

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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	10/23/25
Project:	RFP 905	Date Received:	10/23/25
Client Sample ID:	P001-TW3-251023-01	SDG No.:	Q3447
Lab Sample ID:	Q3447-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	25.6	U	1	25.6	100	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7440-39-3	Barium	133	J	1	72.8	500	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7440-43-9	Cadmium	14.5	J	1	2.50	30.0	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7440-47-3	Chromium	29.2	J	1	10.6	50.0	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7439-92-1	Lead	301000		1	11.5	60.0	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/27/25 12:30	10/28/25 10:25	7470A	7470A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/27/25 12:30	10/28/25 15:06	6010D	SW3010A

U = Not Detected
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MDL = Method Detection Limit
LOD = Limit of Detection
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B = Analyte Found in Associated Method Blank
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OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	10/23/25
Project:	RFP 905	Date Received:	10/23/25
Client Sample ID:	P001-TW4-251023-01	SDG No.:	Q3447
Lab Sample ID:	Q3447-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	25.6	U	1	25.6	100	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7440-39-3	Barium	512		1	72.8	500	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7440-43-9	Cadmium	2.50	U	1	2.50	30.0	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7440-47-3	Chromium	12.2	J	1	10.6	50.0	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7439-92-1	Lead	24.9	J	1	11.5	60.0	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/27/25 12:30	10/28/25 10:28	7470A	7470A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/27/25 12:30	10/28/25 15:10	6010D	SW3010A

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

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

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
ICV89	Mercury	3.75	4.0	94	90 - 110	CV	10/28/2025	09:25	LB137666

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
CCV93	Mercury	5.23	5.0	105	90 - 110	CV	10/28/2025	09:30	LB137666
CCV94	Mercury	4.87	5.0	98	90 - 110	CV	10/28/2025	10:00	LB137666
CCV95	Mercury	4.69	5.0	94	90 - 110	CV	10/28/2025	10:30	LB137666
CCV96	Mercury	5.16	5.0	103	90 - 110	CV	10/28/2025	11:00	LB137666

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	Arsenic	3820	4000	95	90 - 110	P	10/28/2025	12:30	LB137677
	Barium	7600	8000	95	90 - 110	P	10/28/2025	12:30	LB137677
	Cadmium	1900	2000	95	90 - 110	P	10/28/2025	12:30	LB137677
	Chromium	783	800	98	90 - 110	P	10/28/2025	12:30	LB137677
	Lead	3730	4000	93	90 - 110	P	10/28/2025	12:30	LB137677
	Selenium	3820	4000	95	90 - 110	P	10/28/2025	12:30	LB137677
	Silver	963	1000	96	90 - 110	P	10/28/2025	12:30	LB137677

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	Arsenic	20.3	20.0	102	80 - 120	P	10/28/2025	12:34	LB137677
	Barium	93.0	100	93	80 - 120	P	10/28/2025	12:34	LB137677
	Cadmium	5.86	6.0	98	80 - 120	P	10/28/2025	12:34	LB137677
	Chromium	10.6	10.0	106	80 - 120	P	10/28/2025	12:34	LB137677
	Lead	12.0	12.0	100	80 - 120	P	10/28/2025	12:34	LB137677
	Selenium	20.7	20.0	104	80 - 120	P	10/28/2025	12:34	LB137677
	Silver	12.0	10.0	120	80 - 120	P	10/28/2025	12:34	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	Arsenic	4950	5000	99	90 - 110	P	10/28/2025	13:03	LB137677
	Barium	10000	10000	100	90 - 110	P	10/28/2025	13:03	LB137677
	Cadmium	2480	2500	99	90 - 110	P	10/28/2025	13:03	LB137677
	Chromium	989	1000	99	90 - 110	P	10/28/2025	13:03	LB137677
	Lead	4910	5000	98	90 - 110	P	10/28/2025	13:03	LB137677
	Selenium	4960	5000	99	90 - 110	P	10/28/2025	13:03	LB137677
	Silver	1240	1250	99	90 - 110	P	10/28/2025	13:03	LB137677
CCV02	Arsenic	5220	5000	104	90 - 110	P	10/28/2025	14:01	LB137677
	Barium	10200	10000	102	90 - 110	P	10/28/2025	14:01	LB137677
	Cadmium	2610	2500	104	90 - 110	P	10/28/2025	14:01	LB137677
	Chromium	1060	1000	106	90 - 110	P	10/28/2025	14:01	LB137677
	Lead	5150	5000	103	90 - 110	P	10/28/2025	14:01	LB137677
	Selenium	5230	5000	105	90 - 110	P	10/28/2025	14:01	LB137677
	Silver	1290	1250	104	90 - 110	P	10/28/2025	14:01	LB137677
CCV03	Arsenic	4950	5000	99	90 - 110	P	10/28/2025	14:53	LB137677
	Barium	10500	10000	105	90 - 110	P	10/28/2025	14:53	LB137677
	Cadmium	2510	2500	101	90 - 110	P	10/28/2025	14:53	LB137677
	Chromium	1040	1000	104	90 - 110	P	10/28/2025	14:53	LB137677
	Lead	4950	5000	99	90 - 110	P	10/28/2025	14:53	LB137677
	Selenium	4940	5000	99	90 - 110	P	10/28/2025	14:53	LB137677
	Silver	1280	1250	102	90 - 110	P	10/28/2025	14:53	LB137677
CCV04	Arsenic	4930	5000	98	90 - 110	P	10/28/2025	15:45	LB137677
	Barium	9920	10000	99	90 - 110	P	10/28/2025	15:45	LB137677
	Cadmium	2500	2500	100	90 - 110	P	10/28/2025	15:45	LB137677
	Chromium	1000	1000	100	90 - 110	P	10/28/2025	15:45	LB137677
	Lead	4920	5000	98	90 - 110	P	10/28/2025	15:45	LB137677
	Selenium	4930	5000	98	90 - 110	P	10/28/2025	15:45	LB137677
	Silver	1240	1250	99	90 - 110	P	10/28/2025	15:45	LB137677
CCV05	Arsenic	5100	5000	102	90 - 110	P	10/28/2025	16:35	LB137677
	Barium	10300	10000	103	90 - 110	P	10/28/2025	16:35	LB137677
	Cadmium	2560	2500	102	90 - 110	P	10/28/2025	16:35	LB137677
	Chromium	1030	1000	103	90 - 110	P	10/28/2025	16:35	LB137677
	Lead	5060	5000	101	90 - 110	P	10/28/2025	16:35	LB137677
	Selenium	5090	5000	102	90 - 110	P	10/28/2025	16:35	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	Silver	1280	1250	102	90 - 110	P	10/28/2025	16:35	LB137677
CCV06	Arsenic	4960	5000	99	90 - 110	P	10/28/2025	17:27	LB137677
	Barium	10000	10000	100	90 - 110	P	10/28/2025	17:27	LB137677
	Cadmium	2520	2500	101	90 - 110	P	10/28/2025	17:27	LB137677
	Chromium	1010	1000	101	90 - 110	P	10/28/2025	17:27	LB137677
	Lead	4960	5000	99	90 - 110	P	10/28/2025	17:27	LB137677
	Selenium	4970	5000	99	90 - 110	P	10/28/2025	17:27	LB137677
	Silver	1260	1250	101	90 - 110	P	10/28/2025	17:27	LB137677
CCV07	Arsenic	4970	5000	99	90 - 110	P	10/28/2025	18:17	LB137677
	Barium	10200	10000	102	90 - 110	P	10/28/2025	18:17	LB137677
	Cadmium	2520	2500	101	90 - 110	P	10/28/2025	18:17	LB137677
	Chromium	1010	1000	101	90 - 110	P	10/28/2025	18:17	LB137677
	Lead	4950	5000	99	90 - 110	P	10/28/2025	18:17	LB137677
	Selenium	4970	5000	99	90 - 110	P	10/28/2025	18:17	LB137677
	Silver	1260	1250	101	90 - 110	P	10/28/2025	18:17	LB137677
CCV08	Arsenic	5110	5000	102	90 - 110	P	10/28/2025	19:06	LB137677
	Barium	10500	10000	105	90 - 110	P	10/28/2025	19:06	LB137677
	Cadmium	2600	2500	104	90 - 110	P	10/28/2025	19:06	LB137677
	Chromium	1030	1000	103	90 - 110	P	10/28/2025	19:06	LB137677
	Lead	5090	5000	102	90 - 110	P	10/28/2025	19:06	LB137677
	Selenium	5120	5000	102	90 - 110	P	10/28/2025	19:06	LB137677
	Silver	1290	1250	104	90 - 110	P	10/28/2025	19:06	LB137677
CCV09	Arsenic	4990	5000	100	90 - 110	P	10/28/2025	19:58	LB137677
	Barium	10300	10000	104	90 - 110	P	10/28/2025	19:58	LB137677
	Cadmium	2530	2500	101	90 - 110	P	10/28/2025	19:58	LB137677
	Chromium	1010	1000	101	90 - 110	P	10/28/2025	19:58	LB137677
	Lead	4960	5000	99	90 - 110	P	10/28/2025	19:58	LB137677
	Selenium	5000	5000	100	90 - 110	P	10/28/2025	19:58	LB137677
	Silver	1280	1250	102	90 - 110	P	10/28/2025	19:58	LB137677
CCV10	Arsenic	4880	5000	98	90 - 110	P	10/28/2025	20:49	LB137677
	Barium	10100	10000	101	90 - 110	P	10/28/2025	20:49	LB137677
	Cadmium	2480	2500	99	90 - 110	P	10/28/2025	20:49	LB137677
	Chromium	987	1000	99	90 - 110	P	10/28/2025	20:49	LB137677
	Lead	4850	5000	97	90 - 110	P	10/28/2025	20:49	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Selenium	4880	5000	98	90 - 110	P	10/28/2025	20:49	LB137677
	Silver	1230	1250	99	90 - 110	P	10/28/2025	20:49	LB137677

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	0.21	0.2	103	70 - 130	CV	10/28/2025	09:34	LB137666
CRI01	Arsenic	19.5	20.0	97	65 - 135	P	10/28/2025	12:42	LB137677
	Barium	103	100	103	65 - 135	P	10/28/2025	12:42	LB137677
	Cadmium	5.75	6.0	96	65 - 135	P	10/28/2025	12:42	LB137677
	Chromium	10.4	10.0	104	65 - 135	P	10/28/2025	12:42	LB137677
	Lead	11.5	12.0	96	65 - 135	P	10/28/2025	12:42	LB137677
	Selenium	20.5	20.0	102	65 - 135	P	10/28/2025	12:42	LB137677
	Silver	10.6	10.0	106	65 - 135	P	10/28/2025	12:42	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB89	Mercury	0.076	+/-0.2	U	0.20	CV	10/28/2025	09:27	LB137666

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB93	Mercury	0.076	+/-0.2	U	0.20	CV	10/28/2025	09:32	LB137666
CCB94	Mercury	0.076	+/-0.2	U	0.20	CV	10/28/2025	10:05	LB137666
CCB95	Mercury	0.076	+/-0.2	U	0.20	CV	10/28/2025	10:35	LB137666
CCB96	Mercury	0.076	+/-0.2	U	0.20	CV	10/28/2025	11:02	LB137666

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	12:38	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	12:38	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	12:38	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	12:38	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	12:38	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	12:38	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	12:38	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	13:08	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	13:08	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	13:08	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	13:08	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	13:08	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	13:08	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	13:08	LB137677
CCB02	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	14:05	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	14:05	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	14:05	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	14:05	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	14:05	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	14:05	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	14:05	LB137677
CCB03	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	14:57	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	14:57	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	14:57	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	14:57	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	14:57	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	14:57	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	14:57	LB137677
CCB04	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	15:49	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	15:49	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	15:49	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	15:49	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	15:49	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	15:49	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	15:49	LB137677
CCB05	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	16:39	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	16:39	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	16:39	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	16:39	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	16:39	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	16:39	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	16:39	LB137677
CCB06	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	17:32	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	17:32	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	17:32	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	17:32	LB137677

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	2.30	+/-6	U	12.0	P	10/28/2025	17:32	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	17:32	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	17:32	LB137677
CCB07	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	18:21	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	18:21	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	18:21	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	18:21	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	18:21	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	18:21	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	18:21	LB137677
CCB08	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	19:10	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	19:10	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	19:10	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	19:10	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	19:10	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	19:10	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	19:10	LB137677
CCB09	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	20:02	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	20:02	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	20:02	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	20:02	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	20:02	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	20:02	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	20:02	LB137677
CCB10	Arsenic	5.12	+/-10	U	20.0	P	10/28/2025	20:54	LB137677
	Barium	14.6	+/-50	U	100	P	10/28/2025	20:54	LB137677
	Cadmium	0.50	+/-3	U	6.00	P	10/28/2025	20:54	LB137677
	Chromium	2.12	+/-5	U	10.0	P	10/28/2025	20:54	LB137677
	Lead	2.30	+/-6	U	12.0	P	10/28/2025	20:54	LB137677
	Selenium	9.64	+/-10	U	20.0	P	10/28/2025	20:54	LB137677
	Silver	1.62	+/-5	U	10.0	P	10/28/2025	20:54	LB137677

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170239TB		**WATER**		**Batch Number:**	**PB170268**		**Prep Date:**	**10/27/2025**	
	Mercury	0.76	<2	U	2.00	CV	10/28/2025	10:53	LB137666

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170268BL		**WATER**		**Batch Number:**	**PB170268**		**Prep Date:**	**10/27/2025**	
	Mercury	0.076	<0.2	U	0.20	CV	10/28/2025	09:44	LB137666

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170239TB		**WATER**		**Batch Number:**	**PB170263**		**Prep Date:**	**10/27/2025**	
	Arsenic	25.6	<50	U	100	P	10/28/2025	14:27	LB137677
	Barium	72.8	<250	U	500	P	10/28/2025	14:27	LB137677
	Cadmium	2.50	<15	U	30.0	P	10/28/2025	14:27	LB137677
	Chromium	19.8	<25	J	50.0	P	10/28/2025	14:27	LB137677
	Lead	11.5	<30	U	60.0	P	10/28/2025	14:27	LB137677
	Selenium	48.2	<50	U	100	P	10/28/2025	14:27	LB137677
	Silver	8.10	<25	U	50.0	P	10/28/2025	14:27	LB137677

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170263BL		**WATER**		**Batch Number:**	**PB170263**		**Prep Date:**	**10/27/2025**	
	Arsenic	25.6	<50	U	100	P	10/28/2025	14:18	LB137677
	Barium	72.8	<250	U	500	P	10/28/2025	14:18	LB137677
	Cadmium	2.50	<15	U	30.0	P	10/28/2025	14:18	LB137677
	Chromium	10.6	<25	U	50.0	P	10/28/2025	14:18	LB137677
	Lead	11.5	<30	U	60.0	P	10/28/2025	14:18	LB137677
	Selenium	48.2	<50	U	100	P	10/28/2025	14:18	LB137677
	Silver	8.10	<25	U	50.0	P	10/28/2025	14:18	LB137677

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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	Arsenic	5.71			-20	20	10/28/2025	12:47	LB137677
	Barium	0.81	6.0	14	-94	106	10/28/2025	12:47	LB137677
	Cadmium	2.04	1.0	204	-5	7	10/28/2025	12:47	LB137677
	Chromium	48.4	52.0	93	42	62	10/28/2025	12:47	LB137677
	Lead	4.98			-12	12	10/28/2025	12:47	LB137677
	Selenium	1.71			-20	20	10/28/2025	12:47	LB137677
	Silver	1.71			-10	10	10/28/2025	12:47	LB137677
ICSAB01	Arsenic	104	104	100	88.4	120	10/28/2025	12:51	LB137677
	Barium	472	537	88	437	637	10/28/2025	12:51	LB137677
	Cadmium	966	972	99	826	1120	10/28/2025	12:51	LB137677
	Chromium	530	542	98	460	624	10/28/2025	12:51	LB137677
	Lead	52.4	49.0	107	37	61	10/28/2025	12:51	LB137677
	Selenium	46.1	46.0	100	26	66	10/28/2025	12:51	LB137677
	Silver	203	201	101	170	232	10/28/2025	12:51	LB137677

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: Weston Solutions, Inc. **level:** low **sdg no.:** Q3447

contract: ROYF02 **lab code:** ACE

matrix: Water **sample id:** Q3452-04 **client id:** JB-1MS

Percent Solids for Sample: NA **Spiked ID:** Q3452-04MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4270		100	U	4000	107		P
Barium	ug/L	75 - 125	1900		1100		1000	80		P
Cadmium	ug/L	75 - 125	1050		30.0	U	1000	105		P
Chromium	ug/L	75 - 125	2090		25.9	J	2000	103		P
Lead	ug/L	75 - 125	5000		100		5000	98		P
Mercury	ug/L	75 - 125	39.5		2.00	U	40.0	99		CV
Selenium	ug/L	75 - 125	10600		100	U	10000	106		P
Silver	ug/L	75 - 125	363		50.0	U	380	96		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Weston Solutions, Inc. **level:** low **sdg no.:** Q3447

contract: ROYF02 **lab code:** ACE

matrix: Water **sample id:** Q3452-04 **client id:** JB-1MSD

Percent Solids for Sample: NA **Spiked ID:** Q3452-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4200		100	U	4000	105		P
Barium	ug/L	75 - 125	2210		1100		1000	110		P
Cadmium	ug/L	75 - 125	1020		30.0	U	1000	102		P
Chromium	ug/L	75 - 125	2130		25.9	J	2000	105		P
Lead	ug/L	75 - 125	4910		100		5000	96		P
Mercury	ug/L	75 - 125	39.7		2.00	U	40.0	99		CV
Selenium	ug/L	75 - 125	10500		100	U	10000	105		P
Silver	ug/L	75 - 125	314		50.0	U	380	83		P

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Metals
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Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions, Inc. **Level:** LOW **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3452-04 **Client ID:** JB-1DUP

Percent Solids for Sample: NA **Duplicate ID** Q3452-04DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	1100		1150		4		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	25.9	J	26.1	J	1		P
Lead	ug/L	20	100		104		4		P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			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.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3452-04MS **Client ID:** JB-1MSD

Percent Solids for Sample: NA **Duplicate ID** Q3452-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	4270		4200		2		P
Barium	ug/L	20	1900		2210		15		P
Cadmium	ug/L	20	1050		1020		3		P
Chromium	ug/L	20	2090		2130		2		P
Lead	ug/L	20	5000		4910		2		P
Mercury	ug/L	20	39.5		39.7		1		CV
Selenium	ug/L	20	10600		10500		1		P
Silver	ug/L	20	363		314		14		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.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170263BS							
Arsenic	ug/L	4000	4180		104	80 - 120	P
Barium	ug/L	1000	992		99	80 - 120	P
Cadmium	ug/L	1000	1010		101	80 - 120	P
Chromium	ug/L	2000	2160		108	80 - 120	P
Lead	ug/L	5000	5020		100	80 - 120	P
Selenium	ug/L	10000	10500		105	80 - 120	P
Silver	ug/L	380	400		105	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170268BS							
Mercury	ug/L	4.0	3.80		95	80 - 120	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

JB-1L

Lab Name: Alliance **Contract:** ROYF02

Lab Code: ACE **Lb No.:** lb137677 **Lab Sample ID :** Q3452-04L **SDG No.:** Q3447

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
Arsenic	100	U	500	U			P
Barium	1100		1210	J	10		P
Cadmium	30.0	U	150	U			P
Chromium	25.9	J	250	U	100.0		P
Lead	100		88.2	J	12		P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE

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
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
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	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

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB170263**						
PB170239TB	PB170239TB	MB	WATER	10/27/2025	5.0	25.0	
PB170263BL	PB170263BL	MB	WATER	10/27/2025	5.0	25.0	
PB170263BS	PB170263BS	LCS	WATER	10/27/2025	5.0	25.0	
Q3447-02	P001-TW1-251023-01	SAM	WATER	10/27/2025	5.0	25.0	
Q3447-04	P001-TW2-251023-01	SAM	WATER	10/27/2025	5.0	25.0	
Q3447-06	P001-TW3-251023-01	SAM	WATER	10/27/2025	5.0	25.0	
Q3447-08	P001-TW4-251023-01	SAM	WATER	10/27/2025	5.0	25.0	
Q3452-04DUP	JB-1DUP	DUP	WATER	10/27/2025	5.0	25.0	
Q3452-04MS	JB-1MS	MS	WATER	10/27/2025	5.0	25.0	
Q3452-04MSD	JB-1MSD	MSD	WATER	10/27/2025	5.0	25.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q3447

Contract: ROYF02 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB170268**						
PB170239TB	PB170239TB	MB	WATER	10/27/2025	3.0	30.0	
PB170268BL	PB170268BL	MB	WATER	10/27/2025	30.0	30.0	
PB170268BS	PB170268BS	LCS	WATER	10/27/2025	30.0	30.0	
Q3447-02	P001-TW1-251023-01	SAM	WATER	10/27/2025	3.0	30.0	
Q3447-04	P001-TW2-251023-01	SAM	WATER	10/27/2025	3.0	30.0	
Q3447-06	P001-TW3-251023-01	SAM	WATER	10/27/2025	3.0	30.0	
Q3447-08	P001-TW4-251023-01	SAM	WATER	10/27/2025	3.0	30.0	
Q3452-04DUP	JB-1DUP	DUP	WATER	10/27/2025	3.0	30.0	
Q3452-04MS	JB-1MS	MS	WATER	10/27/2025	3.0	30.0	
Q3452-04MSD	JB-1MSD	MSD	WATER	10/27/2025	3.0	30.0	

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ANALYSIS RUN LOG

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

Lab code: ACE **Sdg no.:** Q3447

Instrument id number: **Method:** **Run number:** LB137666

Start date: 10/28/2025 **End date:** 10/28/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0902	HG
S0.2	S0.2	1	0904	HG
S2.5	S2.5	1	0907	HG
S5	S5	1	0909	HG
S7.5	S7.5	1	0911	HG
S10	S10	1	0917	HG
ICV89	ICV89	1	0925	HG
ICB89	ICB89	1	0927	HG
CCV93	CCV93	1	0930	HG
CCB93	CCB93	1	0932	HG
CRA	CRA	1	0934	HG
PB170268BL	PB170268BL	1	0944	HG
PB170268BS	PB170268BS	1	0946	HG
CCV94	CCV94	1	1000	HG
CCB94	CCB94	1	1005	HG
Q3447-02	P001-TW1-251023-01	1	1021	HG
Q3447-04	P001-TW2-251023-01	1	1023	HG
Q3447-06	P001-TW3-251023-01	1	1025	HG
Q3447-08	P001-TW4-251023-01	1	1028	HG
CCV95	CCV95	1	1030	HG
CCB95	CCB95	1	1035	HG
Q3452-04DUP	JB-1DUP	1	1046	HG
Q3452-04MS	JB-1MS	1	1048	HG
Q3452-04MSD	JB-1MSD	1	1051	HG
PB170239TB	PB170239TB	1	1053	HG
Q3452-04L	JB-1L	5	1055	HG
CCV96	CCV96	1	1100	HG
CCB96	CCB96	1	1102	HG

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ANALYSIS RUN LOG

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

Lab code: ACE **Sdg no.:** Q3447

Instrument id number: **Method:** **Run number:** LB137677

Start date: 10/28/2025 **End date:** 10/28/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1152	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1156	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1201	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1205	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1209	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1213	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1230	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1234	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1238	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1242	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1247	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1251	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1303	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1308	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1401	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1405	Ag,As,Ba,Cd,Cr,Pb,Se
PB170263BL	PB170263BL	1	1418	Ag,As,Ba,Cd,Cr,Pb,Se
PB170263BS	PB170263BS	1	1422	Ag,As,Ba,Cd,Cr,Pb,Se
PB170239TB	PB170239TB	1	1427	Ag,As,Ba,Cd,Cr,Pb,Se
Q3447-02	P001-TW1-251023-01	1	1449	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1453	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1457	Ag,As,Ba,Cd,Cr,Pb,Se
Q3447-04	P001-TW2-251023-01	1	1501	Ag,As,Ba,Cd,Cr,Pb,Se
Q3447-06	P001-TW3-251023-01	1	1506	Ag,As,Ba,Cd,Cr,Pb,Se
Q3447-08	P001-TW4-251023-01	1	1510	Ag,As,Ba,Cd,Cr,Pb,Se
Q3452-04DUP	JB-1DUP	1	1528	Ag,As,Ba,Cd,Cr,Pb,Se
Q3452-04L	JB-1L	5	1532	Ag,As,Ba,Cd,Cr,Pb,Se
Q3452-04MS	JB-1MS	1	1536	Ag,As,Ba,Cd,Cr,Pb,Se
Q3452-04MSD	JB-1MSD	1	1540	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1545	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1549	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1635	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1639	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1727	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1732	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1817	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1821	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	1906	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	1910	Ag,As,Ba,Cd,Cr,Pb,Se
CCV09	CCV09	1	1958	Ag,As,Ba,Cd,Cr,Pb,Se
CCB09	CCB09	1	2002	Ag,As,Ba,Cd,Cr,Pb,Se

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

metals
- 14 -
ANALYSIS RUN LOG

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

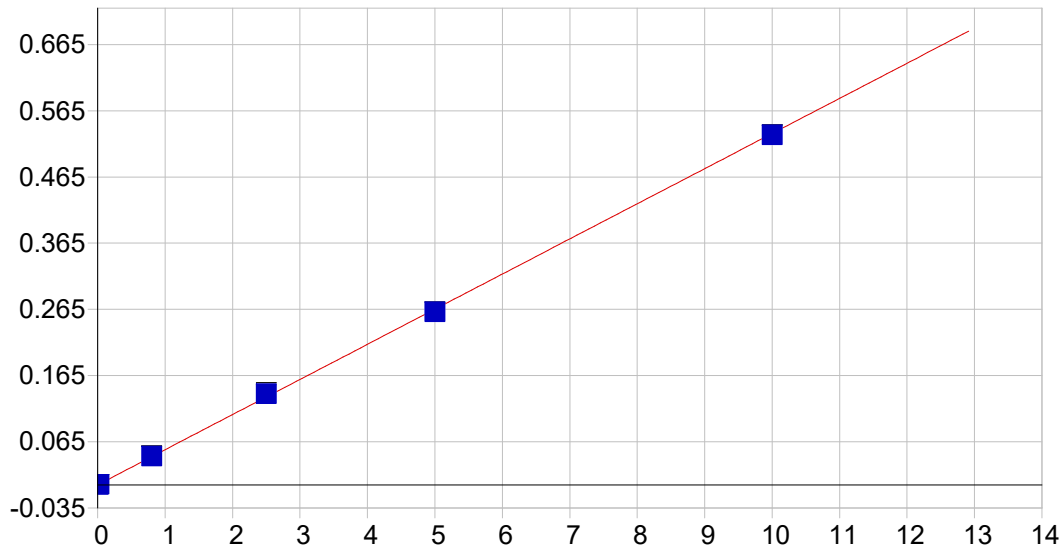
Lab code: ACE **Sdg no.:** Q3447

Instrument id number: **Method:** **Run number:** LB137677

Start date: 10/28/2025 **End date:** 10/28/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCV10	CCV10	1	2049	Ag,As,Ba,Cd,Cr,Pb,Se
CCB10	CCB10	1	2054	Ag,As,Ba,Cd,Cr,Pb,Se

METAL
RAW DATA

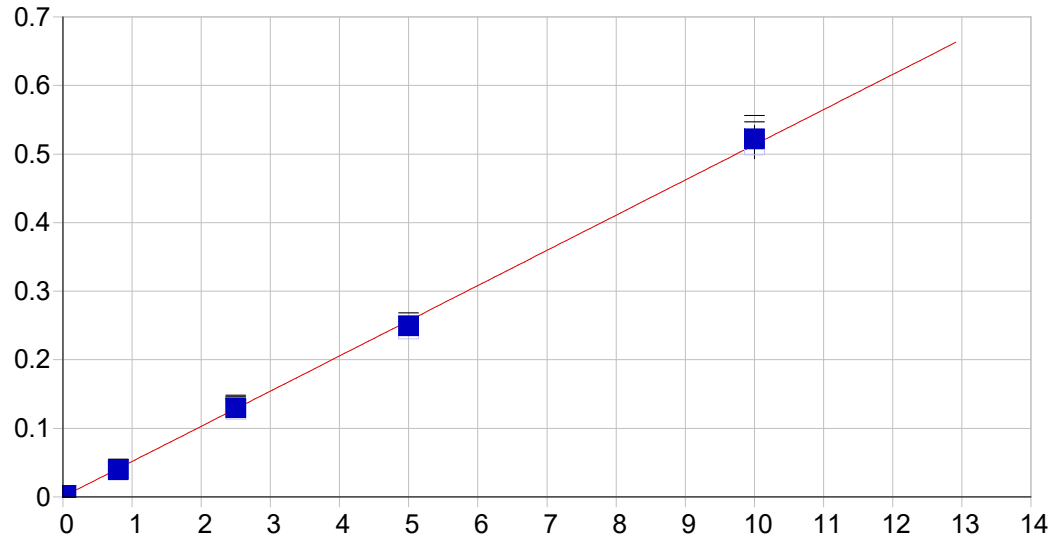


As 189.042 {479}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000061	Re-Slope:	1.000000
A1 (Gain):	0.053070	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999848	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.002115		
Predicted MQL:	0.007048		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00006	.000	1
S1	.02000	.01944	-.001	-2.79	.00097	.000	1
S3	2.5000	2.5960	.096	3.84	.13757	.002	1
S4	5.0000	4.9205	-.080	-1.59	.26080	.000	1
S5	10.000	9.9645	-.035	-.355	.52822	.000	1
S2	.80000	.81954	.020	2.44	.04339	.000	1

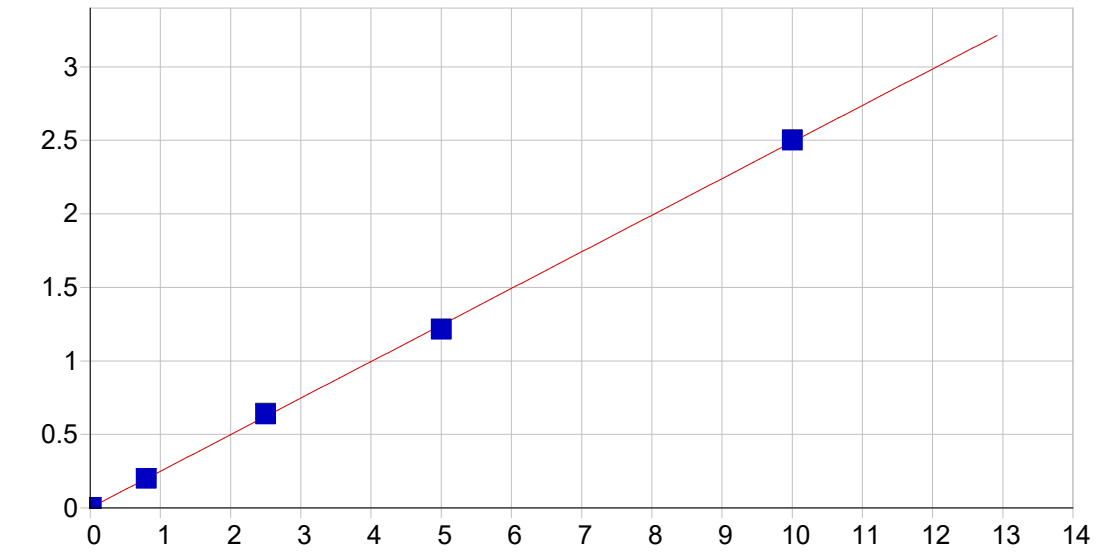


Tl 190.856 {477}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000353	Re-Slope:	1.000000
A1 (Gain):	0.051309	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999699	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.002306		
Predicted MQL:	0.007686		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00035	.000	1
S1	.04000	.03242	-.008	-19.0	.00189	.000	1
S3	2.5000	2.5248	.025	.991	.12756	.004	1
S4	5.0000	4.8529	-.147	-2.94	.24467	.004	1
S5	10.000	10.168	.168	1.68	.51270	.020	1
S2	.80000	.76181	-.038	-4.77	.03869	.001	1

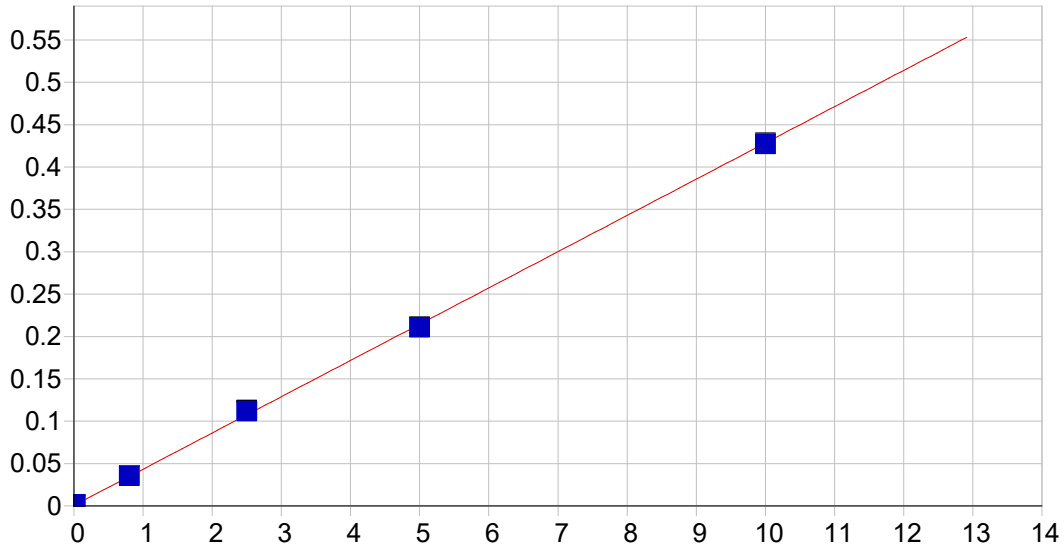


Pb 220.353 {453}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000170	Re-Slope:	1.000000
A1 (Gain):	0.248808	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999866	Status:	OK.
Std Error of Est:	0.000074		
Predicted MDL:	0.001065		
Predicted MQL:	0.003550		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00017	.000	1
S1	.01200	.01235	.000	2.88	.00318	.000	1
S3	2.5000	2.5652	.065	2.61	.63772	.005	1
S4	5.0000	4.8792	-.121	-2.42	1.2128	.002	1
S5	10.000	10.050	.050	.505	2.4981	.002	1
S2	.80000	.80475	.005	.594	.20018	.001	1

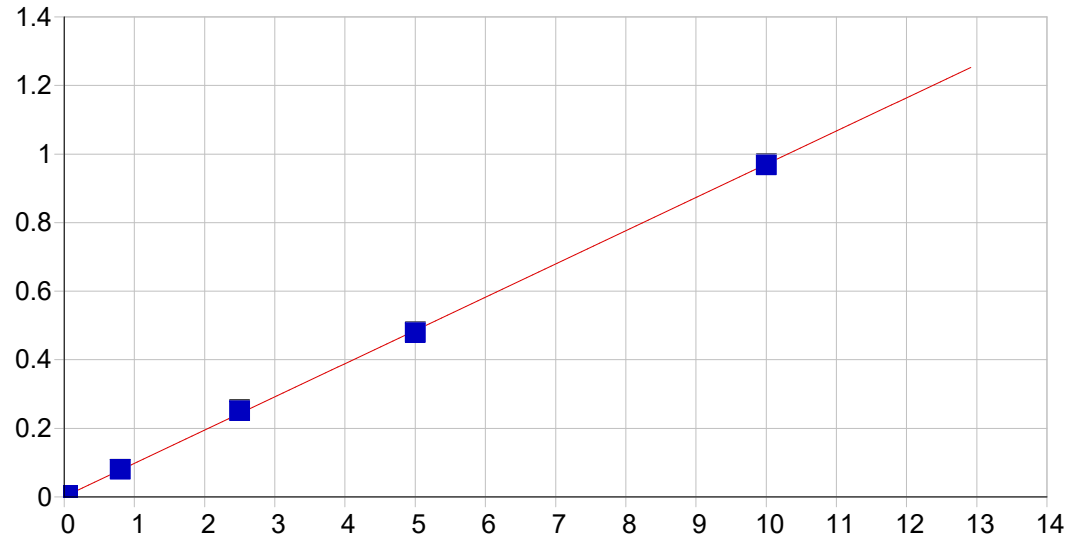


Se 196.090 {472}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000541	Re-Slope:	1.000000
A1 (Gain):	0.042792	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999842	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.003170		
Predicted MQL:	0.010566		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00054	.000	1
S1	.02000	.01835	-.002	-8.25	.00133	.000	1
S3	2.5000	2.5962	.096	3.85	.11161	.001	1
S4	5.0000	4.9155	-.085	-1.69	.21083	.000	1
S5	10.000	9.9711	-.029	-.289	.42711	.001	1
S2	.80000	.81890	.019	2.36	.03557	.000	1

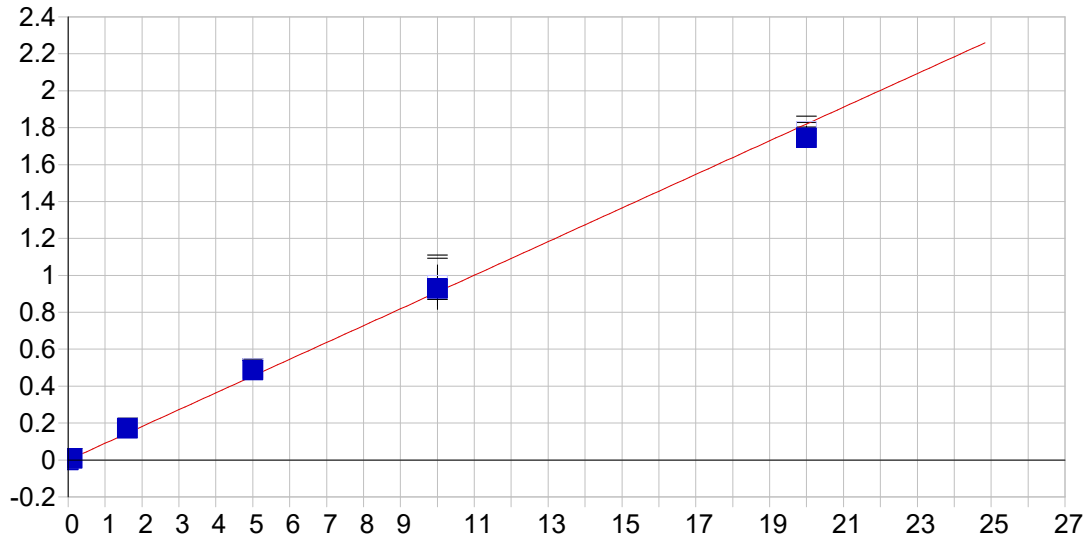


Sb 206.833 {463}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000809	Re-Slope:	1.000000
A1 (Gain):	0.096953	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999900	Status:	OK.
Std Error of Est:	0.000051		
Predicted MDL:	0.001848		
Predicted MQL:	0.006159		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00081	.000	1
S1	.05000	.04972	-.000	-.551	.00564	.000	1
S3	2.5000	2.5786	.079	3.14	.25147	.002	1
S4	5.0000	4.9345	-.065	-1.31	.48055	.001	1
S5	10.000	9.9720	-.028	-.280	.97026	.001	1
S2	.80000	.81516	.015	1.89	.08005	.000	1

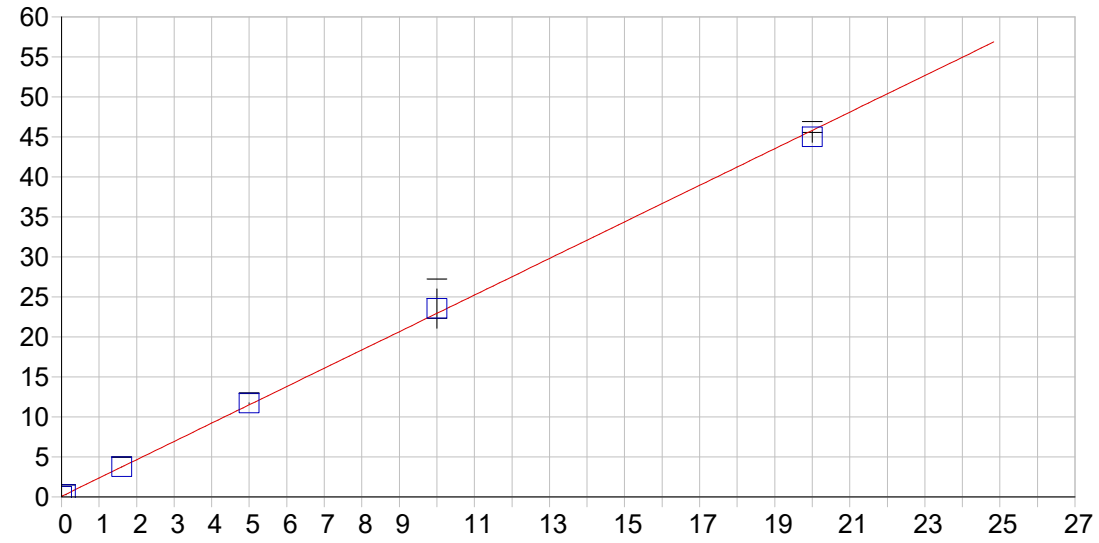


Al 396.152 { 85}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000609	Re-Slope:	1.000000
A1 (Gain):	0.091028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998536	Status:	OK.
Std Error of Est:	0.000373		
Predicted MDL:	0.011065		
Predicted MQL:	0.036884		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	-.00061	.001	1
S1	.10000	.09846	-.002	-1.54	.00906	.001	1
S3	5.0000	5.3433	.343	6.87	.49461	.001	1
S4	10.000	10.199	.199	1.99	.94547	.111	1
S5	20.000	19.175	-.825	-4.12	1.7802	.030	1
S2	1.6000	1.8838	.284	17.7	.17370	.001	1

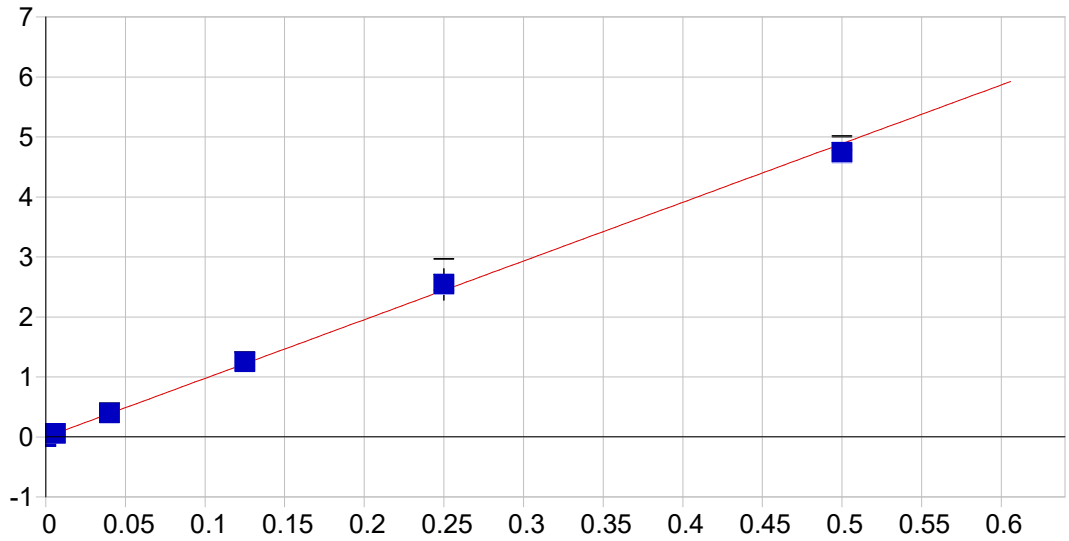


Ba 493.409 { 68}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.076643	Re-Slope:	1.000000
A1 (Gain):	2.286748	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999792	Status:	OK.
Std Error of Est:	0.003457		
Predicted MDL:	0.001323		
Predicted MQL:	0.004411		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.07665	.005	1
S1	.10000	.09525	-.005	-4.75	.29446	.002	1
S3	5.0000	5.0943	.094	1.89	11.726	.030	1
S4	10.000	10.263	.263	2.63	23.546	2.47	1
S5	20.000	19.645	-.355	-1.78	44.999	.698	1
S2	1.6000	1.6026	.003	.166	3.7415	.009	1

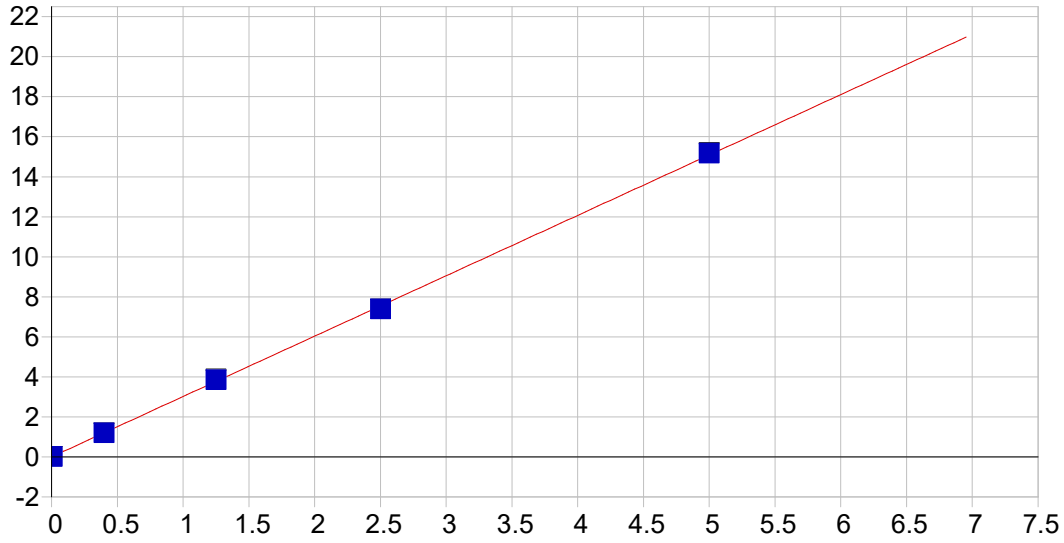


Be 234.861 {144}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002643	Re-Slope:	1.000000
A1 (Gain):	9.781370	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999459	Status:	OK.
Std Error of Est:	0.000922		
Predicted MDL:	0.000065		
Predicted MQL:	0.000217		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00265	.001	1
S1	.00600	.00605	.000	.882	.05612	.001	1
S3	.12500	.12797	.003	2.37	1.2436	.007	1
S4	.25000	.26071	.011	4.29	2.5365	.261	1
S5	.50000	.48528	-.015	-2.94	4.7222	.111	1
S2	.04000	.04098	.001	2.46	.39647	.003	1

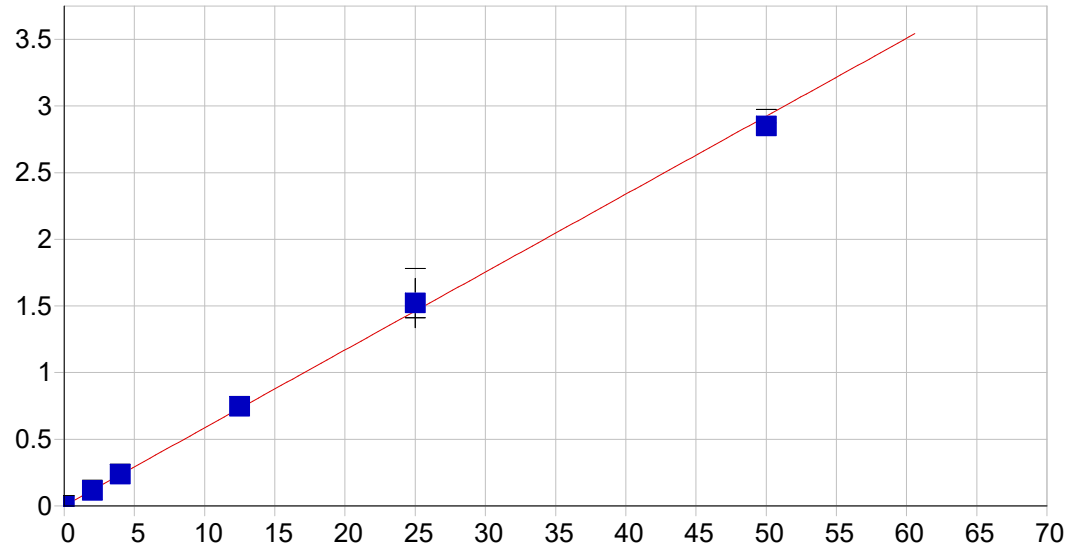


Cd 226.502 {449}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000627	Re-Slope:	1.000000
A1 (Gain):	3.017556	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000385		
Predicted MDL:	0.000071		
Predicted MQL:	0.000235		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00063	.000	1
S1	.00600	.00567	-.000	-5.49	.01654	.000	1
S3	1.2500	1.2776	.028	2.21	3.8570	.029	1
S4	2.5000	2.4507	-.049	-1.97	7.3996	.015	1
S5	5.0000	5.0272	.027	.544	15.179	.021	1
S2	.40000	.39482	-.005	-1.30	1.1916	.002	1

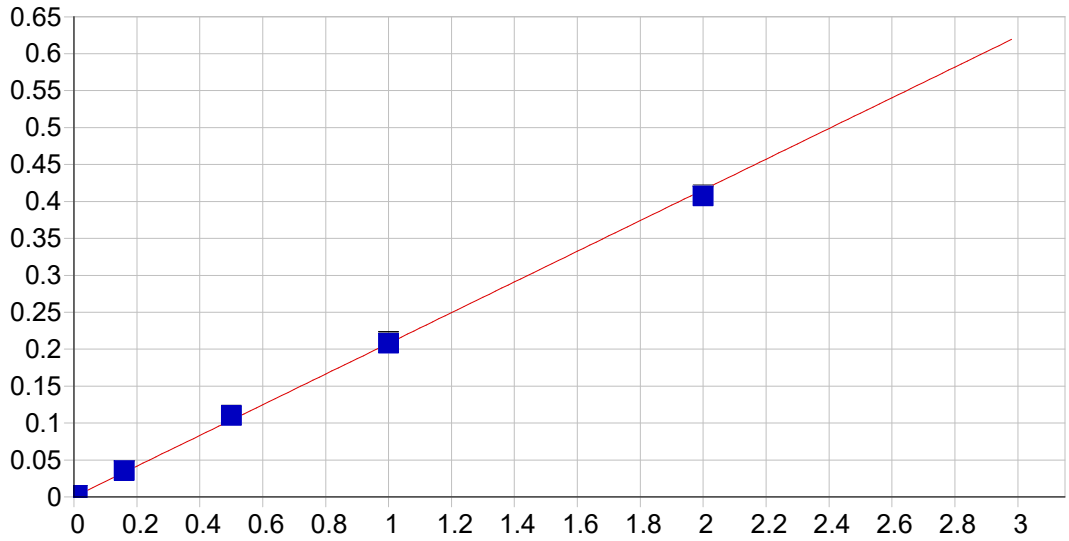


Ca 373.690 { 90}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001028	Re-Slope:	1.000000
A1 (Gain):	0.058446	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999576	Status:	OK.
Std Error of Est:	0.000900		
Predicted MDL:	0.013436		
Predicted MQL:	0.044787		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00005	-.000	.000	.00102	.000	1
S2	4.0000	4.0299	.030	.747	.23656	.000	1
S3	12.500	12.742	.242	1.93	.74574	.002	1
S4	25.000	26.024	1.02	4.09	1.5220	.186	1
S5	50.000	48.735	-1.27	-2.53	2.8494	.051	1
S1	2.0000	1.9701	-.030	-1.50	.11617	.001	1

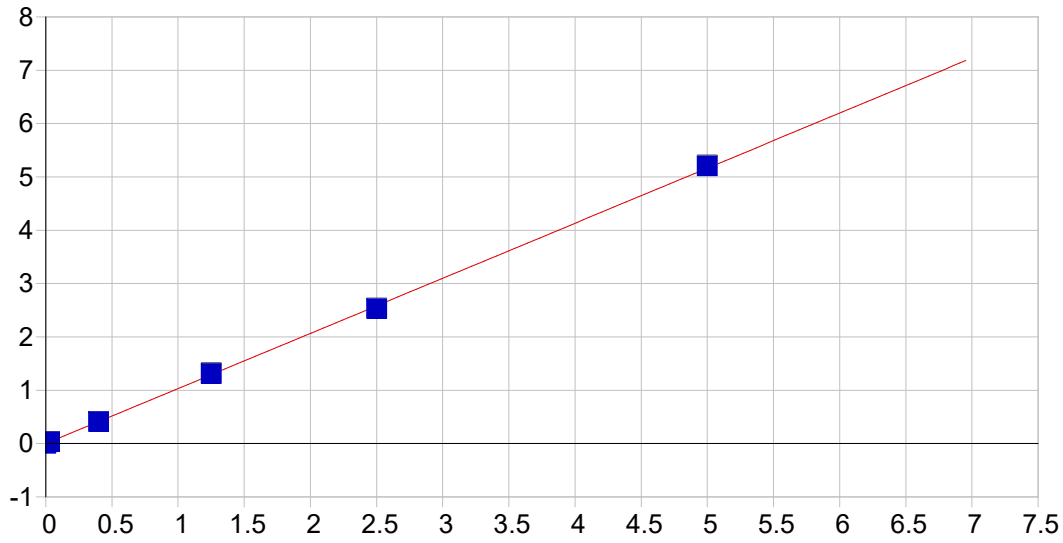


Cr 267.716 {126}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000089	Re-Slope:	1.000000
A1 (Gain):	0.207797	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999564	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.000335		
Predicted MQL:	0.001116		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.01000	.00981	-.000	-1.85	.00213	.000	1
S3	.50000	.53000	.030	6.00	.11030	.000	1
S4	1.0000	1.0002	.000	.021	.20810	.002	1
S5	2.0000	1.9601	-.040	-1.99	.40773	.001	1
S2	.16000	.16985	.010	6.16	.03541	.000	1

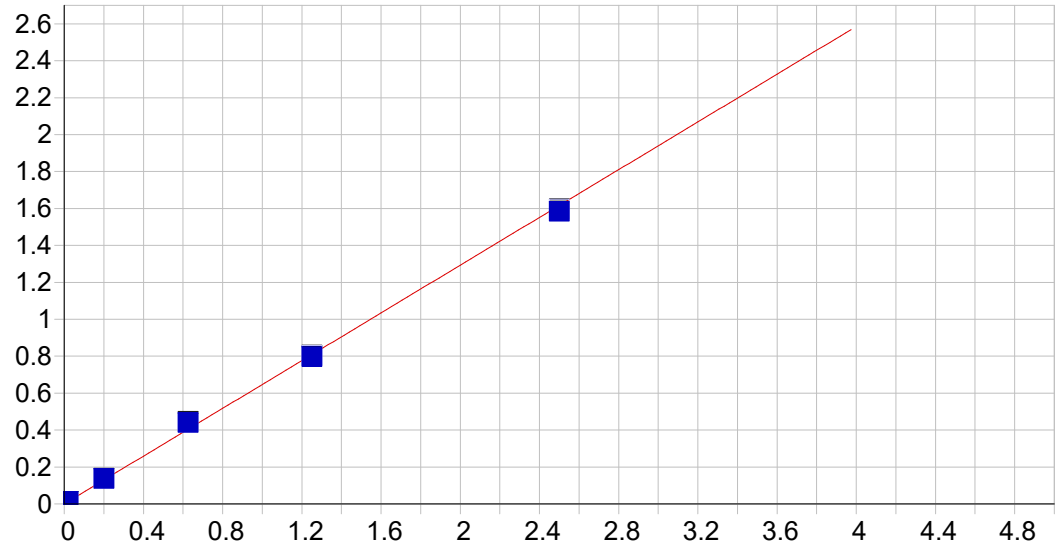


Co 228.616 {448}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	1.032800	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000281		
Predicted MDL:	0.000183		
Predicted MQL:	0.000610		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00000	.000	1
S1	.03000	.02876	-.001	-4.12	.02957	.000	1
S3	1.2500	1.2673	.017	1.38	1.3110	.010	1
S4	2.5000	2.4493	-.051	-2.03	2.5340	.004	1
S5	5.0000	5.0383	.038	.765	5.2123	.008	1
S2	.40000	.39638	-.004	-.904	.41008	.000	1

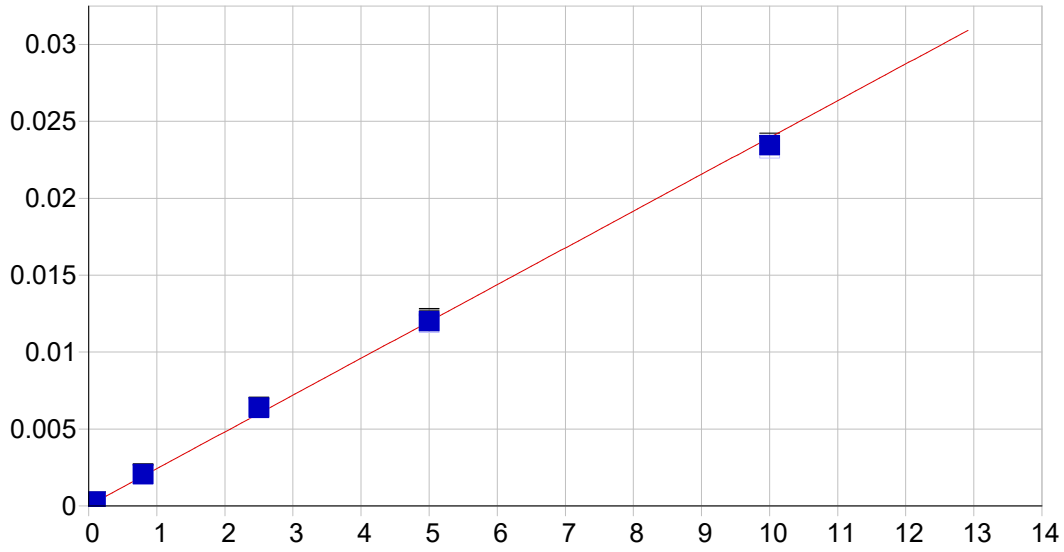


Cu 224.700 {450}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000391	Re-Slope:	1.000000
A1 (Gain):	0.646370	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999276	Status:	OK.
Std Error of Est:	0.000291		
Predicted MDL:	0.000413		
Predicted MQL:	0.001376		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00039	.000	1
S1	.02000	.02140	.001	7.01	.01436	.000	1
S3	.62500	.67938	.054	8.70	.44272	.004	1
S4	1.2500	1.2337	-.016	-1.30	.80426	.001	1
S5	2.5000	2.4488	-.051	-2.05	1.5961	.002	1
S2	.20000	.21163	.012	5.82	.13821	.000	1

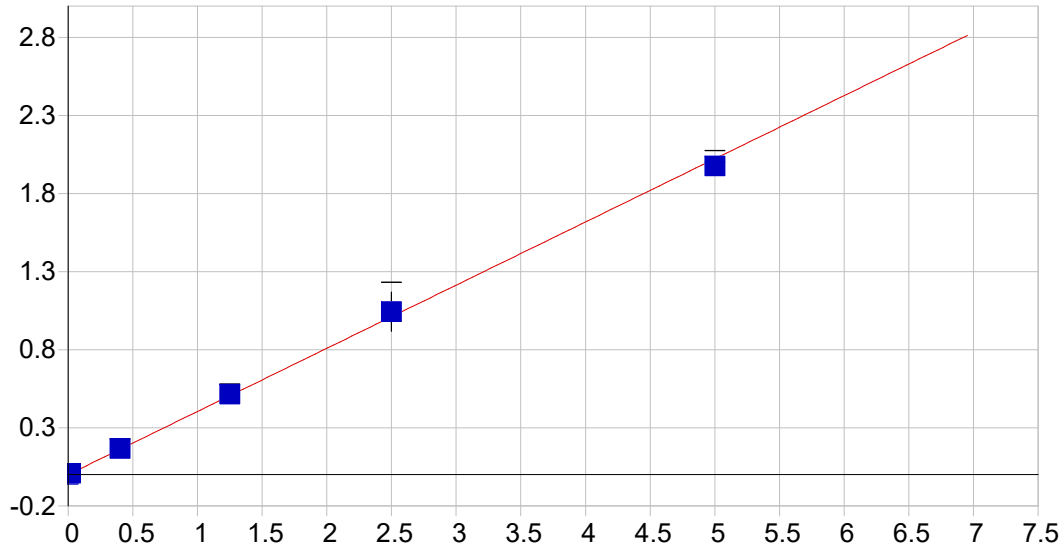


Fe 240.488 {140}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000026	Re-Slope:	1.000000
A1 (Gain):	0.002393	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999510	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.008690		
Predicted MQL:	0.028966		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00003	.000	1
S1	.10000	.10217	.002	2.17	.00027	.000	1
S3	2.5000	2.6604	.160	6.41	.00634	.000	1
S4	5.0000	5.0034	.003	.068	.01190	.000	1
S5	10.000	9.7865	-.213	-2.13	.02324	.000	1
S2	.80000	.84757	.048	5.95	.00204	.000	1

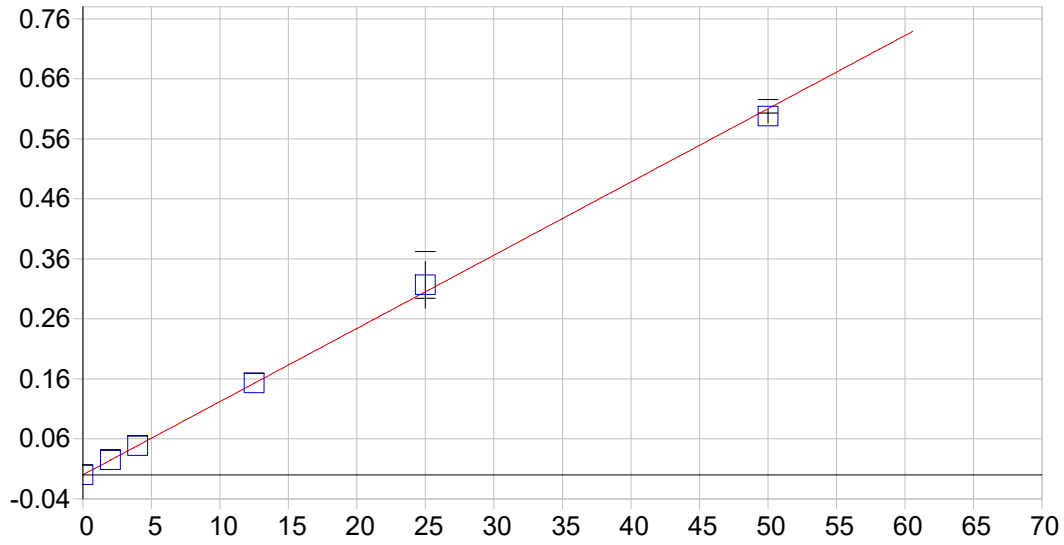


Mn 257.610 {131}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000163	Re-Slope:	1.000000
A1 (Gain):	0.404393	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999669	Status:	OK.
Std Error of Est:	0.000173		
Predicted MDL:	0.000697		
Predicted MQL:	0.002322		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.02000	.02051	.001	2.53	.00846	.000	1
S3	1.2500	1.2746	.025	1.97	.51571	.002	1
S4	2.5000	2.5810	.081	3.24	1.0441	.125	1
S5	5.0000	4.8837	-.116	-2.33	1.9755	.036	1
S2	.40000	.41018	.010	2.55	.16607	.001	1

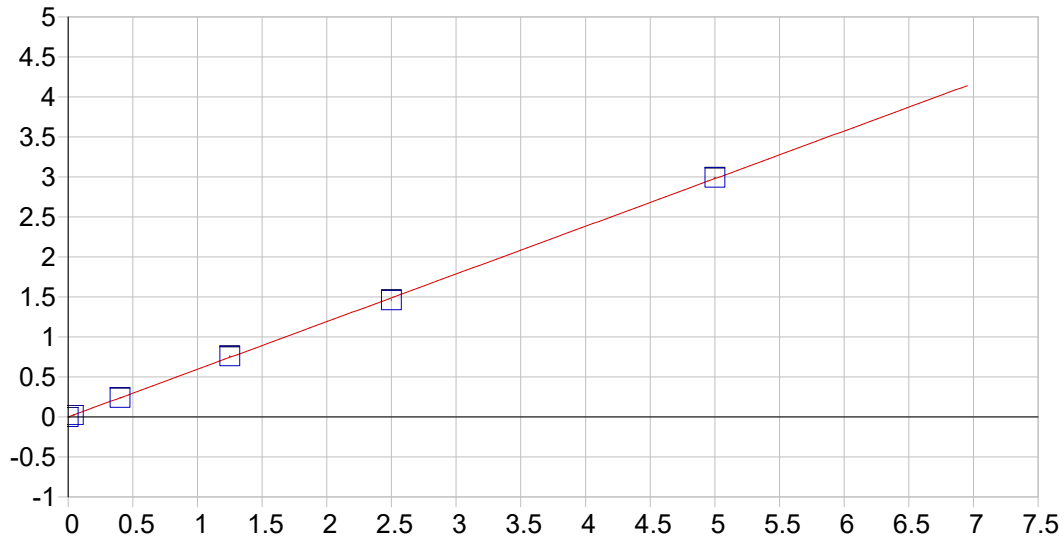


Mg 279.079 {121}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000113	Re-Slope:	1.000000
A1 (Gain):	0.012199	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	0.000162		
Predicted MDL:	0.030519		
Predicted MQL:	0.101730		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00008	-.000	.000	.00011	.000	1
S2	4.0000	3.9831	-.017	-.422	.04870	.000	1
S3	12.500	12.524	.024	.194	.15290	.000	1
S4	25.000	25.958	.958	3.83	.31677	.039	1
S5	50.000	48.983	-1.02	-2.03	.59765	.011	1
S1	2.0000	2.0519	.052	2.59	.02514	.001	1

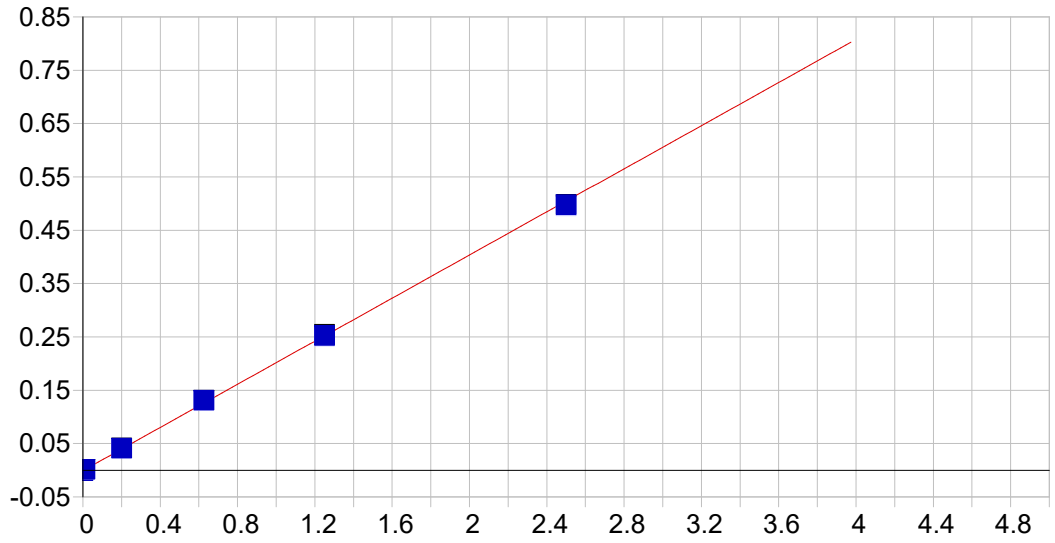


Ni 231.604 {446}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000506	Re-Slope:	1.000000
A1 (Gain):	0.595728	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.000178		
Predicted MDL:	0.000338		
Predicted MQL:	0.001128		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00051	.000	1
S1	.04000	.03872	-.001	-3.20	.02256	.000	1
S3	1.2500	1.2745	.025	1.96	.75877	.006	1
S4	2.5000	2.4535	-.046	-1.86	1.4611	.002	1
S5	5.0000	5.0221	.022	.442	2.9913	.003	1
S2	.40000	.40112	.001	.279	.23845	.000	1

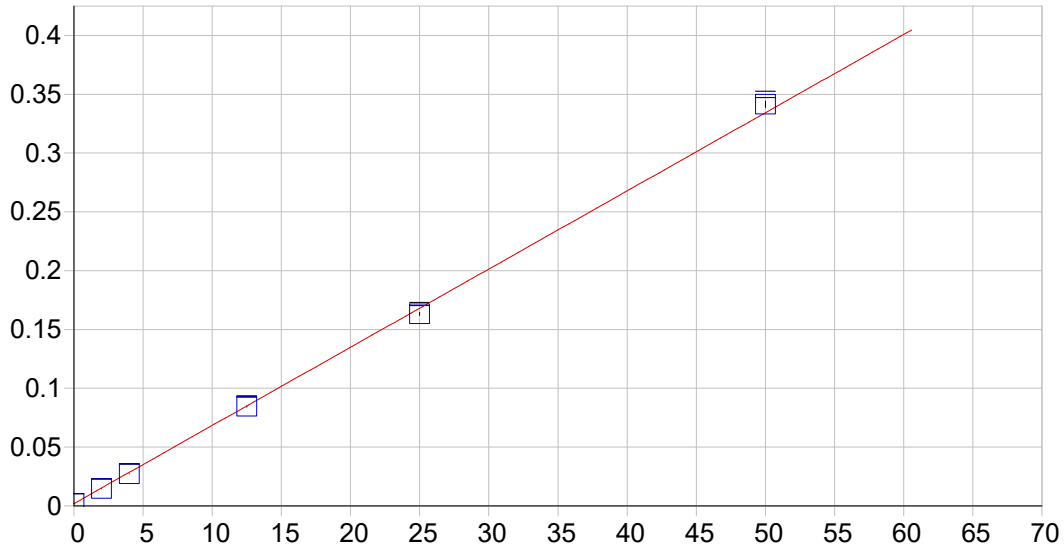


Ag 328.068 {103}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000607	Re-Slope:	1.000000
A1 (Gain):	0.202087	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.000536		
Predicted MQL:	0.001786		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00061	.000	1
S1	.01000	.01039	.000	3.89	.00147	.000	1
S3	.62500	.65116	.026	4.19	.13037	.000	1
S4	1.2500	1.2507	.001	.058	.25092	.003	1
S5	2.5000	2.4658	-.034	-1.37	.49525	.001	1
S2	.20000	.20689	.007	3.45	.04101	.000	1

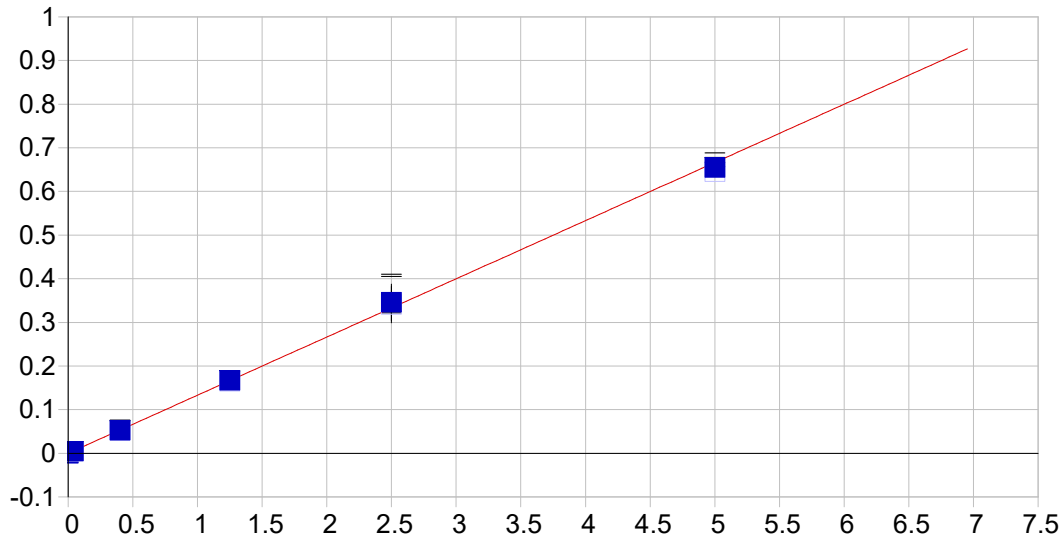


Na 589.592 { 57}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001962	Re-Slope:	1.000000
A1 (Gain):	0.006647	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999687	Status:	OK.
Std Error of Est:	0.000088		
Predicted MDL:	0.022291		
Predicted MQL:	0.074304		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00022	.000	.000	.00196	.000	1
S2	4.0000	3.8135	-.186	-4.66	.02731	.000	1
S3	12.500	12.434	-.066	-.527	.08461	.001	1
S4	25.000	24.276	-.724	-2.90	.16333	.001	1
S5	50.000	51.079	1.08	2.16	.34148	.003	1
S1	2.0000	1.8973	-.103	-5.14	.01457	.000	1

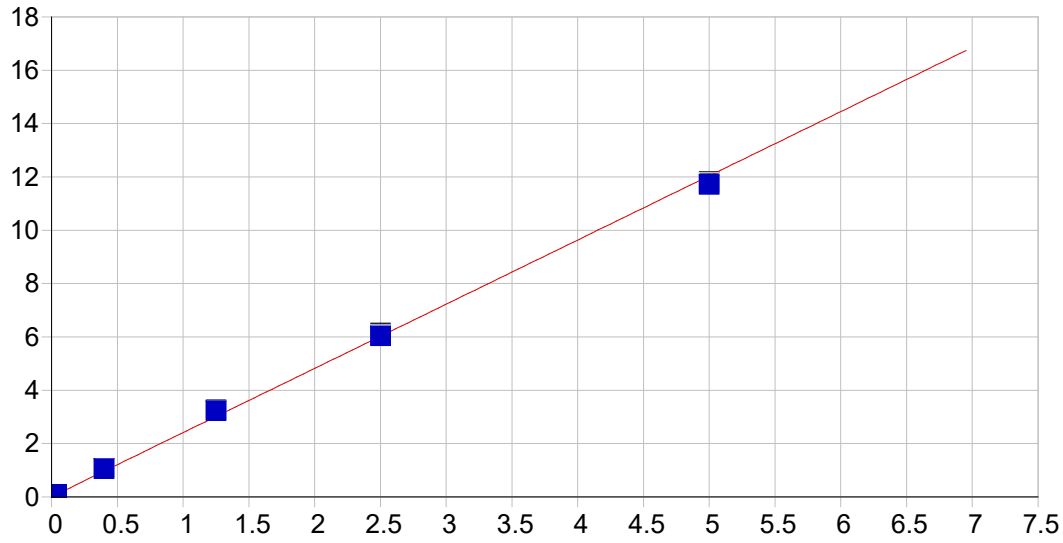


V 292.402 {115}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000146	Re-Slope:	1.000000
A1 (Gain):	0.133310	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999684	Status:	OK.
Std Error of Est:	0.000077		
Predicted MDL:	0.003264		
Predicted MQL:	0.010878		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00015	.001	1
S1	.04000	.03602	-.004	-9.94	.00446	.000	1
S3	1.2500	1.2523	.002	.186	.16437	.000	1
S4	2.5000	2.5950	.095	3.80	.34094	.042	1
S5	5.0000	4.9117	-.088	-1.77	.64491	.011	1
S2	.40000	.39485	-.005	-1.29	.05171	.001	1

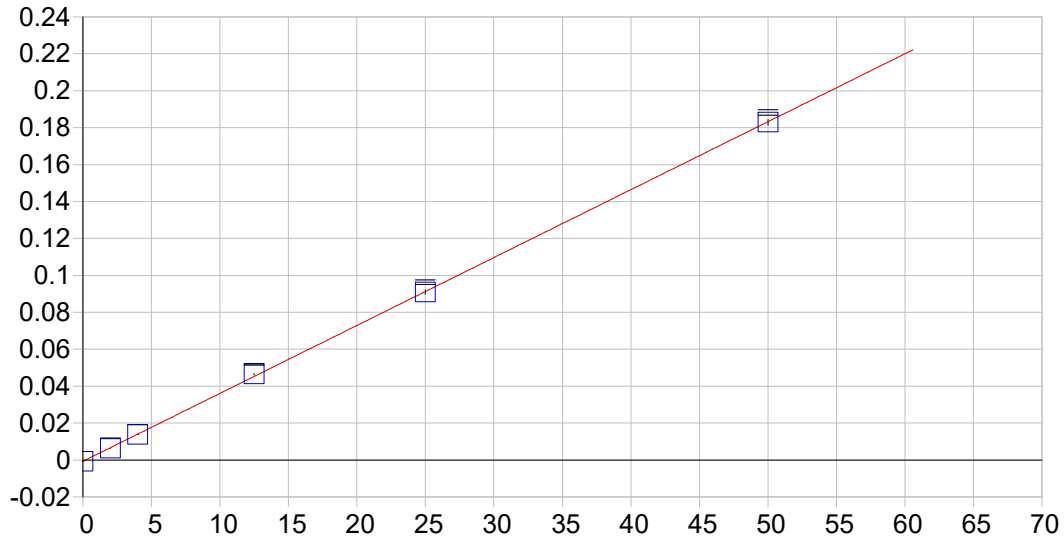


Zn 213.856 {158}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004173	Re-Slope:	1.000000
A1 (Gain):	2.407423	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999264	Status:	OK.
Std Error of Est:	0.002184		
Predicted MDL:	0.000246		
Predicted MQL:	0.000821		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00416	.000	1
S1	.04000	.04087	.001	2.17	.10324	.001	1
S3	1.2500	1.3386	.089	7.09	3.2477	.011	1
S4	2.5000	2.5058	.006	.233	6.0786	.066	1
S5	5.0000	4.8656	-.134	-2.69	11.802	.020	1
S2	.40000	.43906	.039	9.76	1.0679	.003	1

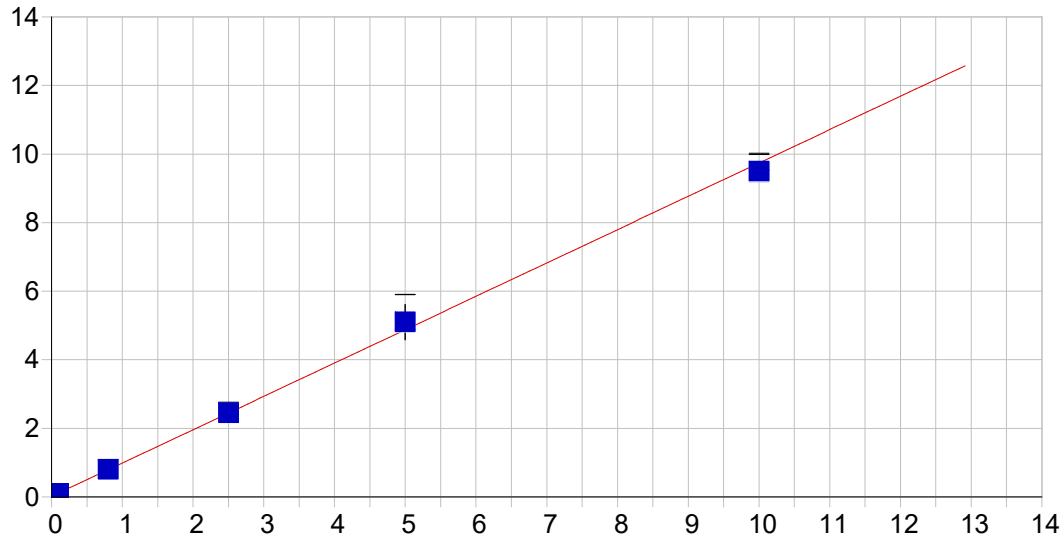


K 766.490 { 44}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000716	Re-Slope:	1.000000
A1 (Gain):	0.003679	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.048812		
Predicted MQL:	0.162705		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	-.00072	.000	1
S2	4.0000	3.9398	-.060	-1.50	.01378	.000	1
S3	12.500	12.829	.329	2.63	.04648	.000	1
S4	25.000	24.911	-.089	-.356	.09093	.001	1
S5	50.000	49.909	-.091	-.181	.18290	.002	1
S1	2.0000	1.9103	-.090	-4.49	.00631	.000	1

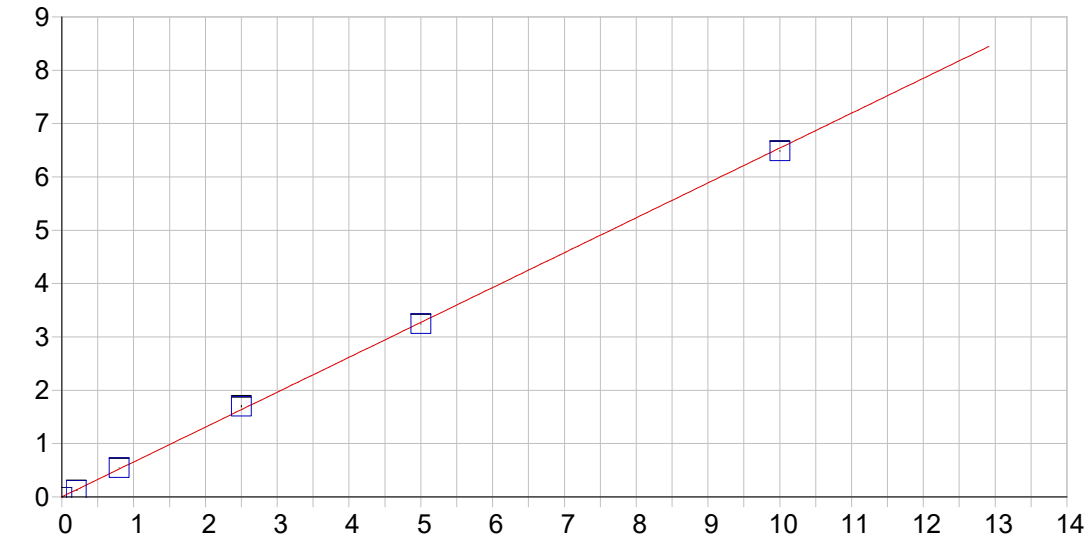


B 249.678 {135}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013419	Re-Slope:	1.000000
A1 (Gain):	0.972676	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999511	Status:	OK.
Std Error of Est:	0.001591		
Predicted MDL:	0.000685		
Predicted MQL:	0.002283		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01342	.001	1
S1	.10000	.09624	-.004	-3.76	.10645	.001	1
S3	2.5000	2.5052	.005	.208	2.4414	.020	1
S4	5.0000	5.2382	.238	4.76	5.0910	.514	1
S5	10.000	9.7504	-.250	-2.50	9.4623	.236	1
S2	.80000	.80995	.010	1.24	.79844	.003	1

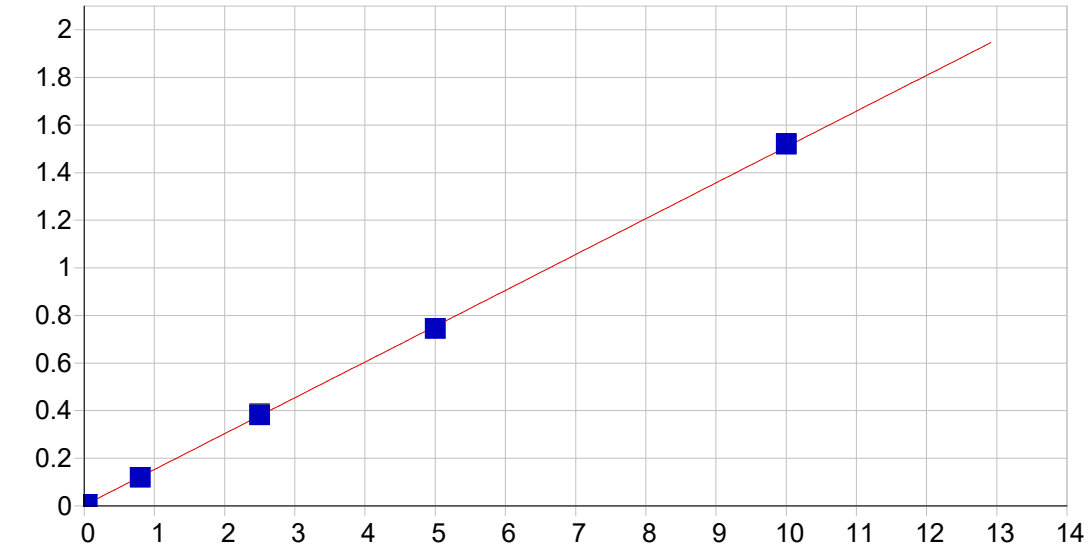


Mo 202.030 {467}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000475	Re-Slope:	1.000000
A1 (Gain):	0.654081	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999832	Status:	OK.
Std Error of Est:	0.000892		
Predicted MDL:	0.000254		
Predicted MQL:	0.000847		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00047	.000	1
S1	.20000	.19525	-.005	-2.37	.12819	.000	1
S3	2.5000	2.5988	.099	3.95	1.7003	.015	1
S4	5.0000	4.9601	-.040	-.798	3.2448	.002	1
S5	10.000	9.9154	-.085	-.846	6.4859	.006	1
S2	.80000	.83049	.030	3.81	.54368	.001	1

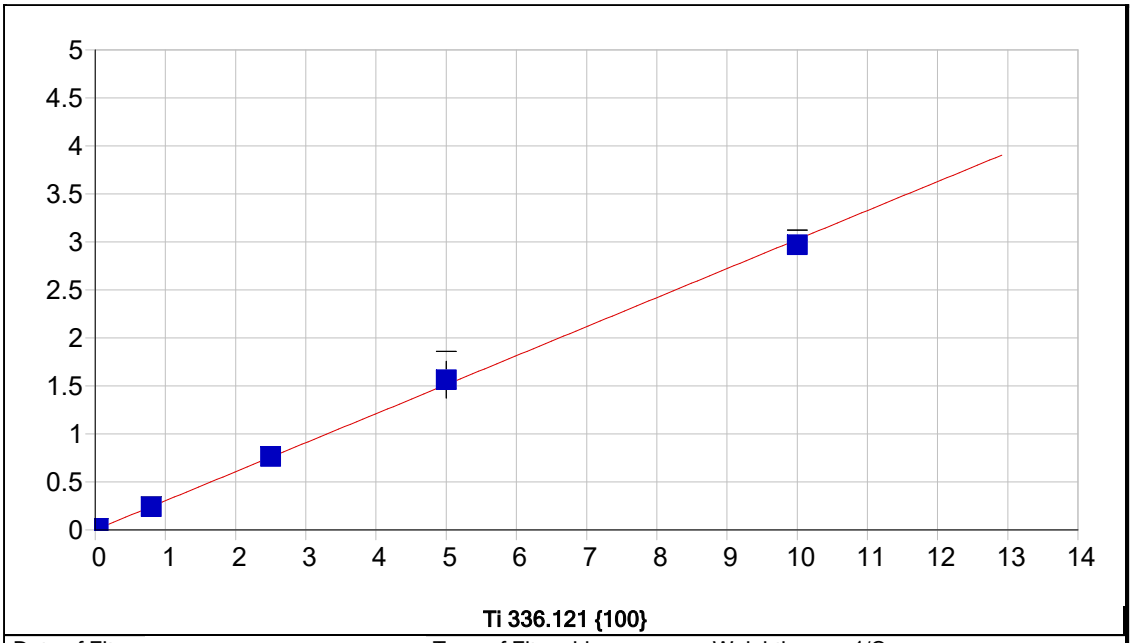


Sn 189.989 {478}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002447	Re-Slope:	1.000000
A1 (Gain):	0.150529	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.000600		
Predicted MQL:	0.001999		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00245	.000	1
S1	.04000	.03680	-.003	-8.00	.00798	.000	1
S3	2.5000	2.5236	.024	.946	.38194	.004	1
S4	5.0000	4.9274	-.073	-1.45	.74339	.001	1
S5	10.000	10.076	.076	.757	1.5176	.003	1
S2	.80000	.77653	-.023	-2.93	.11921	.000	1

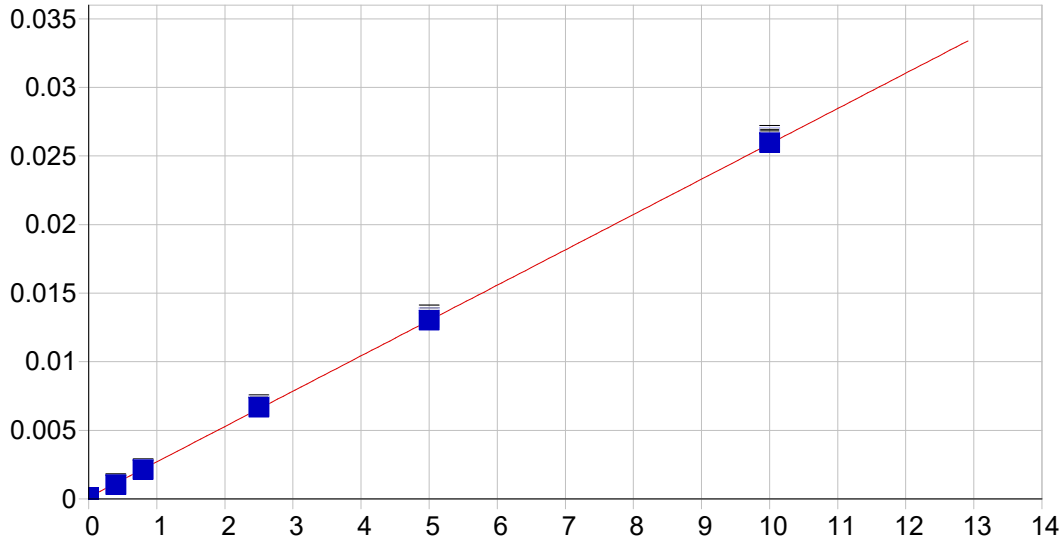


Ti 336.121 {100}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001507	Re-Slope:	1.000000
A1 (Gain):	0.302231	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999742	Status:	OK.
Std Error of Est:	0.000227		
Predicted MDL:	0.001859		
Predicted MQL:	0.006196		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00151	.000	1
S1	.04000	.03773	-.002	-5.68	.01290	.000	1
S3	2.5000	2.5180	.018	.720	.76225	.001	1
S4	5.0000	5.1713	.171	3.43	1.5639	.191	1
S5	10.000	9.8192	-.181	-1.81	2.9681	.052	1
S2	.80000	.79375	-.006	-.781	.24132	.001	1

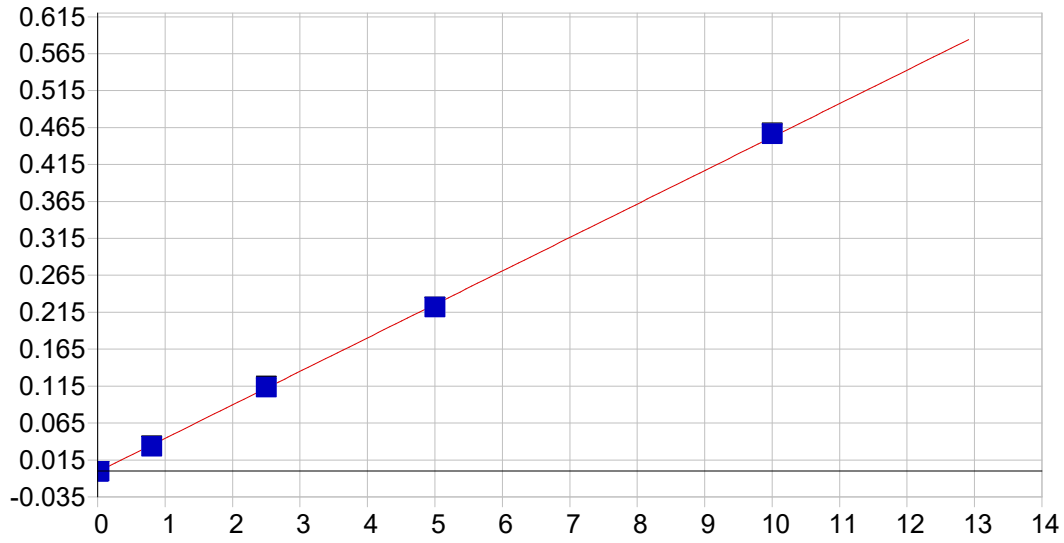


Si 288.158 {117}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000123	Re-Slope:	1.000000
A1 (Gain):	0.002576	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.014683		
Predicted MQL:	0.048944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	.00012	.000	1
S1	.40000	.35058	-.049	-12.4	.00103	.000	1
S3	2.5000	2.5384	.038	1.54	.00676	.000	1
S4	5.0000	5.0050	.005	.100	.01321	.000	1
S5	10.000	10.032	.032	.318	.02636	.000	1
S2	.80000	.77352	-.026	-3.31	.00215	.000	1

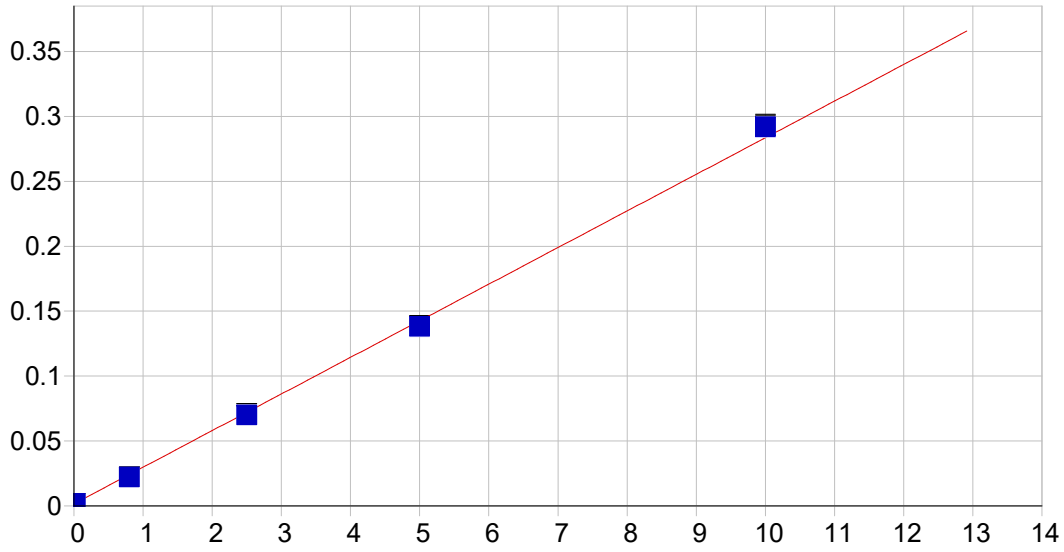


P 177.495 {490}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001042	Re-Slope:	1.000000
A1 (Gain):	0.045314	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.001656		
Predicted MQL:	0.005520		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00104	.000	1
S1	.02000	.01624	-.004	-18.8	-.00031	.000	1
S3	2.5000	2.5250	.025	.999	.11336	.002	1
S4	5.0000	4.9167	-.083	-1.67	.22171	.000	1
S5	10.000	10.097	.097	.972	.45643	.001	1
S2	.80000	.76485	-.035	-4.39	.03361	.000	1

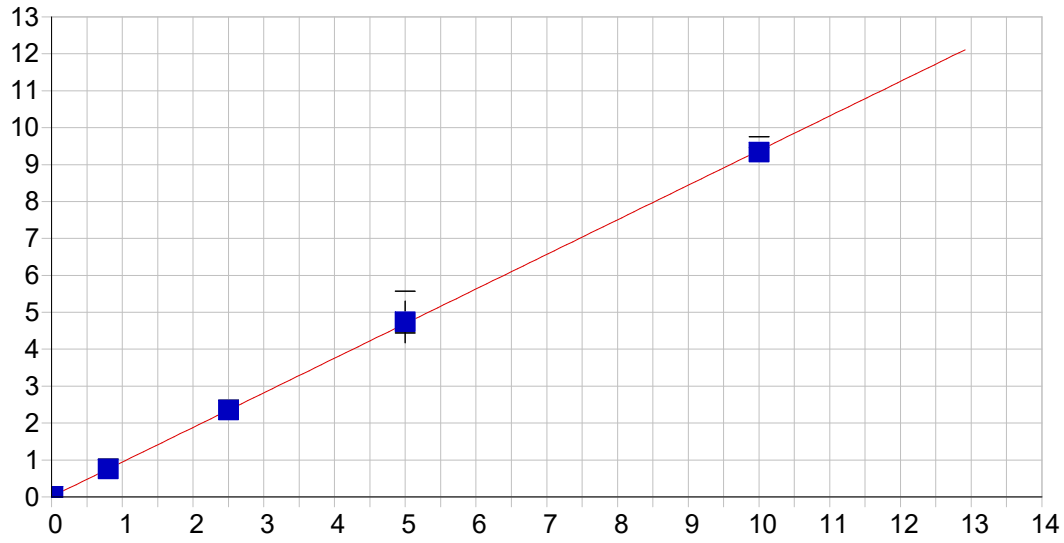


S 182.034 {485}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001625	Re-Slope:	1.000000
A1 (Gain):	0.028195	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999341	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.002867		
Predicted MQL:	0.009557		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00163	.000	1
S1	.02000	.01283	-.007	-35.9	.00196	.000	1
S3	2.5000	2.4292	-.071	-2.83	.06993	.001	1
S4	5.0000	4.8463	-.154	-3.07	.13790	.001	1
S5	10.000	10.299	.299	2.99	.29129	.002	1
S2	.80000	.73205	-.068	-8.49	.02221	.000	1

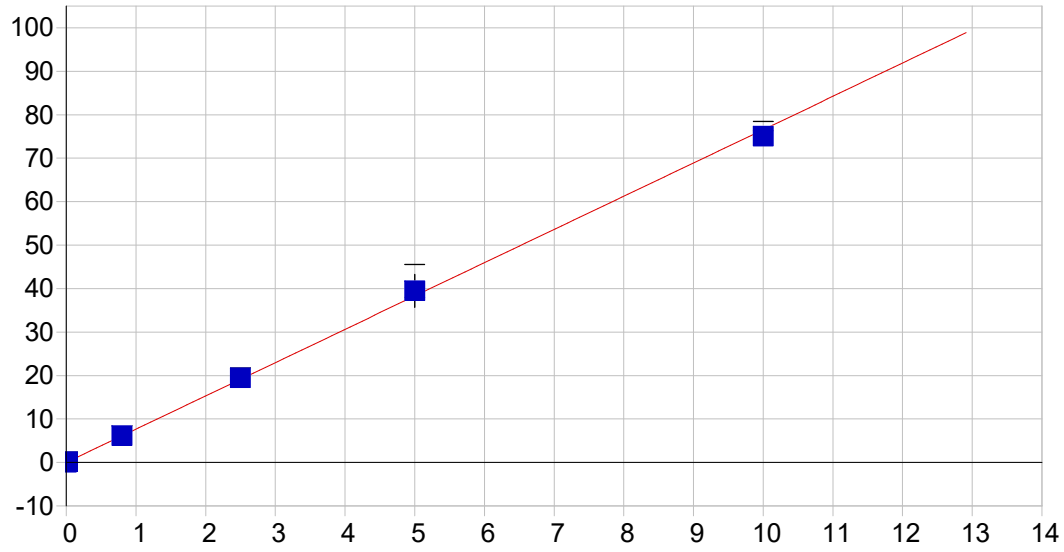


Li 670.784 { 50}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006781	Re-Slope:	1.000000
A1 (Gain):	0.937288	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000135		
Predicted MDL:	0.001992		
Predicted MQL:	0.006639		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00678	.001	1
S5	10.000	9.9535	-.047	-.465	9.3436	.148	1
S4	5.0000	5.0466	.047	.931	4.7406	.567	1
S3	2.5000	2.5030	.003	.120	2.3547	.006	1
S1	.02000	.02064	.001	3.22	.02646	.002	1
S2	.80000	.79631	-.004	-.461	.75375	.002	1

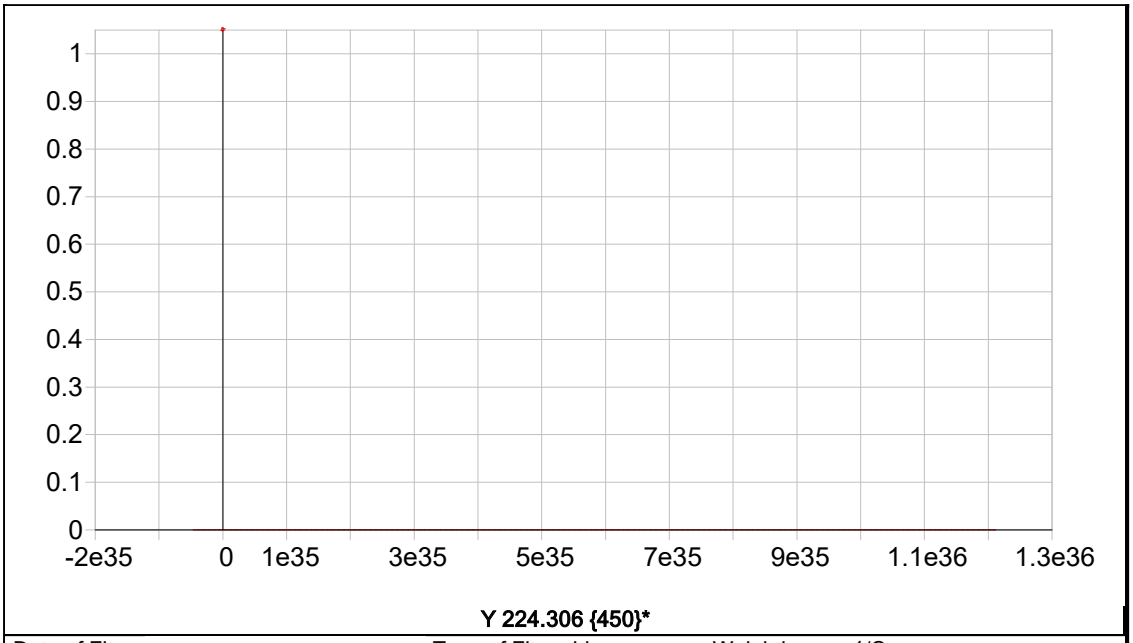


Sr 407.771 { 83}

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000340	Re-Slope:	1.000000
A1 (Gain):	7.656814	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999751	Status:	OK.
Std Error of Est:	0.004008		
Predicted MDL:	0.000125		
Predicted MQL:	0.000416		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00033	.000	1
S1	.02000	.01999	-.000	-.068	.15411	.001	1
S3	2.5000	2.5403	.040	1.61	19.469	.059	1
S4	5.0000	5.1519	.152	3.04	39.484	3.79	1
S5	10.000	9.8036	-.196	-1.96	75.138	1.08	1
S2	.80000	.80416	.004	.520	6.1635	.016	1

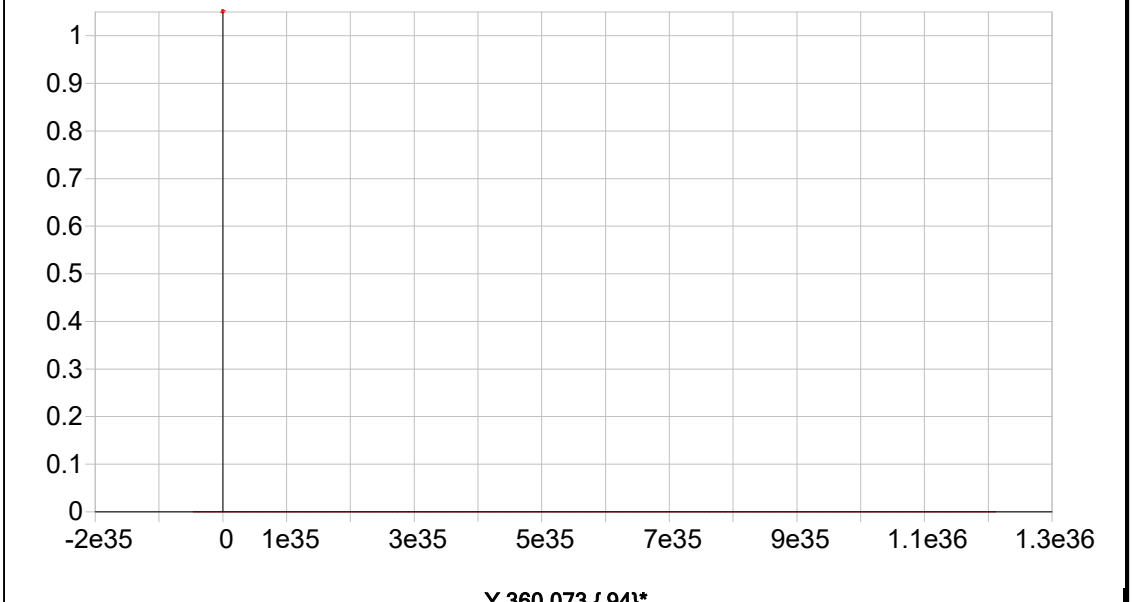


Y 224.306 {450}*

Date of Fit:	10/28/2025 12:22:55	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

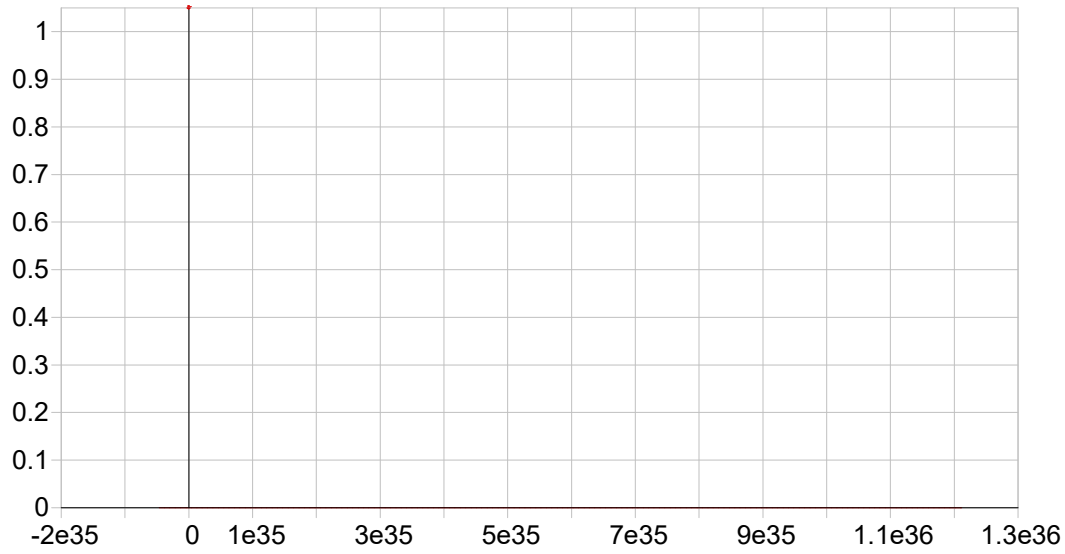
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
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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					

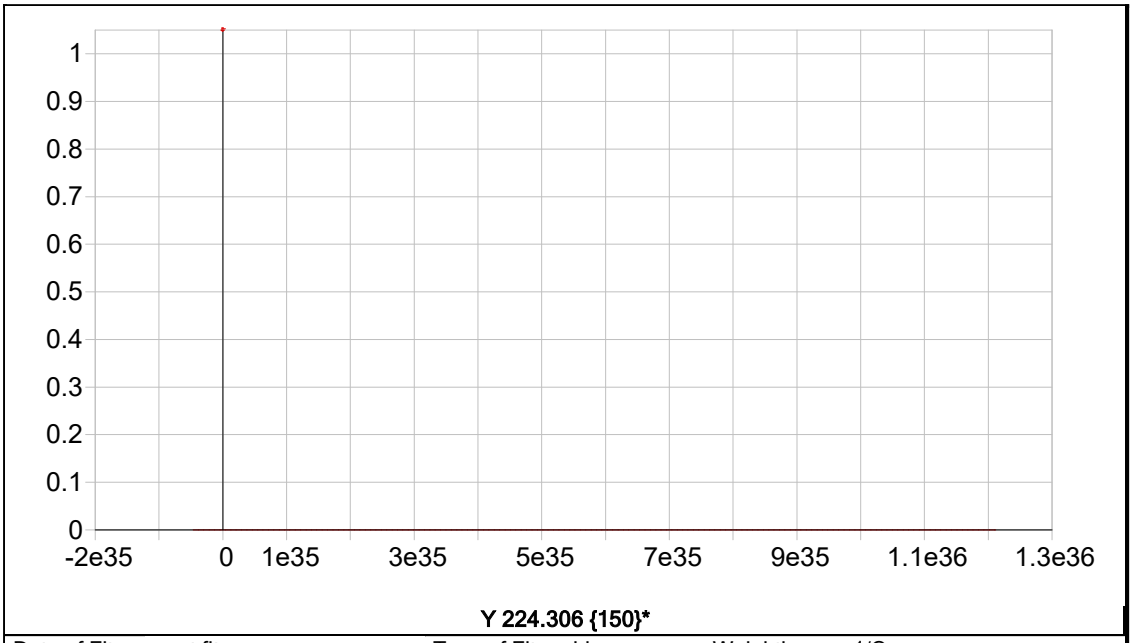
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

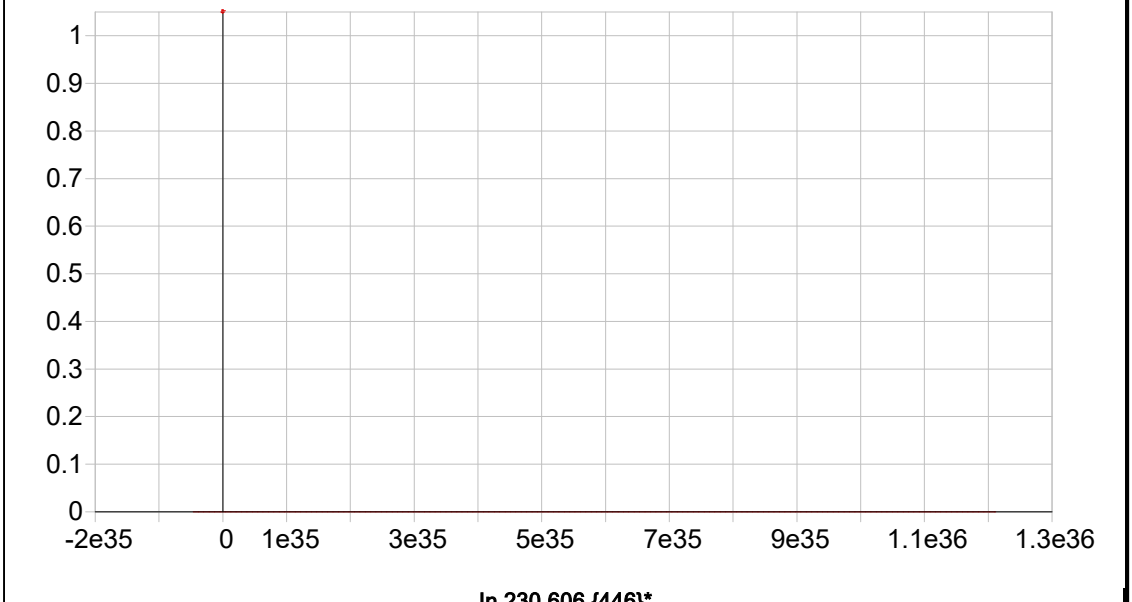
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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	

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:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S0 Acquired: 10/28/2025 11:52:21 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	**-.00006**	**.00035**	**.00017**	**.00054**	**.00081**	**-.00061**	**.07665**	**-.00265**
Stddev	.00005	.00001	.00004	.00011	.00004	.00075	.00464	.00062
%RSD	80.548	4.0261	25.440	20.705	4.7373	122.00	6.0524	23.377
#1	-.00011	.00035	.00019	.00041	.00079	-.00115	.07131	-.00320
#2	-.00007	.00034	.00020	.00058	.00079	-.00093	.07973	-.00198
#3	-.00001	.00037	.00012	.00063	.00085	.00024	.07890	-.00276

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	**-.00063**	**.00102**	**.00009**	**-.00000**	**.00039**	**.00003**	**.00016**	**.00011**
Stddev	.00004	.00028	.00005	.00010	.00014	.00001	.00038	.00034
%RSD	6.3617	26.847	60.888	7285.4	36.218	26.130	236.65	307.40
#1	-.00059	.00121	.00013	-.00000	.00046	.00002	-.00004	.00034
#2	-.00067	.00071	.00011	-.00010	.00048	.00003	-.00008	.00027
#3	-.00062	.00116	.00003	.00010	.00023	.00003	.00061	-.00028

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	**-.00051**	**-.00061**	**.00196**	**-.00015**	**.00416**	**-.00072**	**.01342**	**.00047**
Stddev	.00008	.00002	.00009	.00054	.00005	.00007	.00088	.00019
%RSD	15.231	3.0105	4.8248	374.64	1.1928	9.2674	6.5809	40.802
#1	-.00052	-.00060	.00202	-.00001	.00411	-.00074	.01436	.00068
#2	-.00057	-.00063	.00202	.00032	.00415	-.00076	.01330	.00030
#3	-.00042	-.00059	.00185	-.00075	.00421	-.00064	.01260	.00043

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	**.00245**	**.00151**	**.00012**	**-.00104**	**.00163**	**.00678**	**.00033**
Stddev	.00001	.00045	.00002	.00004	.00002	.00063	.00042
%RSD	.33934	29.550	16.759	3.4607	1.4244	9.2224	125.74
#1	.00245	.00137	.00013	-.00104	.00160	.00627	-.00012
#2	.00244	.00200	.00010	-.00108	.00164	.00659	.00071
#3	.00246	.00115	.00013	-.00100	.00164	.00748	.00041

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S0 Acquired: 10/28/2025 11:52:21 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	5850.6	95392.	7569.7	4329.2	7574.1
Stddev	23.4	48.	75.1	8.3	34.1
%RSD	.40065	.05062	.99167	.19148	.45058
#1	5826.2	95383.	7551.0	4329.2	7549.9
#2	5852.7	95444.	7652.3	4320.9	7559.3
#3	5872.9	95348.	7505.7	4337.5	7613.1

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S1 Acquired: 10/28/2025 11:56:44 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	**.00097**	**.00189**	**.00318**	**.00133**	**.00564**	**.00906**	**.29446**	**.05612**
Stddev	.00005	.00007	.00015	.00009	.00008	.00086	.00224	.00089
%RSD	5.6414	3.6404	4.8008	6.7570	1.4638	9.4581	.75921	1.5868
#1	.00101	.00192	.00312	.00137	.00555	.00809	.29333	.05512
#2	.00098	.00193	.00307	.00138	.00566	.00940	.29703	.05680
#3	.00090	.00181	.00336	.00122	.00571	.00970	.29301	.05646

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	**.01654**	**.11617**	**.00213**	**.02957**	**.01436**	**.00027**	**.00846**	**.02514**
Stddev	.00008	.00056	.00004	.00010	.00012	.00002	.00019	.00052
%RSD	.48217	.47844	1.8710	.34768	.86672	7.8065	2.2536	2.0817
#1	.01657	.11664	.00209	.02964	.01425	.00029	.00861	.02458
#2	.01645	.11556	.00216	.02963	.01434	.00025	.00852	.02561
#3	.01661	.11633	.00215	.02946	.01450	.00026	.00824	.02524

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	**.02256**	**.00147**	**.01457**	**.00446**	**.10324**	**.00631**	**.10645**	**.12819**
Stddev	.00027	.00009	.00022	.00038	.00062	.00016	.00124	.00021
%RSD	1.2106	6.0179	1.4833	8.5963	.60217	2.5572	1.1672	.16581
#1	.02278	.00152	.01478	.00443	.10304	.00650	.10527	.12807
#2	.02265	.00137	.01435	.00409	.10274	.00622	.10633	.12805
#3	.02226	.00153	.01459	.00485	.10393	.00622	.10775	.12843

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	**.00798**	**.01290**	**.00103**	**-.00031**	**.00196**	**.02646**	**.15411**
Stddev	.00004	.00017	.00006	.00005	.00005	.00160	.00059
%RSD	.48192	1.3068	5.5731	15.516	2.3813	6.0360	.38359
#1	.00799	.01296	.00108	-.00032	.00198	.02598	.15477
#2	.00794	.01271	.00097	-.00035	.00200	.02515	.15392
#3	.00801	.01304	.00104	-.00025	.00191	.02824	.15363

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S1 Acquired: 10/28/2025 11:56:44 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	**5988.9**	**98029.**	**7664.4**	**4520.4**	**7583.9**
Stddev	11.8	371.	41.1	15.0	8.1
%RSD	.19684	.37871	.53566	.33224	.10729
#1	5997.4	97631.	7702.2	4503.7	7591.8
#2	5975.4	98091.	7620.7	4524.9	7575.5
#3	5993.8	98366.	7670.3	4532.7	7584.3

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S2 Acquired: 10/28/2025 12:01:01 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04339	.03869	.20018	.03557	.08005	.17370	3.7415	.39647	1.1916
Stddev	.00017	.00129	.00073	.00012	.00011	.00076	.0091	.00255	.0021
%RSD	.38885	3.3461	.36386	.33371	.13286	.43757	.24278	.64374	.17985
#1	.04323	.03735	.20087	.03544	.07996	.17437	3.7335	.39365	1.1914
#2	.04337	.03880	.20024	.03562	.08003	.17385	3.7514	.39716	1.1937
#3	.04356	.03993	.19942	.03566	.08017	.17288	3.7397	.39861	1.1895

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.23656	.03541	.41008	.13821	.00204	.16607	.04870	.23845	.04101
Stddev	.00034	.00019	.00025	.00017	.00003	.00060	.00033	.00044	.00007
%RSD	.14561	.53195	.06202	.12476	1.7060	.36329	.67596	.18642	.16578
#1	.23620	.03528	.41009	.13826	.00202	.16540	.04868	.23872	.04093
#2	.23660	.03533	.41033	.13802	.00202	.16657	.04904	.23869	.04102
#3	.23688	.03563	.40983	.13835	.00208	.16624	.04838	.23794	.04106

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02731	.05171	1.0679	.01378	.79844	.54368	.11921	.24132	.00215
Stddev	.00007	.00063	.0030	.00001	.00304	.00142	.00043	.00058	.00004
%RSD	.25768	1.2114	.28033	.10622	.38061	.26170	.35888	.23937	1.9259
#1	.02723	.05243	1.0687	.01379	.79498	.54204	.11877	.24066	.00214
#2	.02733	.05144	1.0645	.01376	.79963	.54441	.11962	.24155	.00219
#3	.02737	.05127	1.0704	.01379	.80070	.54459	.11925	.24174	.00211

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03361	.02221	.75375	6.1635
Stddev	.00029	.00015	.00198	.0158
%RSD	.84876	.67000	.26275	.25647
#1	.03329	.02206	.75328	6.1468
#2	.03382	.02220	.75593	6.1782
#3	.03372	.02236	.75205	6.1655

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S2 Acquired: 10/28/2025 12:01:01 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	5946.6	97134.	7557.2	4493.2	7355.3
Stddev	13.4	284.	31.8	12.8	27.5
%RSD	.22531	.29206	.42070	.28459	.37398
#1	5954.1	97453.	7590.8	4502.0	7352.8
#2	5931.1	97037.	7553.0	4499.1	7329.1
#3	5954.5	96911.	7527.7	4478.6	7384.0

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S3 Acquired: 10/28/2025 12:05:04 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.13757**	**.12756**	**.63772**	**.11161**	**.25147**	**.49461**	**11.726**	**1.2436**	**3.8570**
Stddev	.00152	.00389	.00493	.00122	.00224	.00115	.030	.0066	.0292
%RSD	1.1036	3.0501	.77357	1.0894	.89115	.23161	.25250	.53278	.75663
#1	.13834	.12872	.64119	.11219	.25210	.49593	11.760	1.2474	3.8748
#2	.13856	.13074	.63990	.11243	.25333	.49392	11.712	1.2475	3.8730
#3	.13583	.12322	.63207	.11021	.24898	.49397	11.706	1.2359	3.8234

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.74574**	**.11030**	**1.3110**	**.44272**	**.00634**	**.51571**	**.15290**	**.75877**	**.13037**
Stddev	.00201	.00035	.0103	.00354	.00004	.00211	.00032	.00596	.00028
%RSD	.26910	.31360	.78359	.80048	.66955	.40856	.20929	.78590	.21657
#1	.74779	.11018	1.3175	.44414	.00634	.51809	.15319	.76305	.13026
#2	.74565	.11004	1.3165	.44534	.00630	.51407	.15255	.76130	.13069
#3	.74378	.11070	1.2992	.43869	.00638	.51499	.15295	.75196	.13016

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.08461**	**.16437**	**3.2477**	**.04648**	**2.4414**	**1.7003**	**.38194**	**.76225**	**.00676**
Stddev	.00064	.00011	.0106	.00046	.0204	.0147	.00358	.00077	.00009
%RSD	.75568	.06687	.32760	.98602	.83414	.86163	.93781	.10057	1.3097
#1	.08461	.16450	3.2356	.04657	2.4476	1.7072	.38483	.76310	.00667
#2	.08397	.16430	3.2554	.04599	2.4580	1.7102	.38307	.76205	.00676
#3	.08525	.16432	3.2521	.04689	2.4187	1.6835	.37793	.76160	.00685

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11336**	**.06993**	**2.3547**	**19.469**
Stddev	.00164	.00100	.0058	.059
%RSD	1.4461	1.4293	.24724	.30368
#1	.11450	.07071	2.3608	19.538
#2	.11409	.07029	2.3539	19.438
#3	.11148	.06880	2.3493	19.433

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S3 Acquired: 10/28/2025 12:05:04 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	5735.5	92454.	7452.6	4268.5	6847.5
Stddev	40.1	601.	17.7	22.4	49.1
%RSD	.69900	.65036	.23775	.52567	.71656
#1	5726.5	92884.	7450.8	4286.2	6821.4
#2	5700.7	92712.	7435.8	4276.1	6817.0
#3	5779.3	91767.	7471.1	4243.3	6904.1

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S4 Acquired: 10/28/2025 12:09:00 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.26080**	**.24467**	**1.2128**	**.21083**	**.48055**	**.94547**	**23.546**	**2.5365**	**7.3996**
Stddev	.00024	.00436	.0025	.00019	.00090	.11142	2.467	.2611	.0147
%RSD	.09354	1.7838	.20447	.09215	.18709	11.785	10.479	10.292	.19805
#1	.26057	.24151	1.2122	.21062	.48061	.89681	22.103	2.3946	7.3959
#2	.26105	.24286	1.2106	.21100	.47962	.86666	22.140	2.3772	7.3871
#3	.26077	.24965	1.2155	.21087	.48142	1.0729	26.395	2.8378	7.4157

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.5220**	**.20810**	**2.5340**	**.80426**	**.01190**	**1.0441**	**.31677**	**1.4611**	**.25092**
Stddev	.1856	.00203	.0045	.00112	.00019	.1253	.03905	.0025	.00265
%RSD	12.195	.97608	.17752	.13986	1.5724	12.005	12.329	.16985	1.0557
#1	1.4224	.21028	2.5333	.80413	.01193	.97520	.29613	1.4612	.25398
#2	1.4075	.20626	2.5299	.80320	.01169	.96830	.29237	1.4586	.24931
#3	1.7361	.20774	2.5388	.80544	.01206	1.1888	.36181	1.4636	.24948

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.16333**	**.34094**	**6.0786**	**.09093**	**5.0910**	**3.2448**	**.74339**	**1.5639**	**.01321**
Stddev	.00141	.04175	.0664	.00119	.5139	.0023	.00131	.1914	.00019
%RSD	.86172	12.246	1.0918	1.3086	10.095	.07212	.17623	12.240	1.4686
#1	.16345	.31842	6.1525	.09075	4.8109	3.2447	.74278	1.4583	.01325
#2	.16186	.31527	6.0239	.08984	4.7780	3.2425	.74250	1.4485	.01300
#3	.16467	.38911	6.0595	.09220	5.6841	3.2472	.74489	1.7849	.01338

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22171**	**.13790**	**4.7406**	**39.484**
Stddev	.00013	.00067	.5668	3.789
%RSD	.05802	.48479	11.956	9.5953
#1	.22184	.13713	4.4342	37.403
#2	.22173	.13836	4.3930	37.193
#3	.22158	.13820	5.3947	43.858

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S4 Acquired: 10/28/2025 12:09:00 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	5726.6	91338.	7027.4	4188.6	6658.0
Stddev	6.3	748.	688.5	45.1	12.0
%RSD	.10928	.81844	9.7973	1.0758	.17990
#1	5727.8	90507.	7397.8	4151.9	6660.8
#2	5732.2	91955.	7451.3	4238.9	6668.3
#3	5719.9	91554.	6233.0	4174.8	6644.8

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S5 Acquired: 10/28/2025 12:13:11 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.52822**	**.51270**	**2.4981**	**.42711**	**.97026**	**1.7802**	**44.999**	**4.7222**	**15.179**
Stddev	.00047	.01956	.0020	.00127	.00128	.0295	.698	.1111	.021
%RSD	.08841	3.8159	.08103	.29729	.13193	1.6590	1.5504	2.3524	.13566
#1	.52807	.49861	2.4981	.42659	.96979	1.7727	44.643	4.6374	15.179
#2	.52784	.50445	2.4960	.42619	.96929	1.7552	44.550	4.6812	15.158
#3	.52874	.53504	2.5001	.42856	.97171	1.8128	45.803	4.8479	15.200

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.8494**	**.40773**	**5.2123**	**1.5961**	**.02324**	**1.9755**	**.59765**	**2.9913**	**.49525**
Stddev	.0506	.00095	.0078	.0018	.00016	.0364	.01102	.0032	.00072
%RSD	1.7763	.23193	.15069	.11174	.68463	1.8404	1.8439	.10784	.14525
#1	2.8215	.40848	5.2166	1.5981	.02341	1.9499	.59172	2.9935	.49522
#2	2.8188	.40667	5.2032	1.5954	.02319	1.9595	.59087	2.9876	.49455
#3	2.9078	.40804	5.2170	1.5947	.02310	2.0171	.61037	2.9928	.49599

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.34148**	**.64491**	**11.802**	**.18290**	**9.4623**	**6.4859**	**1.5176**	**2.9681**	**.02636**
Stddev	.00271	.01071	.020	.00154	.2356	.0060	.0029	.0519	.00014
%RSD	.79215	1.6604	.16834	.83960	2.4896	.09169	.19298	1.7490	.53647
#1	.34439	.63914	11.824	.18449	9.2725	6.4879	1.5179	2.9414	.02648
#2	.34101	.63833	11.793	.18279	9.3885	6.4793	1.5145	2.9349	.02639
#3	.33905	.65727	11.788	.18142	9.7259	6.4906	1.5204	3.0279	.02620

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.45643**	**.29129**	**9.3436**	**75.138**
Stddev	.00099	.00193	.1478	1.083
%RSD	.21727	.66105	1.5819	1.4412
#1	.45752	.28999	9.2715	73.893
#2	.45558	.29037	9.2456	75.660
#3	.45619	.29350	9.5136	75.861

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: S5 Acquired: 10/28/2025 12:13:11 Type: Cal
Method: 6010-200.7 NEW(v320) Mode: IR Corr. Factor: 1.000000
User: Jaswal 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	5570.4	91559.	7271.2	4174.0	6272.0
Stddev	1.5	323.	155.5	21.7	3.8
%RSD	.02762	.35267	2.1389	.52016	.06122
#1	5571.5	91191.	7378.4	4148.9	6273.6
#2	5568.6	91798.	7342.5	4186.4	6274.7
#3	5570.9	91686.	7092.9	4186.7	6267.6

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICV01 Acquired: 10/28/2025 12:30:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.816502**	**3.893070**	**3.727328**	**3.815638**	**3.897947**	**7.293287**
Stddev	.012385	.051872	.003778	.008855	.015810	.020730
%RSD	.3244992	1.332418	.1013688	.2320615	.4055901	.2842338
#1	3.804430	3.833275	3.723092	3.808669	3.886116	7.308940
#2	3.829177	3.925985	3.730350	3.812642	3.891822	7.269777
#3	3.815897	3.919951	3.728543	3.825601	3.915903	7.301144

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.599335**	**.1907600**	**1.895843**	**18.77165**	**.7828788**	**1.916991**
Stddev	.031529	.0006410	.003300	.04975	.0030231	.001578
%RSD	.4148852	.3360163	.1740521	.2650447	.3861526	.0823340
#1	7.582275	.1900648	1.892454	18.82527	.7861194	1.915740
#2	7.635717	.1913277	1.899046	18.76269	.7823825	1.918765
#3	7.580012	.1908874	1.896028	18.72698	.7801346	1.916470

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9829378**	**3.831158**	**1.883496**	**18.77149**	**1.924480**	**.9625225**
Stddev	.0019394	.022143	.007831	.04413	.001787	.0014731
%RSD	.1973059	.5779755	.4157649	.2350967	.0928313	.1530409
#1	.9807794	3.848391	1.880899	18.81829	1.922438	.9630754
#2	.9835002	3.838900	1.892295	18.73063	1.925755	.9636391
#3	.9845339	3.806183	1.877292	18.76556	1.925247	.9608530

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.71515**	**1.880249**	**1.934059**	**18.95341**	**3.737876**	**3.904981**
Stddev	.19040	.002019	.004739	.12703	.017216	.007187
%RSD	1.017337	.1073947	.2450044	.6702045	.4605871	.1840398
#1	18.84514	1.880894	1.934957	19.06986	3.718263	3.897206
#2	18.80371	1.881867	1.938284	18.97242	3.750492	3.906357
#3	18.49661	1.877986	1.928935	18.81795	3.744874	3.911380

Sample Name: ICV01 Acquired: 10/28/2025 12:30:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	3.856078	3.740561	F 3.501274	F .0019609	F .0267884	F -.003367
Stddev	.006198	.008898	.013719	.0011875	.0008679	.001153
%RSD	.1607306	.2378887	.3918412	60.56017	3.239986	34.24393
#1	3.849972	3.736955	3.516976	.0033320	.0277023	-.002452
#2	3.862364	3.750696	3.495240	.0012619	.0266877	-.002987
#3	3.855898	3.734032	3.491605	.0012887	.0259751	-.004661

Elem	Sr4077
Units	ppm
Avg	F -.003360
Stddev	.000129
%RSD	3.830682
#1	-.003500
#2	-.003335
#3	-.003246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5881.039	94480.37	7587.184	4354.997	6935.874
Stddev	7.247	450.93	13.120	8.806	7.986
%RSD	.1232267	.4772691	.1729190	.2022077	.1151355
#1	5888.969	93959.86	7590.794	4344.903	6939.558
#2	5879.387	94728.82	7598.121	4361.106	6926.711
#3	5874.760	94752.43	7572.637	4358.984	6941.352

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LLICV01 Acquired: 10/28/2025 12:34:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0203439**	**.0443753**	**.0120394**	**.0207318**	**.0528719**	**.1036938**	**.0930198**
Stddev	.0012750	.0027900	.0005316	.0019242	.0022506	.0113140	.0008473
%RSD	6.267361	6.287339	4.415135	9.281230	4.256758	10.91101	.9109035
#1	.0217710	.0412072	.0126231	.0217642	.0554602	.1026789	.0935730
#2	.0199437	.0464657	.0115832	.0185117	.0513758	.0929214	.0934421
#3	.0193170	.0454531	.0119120	.0219194	.0517797	.1154811	.0920443

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064095**	**.0058633**	**1.994249**	**.0105723**	**.0298383**	**.0222482**	**.0988316**
Stddev	.0000396	.0000145	.012571	.0002579	.0001171	.0001417	.0054471
%RSD	.6174207	.2472568	.6303778	2.439303	.3924781	.6367322	5.511449
#1	.0064407	.0058749	2.002581	.0108351	.0298438	.0223939	.0927773
#2	.0064228	.0058681	2.000377	.0105620	.0297186	.0221110	.1003823
#3	.0063650	.0058470	1.979789	.0103197	.0299526	.0222396	.1033352

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0201140**	**2.051070**	**.0399499**	**.0119639**	**1.725940**	**.0372818**	**.0424688**
Stddev	.0004899	.013952	.0001669	.0006752	.006438	.0029473	.0003512
%RSD	2.435436	.6802375	.4178102	5.643837	.3730422	7.905372	.8270143
#1	.0206156	2.063740	.0399867	.0111862	1.718895	.0341156	.0428239
#2	.0196367	2.036117	.0397676	.0123037	1.727403	.0399456	.0424608
#3	.0200897	2.053352	.0400953	.0124016	1.731521	.0377841	.0421216

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.843861**	**.1053516**	**.2054043**	**.0406028**	**.0372095**	**.3505311**	**.0184465**
Stddev	.038123	.0002499	.0001659	.0005960	.0013212	.0088407	.0003957
%RSD	2.067569	.2372358	.0807755	1.467757	3.550739	2.522094	2.145093
#1	1.807771	.1053529	.2055754	.0399356	.0370724	.3607332	.0179921
#2	1.883735	.1051010	.2052441	.0410824	.0385940	.3457411	.0187155
#3	1.840077	.1056009	.2053934	.0407903	.0359622	.3451191	.0186318

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LLICV01 Acquired: 10/28/2025 12:34:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0190782	.0197520	.0198372
Stddev	.0036740	.0000877	.0001492
%RSD	19.25761	.4439690	.7522737
#1	.0166917	.0197997	.0200080
#2	.0172338	.0198055	.0197721
#3	.0233090	.0196508	.0197316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5778.435	94633.88	7322.641	4305.639	7349.239
Stddev	10.912	59.18	19.484	25.396	17.814
%RSD	.1888326	.0625392	.2660829	.5898198	.2423931
#1	5775.279	94637.65	7310.897	4306.259	7356.341
#2	5769.450	94572.90	7311.895	4279.940	7328.970
#3	5790.577	94691.09	7345.132	4330.719	7362.407

Sample Name: ICB01 Acquired: 10/28/2025 12:38:40 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**-.001744**	**-.000618**	**.0001227**	**-.000616**	**.0006721**	**-.000921**	**.0022577**
Stddev	.002105	.001588	.0014742	.001839	.0010068	.009978	.0018914
%RSD	120.7372	256.8250	1201.215	298.6228	149.7952	1083.587	83.77657
#1	-.002729	-.002452	-.001346	.000421	-.000381	.006224	.0035832
#2	-.003175	.000317	.001602	-.002739	.001625	.003334	.0030981
#3	.000674	.000280	.000112	.000471	.000773	-.012321	.0000917

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000029**	**-.000009**	**.0081657**	**-.000006**	**.0000299**	**-.000033**	**-.002240**
Stddev	.000057	.000046	.0107736	.000227	.0001321	.000069	.009850
%RSD	193.3733	488.2181	131.9366	3693.258	441.5468	208.1914	439.6472
#1	.000021	.000017	.0206054	-.000025	.0000448	-.000062	-.012951
#2	-.000019	-.000062	.0018351	-.000223	.0001540	.000046	-.000200
#3	-.000091	.000017	.0020568	.000229	-.000109	-.000083	.006429

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000169**	**-.032459**	**-.000093**	**.0000737**	**-.035029**	**-.002430**	**-.000272**
Stddev	.000208	.024621	.000316	.0002745	.021703	.002846	.000094
%RSD	123.3209	75.85161	338.5013	372.3160	61.95818	117.1034	34.45793
#1	.000049	-.004662	.000242	.0003664	-.048610	-.000356	-.000356
#2	-.000366	-.041193	-.000387	.0000327	-.046477	-.001260	-.000291
#3	-.000190	-.051523	-.000135	-.000178	-.009998	-.005675	-.000171

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.068706**	**.0022493**	**.0003457**	**.0000986**	**.0015706**	**-.007145**	**-.001024**
Stddev	.030872	.0005163	.0001038	.0006735	.0022117	.006873	.000254
%RSD	44.93352	22.95149	30.02762	683.3675	140.8260	96.18101	24.76808
#1	-.034161	.0028320	.0002466	.0002187	-.000920	-.001843	-.001283
#2	-.093599	.0018490	.0004537	.0007040	.002327	-.004683	-.001013
#3	-.078357	.0020671	.0003368	-.000627	.003305	-.014910	-.000776

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICB01 Acquired: 10/28/2025 12:38:40 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005580	.0021296	-.000042
Stddev	.001722	.0017980	.000136
%RSD	30.85479	84.42956	324.6160
#1	-.004152	.0006448	.000016
#2	-.005097	.0041287	-.000197
#3	-.007492	.0016152	.000056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5763.819	96291.02	7154.443	4430.306	7461.500
Stddev	208.315	791.75	3.515	28.892	267.728
%RSD	3.614179	.8222463	.0491371	.6521466	3.588130
#1	5839.247	95551.43	7151.331	4400.722	7555.166
#2	5528.297	97126.24	7153.743	4458.453	7159.523
#3	5923.913	96195.39	7158.256	4431.743	7669.812

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CRI01 Acquired: 10/28/2025 12:42:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0194706**	**.0394005**	**.0115068**	**.0204525**	**.0522096**	**.1122271**	**.1025596**
Stddev	.0013917	.0023267	.0004859	.0025494	.0017577	.0095222	.0013963
%RSD	7.147897	5.905248	4.222710	12.46511	3.366662	8.484799	1.361491
#1	.0178734	.0369427	.0109657	.0196430	.0523216	.1073157	.1039340
#2	.0201151	.0396897	.0116489	.0233084	.0503985	.1232023	.1026023
#3	.0204233	.0415691	.0119058	.0184061	.0539086	.1061634	.1011423

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063970**	**.0057495**	**2.057200**	**.0104001**	**.0295750**	**.0220421**	**.0997663**
Stddev	.0000254	.0000640	.015599	.0002595	.0001192	.0001727	.0047438
%RSD	.3963604	1.113790	.7582788	2.494749	.4030575	.7833153	4.754929
#1	.0064001	.0057187	2.055812	.0106564	.0296477	.0219522	.1036347
#2	.0063703	.0058231	2.042340	.0104062	.0296398	.0222411	.0944735
#3	.0064207	.0057067	2.073446	.0101376	.0294374	.0219328	.1011907

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212174**	**2.095981**	**.0393936**	**.0105637**	**1.987756**	**.0378885**	**.0423789**
Stddev	.0003016	.032471	.0001416	.0003461	.015633	.0021060	.0003016
%RSD	1.421415	1.549216	.3595027	3.276586	.7864892	5.558452	.7117565
#1	.0209823	2.082213	.0395528	.0106755	1.973102	.0355239	.0427267
#2	.0215574	2.072661	.0393464	.0101755	2.004213	.0385793	.0421890
#3	.0211124	2.133067	.0392816	.0108402	1.985952	.0395624	.0422209

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.922192**	**.1038659**	**.2005293**	**.0391726**	**.0392697**	**.3501029**	**.0183427**
Stddev	.030879	.0008632	.0000339	.0000909	.0002431	.0113164	.0004300
%RSD	1.606439	.8311235	.0168907	.2319553	.6189262	3.232314	2.344444
#1	1.909040	.1029607	.2005245	.0392746	.0390397	.3452555	.0181616
#2	1.900066	.1039569	.2004980	.0391002	.0395240	.3630355	.0188337
#3	1.957469	.1046800	.2005653	.0391430	.0392455	.3420176	.0180329

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CRI01 Acquired: 10/28/2025 12:42:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0142650	.0228377	.0209742
Stddev	.0020150	.0014873	.0002184
%RSD	14.12540	6.512533	1.041298
#1	.0164632	.0216758	.0208941
#2	.0125055	.0223235	.0208071
#3	.0138262	.0245139	.0212213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5810.412	94694.72	7272.821	4389.202	7379.526
Stddev	7.911	261.06	17.071	8.782	19.226
%RSD	.1361443	.2756845	.2347233	.2000767	.2605280
#1	5816.248	94690.64	7291.325	4381.222	7374.326
#2	5801.408	94435.73	7269.454	4398.610	7363.434
#3	5813.579	94957.79	7257.685	4387.772	7400.816

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSA01 Acquired: 10/28/2025 12:47:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057139**	**.0053565**	**.0049774**	**.0017128**	**-.001115**	**229.7387**	**.0008080**
Stddev	.0019476	.0025138	.0012498	.0067898	.001139	.3533	.0007756
%RSD	34.08580	46.92977	25.10902	396.4186	102.1583	.1537938	95.98580
#1	.0072533	.0067260	.0050241	.0092073	-.002191	229.5915	.0016456
#2	.0035244	.0068883	.0037049	-.000040	-.001231	230.1418	.0001147
#3	.0063641	.0024554	.0062031	-.004029	.000078	229.4828	.0006638

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013405**	**.0020438**	**225.3896**	**.0483523**	**.0016484**	**.0126401**	**95.50001**
Stddev	.0000366	.0001523	.7194	.0004587	.0003157	.0009362	.58778
%RSD	2.730980	7.454262	.3191875	.9487127	19.15320	7.406745	.6154727
#1	.0013000	.0020424	225.1161	.0478333	.0014230	.0124756	95.66399
#2	.0013712	.0018921	226.2056	.0487034	.0020092	.0117970	95.98838
#3	.0013504	.0021968	224.8470	.0485203	.0015129	.0136476	94.84766

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000315**	**236.1686**	**.0068382**	**.0017115**	**.1536126**	**.0041150**	**.0036287**
Stddev	.000234	.5173	.0004887	.0001244	.0172227	.0035212	.0004876
%RSD	74.16819	.2190478	7.146630	7.266453	11.21180	85.56915	13.43648
#1	-.000554	236.0173	.0066590	.0018521	.1361522	.0015197	.0031527
#2	-.000088	236.7447	.0073913	.0016161	.1540982	.0081232	.0036064
#3	-.000303	235.7438	.0064645	.0016662	.1705875	.0027021	.0041270

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0780505**	**.0312595**	**.0010553**	**-.003307**	**-.005494**	**.0018054**	**.0038096**
Stddev	.0566453	.0054601	.0003220	.000640	.000535	.0090974	.0022498
%RSD	72.57519	17.46703	30.51079	19.33660	9.729833	503.8884	59.05558
#1	.0401430	.0331494	.0009808	-.003962	-.005832	-.005386	.0059133
#2	.1431665	.0355235	.0007771	-.003276	-.004877	.012032	.0040779
#3	.0508420	.0251055	.0014081	-.002684	-.005772	-.001230	.0014378

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSA01 Acquired: 10/28/2025 12:47:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001996	F -.024859	.0032004
Stddev	.002638	.001687	.0003777
%RSD	132.1841	6.787032	11.80294
#1	-.000019	-.026802	.0027825
#2	-.000977	-.024014	.0033010
#3	-.004991	-.023762	.0035176

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5592.608	89140.91	7482.062	4219.752	6128.307
Stddev	1.901	373.94	13.399	18.000	2.831
%RSD	.0339988	.4194967	.1790883	.4265742	.0461881
#1	5593.935	89069.33	7489.446	4206.052	6128.449
#2	5593.460	88807.93	7466.595	4213.065	6131.063
#3	5590.430	89545.47	7490.146	4240.139	6125.407

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSAB01 Acquired: 10/28/2025 12:51:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1040329**	**.1022025**	**.0524319**	**.0460779**	**.5774670**	**228.6215**
Stddev	.0018171	.0007483	.0011652	.0045574	.0023114	.4201
%RSD	1.746697	.7321618	2.222350	9.890630	.4002726	.1837548
#1	.1026450	.1013722	.0532678	.0479842	.5751416	228.1413
#2	.1060897	.1024105	.0529270	.0493727	.5774951	228.9208
#3	.1033640	.1028248	.0511008	.0408769	.5797643	228.8025

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4718955**	**.4885839**	**.9664487**	**223.3815**	**.5302202**	**.4881753**
Stddev	.0016989	.0009876	.0012282	.0926	.0004461	.0010441
%RSD	.3600109	.2021350	.1270863	.0414638	.0841407	.2138799
#1	.4702523	.4875129	.9662656	223.2798	.5306309	.4891326
#2	.4736451	.4894587	.9653223	223.4611	.5297455	.4870619
#3	.4717891	.4887800	.9677582	223.4035	.5302840	.4883313

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4725715**	**95.85246**	**.4630878**	**235.0999**	**.9675192**	**.2026387**
Stddev	.0011956	.19184	.0018984	.1324	.0008452	.0008183
%RSD	.2530019	.2001417	.4099468	.0563245	.0873570	.4038191
#1	.4718893	95.87709	.4608972	235.0937	.9683055	.2034841
#2	.4718731	95.64949	.4642553	234.9707	.9666254	.2025816
#3	.4739520	96.03079	.4641107	235.2353	.9676267	.2018505

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1293720**	**.4606624**	**1.004982**	**.0184667**	**.9328284**	**.9535449**
Stddev	.0402352	.0071099	.001835	.0149717	.0013625	.0024267
%RSD	31.10039	1.543398	.1826178	81.07397	.1460658	.2544913
#1	.1213554	.4540186	1.005298	.0334016	.9313185	.9512991
#2	.0937486	.4598076	1.006639	.0185400	.9339662	.9532164
#3	.1730120	.4681611	1.003010	.0034585	.9332006	.9561191

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSAB01 Acquired: 10/28/2025 12:51:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	.9702959	.9273305	.9637627	F .0057791	F .0060402	F -.026160
Stddev	.0019726	.0011402	.0116092	.0017677	.0028579	.001455
%RSD	.2033025	.1229514	1.204573	30.58755	47.31467	5.560897
#1	.9695740	.9285197	.9720079	.0064182	.0028742	-.027556
#2	.9687858	.9262466	.9504866	.0037808	.0084294	-.024653
#3	.9725278	.9272253	.9687937	.0071384	.0068172	-.026273

Elem	Sr4077
Units	ppm
Avg	F .0013956
Stddev	.0002867
%RSD	20.54181
#1	.0011764
#2	.0017200
#3	.0012904

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5541.579	87508.83	7505.254	4092.284	6075.718
Stddev	16.210	226.66	14.308	11.989	12.583
%RSD	.2925144	.2590168	.1906378	.2929595	.2071017
#1	5555.377	87510.29	7518.015	4084.707	6078.769
#2	5545.634	87734.76	7507.962	4106.106	6086.496
#3	5523.727	87281.44	7489.786	4086.039	6061.891

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSA01DLX20 Acquired: 10/28/2025 12:55:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007516**	**-.002974**	**.0005637**	**-.002199**	**-.001591**	**11.70626**	**-.002278**
Stddev	.0025336	.001575	.0005097	.002373	.001066	.04381	.000761
%RSD	337.0746	52.95789	90.42793	107.9281	67.00467	.3742350	33.41650
#1	-.001929	-.002132	.0005636	.000537	-.002669	11.66514	-.001535
#2	.003107	-.004792	.0000540	-.003428	-.001565	11.75234	-.003056
#3	.001077	-.002000	.0010734	-.003705	-.000538	11.70128	-.002243

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001468**	**.0000684**	**11.90736**	**.0028979**	**.0001131**	**.0009655**	**4.818596**
Stddev	.0000380	.0000187	.06613	.0003461	.0002110	.0003337	.035695
%RSD	25.88281	27.31155	.5553357	11.94478	186.6253	34.55801	.7407753
#1	.0001701	.0000503	11.83287	.0026550	-.000121	.0007501	4.813655
#2	.0001029	.0000673	11.95913	.0027444	.000170	.0013498	4.785629
#3	.0001673	.0000877	11.93008	.0032942	.000290	.0007965	4.856504

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000071**	**12.28946**	**.0004431**	**-.000085**	**-.038309**	**-.001513**	**.0000702**
Stddev	.000328	.12717	.0000183	.000264	.007992	.001870	.0001649
%RSD	463.0911	1.034781	4.135851	311.4986	20.86083	123.5660	234.9036
#1	-.000302	12.18749	.0004608	-.000172	-.029120	-.003651	.0002604
#2	-.000215	12.43195	.0004242	-.000294	-.043640	-.000180	-.000031
#3	.000304	12.24893	.0004441	.000212	-.042166	-.000709	-.000019

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.015482**	**-.003475**	**.0002578**	**-.001419**	**.0005995**	**-.011598**	**.0000766**
Stddev	.021264	.000187	.0000496	.000609	.0011013	.000363	.0006516
%RSD	137.3439	5.388059	19.22019	42.94137	183.7045	3.126575	851.1789
#1	-.039936	-.003294	.0002043	-.002121	.0003050	-.011198	.0001404
#2	-.005165	-.003668	.0003021	-.001116	-.000325	-.011905	-.000605
#3	-.001345	-.003462	.0002672	-.001021	.001818	-.011691	.000694

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSA01DLX20 Acquired: 10/28/2025 12:55:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000874	-.002126	.0001895
Stddev	.0011969	.001673	.0001134
%RSD	1369.520	78.69652	59.80208
#1	.0008966	-.004055	.0002855
#2	.0006530	-.001260	.0002186
#3	-.001287	-.001063	.0000645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5957.325	96974.50	7723.280	4464.782	7337.477
Stddev	28.076	351.10	98.029	17.326	33.099
%RSD	.4712851	.3620569	1.269267	.3880490	.4510922
#1	5989.698	96859.60	7735.555	4463.953	7375.574
#2	5939.636	96695.25	7619.691	4447.886	7315.787
#3	5942.641	97368.66	7814.593	4482.507	7321.069

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSAB01DLX20 Acquired: 10/28/2025 12:59:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060229**	**.0035737**	**.0029975**	**.0024407**	**.0300787**	**12.66969**	**.0284462**
Stddev	.0014231	.0010113	.0007790	.0006207	.0017564	1.45729	.0052706
%RSD	23.62819	28.29991	25.98833	25.42942	5.839189	11.50219	18.52815
#1	.0072979	.0046916	.0031356	.0017758	.0312437	14.35242	.0345202
#2	.0044876	.0033071	.0021586	.0030048	.0309338	11.82652	.0257393
#3	.0062832	.0027223	.0036981	.0025414	.0280585	11.83013	.0250791

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0270470**	**.0479079**	**12.89393**	**.0281618**	**.0244732**	**.0263836**	**4.952633**
Stddev	.0025459	.0000484	1.47873	.0003084	.0001235	.0002034	.113653
%RSD	9.412819	.1011116	11.46846	1.094945	.5048250	.7708043	2.294793
#1	.0299864	.0478722	14.60091	.0284311	.0244471	.0261576	5.083863
#2	.0256189	.0478886	12.07682	.0278254	.0243648	.0265518	4.886139
#3	.0255358	.0479631	12.00405	.0282288	.0246078	.0264415	4.887896

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0272991**	**13.24667**	**.0489300**	**.0094458**	**-.045656**	**.0265310**	**.0514815**
Stddev	.0029604	1.49488	.0001469	.0005413	.022859	.0041730	.0000812
%RSD	10.84429	11.28493	.3002241	5.730591	50.06660	15.72868	.1578095
#1	.0306095	14.97276	.0487605	.0091509	-.021513	.0311469	.0514027
#2	.0249056	12.39400	.0490090	.0091160	-.048490	.0230257	.0514768
#3	.0263822	12.37324	.0490206	.0100705	-.066966	.0254205	.0515650

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.067226**	**.0479084**	**.0509130**	**.0465593**	**.0524593**	**.0264381**	**.0003361**
Stddev	.020347	.0048776	.0002251	.0002934	.0069731	.0017048	.0013793
%RSD	30.26596	10.18102	.4421597	.6301164	13.29236	6.448212	410.4614
#1	-.072662	.0535290	.0511578	.0462443	.0604113	.0244701	.0019149
#2	-.084304	.0447860	.0508663	.0466090	.0473889	.0274612	-.000272
#3	-.044714	.0454103	.0507149	.0468247	.0495775	.0273829	-.000635

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: ICSAB01DLX20 Acquired: 10/28/2025 12:59:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002270	.0002593	.0005443
Stddev	.002210	.0005854	.0004708
%RSD	97.33726	225.7340	86.50155
#1	.000251	.0009300	.0010868
#2	-.003191	-.000149	.0002427
#3	-.003871	-.000003	.0003033

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5867.116	95081.42	7167.566	4412.493	7207.056
Stddev	4.709	249.99	639.452	28.056	4.999
%RSD	.0802617	.2629213	8.921465	.6358223	.0693614
#1	5863.227	94811.60	6429.435	4382.661	7212.470
#2	5872.352	95127.49	7520.185	4416.470	7202.614
#3	5865.769	95305.17	7553.079	4438.348	7206.084

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV01 Acquired: 10/28/2025 13:03:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.945892**	**5.023467**	**4.910457**	**4.960691**	**4.966273**	**10.37952**	**10.00991**
Stddev	.022117	.212920	.009158	.031397	.020622	.01178	.07550
%RSD	.4471692	4.238502	.1865000	.6329243	.4152478	.1134503	.7542703
#1	4.960283	5.164401	4.911872	4.989491	4.979316	10.38930	9.93694
#2	4.956968	5.127464	4.918826	4.965363	4.977005	10.38282	10.00508
#3	4.920426	4.778535	4.900674	4.927219	4.942498	10.36645	10.08771

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2458637**	**2.478082**	**24.62855**	**.9885498**	**2.485676**	**1.249728**	**5.031499**
Stddev	.0011287	.003645	.07152	.0010602	.003252	.002333	.009473
%RSD	.4590815	.1471075	.2903772	.1072457	.1308366	.1866550	.1882707
#1	.2447038	2.480061	24.55712	.9874650	2.487907	1.251719	5.021443
#2	.2469584	2.480310	24.62838	.9895835	2.487178	1.250303	5.032801
#3	.2459289	2.473875	24.70015	.9886010	2.481945	1.247161	5.040254

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.479760**	**24.21883**	**2.476958**	**1.241782**	**24.54996**	**2.457518**	**2.501257**
Stddev	.013859	.06212	.002629	.001474	.19189	.010510	.006646
%RSD	.5588951	.2564758	.1061403	.1186666	.7816471	.4276503	.2656967
#1	2.465232	24.20062	2.477251	1.241557	24.44756	2.448800	2.497933
#2	2.481214	24.16786	2.479429	1.243355	24.43098	2.454567	2.496929
#3	2.492836	24.28802	2.474195	1.240434	24.77133	2.469188	2.508909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.65783**	**4.928301**	**4.994051**	**4.983963**	**4.912660**	**4.878717**	**5.036950**
Stddev	.10424	.021289	.017013	.018151	.015874	.024368	.016730
%RSD	.4227456	.4319706	.3406706	.3641932	.3231341	.4994796	.3321390
#1	24.63370	4.910170	5.008452	4.997027	4.898805	4.866296	5.053077
#2	24.56777	4.951742	4.998423	4.991623	4.909194	4.863062	5.038095
#3	24.77202	4.922992	4.975279	4.963237	4.929981	4.906793	5.019677

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV01 Acquired: 10/28/2025 13:03:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.966617**	**4.820236**	**4.971011**
Stddev	.047429	.023845	.055140
%RSD	.9549608	.4946865	1.109225
#1	5.007083	4.797699	4.958027
#2	4.978343	4.817805	5.031484
#3	4.914424	4.845203	4.923521

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5807.985**	**94321.06**	**7494.363**	**4425.864**	**6713.503**
Stddev	5.822	203.69	36.181	10.993	3.803
%RSD	.1002497	.2159586	.4827782	.2483784	.0566511
#1	5802.743	94530.23	7534.758	4436.615	6710.373
#2	5806.960	94309.62	7464.932	4426.334	6712.400
#3	5814.252	94123.32	7483.399	4414.644	6717.735

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB01 Acquired: 10/28/2025 13:08:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**.0006245**	**-.000448**	**-.000419**	**.0013214**	**-.000256**	**.0235350**	**-.003998**
Stddev	.0008377	.000176	.000401	.0009484	.000686	.0040817	.000714
%RSD	134.1455	39.27747	95.75059	71.77739	268.2133	17.34288	17.85815
#1	.0015675	-.000535	-.000324	.0023894	.000533	.0282481	-.004587
#2	-.000033	-.000246	-.000074	.0005778	-.000589	.0211738	-.004204
#3	.000339	-.000564	-.000859	.0009969	-.000711	.0211832	-.003204

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000023**	**.0000294**	**.0105860**	**.0003651**	**.0000847**	**.0000340**	**.0132102**
Stddev	.000040	.0000328	.0075210	.0000527	.0000821	.0001589	.0097886
%RSD	177.4630	111.2616	71.04648	14.44291	96.90199	467.2294	74.09877
#1	-.000014	.0000531	.0038470	.0003078	.0001469	.0000653	.0023759
#2	.000012	.0000432	.0186994	.0004116	-.000008	-.000138	.0214166
#3	-.000066	-.000008	.0092117	.0003757	.000116	.000175	.0158380

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003496**	**-.007092**	**-.000281**	**-.000075**	**-.043045**	**-.001218**	**.0009116**
Stddev	.0005813	.027392	.000217	.000124	.009685	.002150	.0000751
%RSD	166.2691	386.2633	77.15041	165.5539	22.49943	176.5730	8.237734
#1	.0007108	-.010839	-.000471	.000058	-.036755	-.000458	.0009262
#2	.0006590	.021981	-.000045	-.000189	-.054197	.000449	.0008303
#3	-.000321	-.032417	-.000328	-.000095	-.038181	-.003645	.0009783

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0188756**	**.0015007**	**.0004862**	**.0010059**	**.0003254**	**-.024052**	**-.000357**
Stddev	.0081103	.0002770	.0000393	.0002754	.0007313	.002428	.001323
%RSD	42.96707	18.46060	8.075497	27.37675	224.7619	10.09315	370.2673
#1	.0223598	.0018070	.0005299	.0012277	.0009452	-.025485	-.001191
#2	.0096054	.0012675	.0004540	.0006976	.0005120	-.021249	.001168
#3	.0246617	.0014278	.0004745	.0010923	-.000481	-.025423	-.001049

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB01 Acquired: 10/28/2025 13:08:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.006128	-.001800	-.000010
Stddev	.002645	.001662	.000027
%RSD	43.15454	92.36615	281.0485
#1	-.009132	-.001285	-.000015
#2	-.005100	-.000455	.000020
#3	-.004152	-.003658	-.000033

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5986.999	97469.57	7665.921	4485.444	7706.454
Stddev	10.260	44.21	4.757	9.368	8.149
%RSD	.1713685	.0453567	.0620564	.2088595	.1057379
#1	5979.522	97470.10	7670.096	4475.601	7697.153
#2	5982.779	97425.09	7666.924	4494.252	7709.871
#3	5998.696	97513.51	7660.742	4486.481	7712.338

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-1 Acquired: 10/28/2025 13:12:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056792**	**.0127918**	**.0140720**	**-.016239**	**.0151141**	**.5051667**	**.0170207**
Stddev	.0054389	.0005365	.0021503	.004554	.0022376	.0231577	.0013361
%RSD	95.76762	4.193782	15.28069	28.04338	14.80495	4.584178	7.850070
#1	.0088192	.0121966	.0123313	-.021097	.0140581	.5178060	.0154779
#2	-.000601	.0129408	.0134091	-.012066	.0176843	.5192547	.0177827
#3	.008820	.0132381	.0164757	-.015555	.0135999	.4784396	.0178015

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010204**	**.0015397**	**2165.999**	**.1030071**	**.0076097**	**.0132332**	**1.145220**
Stddev	.0000967	.0002060	31.937	.0007384	.0000922	.0004731	.017896
%RSD	9.474149	13.37767	1.474469	.7168276	1.211389	3.575266	1.562639
#1	.0010576	.0013593	2199.729	.1031113	.0075932	.0135310	1.124844
#2	.0009106	.0017642	2162.043	.1022221	.0075269	.0134809	1.152433
#3	.0010929	.0014957	2136.224	.1036878	.0077091	.0126876	1.158384

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0350034**	**2200.091**	**.0713719**	**.0030873**	**2454.451**	**.0113923**	**.0853256**
Stddev	.0009669	5.633	.0004555	.0001100	22.216	.0006100	.0003371
%RSD	2.762359	.2560549	.6382736	3.561530	.9051251	5.354213	.3950420
#1	.0350639	2205.760	.0716596	.0032057	2443.509	.0115637	.0852939
#2	.0359387	2200.019	.0716094	.0030679	2439.828	.0118982	.0850055
#3	.0340077	2194.494	.0708467	.0029884	2480.015	.0107149	.0856774

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.091491**	**.0080365**	**.0180737**	**.0099521**	**-.097862**	**-.024560**	**.0191119**
Stddev	.297036	.0004993	.0002955	.0015028	.000735	.011143	.0048795
%RSD	14.20213	6.212510	1.635007	15.10072	.7509115	45.37013	25.53101
#1	1.788576	.0075154	.0177366	.0093153	-.097040	-.022165	.0243555
#2	2.103621	.0080834	.0182880	.0088725	-.098091	-.014809	.0147047
#3	2.382277	.0085107	.0181965	.0116685	-.098456	-.036705	.0182757

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-1 Acquired: 10/28/2025 13:12:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2564492	-.323195	.0581101
Stddev	.0112040	.008207	.0001842
%RSD	4.368887	2.539395	.3170441
#1	.2444375	-.332331	.0582941
#2	.2666165	-.320810	.0581106
#3	.2582937	-.316445	.0579256

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3943.413	65701.08	6713.311	2962.065	4213.693
Stddev	6.036	46.82	27.052	15.589	4.746
%RSD	.1530593	.0712550	.4029668	.5262856	.1126361
#1	3938.605	65650.12	6708.544	2944.587	4208.216
#2	3941.449	65742.18	6688.959	2974.532	4216.594
#3	3950.187	65710.94	6742.430	2967.078	4216.269

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-3 Acquired: 10/28/2025 13:21:18 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1003953**	**.0247033**	**227.1781**	**-.001409**	**.0998010**	**.1141206**	**-.000327**
Stddev	.0033167	.0032307	.4803	.003644	.0048401	.0022378	.000719
%RSD	3.303609	13.07817	.2114011	258.7232	4.849719	1.960919	219.9341
#1	.1042249	.0226932	226.7043	-.003634	.0961316	.1165080	-.000704
#2	.0985123	.0284300	227.1655	.002797	.0979848	.1120708	.000502
#3	.0984488	.0229867	227.6645	-.003389	.1052864	.1137830	-.000779

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004675**	**-.001517**	**.2612722**	**24.28287**	**.0066771**	**51.05037**	**.2383067**
Stddev	.000112	.000049	.0135326	.13328	.0000549	.10484	.0116938
%RSD	2.391324	3.203156	5.179493	.5488728	.8225365	.2053639	4.907040
#1	-.004553	-.001560	.2485251	24.36800	.0066153	51.09979	.2371343
#2	-.004774	-.001526	.2754729	24.35133	.0066955	50.92996	.2505426
#3	-.004696	-.001464	.2598187	24.12927	.0067205	51.12137	.2272433

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**52.73471**	**-.178484**	**23.47312**	**.0035920**	**.6647927**	**-.033353**	**29.95560**
Stddev	.22843	.019193	.01350	.0004326	.0315196	.002945	.63072
%RSD	.4331644	10.75334	.0575121	12.04244	4.741264	8.829026	2.105524
#1	52.72281	-.170937	23.46667	.0038868	.6748182	-.036030	30.65330
#2	52.96886	-.200304	23.46404	.0030954	.6900802	-.030199	29.42586
#3	52.51247	-.164212	23.48863	.0037939	.6294798	-.033831	29.78762

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5560424**	**-.003145**	**-.013576**	**.0104048**	**-.043585**	**-.101720**	**.1230245**
Stddev	.0411280	.000684	.000287	.0008403	.000133	.007334	.0006828
%RSD	7.396559	21.73684	2.110494	8.075661	.3056575	7.209754	.5550086
#1	.5706377	-.002903	-.013668	.0096453	-.043555	-.099773	.1225563
#2	.5878823	-.002615	-.013255	.0102617	-.043730	-.095556	.1227092
#3	.5096072	-.003917	-.013806	.0113074	-.043469	-.109830	.1238080

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-3 Acquired: 10/28/2025 13:21:18 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0612120	.0035135	.0003711
Stddev	.0063064	.0012611	.0000326
%RSD	10.30257	35.89398	8.775460
#1	.0665916	.0030789	.0003956
#2	.0542718	.0025271	.0003835
#3	.0627726	.0049345	.0003341

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5450.311	94616.29	7613.279	4184.188	7125.881
Stddev	13.351	215.58	36.664	7.005	16.433
%RSD	.2449600	.2278465	.4815834	.1674051	.2306116
#1	5453.455	94374.84	7612.354	4183.720	7139.550
#2	5461.809	94684.54	7577.087	4191.414	7130.446
#3	5435.668	94789.48	7650.398	4177.428	7107.649

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-01 Acquired: 10/28/2025 13:26:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0231491**	**-.006590**	**.1218213**	**.0022044**	**.0021505**	**.1169106**	**.0657147**
Stddev	.0004642	.003220	.0016409	.0051724	.0006386	.0034068	.0008707
%RSD	2.005230	48.86219	1.346942	234.6437	29.69642	2.914005	1.325009
#1	.0234118	-.007635	.1232805	.0076833	.0014218	.1163107	.0651544
#2	.0226132	-.009158	.1221384	-.002594	.0024174	.1205774	.0667178
#3	.0234225	-.002977	.1200451	.001524	.0026125	.1138435	.0652718

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003648**	**.0015771**	**1.684047**	**.0020292**	**.0100600**	**.0089323**	**29.98981**
Stddev	.0000769	.0000372	.014273	.0000217	.0001062	.0004951	.40296
%RSD	21.07947	2.359312	.8475555	1.067058	1.055130	5.543353	1.343652
#1	.0002989	.0016124	1.673600	.0020089	.0101771	.0093346	29.76472
#2	.0003462	.0015807	1.700310	.0020265	.0099702	.0090829	29.74967
#3	.0004493	.0015382	1.678231	.0020520	.0100325	.0083793	30.45502

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1998016**	**.3354645**	**.0648097**	**.0006417**	**219.4253**	**-.000747**	**.8263819**
Stddev	.0004995	.0253632	.0003575	.0001955	2.8797	.003023	.0021282
%RSD	.2499937	7.560611	.5516131	30.46173	1.312404	404.4810	.2575272
#1	.2002148	.3229265	.0647766	.0008170	218.3860	-.003129	.8247690
#2	.1992465	.3646549	.0651826	.0004309	217.2096	.002654	.8255828
#3	.1999435	.3188122	.0644699	.0006773	222.6805	-.001767	.8287940

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8728901**	**.0252760**	**.0151651**	**-.010807**	**.0016725**	**1.879340**	**.0109604**
Stddev	.0152061	.0014319	.0001299	.000355	.0018643	.044749	.0009119
%RSD	1.742043	5.665110	.8563822	3.283773	111.4631	2.381106	8.320024
#1	.8570323	.0241254	.0153149	-.011214	.0035317	1.842005	.0117181
#2	.8873476	.0248230	.0150834	-.010647	.0016827	1.867073	.0099483
#3	.8742904	.0268796	.0150971	-.010561	-.000197	1.928944	.0112146

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-01 Acquired: 10/28/2025 13:26:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.265557**	**.0001246**	**-.021976**
Stddev	.026157	.0004095	.000376
%RSD	1.154529	328.5322	1.711516
#1	2.290935	.0002390	-.021770
#2	2.267051	-.000330	-.021748
#3	2.238686	.000465	-.022410

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5491.621**	**89457.47**	**7482.251**	**4156.770**	**6582.592**
Stddev	14.907	96.08	94.916	13.705	21.532
%RSD	.2714530	.1074083	1.268548	.3296918	.3271088
#1	5474.412	89566.97	7441.344	4171.937	6560.767
#2	5500.579	89418.21	7414.647	4145.276	6583.191
#3	5499.871	89387.24	7590.761	4153.097	6603.819

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-2 Acquired: 10/28/2025 13:30:52 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1093788**	**-.138098**	**.1759350**	**-.013530**	**-.100093**	**1837.090**	**.0235323**
Stddev	.0026254	.008080	.0035912	.016579	.008658	17.909	.0011570
%RSD	2.400314	5.850884	2.041230	122.5390	8.649753	.9748546	4.916711
#1	.1097205	-.147368	.1724819	-.016483	-.102543	1825.142	.0227869
#2	.1118166	-.134374	.1756730	.004328	-.107262	1857.681	.0248651
#3	.1065992	-.132551	.1796501	-.028434	-.090474	1828.447	.0229447

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0416002**	**.0342404**	^ *****	**-.272206**	**.0665805**	**.2728344**	**2840.565**
Stddev	.0002574	.0035837	-----	.003597	.0004199	.0089675	26.015
%RSD	.6186513	10.46625	-----	1.321388	.6306130	3.286802	.9158291
#1	.0413898	.0303299	^ -----	-.276320	.0668903	.2643557	2869.801
#2	.0415236	.0350236	13.75357	-.270644	.0661026	.2822216	2831.923
#3	.0418871	.0373678	14.28532	-.269654	.0667486	.2719260	2819.971

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.515572**	**1.222831**	**.0488745**	^ *****	**3.964364**	**.0446622**	**.0910201**
Stddev	.001150	.053297	.0007615	-----	.063732	.0010077	.0037274
%RSD	.2230558	4.358513	1.557994	-----	1.607620	2.256218	4.095134
#1	-.515737	1.164232	.0480065	^ -----	3.974790	.0446834	.0881290
#2	-.514348	1.268415	.0494299	^ -----	3.896062	.0456591	.0897044
#3	-.516630	1.235845	.0491872	^ -----	4.022240	.0436441	.0952269

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1880.218**	^ *****	**-.015199**	**.0271753**	**.0051052**	**.5020912**	**.0865339**
Stddev	9.494	-----	.000549	.0013685	.0005522	.0046835	.0030007
%RSD	.5049530	-----	3.610851	5.035809	10.81624	.9328028	3.467681
#1	1885.597	^ -----	-.015252	.0263949	.0045662	.4967105	.0855187
#2	1885.801	^ -----	-.014626	.0263754	.0056697	.5043115	.0899105
#3	1869.256	^ -----	-.015720	.0287554	.0050796	.5052517	.0841724

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: LR-2 Acquired: 10/28/2025 13:30:52 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.514439	k .2839410	-2.72319
Stddev	.011436	.0041400	.02496
%RSD	2.223038	1.458054	.9165410
#1	-.525853	k .2886103	-2.75121
#2	-.514483	.2807185	-2.71502
#3	-.502980	.2824944	-2.70334

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5031.925	77347.62	7251.401	3750.005	5170.615
Stddev	3.160	379.88	75.783	18.770	2.482
%RSD	.0627915	.4911368	1.045086	.5005350	.0480099
#1	5030.139	76912.44	7333.034	3728.994	5168.298
#2	5030.063	77517.49	7183.287	3765.115	5170.310
#3	5035.573	77612.93	7237.881	3755.907	5173.235

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-02 Acquired: 10/28/2025 13:35:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029489**	**-.004136**	**.0953226**	**.0037631**	**.0020820**	**.3207320**	**.1655020**
Stddev	.0010430	.002671	.0007305	.0017782	.0004965	.0034043	.0004622
%RSD	35.36853	64.57370	.7663772	47.25431	23.84887	1.061408	.2792922
#1	.0041142	-.001507	.0953241	.0019349	.0026457	.3216747	.1660354
#2	.0021029	-.006847	.0945914	.0038677	.0017095	.3169558	.1652523
#3	.0026295	-.004054	.0960524	.0054868	.0018907	.3235657	.1652184

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000963**	**.0015898**	**1.266682**	**.0035227**	**.0049008**	**.7500192**	**13.38163**
Stddev	.0000054	.0000181	.003014	.0002835	.0001338	.0018885	.17274
%RSD	5.570675	1.137925	.2379429	8.047306	2.730356	.2517978	1.290896
#1	.0001012	.0015743	1.269965	.0033853	.0049849	.7484983	13.18231
#2	.0000905	.0015855	1.264039	.0033340	.0049711	.7494263	13.48779
#3	.0000971	.0016097	1.266044	.0038487	.0047465	.7521330	13.47481

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1763658**	**.2815095**	**.0522416**	**.0001059**	**310.2196**	**.0002876**	**.2902270**
Stddev	.0010361	.0157902	.0004127	.0001602	.7141	.0019896	.0003695
%RSD	.5874628	5.609133	.7900082	151.2907	.2301780	691.7657	.1273293
#1	.1752556	.2644128	.0524399	.0001771	310.5597	-.001187	.2904833
#2	.1765350	.2955450	.0517672	-.000078	309.3990	-.000501	.2898034
#3	.1773069	.2845706	.0525177	.000218	310.7000	.002551	.2903943

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4421431**	**.0195776**	**.0005983**	**-.013545**	**-.000153**	**.8029114**	**.0053153**
Stddev	.0336943	.0002110	.0001660	.000334	.000598	.0214399	.0010021
%RSD	7.620689	1.077724	27.73852	2.463571	390.4130	2.670265	18.85226
#1	.4053607	.0196633	.0006972	-.013656	-.000767	.7929835	.0050323
#2	.4715161	.0197323	.0006910	-.013809	.000428	.7882350	.0064284
#3	.4495526	.0193373	.0004067	-.013170	-.000120	.8275157	.0044852

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-02 Acquired: 10/28/2025 13:35:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8601334	-.002717	-.007107
Stddev	.0057861	.001452	.000135
%RSD	.6727016	53.45069	1.893125
#1	.8602951	-.003035	-.006952
#2	.8658370	-.001132	-.007179
#3	.8542681	-.003984	-.007191

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5416.190	88104.74	7341.897	4087.969	6433.120
Stddev	9.127	259.57	56.904	9.754	16.680
%RSD	.1685134	.2946125	.7750585	.2386086	.2592792
#1	5426.647	88279.11	7288.442	4097.438	6452.257
#2	5409.824	87806.43	7335.533	4077.952	6421.668
#3	5412.099	88228.67	7401.715	4088.517	6425.435

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-03 Acquired: 10/28/2025 13:39:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000170**	**-.001967**	**.2579799**	**.0034331**	**.0033591**	**.1376059**	**.1450533**
Stddev	.001165	.000884	.0013030	.0017299	.0011278	.0117608	.0026010
%RSD	685.4181	44.95131	.5050670	50.38828	33.57404	8.546757	1.793116
#1	-.000824	-.002986	.2594564	.0032080	.0038641	.1277226	.1445152
#2	-.000861	-.001396	.2574922	.0018268	.0041461	.1506134	.1478813
#3	.001175	-.001520	.2569911	.0052645	.0020671	.1344818	.1427635

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000396**	**.0019684**	**.7049073**	**.0069572**	**.0045685**	**2.241796**	**7.164064**
Stddev	.0000146	.0000852	.0096013	.0003601	.0001839	.006146	.052492
%RSD	36.87071	4.327330	1.362073	5.175409	4.026315	.2741508	.7327117
#1	.0000404	.0020464	.7146610	.0067684	.0044216	2.248491	7.113430
#2	.0000246	.0018775	.6954659	.0067307	.0047748	2.236410	7.218235
#3	.0000537	.0019814	.7045948	.0073724	.0045092	2.240487	7.160528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0416767**	**.2314008**	**.0656204**	**-.000207**	**296.1462**	**-.003183**	**.2176994**
Stddev	.0007502	.0499064	.0002341	.000285	4.4433	.003844	.0022566
%RSD	1.799987	21.56708	.3567417	137.5313	1.500379	120.7871	1.036547
#1	.0412210	.2393815	.0656323	-.000413	301.2030	-.000161	.2157350
#2	.0425425	.2768360	.0658483	.000118	292.8661	-.001877	.2171991
#3	.0412664	.1779849	.0653805	-.000326	294.3696	-.007510	.2201641

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6488473**	**.0195097**	**.0008087**	**-.013687**	**.0016572**	**1.117325**	**.0086734**
Stddev	.0053029	.0008661	.0000636	.000146	.0017824	.017272	.0008761
%RSD	.8172827	4.439568	7.865252	1.068367	107.5528	1.545876	10.10142
#1	.6494343	.0196606	.0008821	-.013525	.0036870	1.105120	.0077182
#2	.6432753	.0202905	.0007718	-.013810	.0009369	1.137088	.0094397
#3	.6538323	.0185780	.0007721	-.013726	.0003477	1.109767	.0088623

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-03 Acquired: 10/28/2025 13:39:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6968565	-.001448	-.002449
Stddev	.0025261	.001368	.000045
%RSD	.3625049	94.50693	1.826883
#1	.6977996	-.003027	-.002417
#2	.6939945	-.000693	-.002430
#3	.6987754	-.000623	-.002500

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5420.468	87089.28	7212.564	4024.007	6456.805
Stddev	15.181	400.92	56.792	22.601	20.683
%RSD	.2800769	.4603541	.7874092	.5616468	.3203297
#1	5403.068	86627.01	7149.199	4013.686	6433.180
#2	5427.319	87342.08	7229.619	4049.926	6465.589
#3	5431.016	87298.74	7258.875	4008.410	6471.646

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-04 Acquired: 10/28/2025 13:44:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027316**	**-.003493**	**.1334153**	**.0026847**	**.0042239**	**.1400891**	**.1693985**
Stddev	.0009345	.003127	.0004239	.0015630	.0009424	.0079516	.0050733
%RSD	34.21213	89.50755	.3177494	58.21639	22.31101	5.676104	2.994908
#1	.0038091	.000093	.1334163	.0038608	.0040647	.1401618	.1751052
#2	.0022419	-.004926	.1338388	.0032822	.0033713	.1321014	.1653990
#3	.0021436	-.005647	.1329910	.0009112	.0052358	.1480041	.1676912

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000314**	**.0018435**	**.6689581**	**.0041151**	**.0035326**	**1.789903**	**7.177277**
Stddev	.0000755	.0000728	.0116591	.0000414	.0000873	.005519	.048888
%RSD	240.2268	3.949568	1.742872	1.006633	2.472342	.3083160	.6811549
#1	.0000474	.0017778	.6821529	.0041402	.0036258	1.792341	7.226534
#2	-.000051	.0018309	.6600459	.0041377	.0034527	1.793783	7.176531
#3	.000098	.0019217	.6646756	.0040672	.0035192	1.783586	7.128766

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0325807**	**.3923505**	**.0544635**	**-.000339**	**319.6029**	**-.002201**	**.2081192**
Stddev	.0013586	.0325389	.0003233	.000113	3.3065	.001976	.0005411
%RSD	4.170030	8.293332	.5935478	33.39545	1.034575	89.79797	.2599753
#1	.0336554	.4280668	.0545390	-.000407	323.2239	-.000086	.2082594
#2	.0310536	.3845940	.0547423	-.000402	316.7439	-.004001	.2085764
#3	.0330331	.3643908	.0541091	-.000208	318.8408	-.002515	.2075219

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4871818**	**.0177022**	**.0007554**	**-.013499**	**.0020002**	**.9422338**	**.0095681**
Stddev	.0182114	.0004946	.0002882	.000359	.0016541	.0184495	.0007574
%RSD	3.738118	2.793802	38.14929	2.661183	82.69737	1.958064	7.916235
#1	.4795045	.0178395	.0006691	-.013224	.0033118	.9438919	.0104420
#2	.5079749	.0171535	.0005202	-.013905	.0025468	.9230112	.0091005
#3	.4740662	.0181136	.0010769	-.013367	.0001420	.9597984	.0091618

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-04 Acquired: 10/28/2025 13:44:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7133878	-.002244	-.002431
Stddev	.0065498	.002516	.000071
%RSD	.9181199	112.1182	2.916160
#1	.7089842	-.000211	-.002428
#2	.7102647	-.005058	-.002503
#3	.7209146	-.001463	-.002361

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5403.286	86720.70	7255.812	4048.215	6391.062
Stddev	14.504	208.53	165.120	4.713	18.521
%RSD	.2684363	.2404655	2.275692	.1164266	.2897950
#1	5395.256	86515.61	7089.459	4050.196	6386.425
#2	5394.572	86932.51	7419.670	4051.615	6375.300
#3	5420.029	86713.98	7258.307	4042.835	6411.461

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-05 Acquired: 10/28/2025 13:48:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000292**	**-.005048**	**.1362191**	**.0034363**	**.0034980**	**.1130360**	**.1555244**
Stddev	.001168	.001626	.0004326	.0006100	.0019383	.0072947	.0025394
%RSD	399.5583	32.20506	.3176082	17.75159	55.41120	6.453422	1.632795
#1	-.001468	-.005817	.1362674	.0030252	.0014526	.1154586	.1568906
#2	.000866	-.006148	.1366255	.0041372	.0053076	.1048383	.1570881
#3	-.000275	-.003181	.1357643	.0031466	.0037339	.1188113	.1525944

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000072**	**.0019250**	**1.055147**	**.0069996**	**.0039272**	**1.442573**	**9.044466**
Stddev	.0000160	.0001140	.004814	.0000343	.0001117	.003310	.014796
%RSD	221.9884	5.923824	.4562690	.4905615	2.843573	.2294432	.1635889
#1	-.000009	.0018858	1.058133	.0069837	.0039253	1.446386	9.039379
#2	.000023	.0020535	1.057715	.0069760	.0040398	1.440898	9.032885
#3	.000007	.0018358	1.049593	.0070390	.0038165	1.440436	9.061134

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0425040**	**.2244521**	**.0608915**	**-.000363**	**336.2015**	**-.000125**	**.2122914**
Stddev	.0002758	.0106262	.0000927	.000525	3.1622	.002935	.0001500
%RSD	.6489588	4.734279	.1522309	144.9082	.9405631	2346.155	.0706751
#1	.0427871	.2364382	.0609715	.000225	339.7861	.001043	.2124445
#2	.0424887	.2207321	.0609129	-.000787	333.8073	.002046	.2122852
#3	.0422361	.2161861	.0607899	-.000526	335.0111	-.003464	.2121446

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5113811**	**.0240408**	**.0010554**	**-.013206**	**.0003971**	**.8801039**	**.0073816**
Stddev	.0611790	.0007330	.0000674	.000419	.0022631	.0040764	.0021568
%RSD	11.96349	3.049011	6.388512	3.175111	569.8999	.4631786	29.21814
#1	.4413397	.0244284	.0010962	-.013228	.0024093	.8763712	.0095240
#2	.5543722	.0244986	.0010924	-.013614	-.002053	.8844537	.0074099
#3	.5384315	.0231953	.0009776	-.012776	.000835	.8794868	.0052108

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-05 Acquired: 10/28/2025 13:48:25 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6608409	-.004631	-.003412
Stddev	.0029768	.001547	.000050
%RSD	.4504581	33.39763	1.451993
#1	.6635259	-.004085	-.003417
#2	.6576398	-.003432	-.003361
#3	.6613570	-.006377	-.003459

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5396.073	86938.16	7215.180	4108.529	6363.451
Stddev	18.566	68.96	69.810	18.103	19.007
%RSD	.3440593	.0793166	.9675407	.4406143	.2986903
#1	5376.577	87009.25	7188.579	4088.316	6341.795
#2	5398.101	86871.56	7162.581	4114.022	6371.195
#3	5413.541	86933.68	7294.380	4123.249	6377.364

Sample Name: Q3446-06 Acquired: 10/28/2025 13:52:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0584463**	**-.008058**	**.0412157**	**.0043841**	**.0027769**	**.1743655**	**.1264612**
Stddev	.0028742	.002695	.0010254	.0011606	.0002022	.0162043	.0008461
%RSD	4.917626	33.44851	2.487962	26.47268	7.283051	9.293307	.6690789
#1	.0594342	-.006492	.0409782	.0056952	.0026005	.1892249	.1259197
#2	.0552084	-.011170	.0423391	.0034882	.0029976	.1767836	.1260276
#3	.0606962	-.006512	.0403299	.0039689	.0027324	.1570881	.1274362

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010875**	**.0003871**	**4.839635**	**.0085259**	**.0306946**	**.0133585**	**74.26247**
Stddev	.0000574	.0000306	.015499	.0002689	.0002693	.0000587	.17095
%RSD	5.280232	7.906480	.3202582	3.154100	.8774114	.4395692	.2302034
#1	.0010298	.0003994	4.832286	.0086042	.0303960	.0134228	74.22442
#2	.0011446	.0003522	4.857442	.0082265	.0307685	.0133452	74.11374
#3	.0010882	.0004096	4.829177	.0087469	.0309192	.0133077	74.44924

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5820293**	**1.230735**	**.1214706**	**.0021888**	**312.7113**	**.0016777**	**1.558040**
Stddev	.0024912	.026169	.0001896	.0003237	2.9570	.0030383	.005742
%RSD	.4280138	2.126294	.1560476	14.79119	.9455993	181.0970	.3685297
#1	.5792545	1.236602	.1212565	.0023305	309.5080	.0026423	1.553509
#2	.5840735	1.253472	.1216170	.0024175	313.2891	-.001726	1.556115
#3	.5827599	1.202130	.1215382	.0018184	315.3367	.004117	1.564497

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.588891**	**.0569419**	**.0763771**	**-.013618**	**.0020128**	**6.362771**	**.0213383**
Stddev	.046108	.0011566	.0005176	.000229	.0008627	.052040	.0003142
%RSD	2.901877	2.031122	.6776565	1.683962	42.85943	.8178857	1.472221
#1	1.594005	.0570896	.0760571	-.013507	.0021634	6.305810	.0216951
#2	1.540439	.0557186	.0769742	-.013465	.0027903	6.374674	.0211031
#3	1.632228	.0580175	.0760999	-.013882	.0010848	6.407829	.0212166

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-06 Acquired: 10/28/2025 13:52:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.336667	.0047732	-.052040
Stddev	.028230	.0002675	.000136
%RSD	.6509714	5.604856	.2622049
#1	4.353055	.0044758	-.051917
#2	4.352877	.0048496	-.052017
#3	4.304070	.0049942	-.052187

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5335.258	87167.77	7161.547	4057.568	6287.727
Stddev	8.236	180.91	32.937	5.784	8.926
%RSD	.1543739	.2075414	.4599132	.1425568	.1419607
#1	5344.749	87355.96	7176.189	4064.236	6296.121
#2	5329.987	86995.14	7123.828	4053.901	6278.350
#3	5331.039	87152.21	7184.624	4054.567	6288.708

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-07 Acquired: 10/28/2025 13:57:04 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000149**	**-.007941**	**.0967006**	**.0051797**	**.0030073**	**.1122291**	**.1431493**
Stddev	.0013944	.000582	.0007721	.0018070	.0020515	.0107888	.0011865
%RSD	9357.478	7.328900	.7984321	34.88606	68.21707	9.613243	.8288796
#1	.0010215	-.008164	.0975922	.0070829	.0046941	.1150321	.1437841
#2	-.001577	-.007280	.0962515	.0034874	.0036043	.1003153	.1417804
#3	.000600	-.008378	.0962583	.0049689	.0007235	.1213397	.1438834

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000700**	**.0017619**	**.6425433**	**.0210429**	**.0037099**	**1.339492**	**7.028486**
Stddev	.0000179	.0000183	.0010390	.0002019	.0001529	.004016	.028897
%RSD	25.55536	1.039341	.1617071	.9594042	4.120075	.2997809	.4111419
#1	.0000656	.0017599	.6434072	.0208295	.0035334	1.340395	7.001169
#2	.0000897	.0017447	.6413903	.0210684	.0038001	1.335102	7.025550
#3	.0000547	.0017811	.6428323	.0212308	.0037961	1.342979	7.058739

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0441061**	**.3691880**	**.0558502**	**.0002401**	**257.4848**	**-.000789**	**.1978003**
Stddev	.0002267	.0161373	.0005766	.0001904	3.3584	.000421	.0020555
%RSD	.5139732	4.371015	1.032431	79.30506	1.304319	53.38076	1.039164
#1	.0438937	.3520444	.0557239	.0000743	261.3596	-.000441	.1955209
#2	.0440797	.3840831	.0553472	.0004481	255.6848	-.001257	.1995128
#3	.0443448	.3714364	.0564795	.0001980	255.4102	-.000670	.1983672

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4540884**	**.0130477**	**.0010341**	**-.014114**	**.0017124**	**.8325004**	**.0062853**
Stddev	.0291202	.0003198	.0001449	.000808	.0010382	.0125117	.0000662
%RSD	6.412886	2.451310	14.01325	5.721435	60.62931	1.502903	1.053233
#1	.4801582	.0128431	.0009436	-.014630	.0027606	.8239819	.0062493
#2	.4226617	.0134162	.0009575	-.014529	.0006844	.8468651	.0063617
#3	.4594453	.0128837	.0012013	-.013184	.0016924	.8266543	.0062448

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-07 Acquired: 10/28/2025 13:57:04 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7400947	-.003624	-.002646
Stddev	.0115534	.002395	.000178
%RSD	1.561072	66.08885	6.732203
#1	.7267739	-.005266	-.002520
#2	.7461231	-.000876	-.002850
#3	.7473871	-.004731	-.002567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5378.349	86993.42	7193.274	4014.773	6421.218
Stddev	15.804	93.52	26.022	16.426	15.502
%RSD	.2938491	.1075044	.3617507	.4091401	.2414127
#1	5364.352	86926.76	7167.014	4004.188	6408.054
#2	5395.488	86953.16	7219.051	4006.435	6438.304
#3	5375.207	87100.33	7193.757	4033.696	6417.296

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV02 Acquired: 10/28/2025 14:01:27 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.216884**	**5.446459**	**5.148988**	**5.230682**	**5.215780**	**10.96520**	**10.20939**
Stddev	.007889	.081837	.000809	.006301	.010787	.19353	.34810
%RSD	.1512281	1.502577	.0157184	.1204645	.2068130	1.764969	3.409577
#1	5.208867	5.448204	5.149390	5.227663	5.203448	11.16873	10.33261
#2	5.224640	5.527410	5.149518	5.237925	5.223462	10.94334	10.47912
#3	5.217145	5.363763	5.148057	5.226459	5.220430	10.78352	9.81645

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2620080**	**2.605775**	**25.87175**	**1.055613**	**2.602496**	**1.304704**	**5.166169**
Stddev	.0042291	.001220	.44402	.000532	.001064	.001160	.040426
%RSD	1.614121	.0468129	1.716243	.0503824	.0408734	.0889045	.7825171
#1	.2667041	2.604483	26.36431	1.055055	2.601274	1.303539	5.120944
#2	.2608199	2.606907	25.74876	1.056115	2.603215	1.305859	5.198798
#3	.2585000	2.605935	25.50219	1.055670	2.603000	1.304715	5.178764

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.557203**	**25.81861**	**2.595515**	**1.293654**	**26.01779**	**2.585000**	**2.589943**
Stddev	.037180	.38783	.000850	.001379	.21091	.040912	.005278
%RSD	1.453924	1.502115	.0327616	.1065596	.8106508	1.582660	.2037810
#1	2.592359	26.23746	2.594559	1.294723	26.09437	2.614761	2.590310
#2	2.560964	25.74640	2.595802	1.294140	26.17971	2.601892	2.584492
#3	2.518285	25.47196	2.596185	1.292098	25.77928	2.538347	2.595028

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.10010**	**5.166477**	**5.253265**	**5.257942**	**5.110639**	**5.084332**	**5.168757**
Stddev	.13615	.086803	.003344	.008762	.077384	.053330	.023332
%RSD	.5216345	1.680112	.0636482	.1666414	1.514180	1.048901	.4514033
#1	26.15299	5.264185	5.253209	5.266760	5.188407	5.029003	5.177476
#2	26.20186	5.136978	5.256636	5.257828	5.109864	5.135407	5.186473
#3	25.94544	5.098269	5.249950	5.249238	5.033645	5.088588	5.142321

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV02 Acquired: 10/28/2025 14:01:27 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.210513**	**4.938850**	**5.057663**
Stddev	.037418	.086274	.117863
%RSD	.7181318	1.746848	2.330394
#1	5.232271	5.026919	5.181698
#2	5.231960	4.935140	5.044157
#3	5.167306	4.854490	4.947134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5607.604**	**90121.96**	**7079.652**	**4131.007**	**6493.862**
Stddev	9.455	183.06	112.495	5.935	2.313
%RSD	.1686141	.2031209	1.588989	.1436790	.0356237
#1	5617.168	90275.61	6958.736	4125.942	6496.229
#2	5607.382	89919.43	7099.007	4137.538	6493.752
#3	5598.261	90170.85	7181.214	4129.542	6491.606

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB02 Acquired: 10/28/2025 14:05:34 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000416**	**-.002937**	**.0016568**	**-.002385**	**.0002458**	**.0148066**	**.0002676**
Stddev	.001969	.001005	.0003729	.000820	.0006716	.0021386	.0008679
%RSD	472.9260	34.22986	22.50986	34.37730	273.2004	14.44352	324.2781
#1	-.000957	-.002443	.0020252	-.002002	-.000186	.0170964	-.000726
#2	-.002059	-.002274	.0016657	-.001827	-.000097	.0128609	.000654
#3	.001766	-.004093	.0012795	-.003326	.001020	.0144626	.000875

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000144**	**-.000025**	**.0031661**	**.0002913**	**.0000346**	**.0023897**	**.0070543**
Stddev	.0000387	.000063	.0012174	.0000050	.0000456	.0003363	.0106640
%RSD	268.8472	249.9054	38.45210	1.721705	131.7500	14.07087	151.1711
#1	-.000010	-.000009	.0034156	.0002881	-.000014	.0020818	-.005259
#2	.000059	-.000095	.0018433	.0002971	.000041	.0027485	.013232
#3	-.000006	.000028	.0042395	.0002888	.000076	.0023387	.013191

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000030**	**-.024787**	**-.000480**	**-.000413**	**.5998862**	**-.000670**	**.0042971**
Stddev	.0004072	.013811	.000356	.000245	.0181654	.000412	.0002800
%RSD	13384.98	55.72131	74.24988	59.17602	3.028133	61.43258	6.516206
#1	-.000411	-.019729	-.000507	-.000282	.5986359	-.001077	.0042734
#2	.000017	-.014217	-.000110	-.000695	.5823784	-.000254	.0040298
#3	.000403	-.040414	-.000821	-.000262	.6186445	-.000679	.0045883

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4440430**	**-.002113**	**.0002270**	**-.000545**	**-.001354**	**-.003127**	**-.001226**
Stddev	.0029306	.000465	.0000346	.000467	.001278	.003290	.000684
%RSD	.6599810	21.99032	15.21984	85.56628	94.41002	105.2214	55.80269
#1	.4449743	-.001918	.0001954	-.000108	-.002743	-.006564	-.000824
#2	.4463949	-.001777	.0002218	-.001036	-.001089	-.000007	-.002016
#3	.4407600	-.002643	.0002639	-.000491	-.000229	-.002809	-.000838

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB02 Acquired: 10/28/2025 14:05:34 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0016650	.0064111	.0000500
Stddev	.0020306	.0012240	.0000876
%RSD	121.9595	19.09156	175.2416
#1	-.000465	.0049978	-.000014
#2	.003578	.0071114	.000014
#3	.001882	.0071242	.000150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5839.334	95059.56	7354.214	4368.829	7553.738
Stddev	.717	239.37	78.356	26.241	9.008
%RSD	.0122776	.2518149	1.065460	.6006316	.1192511
#1	5838.520	94799.22	7418.941	4362.827	7554.987
#2	5839.871	95109.29	7376.600	4397.550	7544.170
#3	5839.612	95270.16	7267.101	4346.109	7562.056

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-08 Acquired: 10/28/2025 14:09:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0295999**	**-.005376**	**.1340506**	**.0037510**	**.0032527**	**.1663568**	**.0813727**
Stddev	.0005958	.001573	.0012422	.0005840	.0008940	.0105146	.0020468
%RSD	2.012717	29.26220	.9266335	15.56926	27.48450	6.320497	2.515374
#1	.0296887	-.006394	.1346631	.0034617	.0022602	.1568136	.0801984
#2	.0301463	-.003564	.1326211	.0044232	.0035032	.1776285	.0801836
#3	.0289648	-.006168	.1348676	.0033681	.0039948	.1646282	.0837362

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002947**	**.0015264**	**1.766045**	**.0011730**	**.0094557**	**.0096510**	**31.23663**
Stddev	.0000587	.0001285	.006229	.0003618	.0002135	.0002581	.24646
%RSD	19.91217	8.415365	.3527104	30.84100	2.258096	2.674567	.7890020
#1	.0003556	.0013929	1.763938	.0014712	.0092465	.0093803	31.48896
#2	.0002385	.0015372	1.773054	.0012773	.0094473	.0098943	30.99650
#3	.0002901	.0016491	1.761143	.0007705	.0096732	.0096785	31.22443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2086731**	**.3074389**	**.0631552**	**.0006699**	**288.9778**	**-.000467**	**.7610001**
Stddev	.0023057	.0099201	.0005811	.0001882	1.4793	.000381	.0023839
%RSD	1.104917	3.226679	.9201438	28.08690	.5119181	81.52514	.3132550
#1	.2066531	.3173753	.0636699	.0008832	287.2753	-.000807	.7612187
#2	.2111850	.3074061	.0632708	.0005991	289.7086	-.000056	.7632671
#3	.2081812	.2975353	.0625250	.0005274	289.9495	-.000539	.7585144

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.065949**	**.0298311**	**.0140455**	**-.009984**	**.0014026**	**1.739426**	**.0138497**
Stddev	.072444	.0021846	.0002556	.000565	.0014855	.015967	.0006724
%RSD	6.796181	7.323113	1.820032	5.662303	105.9127	.9179543	4.854745
#1	1.138672	.0316979	.0137977	-.009506	.0030617	1.728702	.0130890
#2	.993788	.0274285	.0140306	-.009838	.0001960	1.731799	.0143647
#3	1.065388	.0303668	.0143083	-.010608	.0009500	1.757776	.0140953

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3446-08 Acquired: 10/28/2025 14:09:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.740759**	**.0003064**	**-.022684**
Stddev	.001781	.0024241	.000308
%RSD	.0649864	791.2198	1.356086
#1	2.738758	.0022091	-.022980
#2	2.741345	-.002423	-.022366
#3	2.742172	.001133	-.022705

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5487.987**	**86318.64**	**7161.487**	**4045.837**	**6522.065**
Stddev	1.440	235.42	74.831	7.346	3.874
%RSD	.0262340	.2727335	1.044909	.1815639	.0593931
#1	5489.513	86361.07	7243.287	4039.122	6519.437
#2	5486.652	86529.96	7096.477	4044.708	6526.513
#3	5487.795	86064.90	7144.697	4053.682	6520.244

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3449-06 Acquired: 10/28/2025 14:14:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001465**	**-.002372**	**.0129959**	**.0013453**	**.0008954**	**.4884394**	**.0770414**
Stddev	.002705	.004069	.0011056	.0014614	.0007555	.0087634	.0011870
%RSD	184.6894	171.5511	8.507475	108.6346	84.38031	1.794171	1.540662
#1	.000518	-.007069	.0121630	.0012795	.0009560	.4923325	.0762005
#2	-.004546	-.000080	.0125744	.0028384	.0016187	.4945818	.0765246
#3	-.000366	.000035	.0142503	-.000082	.0001113	.4784039	.0783992

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000031**	**.0002532**	**9.376106**	**.0044471**	**.0003854**	**.0131427**	**.4926946**
Stddev	.000049	.0000882	.012343	.0003513	.0001713	.0001748	.0063839
%RSD	160.3013	34.84250	.1316425	7.899009	44.44752	1.329719	1.295719
#1	-.000047	.0001525	9.362259	.0043678	.0005273	.0130868	.4891710
#2	.000025	.0003169	9.385953	.0041422	.0001951	.0130028	.5000638
#3	-.000070	.0002901	9.380104	.0048312	.0004338	.0133386	.4888491

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1213613**	**1.144508**	**.0024063**	**-.000609**	**291.6889**	**.0010992**	**.0310382**
Stddev	.0002179	.016431	.0000771	.000305	2.7052	.0019699	.0003605
%RSD	.1795404	1.435639	3.202999	50.03733	.9274409	179.2021	1.161507
#1	.1215507	1.143701	.0023445	-.000959	288.5740	.0028708	.0306779
#2	.1211231	1.128496	.0023817	-.000403	293.0438	-.001022	.0310378
#3	.1214100	1.161328	.0024927	-.000466	293.4490	.001449	.0313990

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6408046**	**.0017903**	**.0008105**	**-.012701**	**.0179759**	**.7533871**	**.3075574**
Stddev	.0197114	.0007587	.0001813	.000298	.0017164	.0115665	.0010214
%RSD	3.076040	42.37941	22.37145	2.344947	9.548084	1.535262	.3320940
#1	.6261453	.0013824	.0006091	-.013037	.0161907	.7666723	.3068646
#2	.6330555	.0013227	.0008618	-.012594	.0196139	.7455569	.3087304
#3	.6632130	.0026656	.0009607	-.012471	.0181231	.7479320	.3070772

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3449-06 Acquired: 10/28/2025 14:14:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2189752	-.005920	.0338047
Stddev	.0018411	.001217	.0001275
%RSD	.8407893	20.55242	.3772426
#1	.2209391	-.007273	.0336621
#2	.2186980	-.005572	.0339077
#3	.2172883	-.004915	.0338444

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5407.786	87367.72	7229.533	4092.034	6369.183
Stddev	10.214	314.98	52.678	8.331	4.907
%RSD	.1888667	.3605262	.7286534	.2035869	.0770418
#1	5396.084	87571.45	7290.196	4098.795	6363.575
#2	5412.368	87526.79	7195.328	4094.580	6371.288
#3	5414.907	87004.92	7203.075	4082.728	6372.686

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170263BL Acquired: 10/28/2025 14:18:40 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007953**	**-.000360**	**.0000295**	**-.001357**	**-.000304**	**.0279388**	**-.000298**
Stddev	.0012744	.000877	.0003856	.005971	.000899	.0034505	.000926
%RSD	160.2355	243.7524	1308.220	440.0872	295.6998	12.35026	310.6985
#1	.0017036	.000285	.0001182	-.003987	.000463	.0240376	.000016
#2	-.000661	-.001358	-.000393	.005478	-.000082	.0305903	-.001341
#3	.001344	-.000006	.000363	-.005562	-.001293	.0291886	.000431

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000022**	**-.000056**	**.0049308**	**-.000059**	**-.000042**	**.0000397**	**.0090438**
Stddev	.000048	.000054	.0120045	.000368	.000110	.0000963	.0049597
%RSD	212.6920	96.83821	243.4598	620.6465	265.4959	242.5815	54.84152
#1	-.000033	.000001	.0175410	-.000287	-.000056	-.000065	.0042577
#2	-.000064	-.000062	-.006359	-.000257	.000075	.000125	.0141606
#3	.000030	-.000106	.003610	.000366	-.000144	.000060	.0087131

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000104**	**.0070899**	**-.000457**	**-.000300**	**.8070099**	**-.001679**	**.0006521**
Stddev	.0003098	.0444495	.000067	.000498	.0380364	.001945	.0000708
%RSD	2970.827	626.9459	14.60391	166.1237	4.713248	115.8625	10.86176
#1	-.000023	-.041400	-.000524	-.000850	.8210724	-.003849	.0006261
#2	.000336	.016763	-.000391	.000122	.8360127	-.000095	.0007322
#3	-.000281	.045906	-.000457	-.000172	.7639446	-.001091	.0005979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5315089**	**-.008458**	**.0000668**	**.0021025**	**.0005613**	**-.010217**	**-.000697**
Stddev	.0178674	.000781	.0002412	.0004261	.0016739	.018990	.001361
%RSD	3.361640	9.229806	360.8137	20.26698	298.2320	185.8690	195.3320
#1	.5109428	-.008881	-.000188	.0017389	-.001320	.006869	-.001651
#2	.5432131	-.008936	.000097	.0019971	.001887	-.030662	.000862
#3	.5403709	-.007557	.000291	.0025714	.001116	-.006857	-.001301

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170263BL Acquired: 10/28/2025 14:18:40 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0032402	.0070683	-.000030
Stddev	.0036875	.0010900	.000081
%RSD	113.8064	15.42063	273.5273
#1	-.000701	.0071999	.000061
#2	.006606	.0080865	-.000094
#3	.003816	.0059185	-.000056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5764.810	94189.28	7328.599	4328.848	7440.130
Stddev	2.915	105.24	15.181	22.800	8.176
%RSD	.0505662	.1117312	.2071506	.5266901	.1098866
#1	5766.944	94069.01	7324.488	4304.127	7449.237
#2	5761.489	94264.47	7315.896	4349.048	7437.729
#3	5765.999	94234.35	7345.412	4333.370	7433.424

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170263BS Acquired: 10/28/2025 14:22:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8364804**	**2.199710**	**1.004663**	**2.097451**	**.8338802**	**1.992348**	**.1984378**
Stddev	.0029284	.031249	.000685	.009029	.0033348	.020617	.0025515
%RSD	.3500886	1.420592	.0681419	.4304882	.3999155	1.034796	1.285789
#1	.8357534	2.164759	1.004764	2.087029	.8307538	2.012923	.2007465
#2	.8339840	2.209416	1.005292	2.102897	.8334965	1.992430	.1988686
#3	.8397039	2.224954	1.003934	2.102428	.8373903	1.971690	.1956983

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2115517**	**.2026550**	**1.056931**	**.4329385**	**.2079795**	**.3318516**	**3.295456**
Stddev	.0022202	.0003215	.005508	.0010645	.0000808	.0006503	.007431
%RSD	1.049490	.1586330	.5210863	.2458816	.0388681	.1959523	.2254804
#1	.2139364	.2027103	1.063288	.4334164	.2079858	.3325719	3.286882
#2	.2111741	.2029452	1.053897	.4336803	.2080571	.3313077	3.299458
#3	.2095444	.2023095	1.053607	.4317188	.2078958	.3316753	3.300027

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2076650**	**2.040258**	**.5203893**	**.0799852**	**3.231368**	**.3071105**	**.2183163**
Stddev	.0018662	.025109	.0010397	.0001274	.012886	.0026623	.0002088
%RSD	.8986375	1.230681	.1997943	.1593020	.3987858	.8668991	.0956335
#1	.2097687	2.069121	.5215843	.0798386	3.228488	.3094121	.2183104
#2	.2070172	2.023448	.5198912	.0800473	3.245451	.3077247	.2185280
#3	.2062090	2.028205	.5196923	.0800696	3.220167	.3041948	.2181106

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.26203**	**.3010804**	**.4256712**	**.7061894**	**.1948914**	**.8727447**	**5.824013**
Stddev	.07225	.0023758	.0006082	.0013651	.0035262	.0016510	.016301
%RSD	.7040609	.7890945	.1428781	.1932990	1.809295	.1891738	.2798874
#1	10.19533	.3037877	.4251440	.7050813	.1987865	.8744757	5.815537
#2	10.33878	.3001108	.4255330	.7057726	.1939711	.8711874	5.842805
#3	10.25199	.2993428	.4263366	.7077143	.1919167	.8725711	5.813696

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170263BS Acquired: 10/28/2025 14:22:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	F -.001951	.2022580	.1973317
Stddev	.001349	.0011357	.0012254
%RSD	69.15396	.5615175	.6209727
#1	-.001023	.2035667	.1987198
#2	-.001332	.2015300	.1968754
#3	-.003499	.2016775	.1964000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5811.791	94065.68	7427.916	4300.907	7218.319
Stddev	10.162	402.61	57.037	21.723	19.547
%RSD	.1748501	.4280064	.7678765	.5050874	.2707953
#1	5805.411	94373.28	7374.698	4319.748	7202.570
#2	5806.453	93610.00	7420.922	4277.146	7212.193
#3	5823.510	94213.75	7488.127	4305.828	7240.195

Sample Name: PB170239TB Acquired: 10/28/2025 14:27:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003945**	**-.004679**	**.0005136**	**.0029180**	**.0032478**	**.0055506**	**-.001332**
Stddev	.001615	.003605	.0007357	.0025692	.0002746	.0032639	.002014
%RSD	40.94489	77.05507	143.2373	88.04736	8.456120	58.80283	151.1366
#1	-.004042	-.002083	.0013556	.0035123	.0030731	.0033001	-.001403
#2	-.005510	-.008795	-.000005	.0051381	.0031059	.0040578	.000716
#3	-.002283	-.003158	.000190	.0001037	.0035644	.0092940	-.003310

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000100**	**-.000013**	**.0046235**	**.0039692**	**-.000224**	**.0002897**	**.0249374**
Stddev	.000047	.000055	.0039306	.0003981	.000176	.0001519	.0058656
%RSD	47.06675	437.0956	85.01193	10.02927	78.80636	52.42684	23.52142
#1	-.000088	.000011	.0019600	.0043052	-.000026	.0002596	.0183610
#2	-.000060	.000027	.0027728	.0035295	-.000279	.0004543	.0296287
#3	-.000152	-.000076	.0091378	.0040730	-.000365	.0001551	.0268225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039821**	**-.027358**	**.0026330**	**-.000382**	**357.0368**	**-.002052**	**.0014377**
Stddev	.0002257	.013262	.0002141	.000400	5.0920	.004347	.0000978
%RSD	5.667959	48.47662	8.132850	104.6296	1.426187	211.8799	6.802741
#1	.0037452	-.012363	.0028494	-.000362	353.5666	-.003556	.0013656
#2	.0040064	-.037546	.0024212	-.000791	362.8825	.002848	.0013985
#3	.0041947	-.032167	.0026283	.000007	354.6614	-.005446	.0015490

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.027426**	**-.008235**	**.0005557**	**-.013745**	**.0018842**	**.0075284**	**.0083099**
Stddev	.034272	.000243	.0000383	.000826	.0015394	.0039876	.0006301
%RSD	124.9637	2.955278	6.900627	6.012370	81.69809	52.96756	7.582581
#1	.011868	-.008220	.0005998	-.014660	.0022825	.0121114	.0080742
#2	-.051148	-.008000	.0005370	-.013523	.0001848	.0048516	.0078316
#3	-.042997	-.008486	.0005303	-.013053	.0031853	.0056223	.0090238

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170239TB Acquired: 10/28/2025 14:27:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0055230	-.005552	.0000015
Stddev	.0012755	.000365	.0000527
%RSD	23.09420	6.580889	3436.524
#1	.0052752	-.005525	.0000390
#2	.0043896	-.005931	.0000243
#3	.0069042	-.005201	-.000059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5368.956	85731.00	7289.167	4002.436	6352.600
Stddev	9.612	168.64	81.890	19.739	10.386
%RSD	.1790207	.1967117	1.123452	.4931839	.1634996
#1	5358.053	85544.29	7197.756	3985.952	6340.926
#2	5372.609	85776.47	7355.827	4024.311	6356.056
#3	5376.205	85872.25	7313.918	3997.046	6360.818

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170202TB Acquired: 10/28/2025 14:31:28 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007452**	**.0015709**	**.0015852**	**-.001254**	**.0009606**	**.0146970**	**-.000030**
Stddev	.0016295	.0045729	.0019931	.002957	.0010687	.0050105	.000666
%RSD	218.6713	291.0971	125.7322	235.7238	111.2492	34.09221	2227.730
#1	.0026131	-.002168	-.000267	-.002194	.0020352	.0104225	-.000589
#2	.0000076	.006669	.003694	.002058	-.000102	.0134576	-.000207
#3	-.000385	.000211	.001328	-.003627	.000949	.0202109	.000706

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000533**	**.0001038**	**.0465649**	**.0043952**	**.0000527**	**.0006738**	**.0322167**
Stddev	.0001109	.0000355	.0042439	.0000494	.0000407	.0001166	.0032012
%RSD	208.3272	34.23584	9.113903	1.123618	77.10579	17.31161	9.936311
#1	.0001810	.0001292	.0501918	.0044368	.0000705	.0008008	.0287269
#2	-.000002	.0001189	.0418975	.0043406	.0000062	.0006489	.0329065
#3	-.000019	.0000632	.0476053	.0044082	.0000815	.0005716	.0350168

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010706**	**.6316759**	**.0024733**	**.0002098**	**301.2399**	**-.000464**	**.0056153**
Stddev	.0006379	.0091787	.0003783	.0003650	3.2638	.002991	.0001048
%RSD	59.58006	1.453073	15.29409	173.9416	1.083454	645.2521	1.865480
#1	.0003357	.6310380	.0023058	.0006124	298.3158	-.000808	.0055479
#2	.0013949	.6411569	.0029064	-.000099	304.7610	.002685	.0057360
#3	.0014812	.6228328	.0022077	.000116	300.6429	-.003268	.0055620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4794657**	**-.008159**	**.0018020**	**.0231404**	**.0022665**	**-.011514**	**-.001366**
Stddev	.0528912	.000311	.0001364	.0003361	.0014223	.005917	.001683
%RSD	11.03128	3.813910	7.566285	1.452502	62.75561	51.39068	123.1683
#1	.4185947	-.008485	.0019575	.0235190	.0024302	-.004865	-.001439
#2	.5142044	-.007865	.0017460	.0228772	.0035999	-.013478	-.003012
#3	.5055979	-.008129	.0017027	.0230248	.0007694	-.016200	.000352

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170202TB Acquired: 10/28/2025 14:31:28 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0187786	.0084113	.0000177
Stddev	.0033894	.0000435	.0000833
%RSD	18.04931	.5170126	471.8200
#1	.0189342	.0084247	-.000064
#2	.0220876	.0083627	.000014
#3	.0153141	.0084465	.000103

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5439.036	86718.48	7200.768	4147.204	6285.396
Stddev	16.824	430.07	69.934	10.116	23.536
%RSD	.3093109	.4959415	.9712020	.2439149	.3744486
#1	5438.028	87184.98	7272.095	4154.393	6287.242
#2	5456.341	86337.77	7132.316	4135.637	6307.955
#3	5422.740	86632.68	7197.894	4151.582	6260.992

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3439-04 Acquired: 10/28/2025 14:35:55 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001185**	**-.001924**	**.0023392**	**.0023459**	**.0023008**	**.0254544**	**.2207492**
Stddev	.001163	.001886	.0007765	.0040046	.0016700	.0061124	.0022596
%RSD	98.15827	98.00237	33.19456	170.7056	72.58103	24.01311	1.023601
#1	-.001918	-.000024	.0031345	.0066592	.0008632	.0263924	.2228408
#2	-.001792	-.001954	.0015830	.0016327	.0041326	.0310435	.2183526
#3	.000156	-.003795	.0023002	-.001254	.0019067	.0189272	.2210541

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000054**	**.0000532**	**5.843084**	**.0019273**	**-.000280**	**.0056283**	**.0308849**
Stddev	.000058	.0000216	.027442	.0000898	.000091	.0002904	.0065891
%RSD	106.3872	40.56959	.4696415	4.661654	32.43233	5.158904	21.33436
#1	-.000020	.0000781	5.864904	.0020040	-.000380	.0053624	.0339858
#2	-.000022	.0000400	5.812276	.0018285	-.000205	.0055843	.0233174
#3	-.000121	.0000415	5.852072	.0019495	-.000253	.0059381	.0353515

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0474811**	**.5345027**	**.0017139**	**-.001212**	**325.2565**	**-.001608**	**.0472603**
Stddev	.0003122	.0388910	.0002335	.000322	2.5107	.003415	.0003921
%RSD	.6575534	7.276107	13.62279	26.58359	.7719192	212.4011	.8297376
#1	.0471254	.5779877	.0016371	-.001019	324.9266	.000361	.0475137
#2	.0476085	.5224711	.0019761	-.001032	322.9271	.000367	.0474586
#3	.0477095	.5030493	.0015285	-.001584	327.9159	-.005551	.0468087

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.067356**	**.0122195**	**.0009043**	**-.012803**	**.0010980**	**.8509200**	**.4462084**
Stddev	.067491	.0005214	.0001142	.000209	.0020269	.0055313	.0039927
%RSD	6.323226	4.266710	12.62314	1.630520	184.5913	.6500379	.8947998
#1	1.135332	.0119060	.0010341	-.013042	.0033622	.8502424	.4439035
#2	1.000360	.0128213	.0008193	-.012657	.0004791	.8567589	.4439029
#3	1.066375	.0119311	.0008597	-.012709	-.000547	.8457587	.4508187

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3439-04 Acquired: 10/28/2025 14:35:55 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1529685	-.004581	.0396896
Stddev	.0026865	.002447	.0002525
%RSD	1.756254	53.42424	.6362978
#1	.1500280	-.006063	.0398081
#2	.1535828	-.005924	.0393996
#3	.1552946	-.001756	.0398611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5326.047	85518.32	7129.961	4041.075	6274.159
Stddev	7.806	38.73	31.622	17.508	13.128
%RSD	.1465626	.0452847	.4435097	.4332515	.2092328
#1	5327.745	85490.87	7097.041	4027.217	6272.301
#2	5317.532	85562.61	7132.739	4035.258	6262.060
#3	5332.865	85501.46	7160.102	4060.751	6288.117

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3439-08 Acquired: 10/28/2025 14:40:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003187**	**-.001465**	**.0006595**	**.0031507**	**.0010803**	**.0412264**	**.2478793**
Stddev	.001340	.001559	.0008768	.0022229	.0007590	.0103444	.0009443
%RSD	42.05977	106.4226	132.9573	70.55408	70.26153	25.09162	.3809371
#1	-.003778	-.002340	.0009567	.0052449	.0006048	.0324164	.2472577
#2	-.001653	.000335	-.000327	.0033889	.0019557	.0526167	.2474143
#3	-.004131	-.002389	.001349	.0008182	.0006804	.0386461	.2489659

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000272**	**.0000769**	**6.882921**	**.0052788**	**-.000196**	**.0072029**	**.0407202**
Stddev	.0000206	.0000575	.037560	.0002696	.000144	.0004403	.0068305
%RSD	75.83742	74.76227	.5456955	5.106660	73.32848	6.112978	16.77433
#1	.0000080	.0001384	6.839742	.0055784	-.000306	.0071977	.0451115
#2	.0000491	.0000243	6.900976	.0050559	-.000033	.0076458	.0441984
#3	.0000245	.0000681	6.908043	.0052021	-.000250	.0067652	.0328506

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0222235**	**.8106965**	**.0030997**	**-.000797**	**360.8175**	**-.001309**	**.0435391**
Stddev	.0008940	.0266615	.0001777	.000563	6.4583	.000594	.0002961
%RSD	4.022548	3.288719	5.731711	70.73305	1.789907	45.36785	.6801216
#1	.0215946	.8105043	.0032447	-.000599	353.6594	-.000653	.0433704
#2	.0218290	.7841315	.0031528	-.000358	366.2079	-.001810	.0438810
#3	.0232468	.8374535	.0029015	-.001432	362.5850	-.001463	.0433658

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.726581**	**.0111796**	**.0007624**	**-.013632**	**.0014234**	**.6958092**	**.0564351**
Stddev	.027934	.0006664	.0001498	.000541	.0015073	.0159213	.0011625
%RSD	1.617857	5.960461	19.65336	3.972172	105.8963	2.288165	2.059825
#1	1.694337	.0105227	.0009342	-.013978	.0017744	.6920995	.0556613
#2	1.743435	.0118550	.0006589	-.013008	-.000228	.7132578	.0577719
#3	1.741971	.0111611	.0006940	-.013911	.002724	.6820702	.0558722

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3439-08 Acquired: 10/28/2025 14:40:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2200196	-.005619	.0447647
Stddev	.0023967	.000900	.0002357
%RSD	1.089319	16.02171	.5264287
#1	.2216247	-.006240	.0444934
#2	.2172646	-.004586	.0449184
#3	.2211694	-.006030	.0448824

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5414.310	86520.00	7049.056	4070.793	6363.171
Stddev	22.207	330.96	45.849	16.367	28.505
%RSD	.4101458	.3825223	.6504317	.4020701	.4479756
#1	5389.223	86828.35	7039.207	4089.315	6330.472
#2	5422.260	86170.31	7008.931	4058.277	6382.786
#3	5431.447	86561.33	7099.029	4064.786	6376.254

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3440-04 Acquired: 10/28/2025 14:44:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002506**	**-.003305**	**.8734474**	**.0006128**	**.0368110**	**.0815639**	**.2330879**
Stddev	.001077	.002284	.0018853	.0017007	.0018342	.0034229	.0017832
%RSD	42.99306	69.10144	.2158412	277.5266	4.982798	4.196620	.7650414
#1	-.003381	-.001230	.8748650	-.000680	.0381693	.0850908	.2344343
#2	-.001303	-.005752	.8741693	.002539	.0375392	.0813454	.2310655
#3	-.002833	-.002932	.8713079	-.000021	.0347245	.0782554	.2337640

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000012**	**.0053859**	**81.65313**	**.0160793**	**.0142524**	**4.498278**	**.0833842**
Stddev	.000021	.0000377	.26855	.0000514	.0000463	.001609	.0055325
%RSD	181.5375	.6993378	.3288887	.3195256	.3246201	.0357772	6.634993
#1	.000011	.0054163	81.92386	.0161269	.0142338	4.499008	.0884760
#2	-.000030	.0053438	81.38682	.0160862	.0143051	4.496433	.0841794
#3	-.000016	.0053977	81.64870	.0160249	.0142184	4.499393	.0774970

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5356838**	**2.229306**	**.0479241**	**-.000619**	**385.1843**	**-.000292**	**7.095712**
Stddev	.0018259	.007189	.0001787	.000411	6.2919	.002092	.076215
%RSD	.3408567	.3224992	.3728479	66.42317	1.633472	715.8054	1.074098
#1	.5365631	2.221300	.0477224	-.000603	384.6907	.001634	7.075124
#2	.5335846	2.231410	.0480626	-.000216	379.1537	.000008	7.031905
#3	.5369037	2.235210	.0479872	-.001037	391.7084	-.002519	7.180105

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.647906**	**.0124698**	**-.001819**	**-.015145**	**-.002267**	**1.980432**	**.0369264**
Stddev	.027374	.0000508	.000405	.000517	.000948	.014826	.0011227
%RSD	1.033809	.4075341	22.25864	3.411641	41.81495	.7486214	3.040442
#1	2.616993	.0125247	-.001681	-.015385	-.003306	1.982003	.0367863
#2	2.657648	.0124245	-.002275	-.014551	-.002047	1.964883	.0381126
#3	2.669076	.0124602	-.001502	-.015497	-.001449	1.994410	.0358803

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3440-04 Acquired: 10/28/2025 14:44:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.836352	-.009113	.2863647
Stddev	.017523	.001405	.0017751
%RSD	.6178134	15.42219	.6198770
#1	2.833190	-.010537	.2876354
#2	2.855241	-.007727	.2843365
#3	2.820625	-.009075	.2871223

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5260.900	82599.80	7075.065	3824.973	6095.981
Stddev	4.325	365.31	6.091	30.800	8.925
%RSD	.0822090	.4422661	.0860939	.8052445	.1464042
#1	5256.230	82892.44	7082.048	3827.227	6086.404
#2	5261.702	82716.59	7072.307	3854.585	6097.476
#3	5264.768	82190.38	7070.841	3793.108	6104.064

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-02 Acquired: 10/28/2025 14:49:07 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001905**	**-.002324**	**.0143125**	**.0050219**	**.0014821**	**.0451126**	**.0978895**
Stddev	.000651	.002915	.0010194	.0026159	.0013475	.0072039	.0031147
%RSD	34.16807	125.4233	7.122660	52.08926	90.91342	15.96879	3.181904
#1	-.001654	-.004313	.0131354	.0077820	.0004751	.0381267	.0958688
#2	-.001417	-.003682	.0148940	.0047044	.0009585	.0446949	.1014765
#3	-.002644	.001022	.0149080	.0025793	.0030128	.0525164	.0963232

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000264**	**-.000010**	**16.81575**	**.0026345**	**.0017755**	**.0016259**	**11.08152**
Stddev	.0000533	.000103	.13843	.0001534	.0001590	.0002929	.00412
%RSD	202.1337	1066.593	.8232101	5.823815	8.952871	18.01377	.0372152
#1	.0000118	.000091	16.88102	.0026469	.0017491	.0019530	11.08567
#2	.0000855	-.000115	16.90948	.0024752	.0019460	.0013881	11.08148
#3	-.000018	-.000005	16.65675	.0027813	.0016314	.0015365	11.07742

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4267924**	**.9163284**	**.0079515**	**-.000497**	**358.9332**	**.0017021**	**.1116473**
Stddev	.0054636	.0339395	.0003454	.000294	3.3560	.0011728	.0001472
%RSD	1.280152	3.703860	4.343702	59.11533	.9349849	68.90038	.1318810
#1	.4303164	.8963636	.0083376	-.000165	358.4685	.0016965	.1116636
#2	.4295621	.9555160	.0078450	-.000603	362.4973	.0005322	.1117857
#3	.4204986	.8971056	.0076720	-.000723	355.8338	.0028777	.1114926

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3543642**	**.0229399**	**.0003109**	**-.014709**	**.0010619**	**.8239987**	**.0050898**
Stddev	.0173549	.0003942	.0001846	.000433	.0010829	.0094486	.0020159
%RSD	4.897470	1.718171	59.35971	2.940631	101.9835	1.146681	39.60721
#1	.3395266	.0233950	.0001896	-.014756	.0018381	.8348042	.0071855
#2	.3501177	.0227162	.0002199	-.015116	-.000175	.8199023	.0031644
#3	.3734482	.0227086	.0005233	-.014254	.001523	.8172895	.0049197

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-02 Acquired: 10/28/2025 14:49:07 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.113543	-.005257	.1186620
Stddev	.037372	.001409	.0010184
%RSD	.6112970	26.80562	.8582215
#1	6.070946	-.003973	.1191856
#2	6.140821	-.005033	.1193120
#3	6.128862	-.006764	.1174883

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5335.456	86341.66	7234.049	4045.682	6256.977
Stddev	4.859	101.76	43.964	11.787	4.316
%RSD	.0910723	.1178549	.6077366	.2913416	.0689793
#1	5333.080	86454.72	7209.613	4051.917	6260.401
#2	5332.242	86312.83	7207.732	4032.088	6252.129
#3	5341.046	86257.43	7284.803	4053.042	6258.402

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV03 Acquired: 10/28/2025 14:53:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.946870**	**5.069436**	**4.949590**	**4.940126**	**4.953478**	**10.03286**	**10.51063**
Stddev	.023071	.141655	.023772	.032802	.030450	.47518	.43874
%RSD	.4663679	2.794305	.4802791	.6639991	.6147286	4.736220	4.174272
#1	4.960536	5.093210	4.962404	4.947554	4.973296	9.74464	10.24218
#2	4.959840	5.197700	4.964206	4.968577	4.968721	9.77263	10.27278
#3	4.920233	4.917398	4.922160	4.904246	4.918416	10.58131	11.01694

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2621449**	**2.514608**	**25.88796**	**1.037728**	**2.518317**	**1.263481**	**5.134225**
Stddev	.0094746	.015643	1.14207	.038198	.012998	.006635	.128649
%RSD	3.614256	.6220976	4.411582	3.680968	.5161514	.5251504	2.505719
#1	.2568847	2.521879	25.19042	1.081636	2.526726	1.267420	5.281792
#2	.2564675	2.525292	25.26750	1.019409	2.524880	1.267203	5.045656
#3	.2730826	2.496652	27.20595	1.012140	2.503346	1.255820	5.075227

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.639871**	**25.67289**	**2.509654**	**1.279212**	**27.45786**	**2.567478**	**2.560516**
Stddev	.107480	1.07247	.013534	.042695	1.00263	.105614	.097020
%RSD	4.071399	4.177455	.5392600	3.337562	3.651515	4.113529	3.789064
#1	2.571730	25.04536	2.514435	1.328508	28.60195	2.490229	2.672536
#2	2.584111	25.06207	2.520148	1.255117	27.03930	2.524379	2.505702
#3	2.763772	26.91124	2.494379	1.254012	26.73234	2.687826	2.503309

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.00488**	**5.195631**	**5.079768**	**5.053880**	**5.193745**	**4.988627**	**5.086741**
Stddev	.78218	.202835	.032571	.034663	.221440	.143629	.029378
%RSD	3.007814	3.903950	.6411870	.6858789	4.263592	2.879127	.5775403
#1	26.90319	5.074118	5.096515	5.078134	5.053501	5.153821	5.098037
#2	25.63681	5.082986	5.100558	5.069327	5.078707	4.918767	5.108795
#3	25.47462	5.429788	5.042231	5.014178	5.449028	4.893291	5.053392

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV03 Acquired: 10/28/2025 14:53:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.940970**	**5.167718**	**5.154603**
Stddev	.034776	.212916	.160114
%RSD	.7038321	4.120114	3.106226
#1	4.960630	5.029534	5.044329
#2	4.961463	5.060707	5.081225
#3	4.900817	5.412912	5.338255

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5668.958**	**88846.00**	**6858.451**	**4191.698**	**6557.958**
Stddev	36.932	2635.08	259.968	136.498	42.220
%RSD	.6514714	2.965895	3.790473	3.256383	.6438019
#1	5649.852	85821.16	7036.461	4034.864	6537.008
#2	5645.492	90073.10	6978.773	4256.552	6530.310
#3	5711.528	90643.73	6560.120	4283.677	6606.556

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB03 Acquired: 10/28/2025 14:57:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004546**	**-.000992**	**.0007827**	**-.000385**	**.0008895**	**.0017695**	**.0024421**
Stddev	.0014700	.000614	.0012940	.002340	.0011008	.0099583	.0008201
%RSD	323.3295	61.82796	165.3329	607.0855	123.7545	562.7653	33.58289
#1	-.000625	-.000318	.0012302	-.002613	.0014547	-.003115	.0015268
#2	-.000140	-.001141	-.000676	-.000597	.0015929	-.004804	.0026893
#3	.002129	-.001518	.001793	.002053	-.000379	.013227	.0031102

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000041**	**.0000816**	**.0078637**	**-.000159**	**-.000018**	**.0006177**	**.0300343**
Stddev	.000069	.0000196	.0025691	.000108	.000135	.0001897	.0037279
%RSD	170.1504	23.99662	32.67093	67.70338	765.9828	30.70830	12.41223
#1	.000039	.0000647	.0066026	-.000053	.000095	.0008225	.0317312
#2	-.000089	.0000771	.0061688	-.000156	-.000167	.0004480	.0257598
#3	-.000072	.0001031	.0108197	-.000269	.000020	.0005826	.0326118

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006320**	**.0003336**	**-.000309**	**-.000525**	**.6140191**	**-.002073**	**.0019238**
Stddev	.0007283	.0284477	.000306	.000385	.0085797	.002669	.0002536
%RSD	115.2351	8528.012	99.32723	73.32212	1.397304	128.7810	13.18352
#1	.0002060	-.012209	-.000526	-.000962	.6048737	.000999	.0022130
#2	.0002171	-.019688	-.000442	-.000234	.6152929	-.003827	.0018186
#3	.0014729	.032897	.000042	-.000381	.6218907	-.003391	.0017396

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3218423**	**-.000744**	**.0005218**	**.0008899**	**-.000946**	**-.011390**	**-.000217**
Stddev	.0597586	.000430	.0001402	.0006400	.001144	.002574	.000376
%RSD	18.56766	57.85819	26.86770	71.91738	120.9060	22.59989	173.4768
#1	.2850129	-.000824	.0006550	.0005284	.000339	-.008682	-.000171
#2	.2897220	-.000279	.0005350	.0016289	-.001323	-.013805	.000135
#3	.3907920	-.001128	.0003755	.0005125	-.001855	-.011683	-.000613

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB03 Acquired: 10/28/2025 14:57:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0021478	.0065281	.0000906
Stddev	.0023168	.0004805	.0000701
%RSD	107.8657	7.360978	77.39350
#1	.0032634	.0070773	.0000445
#2	.0036957	.0063227	.0000560
#3	-.000516	.0061845	.0001713

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5702.411	92652.49	6858.108	4337.860	7335.716
Stddev	13.310	286.85	18.288	30.882	15.442
%RSD	.2334086	.3096028	.2666664	.7119251	.2105077
#1	5707.780	92911.37	6879.133	4373.235	7340.754
#2	5687.255	92701.99	6849.307	4316.277	7318.385
#3	5712.198	92344.10	6845.883	4324.068	7348.011

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-04 Acquired: 10/28/2025 15:01:51 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002763**	**-.002250**	**3.650248**	**.0022876**	**.0335811**	**.0239227**
Stddev	.001424	.001012	.007046	.0012056	.0006157	.0049926
%RSD	51.52739	44.97583	.1930410	52.70104	1.833565	20.86952
#1	-.001127	-.003283	3.642259	.0036708	.0332194	.0245709
#2	-.003724	-.001261	3.655576	.0017319	.0342921	.0285595
#3	-.003437	-.002207	3.652911	.0014601	.0332320	.0186377

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2182478**	**-.000167**	**.0462191**	**128.5203**	**.0023880**	**.0205966**
Stddev	.0056275	.000028	.0001282	3.1657	.0000478	.0002431
%RSD	2.578509	16.70896	.2774331	2.463200	2.002490	1.180268
#1	.2117994	-.000138	.0462420	124.8877	.0024382	.0203224
#2	.2221668	-.000194	.0460810	129.9837	.0023431	.0206817
#3	.2207772	-.000168	.0463344	130.6896	.0023826	.0207857

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6186748**	**.0179735**	**.6311977**	**4.079618**	**.1413726**	**-.000461**
Stddev	.0007310	.0110563	.0130819	.078914	.0001262	.000631
%RSD	.1181598	61.51420	2.072550	1.934341	.0892874	136.8420
#1	.6178384	.0069422	.6167626	3.990461	.1414179	-.000488
#2	.6191917	.0179237	.6345605	4.107895	.1412300	.000183
#3	.6189942	.0290546	.6422698	4.140497	.1414699	-.001078

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**329.9241**	**-.002573**	**6.026539**	**2.219079**	**.0467731**	**-.001304**
Stddev	1.5994	.003935	.025222	.029965	.0013595	.000206
%RSD	.4847668	152.9083	.4185217	1.350352	2.906585	15.78451
#1	330.9015	.001290	5.998207	2.248586	.0452035	-.001080
#2	328.0783	-.006576	6.046547	2.188675	.0475770	-.001486
#3	330.7923	-.002434	6.034864	2.219975	.0475390	-.001344

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-04 Acquired: 10/28/2025 15:01:51 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015412	-.003466	3.968398	.0170275	F 10.80873	-.017875
Stddev	.000375	.000763	.037471	.0006339	.04448	.000762
%RSD	2.431481	22.02854	.9442249	3.722769	.4114826	4.263318
#1	-.015012	-.004332	3.992242	.0176991	10.77623	-.017973
#2	-.015756	-.003175	3.925209	.0169438	10.79054	-.018583
#3	-.015467	-.002890	3.987743	.0164396	10.85942	-.017069

Elem	Sr4077
Units	ppm
Avg	.7109934
Stddev	.0150207
%RSD	2.112631
#1	.6938482
#2	.7172959
#3	.7218360

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5276.317	84996.24	7173.723	3956.025	6126.631
Stddev	2.123	276.18	174.195	10.104	2.561
%RSD	.0402426	.3249348	2.428233	.2554063	.0418070
#1	5276.821	84702.47	7374.864	3962.707	6124.954
#2	5278.143	85250.60	7073.782	3960.967	6125.360
#3	5273.987	85035.66	7072.522	3944.401	6129.580

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-06 Acquired: 10/28/2025 15:06:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000734**	**-.003372**	**60.19705**	**-.000326**	**.0425686**	**.0867970**	**.0265732**
Stddev	.001537	.001150	.17246	.002588	.0005956	.0157765	.0018214
%RSD	209.4852	34.09190	.2864872	794.9179	1.399192	18.17637	6.854306
#1	-.002144	-.002046	59.99808	-.000714	.0419131	.1027480	.0279756
#2	-.000961	-.003989	60.28953	-.002698	.0427161	.0712009	.0245146
#3	.000904	-.004082	60.30354	.002435	.0430767	.0864419	.0272293

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000158**	**.0029092**	**3.662583**	**.0058385**	**.0013616**	**.1011622**	**3.299006**
Stddev	.000098	.0000828	.022322	.0002137	.0002349	.0006674	.020393
%RSD	62.04537	2.844918	.6094553	3.660234	17.24868	.6597338	.6181502
#1	-.000062	.0029916	3.655788	.0057269	.0015787	.1005961	3.320949
#2	-.000153	.0028260	3.644449	.0060849	.0011123	.1009923	3.280635
#3	-.000258	.0029101	3.687513	.0057037	.0013939	.1018981	3.295433

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0727470**	**.2570019**	**.0257433**	**-.000228**	**316.2280**	**-.002472**	**.2657005**
Stddev	.0002315	.0077793	.0002631	.000417	1.5511	.000578	.0006268
%RSD	.3181955	3.026949	1.021808	182.7855	.4905148	23.36327	.2359177
#1	.0726736	.2569990	.0255557	-.000709	316.6866	-.002338	.2661197
#2	.0725611	.2647826	.0260440	-.000021	317.4981	-.001974	.2649799
#3	.0730063	.2492240	.0256302	.000045	314.4992	-.003105	.2660019

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1410690**	**.0112282**	**.0005449**	**-.012996**	**.0017317**	**.2040736**	**.0046580**
Stddev	.0247068	.0008448	.0001287	.000072	.0007353	.0051974	.0022652
%RSD	17.51399	7.524357	23.60949	.5532061	42.46204	2.546815	48.63039
#1	.1695452	.0121819	.0004258	-.013051	.0016070	.1983319	.0028691
#2	.1283318	.0105735	.0005276	-.012915	.0010667	.2054321	.0039000
#3	.1253298	.0109292	.0006814	-.013022	.0025213	.2084568	.0072051

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-06 Acquired: 10/28/2025 15:06:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.325454	-.003298	.0060899
Stddev	.006874	.002747	.0000433
%RSD	.2066961	83.31432	.7103481
#1	3.317938	-.006468	.0060990
#2	3.327001	-.001813	.0060428
#3	3.331422	-.001612	.0061278

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5359.133	85003.20	7128.343	3948.853	6373.891
Stddev	3.653	70.19	61.013	9.672	8.556
%RSD	.0681608	.0825716	.8559266	.2449294	.1342412
#1	5363.242	85083.21	7178.925	3937.928	6383.771
#2	5357.905	84974.35	7145.522	3952.304	6368.996
#3	5356.253	84952.03	7060.582	3956.326	6368.907

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-08 Acquired: 10/28/2025 15:10:28 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001467**	**-.001762**	**.0049876**	**.0045794**	**.0014790**	**.0054730**	**.1024318**
Stddev	.002376	.003157	.0002491	.0001924	.0007194	.0098161	.0015714
%RSD	161.9329	179.1550	4.993343	4.201654	48.64390	179.3559	1.534091
#1	.001166	.001799	.0048539	.0045576	.0011187	-.005486	.1019827
#2	-.003451	-.004220	.0048341	.0043987	.0010109	.013460	.1041789
#3	-.002116	-.002866	.0052750	.0047817	.0023074	.008445	.1011339

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000128**	**-.000092**	**.1972724**	**.0024304**	**-.000212**	**.0000866**	**.2141531**
Stddev	.000015	.000017	.0037284	.0005098	.000180	.0004525	.0045250
%RSD	11.45669	17.88819	1.889954	20.97517	84.65349	522.2743	2.112969
#1	-.000111	-.000086	.1932031	.0025347	-.000031	.0001845	.2193730
#2	-.000136	-.000111	.2005242	.0018766	-.000390	-.000407	.2117423
#3	-.000136	-.000080	.1980898	.0028800	-.000214	.000482	.2113439

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0084029**	**.0083118**	**.0015237**	**-.000265**	**369.6339**	**-.002706**	**.1050458**
Stddev	.0001242	.0197939	.0001886	.000291	2.8141	.000449	.0005650
%RSD	1.478125	238.1422	12.37743	109.7536	.7613278	16.60474	.5378089
#1	.0085351	.0308813	.0013266	-.000374	366.4424	-.003191	.1049776
#2	.0082887	.0001511	.0015421	.000065	370.7000	-.002625	.1045181
#3	.0083850	-.006097	.0017025	-.000485	371.7591	-.002303	.1056418

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0214814**	**.0160870**	**.0006009**	**-.012914**	**.0009405**	**.0225074**	**.0054356**
Stddev	.0657183	.0010421	.0001494	.000813	.0014281	.0095061	.0007795
%RSD	305.9309	6.477813	24.86640	6.295945	151.8499	42.23523	14.33967
#1	.0842032	.0154051	.0007334	-.013850	.0003114	.0306448	.0046476
#2	-.046871	.0172865	.0004390	-.012503	-.000065	.0120589	.0054531
#3	.027112	.0155693	.0006304	-.012388	.002575	.0248186	.0062062

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-08 Acquired: 10/28/2025 15:10:28 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2844032	-.005143	.0015661
Stddev	.0032799	.001130	.0000530
%RSD	1.153245	21.96618	3.386170
#1	.2808694	-.004922	.0015654
#2	.2873497	-.004140	.0015134
#3	.2849906	-.006366	.0016195

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5345.850	84643.50	7181.232	3993.004	6305.660
Stddev	5.501	155.82	13.700	10.812	7.254
%RSD	.1029093	.1840897	.1907761	.2707721	.1150405
#1	5343.707	84805.57	7188.426	4003.788	6313.575
#2	5352.100	84494.79	7189.836	3993.060	6304.079
#3	5341.742	84630.13	7165.433	3982.164	6299.327

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-04 Acquired: 10/28/2025 15:14:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002220**	**-.001408**	**.0066440**	**.0048210**	**.0015935**	**.1445155**	**.1267398**
Stddev	.001015	.000784	.0003844	.0011947	.0005248	.0106794	.0016051
%RSD	45.70976	55.69048	5.785029	24.78021	32.93670	7.389822	1.266414
#1	-.002564	-.002263	.0070854	.0035372	.0012213	.1568212	.1263190
#2	-.003018	-.001239	.0064632	.0050259	.0021938	.1390550	.1285134
#3	-.001078	-.000722	.0063834	.0059000	.0013654	.1376704	.1253871

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000005**	**.0001273**	**5.031351**	**.0058027**	**.0016327**	**.0064979**	**1.783507**
Stddev	.000131	.0000302	.006626	.0004897	.0001850	.0003207	.008192
%RSD	2819.648	23.75872	.1316860	8.439161	11.32806	4.934832	.4592986
#1	.000026	.0001385	5.024174	.0052599	.0014193	.0068577	1.778196
#2	-.000148	.0000930	5.032644	.0062114	.0017322	.0063937	1.779384
#3	.000108	.0001502	5.037235	.0059366	.0017467	.0062423	1.792941

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6058663**	**.3289334**	**.0032124**	**-.000595**	**340.4099**	**-.001809**	**.0268663**
Stddev	.0016478	.0220082	.0003742	.000181	2.7563	.003215	.0001638
%RSD	.2719763	6.690789	11.64841	30.48475	.8097056	177.6893	.6095892
#1	.6071434	.3120812	.0028221	-.000544	339.6153	-.002685	.0267117
#2	.6064493	.3538327	.0032470	-.000796	343.4762	-.004496	.0268494
#3	.6040063	.3208864	.0035681	-.000444	338.1381	.001753	.0270379

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.152030**	**-.000354**	**.0006749**	**-.013355**	**.0019925**	**.5026031**	**.0119655**
Stddev	.021681	.000547	.0001652	.000550	.0007311	.0140443	.0011277
%RSD	1.881983	154.6402	24.47005	4.122072	36.69096	2.794303	9.424417
#1	1.131139	-.000826	.0008103	-.013956	.0021912	.5152800	.0114615
#2	1.150527	-.000479	.0007235	-.012876	.0026037	.4875061	.0132572
#3	1.174423	.000245	.0004909	-.013233	.0011826	.5050233	.0111777

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-04 Acquired: 10/28/2025 15:14:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4622297	-.005784	.0855193
Stddev	.0104777	.001695	.0001093
%RSD	2.266775	29.30805	.1278222
#1	.4535887	-.006465	.0854723
#2	.4738839	-.003854	.0856442
#3	.4592166	-.007032	.0854413

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5518.189	89111.53	7371.743	4228.718	6451.479
Stddev	61.909	337.62	43.316	15.601	69.226
%RSD	1.121908	.3788686	.5875898	.3689366	1.073030
#1	5589.318	89471.17	7373.379	4232.262	6530.615
#2	5476.437	89062.01	7327.632	4242.243	6402.145
#3	5488.813	88801.41	7414.217	4211.650	6421.677

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-08 Acquired: 10/28/2025 15:19:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002102**	**-.002619**	**.0090815**	**.0029144**	**.0022432**	**.0386241**	**.1472276**
Stddev	.000742	.002657	.0003405	.0025407	.0018849	.0073634	.0009034
%RSD	35.31066	101.4747	3.749394	87.17870	84.02834	19.06430	.6135966
#1	-.002323	-.003410	.0090134	.0008450	.0029071	.0323084	.1473473
#2	-.001274	-.004790	.0094509	.0021481	.0001162	.0368522	.1462704
#3	-.002709	.000344	.0087802	.0057500	.0037064	.0467119	.1480653

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000024**	**.0003337**	**31.50690**	**.0057326**	**-.000282**	**.0067795**	**.0605193**
Stddev	.000019	.0000756	.12123	.0002650	.000051	.0002192	.0031853
%RSD	79.51496	22.65396	.3847698	4.622051	18.04953	3.233929	5.263313
#1	-.000020	.0003540	31.41064	.0060382	-.000336	.0068486	.0578650
#2	-.000007	.0002500	31.46702	.0055678	-.000276	.0069559	.0596414
#3	-.000045	.0003971	31.64305	.0055917	-.000235	.0065340	.0640515

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0587345**	**1.679884**	**.0036047**	**-.000736**	**335.5390**	**-.001789**	**.0329520**
Stddev	.0003044	.004734	.0001340	.000306	2.1374	.001671	.0001449
%RSD	.5183289	.2817926	3.717900	41.56312	.6369990	93.36731	.4398288
#1	.0587695	1.677993	.0034879	-.000461	337.8737	-.000906	.0330471
#2	.0590199	1.676388	.0037510	-.000682	333.6786	-.003717	.0327852
#3	.0584141	1.685271	.0035752	-.001066	335.0648	-.000746	.0330236

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6844330**	**.0001430**	**.0007340**	**-.015204**	**.0001352**	**1.236922**	**.0161471**
Stddev	.0384828	.0007508	.0000405	.000675	.0010524	.016068	.0001303
%RSD	5.622583	525.0907	5.518241	4.441757	778.2481	1.299061	.8071954
#1	.6513549	-.000022	.0006879	-.014892	.0013456	1.253409	.0160910
#2	.7266685	.000962	.0007639	-.015979	-.000564	1.221307	.0162961
#3	.6752756	-.000512	.0007502	-.014741	-.000376	1.236050	.0160542

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-08 Acquired: 10/28/2025 15:19:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4300641	-.010709	.3307949
Stddev	.0016241	.001775	.0014011
%RSD	.3776418	16.57354	.4235462
#1	.4299895	-.009496	.3306894
#2	.4317242	-.009884	.3294496
#3	.4284785	-.012746	.3322458

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5364.460	86068.56	7115.606	4050.391	6241.834
Stddev	13.894	249.01	54.592	11.029	6.084
%RSD	.2589951	.2893209	.7672088	.2722951	.0974750
#1	5362.946	85828.91	7178.550	4047.717	6244.582
#2	5379.049	86325.99	7081.164	4062.511	6246.060
#3	5351.385	86050.78	7087.105	4040.944	6234.861

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04 Acquired: 10/28/2025 15:23:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000907**	**-.002401**	**.0200756**	**.0035907**	**.0018381**	**.0576656**	**.2203754**
Stddev	.001826	.002118	.0006211	.0045548	.0008308	.0182927	.0022430
%RSD	201.3834	88.21910	3.093570	126.8490	45.20217	31.72207	1.017793
#1	-.001578	-.000614	.0193770	.0080097	.0027052	.0758513	.2224754
#2	-.002303	-.004741	.0205650	.0038513	.0017600	.0578776	.2180127
#3	.001160	-.001848	.0202848	-.001089	.0010490	.0392678	.2206382

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001562**	**.0000009**	**73.61040**	**.0051713**	**.0023293**	**.0093697**	**21.79262**
Stddev	.0000736	.0000747	.14185	.0001229	.0000694	.0004067	.06335
%RSD	47.10660	8383.026	.1926978	2.375792	2.979074	4.340159	.2906720
#1	.0001377	-.000022	73.76837	.0051597	.0023217	.0095421	21.72189
#2	.0002373	-.000060	73.49393	.0050547	.0022640	.0096617	21.84414
#3	.0000936	.000084	73.56891	.0052996	.0024022	.0089052	21.81182

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8650633**	**3.544276**	**.0056024**	**.0005534**	**313.1598**	**-.000252**	**.0684209**
Stddev	.0023932	.031561	.0002631	.0004036	4.1866	.001079	.0000883
%RSD	.2766496	.8904729	4.695425	72.92887	1.336886	427.9682	.1289945
#1	.8672290	3.532892	.0058263	.0005070	317.9097	-.000033	.0685152
#2	.8624939	3.519987	.0056681	.0009781	311.5634	.000701	.0683403
#3	.8654669	3.579950	.0053127	.0001750	310.0063	-.001423	.0684073

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.387483**	**.0350736**	**.0014573**	**-.012163**	**.0013614**	**1.499103**	**.0899892**
Stddev	.013484	.0008714	.0001018	.000710	.0005531	.021489	.0012673
%RSD	.5647616	2.484557	6.983634	5.839962	40.62876	1.433480	1.408326
#1	2.402698	.0341203	.0015745	-.012969	.0013778	1.491436	.0885269
#2	2.382739	.0352714	.0013906	-.011631	.0019062	1.523375	.0907687
#3	2.377013	.0358292	.0014069	-.011887	.0008003	1.482499	.0906721

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04 Acquired: 10/28/2025 15:23:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9510914	-.004807	.3685279
Stddev	.0046912	.001190	.0013884
%RSD	.4932475	24.75462	.3767496
#1	.9482180	-.004754	.3701088
#2	.9565050	-.006023	.3675064
#3	.9485513	-.003645	.3679685

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5352.977	86073.10	7252.221	3984.907	6231.821
Stddev	7.278	140.91	32.669	15.833	4.323
%RSD	.1359619	.1637113	.4504700	.3973278	.0693747
#1	5346.997	86162.81	7230.339	3982.550	6229.272
#2	5361.081	85910.69	7289.773	4001.787	6229.378
#3	5350.854	86145.80	7236.550	3970.385	6236.813

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04DUP Acquired: 10/28/2025 15:28:09 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000542**	**-.003114**	**.0208937**	**.0037101**	**.0012914**	**.0556109**	**.2294490**
Stddev	.002256	.003503	.0009782	.0006996	.0007022	.0133894	.0010034
%RSD	416.2849	112.4856	4.681665	18.85652	54.37035	24.07698	.4373138
#1	-.000632	.000105	.0219675	.0042664	.0020875	.0655065	.2298510
#2	.001758	-.006844	.0206599	.0029247	.0007601	.0609507	.2301892
#3	-.002752	-.002602	.0200535	.0039391	.0010267	.0403755	.2283070

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001940**	**-.000089**	**75.54178**	**.0052163**	**.0024010**	**.0093962**	**22.11272**
Stddev	.0000240	.000027	.17509	.0001160	.0002850	.0002264	.09017
%RSD	12.39372	30.73225	.2317743	2.223432	11.86804	2.409346	.4077906
#1	.0002212	-.000077	75.74008	.0051298	.0027299	.0091624	22.05983
#2	.0001852	-.000069	75.40852	.0053481	.0022308	.0096144	22.06149
#3	.0001756	-.000120	75.47674	.0051710	.0022422	.0094117	22.21684

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8915610**	**3.614709**	**.0055779**	**-.000192**	**325.5374**	**-.001425**	**.0689757**
Stddev	.0028034	.012347	.0002855	.000129	4.1704	.000181	.0002208
%RSD	.3144330	.3415667	5.117442	67.13782	1.281070	12.73815	.3200808
#1	.8929979	3.628507	.0058953	-.000084	322.5400	-.001634	.0692147
#2	.8883306	3.604705	.0054961	-.000334	330.3001	-.001324	.0689330
#3	.8933546	3.610914	.0053423	-.000156	323.7722	-.001316	.0687794

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.338916**	**.0353032**	**.0013447**	**-.012481**	**.0000354**	**1.518271**	**.0910232**
Stddev	.051794	.0007612	.0001920	.000998	.0009827	.015351	.0006617
%RSD	2.214462	2.156285	14.27464	7.992407	2772.937	1.011096	.7269752
#1	2.286200	.0351337	.0014976	-.012196	-.001098	1.528617	.0907779
#2	2.340812	.0346409	.0011293	-.011657	.000549	1.500633	.0905191
#3	2.389737	.0361349	.0014074	-.013590	.000655	1.525563	.0917725

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04DUP Acquired: 10/28/2025 15:28:09 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9567406	-.003844	.3795808
Stddev	.0051393	.000487	.0008571
%RSD	.5371646	12.66762	.2258053
#1	.9625345	-.003978	.3802681
#2	.9549549	-.003304	.3786204
#3	.9527324	-.004249	.3798538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5322.122	85731.83	7107.924	3993.768	6187.926
Stddev	6.712	204.66	33.365	31.955	15.883
%RSD	.1261132	.2387179	.4694049	.8001192	.2566731
#1	5314.807	85510.29	7089.247	3970.402	6169.587
#2	5323.563	85771.35	7088.080	3980.719	6197.237
#3	5327.997	85913.84	7146.444	4030.182	6196.954

Sample Name: Q3452-04LX5 Acquired: 10/28/2025 15:32:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000537**	**.0004533**	**.0035263**	**.0007829**	**-.000071**	**.0093561**	**.0482924**
Stddev	.001300	.0009228	.0004654	.0025453	.000199	.0087962	.0005866
%RSD	242.3487	203.5958	13.19827	325.1009	281.3424	94.01514	1.214730
#1	.000802	.0003354	.0036678	-.000960	-.000243	.0193365	.0488366
#2	-.001796	.0014294	.0039045	.003704	-.000116	.0027328	.0483697
#3	-.000616	-.000405	.0030065	-.000395	.000147	.0059992	.0476710

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000419**	**-.000040**	**16.80541**	**.0010767**	**.0005258**	**.0023860**	**4.694885**
Stddev	.0000442	.000073	.03791	.0003032	.0001953	.0006142	.033336
%RSD	105.5589	185.7169	.2255817	28.15870	37.14925	25.74245	.7100491
#1	.0000314	-.000123	16.79137	.0009649	.0003150	.0029373	4.732554
#2	.0000903	-.000011	16.84834	.0008452	.0005617	.0017239	4.682912
#3	.0000038	.000016	16.77653	.0014199	.0007007	.0024966	4.669190

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1975944**	**.8004150**	**.0009420**	**-.000356**	**67.17958**	**-.000816**	**.0143971**
Stddev	.0014009	.0269463	.0000976	.000142	.88500	.000795	.0000945
%RSD	.7089836	3.366535	10.36097	39.91859	1.317366	97.46122	.6565034
#1	.1986737	.8304248	.0008456	-.000454	68.17868	.000088	.0143614
#2	.1980983	.7782925	.0010408	-.000421	66.86593	-.001126	.0143256
#3	.1960112	.7925277	.0009396	-.000193	66.49411	-.001408	.0145042

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.067531**	**-.000222**	**.0003222**	**-.003532**	**-.000339**	**.2922921**	**.0193116**
Stddev	.019744	.000573	.0001437	.000390	.002008	.0099193	.0009131
%RSD	1.849485	257.9931	44.59156	11.05192	592.9904	3.393613	4.728459
#1	1.072572	-.000402	.0001577	-.003845	.001923	.3025557	.0203083
#2	1.084265	-.000683	.0003860	-.003095	-.001910	.2915630	.0185154
#3	1.045755	.000419	.0004228	-.003657	-.001028	.2827574	.0191112

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04LX5 Acquired: 10/28/2025 15:32:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2118373	.0164280	.0845619
Stddev	.0035747	.0016654	.0001532
%RSD	1.687469	10.13735	.1811226
#1	.2104060	.0145952	.0846280
#2	.2159058	.0178484	.0846709
#3	.2092000	.0168404	.0843868

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5498.788	89195.07	6991.443	4205.464	6602.034
Stddev	32.608	341.13	55.539	2.974	42.339
%RSD	.5929947	.3824568	.7943852	.0707254	.6413076
#1	5527.585	88801.25	7031.761	4205.319	6640.935
#2	5463.382	89385.10	6928.093	4208.509	6556.939
#3	5505.395	89398.87	7014.473	4202.565	6608.228

Sample Name: Q3452-04MS Acquired: 10/28/2025 15:36:48 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8535366**	**2.095327**	**1.000983**	**2.125784**	**.8524376**	**1.931497**	**.3798647**
Stddev	.0581463	.102799	.068966	.143503	.0604579	.005894	.0026059
%RSD	6.812403	4.906109	6.889808	6.750591	7.092359	.3051613	.6860059
#1	.8224570	2.044169	.960787	2.044789	.8179366	1.924728	.3782297
#2	.9206180	2.213668	1.080617	2.291473	.9222469	1.934264	.3828698
#3	.8175347	2.028144	.961546	2.041090	.8171294	1.935498	.3784945

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2018824**	**.2090253**	**61.98872**	**.4173758**	**.2143414**	**.3214679**	**20.65779**
Stddev	.0008666	.0148279	.14645	.0015497	.0151484	.0230304	.05226
%RSD	.4292575	7.093811	.2362480	.3712885	7.067414	7.164124	.2529732
#1	.2010397	.2004522	61.81986	.4157813	.2055028	.3092295	20.62902
#2	.2018362	.2261470	62.06523	.4174697	.2318330	.3480337	20.62624
#3	.2027711	.2004766	62.08105	.4188764	.2056885	.3071405	20.71812

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9209406**	**4.855770**	**.5288243**	**.0726048**	**258.9486**	**.2986945**	**.2723759**
Stddev	.0057256	.019943	.0376518	.0001747	2.4386	.0046491	.0017223
%RSD	.6217094	.4107115	7.119913	.2406216	.9417248	1.556469	.6323121
#1	.9155569	4.863010	.5070870	.0724033	259.3344	.3034750	.2736352
#2	.9269557	4.833218	.5723009	.0727143	261.1713	.2941890	.2704133
#3	.9203091	4.871082	.5070849	.0726968	256.3401	.2984194	.2730793

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.13837**	**.2980820**	**.4598583**	**.7423894**	**.1966630**	**2.090569**	**6.541758**
Stddev	.03157	.0011191	.0316246	.0525881	.0008487	.027192	.447397
%RSD	.2600498	.3754397	6.877025	7.083630	.4315393	1.300694	6.839088
#1	12.16201	.2972371	.4417418	.7132577	.1956893	2.091180	6.286441
#2	12.15057	.2976577	.4963749	.8030965	.1970543	2.063076	7.058355
#3	12.10252	.2993512	.4414583	.7108140	.1972454	2.117449	6.280477

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04MS Acquired: 10/28/2025 15:36:48 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7619163	.1909493	.4977907
Stddev	.0541889	.0018225	.0023611
%RSD	7.112187	.9544147	.4743219
#1	.7327805	.1907676	.4956135
#2	.8244401	.1892245	.5003005
#3	.7285283	.1928558	.4974579

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5135.980	85055.50	6848.344	4004.765	5938.186
Stddev	303.644	321.10	30.068	18.573	358.732
%RSD	5.912102	.3775212	.4390555	.4637778	6.041108
#1	5302.683	85262.70	6880.354	3989.898	6137.406
#2	4785.501	85218.19	6843.983	4025.585	5524.057
#3	5319.757	84685.62	6820.694	3998.812	6153.096

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04MSD Acquired: 10/28/2025 15:40:56 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8401052**	**2.067861**	**.9815542**	**2.095933**	**.8291288**	**2.074474**	**.4410837**
Stddev	.0019875	.021665	.0008006	.004697	.0012071	.013183	.0021825
%RSD	.2365786	1.047715	.0815644	.2240955	.1455888	.6355084	.4948036
#1	.8378982	2.043799	.9820400	2.101319	.8277427	2.059540	.4433537
#2	.8417537	2.073961	.9819925	2.093794	.8296946	2.079381	.4408966
#3	.8406638	2.085821	.9806302	2.092687	.8299491	2.084500	.4390008

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2179645**	**.2040326**	**77.80968**	**.4260782**	**.2086573**	**.3120875**	**23.83152**
Stddev	.0020875	.0003900	.03195	.0003232	.0002003	.0003763	.23463
%RSD	.9577246	.1911191	.0410565	.0758568	.0960099	.1205882	.9845268
#1	.2203463	.2043710	77.82447	.4257190	.2088749	.3120453	23.57516
#2	.2164528	.2041208	77.77302	.4263455	.2086167	.3124831	24.03558
#3	.2170944	.2036062	77.83155	.4261700	.2084804	.3117340	23.88383

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.128808**	**5.793089**	**.5164055**	**.0627158**	**325.2362**	**.3146769**	**.2852738**
Stddev	.003176	.056473	.0007703	.0002367	2.3230	.0035510	.0000962
%RSD	.2813901	.9748261	.1491593	.3774726	.7142394	1.128462	.0337351
#1	1.127225	5.732502	.5166469	.0628995	325.2792	.3146389	.2852440
#2	1.126735	5.844265	.5170261	.0624486	322.8921	.3111451	.2853814
#3	1.132465	5.802499	.5155434	.0627991	327.5374	.3182468	.2851960

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.68551**	**.3219840**	**.4460634**	**.7234819**	**.2061854**	**2.335902**	**6.482250**
Stddev	.15667	.0018272	.0003348	.0019891	.0024359	.011537	.055867
%RSD	1.234998	.5674658	.0750547	.2749415	1.181405	.4939137	.8618413
#1	12.50845	.3240774	.4464500	.7235354	.2039700	2.325908	6.521113
#2	12.80617	.3211647	.4458670	.7254438	.2087939	2.333270	6.507410
#3	12.74191	.3207099	.4458733	.7214666	.2057924	2.348528	6.418228

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04MSD Acquired: 10/28/2025 15:40:56 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8945999	.2164022	.5872846
Stddev	.0060282	.0004870	.0017057
%RSD	.6738416	.2250247	.2904326
#1	.8899025	.2168295	.5873617
#2	.9013972	.2158720	.5889503
#3	.8925000	.2165051	.5855416

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5226.320	83354.84	6330.244	3961.342	6006.790
Stddev	4.962	147.09	47.426	4.608	15.031
%RSD	.0949460	.1764646	.7491961	.1163123	.2502283
#1	5224.431	83483.64	6280.821	3960.996	5994.499
#2	5222.580	83386.33	6375.382	3966.112	6002.324
#3	5231.950	83194.56	6334.527	3956.917	6023.548

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV04 Acquired: 10/28/2025 15:45:05 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.927083**	**5.214309**	**4.919013**	**4.925708**	**4.911161**	**9.558643**	**9.922428**
Stddev	.009777	.099902	.006369	.014059	.009375	.022619	.015610
%RSD	.1984288	1.915927	.1294817	.2854297	.1908879	.2366362	.1573210
#1	4.923103	5.310385	4.922978	4.932274	4.907135	9.552060	9.916263
#2	4.919924	5.110976	4.922395	4.909567	4.904471	9.540045	9.940179
#3	4.938222	5.221565	4.911666	4.935283	4.921876	9.583823	9.910842

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2560499**	**2.495415**	**24.69199**	**1.004704**	**2.489630**	**1.245178**	**4.887822**
Stddev	.0021960	.000594	.07405	.002477	.001581	.001394	.035571
%RSD	.8576512	.0237856	.2998994	.2465853	.0634977	.1119567	.7277508
#1	.2569120	2.495825	24.66262	1.006670	2.490883	1.244718	4.860792
#2	.2535536	2.495687	24.63712	1.005522	2.490152	1.246745	4.928120
#3	.2576840	2.494735	24.77622	1.001921	2.487854	1.244073	4.874554

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.501404**	**24.69980**	**2.485832**	**1.241518**	**25.71253**	**2.456691**	**2.480061**
Stddev	.009400	.12322	.000501	.001782	.30659	.002449	.007436
%RSD	.3757971	.4988602	.0201350	.1435212	1.192377	.0997016	.2998419
#1	2.498180	24.73082	2.485638	1.242290	25.73589	2.457660	2.482674
#2	2.494039	24.56404	2.486400	1.239480	26.00677	2.453906	2.471671
#3	2.511991	24.80455	2.485457	1.242784	25.39493	2.458508	2.485837

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.76439**	**5.060716**	**5.001234**	**5.023226**	**4.933584**	**4.804333**	**5.058013**
Stddev	.25317	.043485	.003656	.004409	.009059	.012456	.029300
%RSD	1.022321	.8592656	.0731090	.0877720	.1836172	.2592728	.5792853
#1	24.66556	5.080617	4.997692	5.022962	4.937716	4.795221	5.090811
#2	25.05207	5.010842	5.001016	5.018954	4.923196	4.818527	5.048809
#3	24.57553	5.090689	5.004995	5.027760	4.939841	4.799252	5.034421

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV04 Acquired: 10/28/2025 15:45:05 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.957083**	**4.855853**	**4.865651**
Stddev	.023397	.009165	.072579
%RSD	.4719958	.1887321	1.491656
#1	4.976458	4.855168	4.866623
#2	4.931089	4.865341	4.792592
#3	4.963700	4.847051	4.937739

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5666.980**	**90030.89**	**6969.683**	**4249.183**	**6536.144**
Stddev	12.506	161.01	42.071	6.909	15.364
%RSD	.2206736	.1788359	.6036241	.1625893	.2350654
#1	5672.678	90005.40	6950.764	4255.106	6533.836
#2	5652.640	89884.15	7017.891	4250.849	6522.065
#3	5675.621	90203.12	6940.393	4241.593	6552.532

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB04 Acquired: 10/28/2025 15:49:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**.0002022**	**-.001361**	**-.000677**	**.0003206**	**.0009460**	**.0070138**	**.0031125**
Stddev	.0007767	.002114	.000117	.0006692	.0009932	.0104251	.0012140
%RSD	384.1219	155.3715	17.34939	208.7440	104.9842	148.6367	39.00446
#1	-.000419	-.003298	-.000635	.0002231	.0012022	.0012521	.0037794
#2	.001073	.000894	-.000809	.0010331	.0017860	.0007413	.0038468
#3	-.000047	-.001679	-.000586	-.000295	-.000150	.0190480	.0017112

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000140**	**-.000026**	**-.003461**	**.0001004**	**.0000189**	**.0015944**	**.0069037**
Stddev	.0000164	.000007	.001593	.0002165	.0000215	.0000692	.0075938
%RSD	117.0202	25.80552	46.02031	215.6546	113.6516	4.342422	109.9961
#1	.0000330	-.000019	-.004369	.0002313	.0000037	.0015239	.0000451
#2	.0000046	-.000033	-.001622	-.000150	.0000435	.0015972	.0150642
#3	.0000045	-.000027	-.004392	.000219	.0000095	.0016623	.0056016

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000652**	**-.023112**	**-.000470**	**-.000404**	**.6790833**	**.0014969**	**-.000067**
Stddev	.000244	.010872	.000126	.000302	.0291355	.0023675	.000208
%RSD	37.46749	47.04144	26.74513	74.62173	4.290412	158.1584	310.7385
#1	-.000914	-.012449	-.000448	-.000749	.6477809	.0042249	.000173
#2	-.000613	-.034182	-.000357	-.000275	.7054113	.0002883	-.000200
#3	-.000430	-.022703	-.000605	-.000189	.6840577	-.000022	-.000173

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3539242**	**-.001999**	**.0003298**	**.0002501**	**.0016859**	**-.003376**	**-.001310**
Stddev	.0429499	.000621	.0000694	.0004620	.0010428	.004161	.000859
%RSD	12.13534	31.08066	21.03518	184.7024	61.85509	123.2663	65.60966
#1	.3311400	-.001749	.0003364	.0005959	.0025686	-.005703	-.001238
#2	.3271672	-.001542	.0003956	.0004289	.0005353	-.005852	-.000489
#3	.4034655	-.002707	.0002573	-.000275	.0019538	.001428	-.002203

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB04 Acquired: 10/28/2025 15:49:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0066583	.0057420	.0001112
Stddev	.0017759	.0025045	.0000618
%RSD	26.67255	43.61719	55.59370
#1	.0058195	.0041252	.0000999
#2	.0054570	.0086269	.0001779
#3	.0086982	.0044738	.0000558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5729.663	92333.32	7014.323	4307.565	7349.400
Stddev	14.610	273.17	25.405	14.958	15.440
%RSD	.2549828	.2958484	.3621812	.3472519	.2100872
#1	5715.802	92164.26	7014.228	4291.102	7332.949
#2	5728.266	92187.22	7039.775	4311.273	7351.672
#3	5744.921	92648.46	6988.966	4320.320	7363.578

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04A Acquired: 10/28/2025 15:53:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8284647**	**1.959601**	**.9794356**	**2.071300**	**.8298339**	**1.990429**	**.4250191**
Stddev	.0012041	.024297	.0027801	.005354	.0013639	.005717	.0017706
%RSD	.1453360	1.239909	.2838491	.2584927	.1643593	.2872174	.4165844
#1	.8284972	1.984088	.9763520	2.067346	.8309574	1.987957	.4244063
#2	.8296522	1.935497	.9802044	2.077393	.8302281	1.996966	.4270147
#3	.8272448	1.959219	.9817505	2.069160	.8283164	1.986364	.4236363

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2030198**	**.2033097**	**75.65157**	**.4221662**	**.2081356**	**.3138029**	**24.72949**
Stddev	.0007267	.0003114	.07394	.0008373	.0005183	.0002469	.06380
%RSD	.3579589	.1531726	.0977322	.1983342	.2490054	.0786760	.2579868
#1	.2022206	.2029776	75.59190	.4212968	.2075514	.3135347	24.79486
#2	.2036409	.2035952	75.73429	.4222345	.2083153	.3138536	24.72621
#3	.2031980	.2033563	75.62854	.4229672	.2085402	.3140206	24.66739

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.090951**	**5.527404**	**.5176592**	**.0692966**	**321.8765**	**.3056058**	**.2817123**
Stddev	.000749	.007395	.0014037	.0005473	1.8725	.0021028	.0012229
%RSD	.0686973	.1337920	.2711579	.7897850	.5817468	.6880682	.4340830
#1	1.090220	5.529168	.5160688	.0698834	321.1795	.3074071	.2803006
#2	1.091718	5.533757	.5187251	.0688000	323.9975	.3032952	.2824430
#3	1.090914	5.519286	.5181837	.0692064	320.4524	.3061152	.2823934

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.88942**	**.3139130**	**.4436737**	**.7230134**	**.1989590**	**2.378083**	**6.379364**
Stddev	.04296	.0007362	.0010262	.0025000	.0021420	.018115	.010244
%RSD	.3332667	.2345176	.2312990	.3457788	1.076608	.7617315	.1605732
#1	12.86496	.3130865	.4425392	.7237875	.1964880	2.358770	6.384349
#2	12.86427	.3144985	.4445371	.7202178	.2001015	2.380784	6.367582
#3	12.93902	.3141538	.4439449	.7250347	.2002876	2.394696	6.386161

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-04A Acquired: 10/28/2025 15:53:26 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9399703	.1956071	.5713004
Stddev	.0039648	.0013572	.0003252
%RSD	.4218019	.6938483	.0569256
#1	.9438212	.1946226	.5716181
#2	.9359007	.1950434	.5713151
#3	.9401889	.1971553	.5709682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5262.151	84404.73	6843.624	3985.017	6060.708
Stddev	15.596	101.66	22.195	17.842	15.834
%RSD	.2963750	.1204399	.3243097	.4477308	.2612600
#1	5280.109	84510.56	6868.752	4002.126	6078.352
#2	5254.345	84395.79	6835.421	3986.402	6056.036
#3	5252.000	84307.83	6826.698	3966.522	6047.735

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3422-02 Acquired: 10/28/2025 15:57:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001440**	**-.004343**	**.0010328**	**.0041154**	**.0026962**	**.0200356**	**.0025082**
Stddev	.000621	.002425	.0002063	.0013674	.0022695	.0168855	.0005544
%RSD	43.13883	55.83414	19.97675	33.22587	84.17568	84.27729	22.10257
#1	-.001770	-.005857	.0008220	.0025608	.0048495	.0370889	.0024164
#2	-.001826	-.001546	.0012344	.0046537	.0029132	.0033230	.0020055
#3	-.000723	-.005626	.0010420	.0051318	.0003259	.0196951	.0031028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000218**	**-.000005**	**.0330135**	**.0052797**	**-.000266**	**.0003307**	**.0261067**
Stddev	.000051	.000102	.0087381	.0002453	.000086	.0003861	.0047936
%RSD	23.41498	2066.537	26.46818	4.646016	32.20187	116.7704	18.36148
#1	-.000265	-.000097	.0234167	.0049997	-.000365	.0004151	.0304872
#2	-.000226	-.000022	.0405102	.0053825	-.000218	.0006676	.0209861
#3	-.000164	.000105	.0351135	.0054568	-.000216	-.000091	.0268467

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016658**	**.0104744**	**.0008203**	**-.000599**	**.0632758**	**.0005993**	**.0023047**
Stddev	.0002012	.0225896	.0001407	.000186	.0076967	.0010022	.0000805
%RSD	12.07761	215.6652	17.15245	31.08119	12.16374	167.2405	3.493099
#1	.0015596	-.015601	.0008697	-.000768	.0566129	-.000433	.0022210
#2	.0018978	.024104	.0006616	-.000629	.0615137	.001568	.0023117
#3	.0015400	.022920	.0009298	-.000400	.0717007	.000663	.0023816

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.190946**	**-.007090**	**.0005657**	**-.012825**	**.0004409**	**-.003170**	**.0058861**
Stddev	.018417	.000768	.0002533	.000470	.0003039	.008408	.0006384
%RSD	9.644939	10.82790	44.78601	3.664513	68.92967	265.2105	10.84625
#1	-.200680	-.006208	.0002732	-.012740	.0006222	-.002796	.0053497
#2	-.169705	-.007458	.0007095	-.013331	.0000900	-.011759	.0065923
#3	-.202454	-.007605	.0007144	-.012403	.0006105	.005044	.0057164

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3422-02 Acquired: 10/28/2025 15:57:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0277305	-.002438	.0000578
Stddev	.0002085	.000408	.0001213
%RSD	.7519636	16.73489	209.7542
#1	.0278263	-.002028	-.000074
#2	.0278739	-.002441	.000164
#3	.0274913	-.002844	.000083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5644.046	93612.06	6742.487	4326.733	7319.156
Stddev	14.336	231.31	9.870	31.849	15.908
%RSD	.2540006	.2470967	.1463807	.7360902	.2173457
#1	5641.695	93345.12	6746.905	4303.840	7313.221
#2	5631.031	93737.74	6749.375	4313.253	7307.069
#3	5659.412	93753.32	6731.180	4363.104	7337.178

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170251BL Acquired: 10/28/2025 16:01:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001359**	**-.000435**	**.0006287**	**-.001016**	**.0004817**	**-.002504**	**.0005201**
Stddev	.002226	.001137	.0003074	.001462	.0004194	.012802	.0002736
%RSD	163.8240	261.3916	48.89659	143.9365	87.04869	511.3127	52.60299
#1	.000971	-.001175	.0007435	-.000102	-.000001	.006837	.0006772
#2	-.001583	-.001005	.0008622	-.002702	.000752	-.017096	.0006790
#3	-.003464	.000874	.0002804	-.000243	.000695	.002748	.0002042

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000020**	**.0000489**	**-.007585**	**.0000676**	**-.000060**	**.0000604**	**.0430584**
Stddev	.000080	.0000841	.007253	.0000430	.000064	.0002746	.0017755
%RSD	398.0085	171.9387	95.62026	63.56201	107.1480	455.0198	4.123510
#1	.000034	-.000041	-.001164	.0001106	-.000087	.0002948	.0410150
#2	-.000112	.000126	-.015452	.0000677	.000013	.0001280	.0442247
#3	.000017	.000061	-.006139	.0000246	-.000106	-.000242	.0439354

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000710**	**-.004733**	**-.000248**	**-.000757**	**.6644564**	**-.001674**	**-.000278**
Stddev	.0002736	.004159	.000066	.000047	.0345365	.002470	.000326
%RSD	385.2624	87.86981	26.61135	6.219919	5.197706	147.5801	117.0807
#1	.0002674	-.002473	-.000280	-.000773	.6329895	.000965	.000011
#2	.0001872	-.002194	-.000291	-.000793	.7014065	-.002056	-.000631
#3	-.000241	-.009533	-.000172	-.000703	.6589732	-.003930	-.000215

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3128027**	**-.008047**	**-.000013**	**.0016538**	**.0016473**	**-.012906**	**-.001875**
Stddev	.0248286	.000969	.000216	.0004337	.0010885	.006605	.002083
%RSD	7.937477	12.03832	1653.466	26.22560	66.07676	51.17573	111.0903
#1	.3074194	-.007385	-.000128	.0013647	.0004433	-.014334	-.000654
#2	.3398814	-.009159	-.000148	.0021525	.0025618	-.005704	-.004281
#3	.2911073	-.007597	.000237	.0014442	.0019368	-.018679	-.000691

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170251BL Acquired: 10/28/2025 16:01:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0034419	.0063783	-.000050
Stddev	.0002999	.0015322	.000180
%RSD	8.713376	24.02251	362.9269
#1	.0032217	.0065271	-.000237
#2	.0037835	.0078308	-.000033
#3	.0033206	.0047772	.000122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5695.538	91283.80	6940.222	4286.256	7324.227
Stddev	78.448	169.15	39.193	9.235	105.673
%RSD	1.377355	.1853023	.5647197	.2154641	1.442783
#1	5645.185	91468.26	6967.873	4276.143	7257.975
#2	5655.503	91247.21	6957.422	4294.243	7268.613
#3	5785.925	91135.95	6895.370	4288.382	7446.092

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170251BS Acquired: 10/28/2025 16:06:12 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8473718**	**2.316518**	**1.026945**	**2.129943**	**.8604993**	**2.168305**
Stddev	.0003513	.013324	.001776	.004377	.0027451	.006008
%RSD	.0414546	.5751844	.1729813	.2054912	.3190061	.2770831
#1	.8476185	2.305158	1.026312	2.131282	.8613770	2.161929
#2	.8469696	2.313212	1.028951	2.125053	.8574228	2.169125
#3	.8475273	2.331184	1.025571	2.133494	.8626983	2.173861

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2163328**	**.2270695**	**.2074527**	**1.108611**	**.4453627**	**.2129202**
Stddev	.0014759	.0011426	.0002108	.014154	.0015896	.0004143
%RSD	.6822452	.5031750	.1015973	1.276726	.3569282	.1945545
#1	.2156207	.2280631	.2076358	1.122725	.4435621	.2133920
#2	.2180298	.2273243	.2075000	1.094418	.4465720	.2127525
#3	.2153480	.2258211	.2072223	1.108689	.4459538	.2126161

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3379786**	**3.270093**	**.2239488**	**2.141704**	**.5342308**	**.0813137**
Stddev	.0002415	.019932	.0008439	.030623	.0010666	.0001285
%RSD	.0714637	.6095249	.3768094	1.429822	.1996599	.1580432
#1	.3379065	3.249561	.2230929	2.107939	.5348013	.0814616
#2	.3377813	3.271353	.2247801	2.149491	.5348909	.0812507
#3	.3382480	3.289365	.2239734	2.167681	.5330002	.0812289

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.539280**	**.3202862**	**.2276841**	**10.31798**	**.3231958**	**.4410880**
Stddev	.023747	.0012844	.0009413	.08844	.0027452	.0003577
%RSD	.6709456	.4010251	.4134102	.8571393	.8493966	.0810908
#1	3.514986	.3203347	.2277947	10.21648	.3253530	.4413071
#2	3.540415	.3189782	.2266924	10.35892	.3241287	.4412815
#3	3.562439	.3215457	.2285652	10.37852	.3201057	.4406752

Sample Name: PB170251BS Acquired: 10/28/2025 16:06:12 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7514077**	**.2099904**	**.8934985**	**6.153509**	F **.0087788**	**.2229282**
Stddev	.0010007	.0006873	.0096512	.017611	.0057512	.0007629
%RSD	.1331802	.3272866	1.080155	.2861874	65.51203	.3422136
#1	.7506654	.2096433	.8931917	6.159267	.0057371	.2223663
#2	.7525458	.2107820	.8840043	6.167520	.0154121	.2226217
#3	.7510120	.2095459	.9032994	6.133741	.0051873	.2237967

Elem	Sr4077
Units	ppm
Avg	**.2067498**
Stddev	.0001551
%RSD	.0750074
#1	.2067168
#2	.2069187
#3	.2066139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5648.787**	**90814.93**	**6847.184**	**4233.682**	**6983.937**
Stddev	6.620	224.46	23.090	17.633	14.636
%RSD	.1171855	.2471583	.3372221	.4165025	.2095700
#1	5646.431	91060.94	6832.190	4251.628	6974.570
#2	5643.667	90762.55	6835.587	4233.037	6976.437
#3	5656.262	90621.29	6873.774	4216.379	7000.803

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3434-02DLX5 Acquired: 10/28/2025 16:10:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039388**	**-.000352**	**.0311585**	**-.001364**	**.0016982**	**3.654840**
Stddev	.0017032	.002027	.0006711	.000850	.0004813	.255911
%RSD	43.24249	575.6060	2.153794	62.36452	28.34188	7.001973
#1	.0058748	.000584	.0304075	-.000548	.0013278	3.949282
#2	.0026709	.001037	.0316993	-.002245	.0015244	3.485976
#3	.0032707	-.002678	.0313688	-.001299	.0022422	3.529262

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1120728**	**.0002330**	**.0003896**	**35.26042**	**.0220457**	**.0013847**
Stddev	.0082435	.0001011	.0000704	2.35924	.0003466	.0001893
%RSD	7.355447	43.37421	18.07016	6.690913	1.572281	13.67373
#1	.1215915	.0001475	.0003085	37.97413	.0224332	.0015545
#2	.1072970	.0002069	.0004343	33.69644	.0219386	.0014190
#3	.1073300	.0003445	.0004261	34.11071	.0217652	.0011806

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0236981**	**4.783396**	**.2544498**	**104.9578**	**.0065100**	**-.000093**
Stddev	.0004020	.080849	.0171491	7.1700	.0003205	.000308
%RSD	1.696394	1.690194	6.739685	6.831350	4.923836	331.1867
#1	.0239380	4.858631	.2741517	113.1849	.0067401	-.000412
#2	.0232339	4.697911	.2428752	100.0407	.0066461	-.000067
#3	.0239223	4.793646	.2463227	101.6477	.0061439	.000201

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1003.320**	**.0084363**	**.1225650**	**42.53179**	**.3601631**	**.0061279**
Stddev	4.436	.0028256	.0009963	.53642	.0197896	.0002092
%RSD	.4421633	33.49286	.8128539	1.261232	5.494620	3.413179
#1	999.623	.0108276	.1231421	43.12680	.3829857	.0062041
#2	1002.098	.0053184	.1214146	42.08520	.3477629	.0058914
#3	1008.239	.0091629	.1231384	42.38337	.3497408	.0062884

Sample Name: Q3434-02DLX5 Acquired: 10/28/2025 16:10:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203337	.1755375	F 10.59448	.7297619	F 83.28487	.0250199
Stddev	.0004832	.0026258	.13448	.0041260	.67823	.0025829
%RSD	2.376506	1.495851	1.269295	.5653952	.8143488	10.32352
#1	.0207229	.1770034	10.73415	.7334638	84.02131	.0271492
#2	.0197928	.1725060	10.58342	.7253136	82.68591	.0221466
#3	.0204852	.1771029	10.46588	.7305082	83.14740	.0257639

Elem	Sr4077
Units	ppm
Avg	.5860387
Stddev	.0394759
%RSD	6.736053
#1	.6314705
#2	.5601122
#3	.5665334

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4982.322	79469.90	6968.815	3724.782	5521.320
Stddev	13.028	404.96	384.007	24.528	8.900
%RSD	.2614852	.5095710	5.510358	.6585070	.1611947
#1	4990.740	79156.32	6529.583	3704.564	5531.079
#2	4988.910	79927.09	7241.035	3752.068	5519.231
#3	4967.316	79326.28	7135.828	3717.715	5513.651

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-01DLX5 Acquired: 10/28/2025 16:14:32 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1164229**	**-.039107**	**2.535478**	**.0006701**	**.0660646**	**2.315609**
Stddev	.0014637	.000814	.000766	.0005990	.0008977	.214302
%RSD	1.257228	2.082128	.0302177	89.38611	1.358740	9.254665
#1	.1163650	-.039235	2.534928	.0000728	.0671005	2.541414
#2	.1149890	-.038236	2.536353	.0006666	.0655763	2.290366
#3	.1179147	-.039849	2.535153	.0012708	.0655169	2.115046

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1514175**	**.0079878**	**.0075527**	**11.88436**	**.0074083**	**.0592551**
Stddev	.0165791	.0006128	.0007288	1.01477	.0008596	.0004548
%RSD	10.94929	7.671578	9.650130	8.538728	11.60310	.7674426
#1	.1689373	.0085558	.0067134	12.94798	.0064543	.0587765
#2	.1493403	.0080692	.0080264	11.77833	.0081226	.0593074
#3	.1359748	.0073383	.0079182	10.92676	.0076480	.0596815

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.788820**	**485.5353**	**2.439496**	**2.129059**	**.1132228**	**.0120557**
Stddev	.004948	7.9750	.210352	.178192	.0005250	.0017499
%RSD	.2766122	1.642527	8.622747	8.369516	.4636875	14.51552
#1	1.783200	494.7264	2.660142	2.309070	.1134483	.0139384
#2	1.792521	480.4459	2.417118	2.125364	.1126227	.0117500
#3	1.790739	481.4336	2.241228	1.952743	.1135974	.0104788

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.004496**	**.0502114**	**1.514399**	**.6525934**	**.1673657**	**.0020832**
Stddev	.119310	.0020491	.013243	.0526509	.0780297	.0002392
%RSD	1.325004	4.080841	.8744588	8.067953	46.62227	11.48376
#1	9.142051	.0525566	1.529556	.6365990	.0929130	.0022899
#2	8.929095	.0487676	1.505064	.6097944	.1606463	.0021386
#3	8.942341	.0493100	1.508579	.7113869	.2485377	.0018211

Sample Name: Q3447-01DLX5 Acquired: 10/28/2025 16:14:32 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1120826	.1103561	1.164486	.6679230	F 18.36860	.0548620
Stddev	.0014636	.0102936	.002916	.0027874	.10655	.0021808
%RSD	1.305838	9.327609	.2504187	.4173166	.5800539	3.975120
#1	.1132608	.1215380	1.167750	.6711359	18.38567	.0573800
#2	.1104442	.1082555	1.163568	.6661509	18.25455	.0535761
#3	.1125428	.1012749	1.162139	.6664823	18.46559	.0536298

Elem	Sr4077
Units	ppm
Avg	-.358966
Stddev	.004229
%RSD	1.178124
#1	-.357740
#2	-.355485
#3	-.363672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5584.830	92243.71	7528.088	4200.030	6870.759
Stddev	6.980	642.28	586.417	27.173	1.474
%RSD	.1249855	.6962892	7.789715	.6469680	.0214586
#1	5581.210	91594.71	6932.614	4173.466	6870.367
#2	5580.404	92879.06	7546.644	4227.774	6872.390
#3	5592.877	92257.37	8105.006	4198.851	6869.521

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-03DLX5 Acquired: 10/28/2025 16:18:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8908674**	**-.030695**	**45.39713**	**.0913452**	**1.969073**	**34.17603**
Stddev	.0007980	.001270	.04743	.0016117	.001660	.36319
%RSD	.0895781	4.138031	.1044846	1.764420	.0842853	1.062710
#1	.8907605	-.031004	45.38371	.0912493	1.970105	34.59206
#2	.8901282	-.029298	45.35785	.0897836	1.967159	33.92226
#3	.8917135	-.031782	45.44982	.0930028	1.969955	34.01375

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.923316**	**.0092486**	**.0751737**	**84.42449**	**.3153771**	**.1178794**
Stddev	.037693	.0000615	.0002273	.98315	.0004792	.0001586
%RSD	1.289377	.6653284	.3023513	1.164535	.1519397	.1345175
#1	2.965680	.0093032	.0751503	85.52993	.3148892	.1180182
#2	2.893490	.0091819	.0749590	83.64795	.3158471	.1177066
#3	2.910778	.0092607	.0754118	84.09559	.3153950	.1179134

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.45520**	**413.0458**	**2.471190**	**13.57381**	**.6149287**	**.0738879**
Stddev	.00273	.6365	.035614	.23036	.0006026	.0000540
%RSD	.0260810	.1541105	1.441182	1.697106	.0979886	.0730714
#1	10.45483	413.3427	2.511857	13.83578	.6152384	.0738743
#2	10.45809	413.4796	2.445564	13.40289	.6142343	.0738420
#3	10.45267	412.3150	2.456149	13.48275	.6153134	.0739474

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.081669**	**.2191267**	**10.31911**	**3.568630**	**.1998868**	**.0218516**
Stddev	.016107	.0003699	.02600	.012534	.0084976	.0003079
%RSD	.7737643	.1688095	.2519395	.3512168	4.251215	1.409014
#1	2.077481	.2194128	10.34117	3.583006	.1925416	.0219294
#2	2.099457	.2192583	10.32572	3.562889	.2091937	.0215122
#3	2.068070	.2187090	10.29045	3.559995	.1979251	.0221130

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-03DLX5 Acquired: 10/28/2025 16:18:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.833676	1.228737	1.418738	6.753993	F 15.34207	.0716208
Stddev	.002299	.018591	.006365	.032194	.02659	.0021717
%RSD	.1253683	1.513038	.4486658	.4766590	.1732932	3.032264
#1	1.835518	1.248957	1.426027	6.771044	15.37275	.0735023
#2	1.831100	1.212383	1.415915	6.774075	15.32588	.0692443
#3	1.834411	1.224872	1.414274	6.716861	15.32757	.0721158

Elem	Sr4077
Units	ppm
Avg	.1294249
Stddev	.0076787
%RSD	5.932898
#1	.1379195
#2	.1229768
#3	.1273786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5776.116	94823.18	7630.935	4373.259	6587.063
Stddev	3.140	244.15	76.622	9.766	4.519
%RSD	.0543638	.2574813	1.004091	.2233170	.0686098
#1	5776.975	95098.79	7552.924	4371.618	6592.254
#2	5772.635	94633.99	7706.087	4364.417	6584.005
#3	5778.736	94736.76	7633.795	4383.741	6584.930

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-05DLX5 Acquired: 10/28/2025 16:22:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1348430**	**-.012163**	F **371.2904**	**-.001371**	**3.616398**	**5.597981**
Stddev	.0024820	.001776	8.6157	.003629	.081539	.016553
%RSD	1.840648	14.60231	2.320474	264.7498	2.254689	.2957035
#1	.1365752	-.013007	373.1373	-.004244	3.640824	5.616324
#2	.1319995	-.013360	361.9010	-.002576	3.525439	5.593463
#3	.1359541	-.010122	378.8329	.002707	3.682933	5.584156

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2920762**	**.0023785**	**.0352578**	**6.897569**	**.0454237**	**.0344486**
Stddev	.0012963	.0000394	.0006138	.019919	.0012076	.0009794
%RSD	.4438403	1.655801	1.740930	.2887773	2.658555	2.843176
#1	.2912246	.0023346	.0354932	6.911827	.0458903	.0350101
#2	.2914359	.0024106	.0345612	6.874810	.0440524	.0333177
#3	.2935681	.0023904	.0357192	6.906068	.0463285	.0350181

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **93.23386**	**138.3269**	**.6160065**	**1.481769**	**.3495502**	**.0637836**
Stddev	1.93660	3.9512	.0032527	.023538	.0073991	.0021169
%RSD	2.077145	2.856447	.5280336	1.588486	2.116741	3.318928
#1	93.93742	140.2344	.6129478	1.459609	.3528071	.0653992
#2	91.04383	133.7838	.6156481	1.506477	.3410814	.0613872
#3	94.72034	140.9624	.6194235	1.479221	.3547621	.0645645

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.426182**	**.3742944**	**4.587881**	**1.310039**	**.0465067**	**.0075954**
Stddev	.048653	.0011740	.122201	.074321	.0132340	.0001888
%RSD	3.411416	.3136529	2.663550	5.673160	28.45604	2.485789
#1	1.427493	.3736128	4.623421	1.315648	.0551820	.0077822
#2	1.376886	.3736204	4.451850	1.233073	.0312744	.0074046
#3	1.474166	.3756500	4.688372	1.381396	.0530635	.0075994

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3447-05DLX5 Acquired: 10/28/2025 16:22:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **104.3178**	**.1415798**	**.4883330**	**.4448225**	F **20.54288**	**.0200395**
Stddev	2.2834	.0005298	.0051731	.0078626	.39092	.0018256
%RSD	2.188889	.3741873	1.059344	1.767574	1.902941	9.109867
#1	105.3194	.1418403	.4931475	.4491505	20.77465	.0179951
#2	101.7048	.1409702	.4889878	.4357468	20.09154	.0206168
#3	105.9292	.1419288	.4828636	.4495701	20.76245	.0215066

Elem	Sr4077
Units	ppm
Avg	**-.094875**
Stddev	.003859
%RSD	4.067229
#1	-.096865
#2	-.090427
#3	-.097332

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5686.296**	**95212.85**	**7417.697**	**4266.237**	**7060.571**
Stddev	112.440	2316.04	34.473	105.984	131.936
%RSD	1.977377	2.432489	.4647452	2.484256	1.868631
#1	5640.281	94171.03	7456.269	4225.698	7002.681
#2	5814.445	97866.83	7389.891	4386.507	7211.555
#3	5604.163	93600.68	7406.932	4186.506	6967.475

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DLX5 Acquired: 10/28/2025 16:26:58 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0224205**	**.0018441**	**.0062012**	**.2015653**	**.0030532**	**1.030195**
Stddev	.0002160	.0036396	.0010198	.0036358	.0007520	.009342
%RSD	.9632116	197.3623	16.44520	1.803778	24.62935	.9068007
#1	.0223652	.0014806	.0071466	.2025921	.0037267	1.020623
#2	.0222376	-.001600	.0051205	.1975265	.0022418	1.039289
#3	.0226588	.005652	.0063364	.2045773	.0031911	1.030673

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031716**	**.0000158**	**-.000003**	**.4568728**	**.0095301**	**.0007356**
Stddev	.0015122	.0000570	.000055	.0170634	.0003155	.0001579
%RSD	47.67750	360.8747	1665.259	3.734826	3.310542	21.46267
#1	.0015829	.0000772	.000006	.4667302	.0091962	.0007203
#2	.0045933	-.000036	-.000062	.4667186	.0095708	.0009005
#3	.0033387	.000006	.000046	.4371697	.0098233	.0005859

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046318**	**.2350514**	**.0047674**	**.3284303**	**.0074399**	**-.000770**
Stddev	.0003257	.0066660	.0007503	.0263162	.0002750	.000213
%RSD	7.031306	2.835979	15.73795	8.012703	3.696603	27.70225
#1	.0043311	.2396616	.0044709	.3063160	.0073352	-.001005
#2	.0049777	.2274082	.0056206	.3575363	.0077519	-.000588
#3	.0045867	.2380844	.0042106	.3214388	.0072326	-.000717

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **2481.408**	**.0012298**	**.1144580**	**4.685817**	**3.310274**	**.0117155**
Stddev	8.551	.0022814	.0002853	.261814	.047062	.0002273
%RSD	.3445997	185.5067	.2492434	5.587362	1.421683	1.940371
#1	2491.231	.0027840	.1141725	4.403017	3.281225	.0117841
#2	2477.358	-.001389	.1144585	4.734672	3.364572	.0114618
#3	2475.634	.002295	.1147431	4.919762	3.285026	.0119006

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DLX5 Acquired: 10/28/2025 16:26:58 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0298997	.0206333	6.158174	.0644297	F 584.7707	.0274365
Stddev	.0047607	.0026131	.156554	.0023043	3.2777	.0028158
%RSD	15.92212	12.66435	2.542217	3.576399	.5605123	10.26280
#1	.0349929	.0236288	6.005627	.0622033	582.3662	.0243586
#2	.0291444	.0188218	6.150446	.0668046	588.5042	.0280678
#3	.0255619	.0194493	6.318449	.0642811	583.4417	.0298829

Elem	Sr4077
Units	ppm
Avg	.0040642
Stddev	.0000553
%RSD	1.360429
#1	.0040839
#2	.0040018
#3	.0041069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4728.136	73397.04	7067.134	3537.429	5115.962
Stddev	8.224	302.07	117.467	20.384	12.857
%RSD	.1739466	.4115541	1.662154	.5762483	.2513166
#1	4732.634	73732.67	7118.148	3549.400	5127.198
#2	4718.643	73147.01	6932.785	3548.995	5101.940
#3	4733.130	73311.42	7150.470	3513.892	5118.747

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DUPDLX5 Acquired: 10/28/2025 16:31:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0227420**	**.0014725**	**.0016508**	**.1972764**	**.0026670**	**1.016313**
Stddev	.0022951	.0003722	.0009815	.0026805	.0025022	.006276
%RSD	10.09201	25.27296	59.45745	1.358770	93.82275	.6175567
#1	.0242684	.0015799	.0025293	.1984528	-.000218	1.018680
#2	.0201026	.0017792	.0018317	.1991676	.004242	1.021063
#3	.0238551	.0010585	.0005914	.1942089	.003977	1.009198

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053585**	**.0000218**	**.0000710**	**.4449206**	**.0094480**	**.0004564**
Stddev	.0011157	.0000647	.0000717	.0069070	.0000866	.0000903
%RSD	20.82111	296.5252	100.9914	1.552403	.9165181	19.78550
#1	.0047590	.0000430	.0000620	.4436330	.0094504	.0005581
#2	.0066458	.0000733	.0001467	.4523808	.0095335	.0004255
#3	.0046707	-.000051	.0000042	.4387481	.0093603	.0003856

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045181**	**.2214331**	**.0048480**	**.3285027**	**.0071888**	**-.000296**
Stddev	.0003729	.0056254	.0006019	.0268972	.0002485	.000890
%RSD	8.254216	2.540470	12.41586	8.187805	3.456558	300.9796
#1	.0043159	.2258308	.0042708	.3541515	.0074667	.000594
#2	.0042899	.2150941	.0048011	.3308461	.0071116	-.001187
#3	.0049484	.2233745	.0054719	.3005105	.0069881	-.000295

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **2370.208**	**-.000287**	**.1136705**	**5.916791**	**3.386970**	**.0115996**
Stddev	32.882	.000405	.0003499	.238243	.010555	.0002417
%RSD	1.387287	141.1500	.3078264	4.026555	.3116314	2.083537
#1	2396.333	-.000555	.1133344	5.641806	3.375312	.0113227
#2	2333.286	-.000484	.1140327	6.047440	3.395877	.0117079
#3	2381.007	.000179	.1136444	6.061128	3.389721	.0117682

Sample Name: Q3420-05DUPDLX5 Acquired: 10/28/2025 16:31:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103776	.0197188	6.288162	.0625256	F 574.8356	.0463129
Stddev	.0009676	.0020457	.134099	.0005064	3.5745	.0029022
%RSD	9.324351	10.37414	2.132562	.8099015	.6218264	6.266583
#1	.0111904	.0180215	6.161106	.0623231	572.6700	.0430412
#2	.0106352	.0219902	6.275041	.0631020	572.8756	.0473200
#3	.0093072	.0191448	6.428339	.0621519	578.9614	.0485774

Elem	Sr4077
Units	ppm
Avg	.0039758
Stddev	.0000975
%RSD	2.451724
#1	.0040479
#2	.0038649
#3	.0040145

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4744.204	72659.31	6800.967	3519.039	5136.506
Stddev	6.110	179.51	16.838	9.862	4.051
%RSD	.1287891	.2470639	.2475881	.2802573	.0788695
#1	4745.504	72562.41	6816.085	3524.703	5140.172
#2	4749.560	72866.45	6803.996	3524.764	5132.157
#3	4737.549	72549.06	6782.819	3507.651	5137.188

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV05 Acquired: 10/28/2025 16:35:45 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.098963**	**5.043949**	**5.061880**	**5.085705**	**5.116959**	**9.901456**	**10.25664**
Stddev	.013166	.023627	.002643	.013927	.009557	.023107	.02088
%RSD	.2582014	.4684283	.0522171	.2738428	.1867632	.2333719	.2035663
#1	5.109107	5.052325	5.064374	5.101346	5.127947	9.926594	10.24971
#2	5.084085	5.062248	5.062155	5.074648	5.112345	9.896630	10.28010
#3	5.103697	5.017275	5.059110	5.081121	5.110584	9.881142	10.24011

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2618234**	**2.563415**	**25.53834**	**1.028850**	**2.577531**	**1.292935**	**5.066196**
Stddev	.0019388	.001500	.01770	.003426	.000874	.000740	.050805
%RSD	.7405076	.0585153	.0693163	.3330227	.0339156	.0572334	1.002822
#1	.2638917	2.564225	25.55877	1.027083	2.577245	1.293621	5.022723
#2	.2615313	2.564336	25.52832	1.032799	2.578512	1.293033	5.122046
#3	.2600472	2.561684	25.52792	1.026667	2.576836	1.292151	5.053818

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.592690**	**25.40737**	**2.563060**	**1.279647**	**26.39580**	**2.540705**	**2.563136**
Stddev	.007559	.13148	.000589	.002433	.16735	.010445	.005885
%RSD	.2915476	.5175072	.0229720	.1901529	.6340135	.4110964	.2295905
#1	2.601279	25.55834	2.563717	1.276844	26.23838	2.550627	2.556379
#2	2.589740	25.34586	2.562582	1.281215	26.57157	2.541683	2.565891
#3	2.587050	25.31793	2.562879	1.280881	26.37743	2.529806	2.567138

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.45204**	**5.198656**	**5.170858**	**5.172901**	**5.105928**	**5.237056**	**5.274512**
Stddev	.20444	.032040	.005966	.011643	.015695	.048225	.013994
%RSD	.8032174	.6163083	.1153703	.2250713	.3073801	.9208341	.2653157
#1	25.24132	5.235489	5.177225	5.186337	5.091726	5.186743	5.263200
#2	25.64955	5.177232	5.169954	5.166596	5.122778	5.282878	5.290161
#3	25.46524	5.183248	5.165397	5.165771	5.103280	5.241547	5.270174

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV05 Acquired: 10/28/2025 16:35:45 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.133327**	**5.033446**	**5.079931**
Stddev	.009617	.015422	.081120
%RSD	.1873414	.3063887	1.596870
#1	5.144413	5.020571	5.024016
#2	5.128352	5.050537	5.042807
#3	5.127217	5.029229	5.172969

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5490.059**	**88607.80**	**6823.074**	**4178.207**	**6349.159**
Stddev	5.514	253.52	49.656	16.276	7.951
%RSD	.1004278	.2861155	.7277632	.3895545	.1252325
#1	5495.041	88611.28	6768.612	4183.557	6357.267
#2	5484.135	88352.57	6834.774	4159.930	6341.375
#3	5491.000	88859.57	6865.834	4191.136	6348.835

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB05 Acquired: 10/28/2025 16:39:48 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003669**	**.0013049**	**-.000719**	**.0024590**	**.0021419**	**.0078310**
Stddev	.0014696	.0030953	.000347	.0021855	.0012209	.0068494
%RSD	400.5773	237.2151	48.21610	88.87710	57.00034	87.46560
#1	.0010348	.0048514	-.000655	.0007464	.0034331	.0156136
#2	.0013838	-.000084	-.000409	.0017102	.0019865	.0027200
#3	-.001318	-.000853	-.001093	.0049206	.0010061	.0051594

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008253**	**.0000019**	**.0000250**	**.0027180**	**.0000469**	**-.000022**
Stddev	.0012230	.0000680	.0000426	.0150786	.0002181	.000070
%RSD	148.1934	3658.316	170.4022	554.7730	465.0349	313.0096
#1	.0010882	.0000112	.0000740	-.013763	.0002835	-.000102
#2	.0018954	-.000070	-.000003	.015822	.0000036	.000024
#3	-.000508	.000065	.000003	.006094	-.000146	.000012

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001031**	**-.000581**	**-.000496**	**-.010026**	**-.000475**	**-.000389**
Stddev	.0001466	.001881	.000571	.007937	.000181	.000311
%RSD	142.1926	323.5022	115.2000	79.15986	38.19825	79.94858
#1	-.000062	.001527	.000123	-.019168	-.000541	-.000424
#2	.000219	-.001186	-.001003	-.004892	-.000614	-.000062
#3	.000152	-.002086	-.000607	-.006019	-.000270	-.000681

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7017270**	**-.001759**	**-.000141**	**.4169105**	**.0033156**	**.0005106**
Stddev	.0330429	.003188	.000111	.0404631	.0013500	.0001601
%RSD	4.708802	181.1827	78.80997	9.705474	40.71526	31.34994
#1	.6662085	-.005382	-.000267	.3874024	.0045548	.0004949
#2	.7074170	.000615	-.000058	.4002924	.0035150	.0006779
#3	.7315553	-.000511	-.000097	.4630369	.0018771	.0003590

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB05 Acquired: 10/28/2025 16:39:48 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056521	.0000531	.0171808	-.001249	F .0168212	.0055205
Stddev	.0011848	.0021751	.0189465	.001155	.0005537	.0028908
%RSD	20.96234	4098.639	110.2775	92.49091	3.291756	52.36445
#1	.0052120	.0008163	.0390577	-.000022	.0165465	.0087693
#2	.0047504	-.002401	.0063830	-.001408	.0164585	.0032320
#3	.0069940	.001744	.0061016	-.002316	.0174585	.0045604

Elem	Sr4077
Units	ppm
Avg	-.000039
Stddev	.000081
%RSD	205.0804
#1	-.000078
#2	.000053
#3	-.000093

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5492.214	91768.40	7024.112	4280.817	7096.471
Stddev	239.205	516.46	34.892	32.640	305.956
%RSD	4.355345	.5627854	.4967468	.7624771	4.311388
#1	5631.654	92360.96	7013.152	4317.476	7269.302
#2	5628.979	91530.32	7063.168	4270.068	7276.900
#3	5216.008	91413.93	6996.016	4254.906	6743.210

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3417-01DLX5 Acquired: 10/28/2025 16:44:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1514671**	**-.184564**	**-.004135**	**.4007924**	**.1330642**	**.1570298**	**-.011947**
Stddev	.0035554	.003990	.000978	.0051949	.0041997	.0081212	.000352
%RSD	2.347306	2.161932	23.65869	1.296167	3.156147	5.171748	2.950168
#1	.1484522	-.181802	-.003264	.3948414	.1372879	.1615668	-.011541
#2	.1553877	-.182751	-.003947	.4031145	.1330158	.1618688	-.012177
#3	.1505613	-.189139	-.005193	.4044213	.1288889	.1476539	-.012123

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007889**	**.0001025**	**.8174947**	**.0009377**	**.0031641**	**.0155365**	**9.483934**
Stddev	.0000247	.0000207	.0133387	.0000833	.0001562	.0001569	.052184
%RSD	3.132649	20.16364	1.631660	8.877743	4.935007	1.010043	.5502341
#1	.0007894	.0000795	.8297347	.0009518	.0033401	.0156473	9.453756
#2	.0007640	.0001194	.8194717	.0010130	.0031100	.0156052	9.544191
#3	.0008134	.0001085	.8032779	.0008483	.0030422	.0153569	9.453856

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1705454**	**.1612647**	**.0084821**	**.0022841**	**4.834286**	**.0017381**	**.0483054**
Stddev	.0017745	.0082819	.0004122	.0001713	.038090	.0055277	.0004376
%RSD	1.040493	5.135602	4.859639	7.499455	.7879105	318.0274	.9058706
#1	.1714659	.1588478	.0080146	.0023237	4.790531	.0012321	.0479312
#2	.1684998	.1704862	.0086386	.0024322	4.852292	.0075014	.0487865
#3	.1716705	.1544600	.0087931	.0020965	4.860034	-.003519	.0481985

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.90397**	**.0027683**	**.0073491**	**.1027519**	**.0065527**	**.1808797**	**.6208377**
Stddev	.05576	.0002971	.0003341	.0009160	.0014869	.0057984	.0054602
%RSD	.4684156	10.73090	4.545810	.8914400	22.69146	3.205654	.8794938
#1	11.84416	.0028476	.0077134	.1036458	.0082344	.1742883	.6206236
#2	11.95452	.0030177	.0070571	.1018153	.0060115	.1851935	.6154877
#3	11.91324	.0024396	.0072767	.1027944	.0054122	.1831572	.6264019

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3417-01DLX5 Acquired: 10/28/2025 16:44:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.740639	.0009853	-.006067
Stddev	.005561	.0012873	.000105
%RSD	.3194773	130.6498	1.732010
#1	1.736899	.0007488	-.006078
#2	1.737988	.0023743	-.006166
#3	1.747029	-.000167	-.005957

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5015.369	82911.86	7851.572	3720.638	7224.605
Stddev	1.978	546.34	32.018	21.960	4.697
%RSD	.0394315	.6589354	.4077917	.5902331	.0650205
#1	5013.244	82938.40	7834.691	3722.112	7227.686
#2	5015.707	82352.74	7831.527	3697.977	7226.929
#3	5017.156	83444.44	7888.498	3741.824	7219.198

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDLX5 Acquired: 10/28/2025 16:48:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2033226**	**.3213025**	**.2030834**	**.6536246**	**.1829545**	**1.047240**
Stddev	.0022016	.0072437	.0010167	.0022842	.0003810	.004527
%RSD	1.082807	2.254487	.5006195	.3494636	.2082545	.4322953
#1	.2052134	.3296344	.2019257	.6562596	.1833624	1.042427
#2	.2009056	.3164991	.2034930	.6522066	.1826077	1.051413
#3	.2038488	.3177740	.2038313	.6524077	.1828934	1.047881

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0449357**	**.0398275**	**.0441469**	**.5847149**	**.0940896**	**.0439661**
Stddev	.0021995	.0007514	.0002702	.0045725	.0002408	.0001678
%RSD	4.894848	1.886542	.6119690	.7820034	.2558868	.3816752
#1	.0474638	.0406918	.0439934	.5899413	.0942787	.0438299
#2	.0434604	.0393300	.0439885	.5814525	.0941716	.0439150
#3	.0438830	.0394607	.0444589	.5827509	.0938186	.0441536

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0651839**	**.8870867**	**.0446415**	**.6833179**	**.1152489**	**.0178378**
Stddev	.0005338	.0148271	.0005870	.0397604	.0006135	.0004738
%RSD	.8189969	1.671442	1.314868	5.818728	.5322907	2.656224
#1	.0645808	.8699853	.0451723	.6753254	.1148057	.0173904
#2	.0653753	.8949295	.0447412	.6481609	.1149919	.0183342
#3	.0655957	.8963452	.0440111	.7264675	.1159491	.0177887

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **2377.274**	**.0617324**	**.1547263**	**7.383189**	**3.334464**	**.0959494**
Stddev	33.634	.0013448	.0009152	.357770	.063710	.0000875
%RSD	1.414814	2.178410	.5914752	4.845740	1.910644	.0912388
#1	2376.066	.0616199	.1555450	7.005341	3.408030	.0959143
#2	2344.260	.0631299	.1537383	7.427468	3.297809	.0960490
#3	2411.496	.0604474	.1548955	7.716759	3.297554	.0958848

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDLX5 Acquired: 10/28/2025 16:48:53 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1555124	.0548415	5.152329	1.527667	F 548.6883	.0766614
Stddev	.0013789	.0013327	.159297	.002586	1.9528	.0028985
%RSD	.8866787	2.430066	3.091749	.1692662	.3558955	3.780953
#1	.1539688	.0534846	4.983365	1.527262	550.0369	.0755272
#2	.1559457	.0548913	5.173851	1.525307	546.4490	.0745015
#3	.1566225	.0561485	5.299771	1.530431	549.5790	.0799555

Elem	Sr4077
Units	ppm
Avg	.0426679
Stddev	.0002658
%RSD	.6230418
#1	.0429278
#2	.0423965
#3	.0426792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4771.049	74786.06	6860.880	3589.821	5186.151
Stddev	13.101	35.55	130.375	16.953	15.303
%RSD	.2745920	.0475386	1.900266	.4722468	.2950699
#1	4783.142	74781.57	6710.370	3570.846	5201.462
#2	4772.873	74752.96	6933.367	3603.476	5186.134
#3	4757.131	74823.64	6938.904	3595.140	5170.857

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDDLX5 Acquired: 10/28/2025 16:53:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2064616**	**.3453919**	**.2086076**	**.6493210**	**.1793901**	**1.122625**
Stddev	.0031842	.0175879	.0014034	.0045414	.0019923	.009653
%RSD	1.542261	5.092154	.6727221	.6994056	1.110577	.8598350
#1	.2035759	.3258254	.2074327	.6484855	.1782255	1.111649
#2	.2098777	.3504636	.2101615	.6452554	.1782544	1.129789
#3	.2059313	.3598867	.2082287	.6542222	.1816906	1.126438

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0412942**	**.0395336**	**.0453861**	**.5897239**	**.0957779**	**.0454461**
Stddev	.0004336	.0002950	.0002525	.0047994	.0005287	.0003091
%RSD	1.050099	.7463196	.5563885	.8138458	.5520162	.6800308
#1	.0417056	.0391933	.0451173	.5880912	.0952209	.0452808
#2	.0413356	.0397186	.0456184	.5859538	.0958400	.0458027
#3	.0408413	.0396888	.0454225	.5951266	.0962729	.0452549

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0658968**	**.9074112**	**.0433593**	**.6918417**	**.1178813**	**.0178234**
Stddev	.0005550	.0182053	.0008355	.0128971	.0004361	.0003025
%RSD	.8422364	2.006290	1.926857	1.864174	.3699202	1.697195
#1	.0661527	.9048890	.0426141	.6772967	.1183837	.0175001
#2	.0652600	.8905986	.0442624	.7018832	.1176006	.0178705
#3	.0662778	.9267461	.0432012	.6963454	.1176597	.0180996

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2277.311**	**.0654634**	**.1628736**	**8.594619**	**3.290807**	**.0975419**
Stddev	31.102	.0027209	.0021528	.325012	.021728	.0002710
%RSD	1.365727	4.156417	1.321760	3.781572	.6602556	.2778623
#1	2246.324	.0646508	.1626827	8.326850	3.268454	.0972300
#2	2277.082	.0632413	.1608226	8.500782	3.311850	.0976759
#3	2308.526	.0684980	.1651155	8.956226	3.292119	.0977199

Sample Name: Q3420-05MSDDLX5 Acquired: 10/28/2025 16:53:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1591264	.0575116	5.644661	1.567511	F 557.7196	.0902324
Stddev	.0002063	.0011133	.162685	.008316	3.5114	.0018148
%RSD	.1296694	1.935821	2.882098	.5305161	.6296041	2.011204
#1	.1592312	.0564130	5.499071	1.557910	553.6731	.0882715
#2	.1592593	.0586391	5.614650	1.572434	559.5207	.0918528
#3	.1588887	.0574826	5.820262	1.572190	559.9651	.0905728

Elem	Sr4077
Units	ppm
Avg	.0422137
Stddev	.0004624
%RSD	1.095474
#1	.0416860
#2	.0425482
#3	.0424069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4716.531	73570.68	6894.315	3582.002	5112.590
Stddev	13.201	714.77	49.463	18.197	15.875
%RSD	.2798795	.9715353	.7174402	.5080250	.3105173
#1	4719.364	74042.67	6935.390	3578.649	5119.870
#2	4702.144	73921.04	6839.409	3601.643	5094.380
#3	4728.085	72748.34	6908.146	3565.714	5123.520

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05ADLX5 Acquired: 10/28/2025 16:57:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2015596**	**.3352860**	**.2029895**	**.6399293**	**.1766083**	**1.028518**
Stddev	.0012132	.0049835	.0011588	.0026699	.0006724	.011900
%RSD	.6019081	1.486350	.5708654	.4172147	.3807029	1.157027
#1	.2028345	.3369900	.2029915	.6417823	.1758365	1.037801
#2	.2004193	.3391940	.2041473	.6368690	.1770672	1.015102
#3	.2014250	.3296740	.2018297	.6411366	.1769212	1.032649

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0404457**	**.0404522**	**.0444659**	**.5839843**	**.0939678**	**.0445752**
Stddev	.0014523	.0004895	.0000891	.0051535	.0005787	.0003592
%RSD	3.590780	1.210119	.2004162	.8824640	.6158294	.8057671
#1	.0411218	.0410169	.0445315	.5809502	.0933004	.0448471
#2	.0414368	.0401899	.0443645	.5899346	.0943304	.0447105
#3	.0387786	.0401497	.0445019	.5810681	.0942726	.0441681

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0649855**	**.9149867**	**.0450041**	**.6882799**	**.1160490**	**.0172964**
Stddev	.0004316	.0041889	.0009409	.0147762	.0004079	.0003097
%RSD	.6642150	.4578065	2.090677	2.146833	.3514678	1.790383
#1	.0654718	.9137684	.0458172	.6911644	.1163921	.0172575
#2	.0646478	.9196497	.0452217	.6722741	.1155980	.0176237
#3	.0648368	.9115420	.0439735	.7014011	.1161569	.0170080

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2239.738**	**.0583006**	**.1557513**	**8.909079**	**3.396493**	**.0954014**
Stddev	9.933	.0053614	.0004137	.308515	.041579	.0000406
%RSD	.4435048	9.196079	.2655819	3.462926	1.224189	.0425917
#1	2250.206	.0574083	.1555641	8.553356	3.444504	.0954007
#2	2238.565	.0640522	.1554643	9.070284	3.372412	.0954423
#3	2230.444	.0534414	.1562254	9.103596	3.372561	.0953611

Sample Name: Q3420-05ADLX5 Acquired: 10/28/2025 16:57:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1553630	.0553802	5.515673	1.580897	F 562.4653	.0959408
Stddev	.0011133	.0012700	.147470	.006671	3.0532	.0014711
%RSD	.7165799	2.293270	2.673657	.4219438	.5428274	1.533289
#1	.1552673	.0552792	5.349881	1.588342	565.5944	.0943250
#2	.1565210	.0566977	5.564919	1.578885	562.3073	.0962950
#3	.1543006	.0541637	5.632218	1.575464	559.4941	.0972024

Elem	Sr4077
Units	ppm
Avg	.0423880
Stddev	.0005081
%RSD	1.198696
#1	.0428938
#2	.0423926
#3	.0418776

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4722.040	72277.74	6643.403	3565.740	5090.374
Stddev	14.933	337.88	65.835	23.062	19.132
%RSD	.3162453	.4674785	.9909889	.6467535	.3758520
#1	4710.531	72424.55	6572.628	3565.565	5070.058
#2	4716.675	71891.28	6654.761	3542.767	5093.017
#3	4738.915	72517.37	6702.821	3588.889	5108.048

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05LDLX5 Acquired: 10/28/2025 17:01:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035726**	**-.004880**	**.0023140**	**.0365507**	**.0023693**	**.2184320**
Stddev	.0010675	.002989	.0009568	.0035632	.0012402	.0072656
%RSD	29.88042	61.26153	41.34660	9.748765	52.34499	3.326247
#1	.0028482	-.008097	.0025392	.0366766	.0018880	.2179706
#2	.0030711	-.004355	.0012647	.0400493	.0037779	.2259173
#3	.0047985	-.002188	.0031380	.0329262	.0014418	.2114082

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000922**	**-.000039**	**.0000575**	**.0917090**	**.0020285**	**.0001114**
Stddev	.000543	.000020	.0000859	.0057019	.0001856	.0000586
%RSD	58.84694	50.65739	149.4590	6.217376	9.146955	52.62254
#1	-.000550	-.000038	.0001385	.0947686	.0020429	.0000512
#2	-.000672	-.000020	.0000666	.0952280	.0022065	.0001683
#3	-.001545	-.000060	-.000033	.0851304	.0018362	.0001147

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016715**	**.0512299**	**.0020903**	**.0631761**	**.0010565**	**-.001151**
Stddev	.0001171	.0045199	.0008834	.0113277	.0000975	.000702
%RSD	7.007045	8.822707	42.26371	17.93040	9.233489	60.94267
#1	.0016860	.0506826	.0013691	.0671982	.0011691	-.001666
#2	.0015478	.0470086	.0030757	.0719440	.0010023	-.000352
#3	.0017807	.0559985	.0018261	.0503862	.0009980	-.001436

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**493.7764**	**-.001481**	**.0221112**	**2.033985**	**.7405382**	**.0030673**
Stddev	5.0549	.003620	.0002083	.076493	.0045422	.0001718
%RSD	1.023724	244.4038	.9419387	3.760766	.6133623	5.600237
#1	493.1700	-.002036	.0218725	1.963391	.7452625	.0032447
#2	489.0521	.002384	.0222557	2.023308	.7401489	.0030554
#3	499.1072	-.004791	.0222055	2.115256	.7362032	.0029018

Sample Name: Q3420-05LDLX5 Acquired: 10/28/2025 17:01:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039197	.0053856	1.157565	.0118904	F 112.6678	.0258100
Stddev	.0002751	.0010950	.008881	.0016982	.6677	.0005002
%RSD	7.018131	20.33168	.7671917	14.28188	.5926353	1.938157
#1	.0041734	.0051138	1.158789	.0106658	112.8978	.0263335
#2	.0039584	.0044520	1.165771	.0138290	111.9154	.0253369
#3	.0036273	.0065908	1.148136	.0111764	113.1900	.0257596

Elem	Sr4077
Units	ppm
Avg	.0008840
Stddev	.0000621
%RSD	7.022164
#1	.0009121
#2	.0008128
#3	.0009270

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5247.224	82797.95	6940.449	4024.350	5999.367
Stddev	12.225	240.15	22.128	22.643	14.114
%RSD	.2329753	.2900386	.3188252	.5626586	.2352656
#1	5253.111	83070.14	6918.000	4035.665	6009.364
#2	5233.170	82707.68	6941.106	3998.279	5983.221
#3	5255.392	82616.01	6962.241	4039.106	6005.516

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DL2X10 Acquired: 10/28/2025 17:06:12 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102624**	**-.006693**	**.0008540**	**.0980323**	**.0012793**	**.5165051**
Stddev	.0025996	.001607	.0009606	.0037151	.0021009	.0047433
%RSD	25.33156	24.01391	112.4775	3.789682	164.2205	.9183430
#1	.0078504	-.005861	.0018443	.0971685	.0006725	.5152710
#2	.0099208	-.008546	.0007916	.0948251	.0036168	.5125009
#3	.0130159	-.005672	-.000074	.1021032	-.000451	.5217435

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030005**	**.0000235**	**.0000169**	**.2260631**	**.0050612**	**.0000592**
Stddev	.0012540	.0000339	.0000347	.0051655	.0003589	.0000411
%RSD	41.79190	144.5571	204.5112	2.284964	7.091745	69.34258
#1	.0019121	.0000582	-.000023	.2262571	.0049795	.0000540
#2	.0043717	.0000218	.000040	.2208034	.0047502	.0001026
#3	.0027178	-.000010	.000034	.2311288	.0054540	.0000210

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019424**	**.1041874**	**.0025906**	**.1339760**	**.0033567**	**-.001123**
Stddev	.0001170	.0050952	.0003025	.0226635	.0002909	.000264
%RSD	6.022949	4.890443	11.67570	16.91608	8.664772	23.54728
#1	.0018237	.1074982	.0026315	.1139570	.0033278	-.001051
#2	.0019460	.1067439	.0028706	.1293888	.0030813	-.001416
#3	.0020576	.0983201	.0022698	.1585821	.0036609	-.000902

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1246.902**	**-.000905**	**.0570632**	**3.188275**	**1.801707**	**.0069954**
Stddev	10.466	.002004	.0003834	.102488	.005256	.0004677
%RSD	.8393823	221.5738	.6717942	3.214532	.2917347	6.685784
#1	1258.299	-.002550	.0568184	3.091175	1.797700	.0072029
#2	1244.684	.001328	.0575049	3.178238	1.799762	.0073235
#3	1237.722	-.001491	.0568661	3.295412	1.807658	.0064599

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DL2X10 Acquired: 10/28/2025 17:06:12 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0248742	.0128379	2.781422	.0302912	F 302.6625	.0268726
Stddev	.0008720	.0011987	.048485	.0023628	.4825	.0015805
%RSD	3.505678	9.337579	1.743186	7.800313	.1594200	5.881409
#1	.0257748	.0130566	2.737200	.0277030	302.1650	.0260362
#2	.0248139	.0139122	2.773797	.0308380	302.6942	.0286955
#3	.0240339	.0115448	2.833267	.0323328	303.1284	.0258861

Elem	Sr4077
Units	ppm
Avg	.0020059
Stddev	.0001981
%RSD	9.877231
#1	.0017924
#2	.0020414
#3	.0021839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4875.855	76074.87	6774.759	3689.688	5388.060
Stddev	18.175	170.87	31.757	16.739	14.427
%RSD	.3727455	.2246044	.4687541	.4536720	.2677608
#1	4855.001	76226.06	6811.220	3708.063	5371.461
#2	4884.251	75889.50	6759.909	3675.308	5395.132
#3	4888.315	76109.06	6753.147	3685.694	5397.587

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DUPDL2X10 Acquired: 10/28/2025 17:10:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103421**	**-.005284**	**.0007282**	**.0909014**	**.0010686**	**.4839035**
Stddev	.0014798	.002315	.0008552	.0043049	.0014923	.0059629
%RSD	14.30894	43.80918	117.4378	4.735794	139.6539	1.232244
#1	.0088108	-.007059	.0015095	.0868082	.0027711	.4872970
#2	.0104509	-.006128	-.000185	.0905052	.0004476	.4873950
#3	.0117645	-.002666	.000861	.0953906	-.000013	.4770183

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024048**	**-.000008**	**.0000418**	**.2275486**	**.0049409**	**.0003495**
Stddev	.0019028	.000077	.0000427	.0032243	.0003694	.0001556
%RSD	79.12317	983.2356	102.1409	1.416970	7.475481	44.52167
#1	.0043276	.000079	-.000007	.2311036	.0050526	.0002046
#2	.0023642	-.000036	.000072	.2267289	.0045286	.0003299
#3	.0005227	-.000067	.000060	.2248133	.0052415	.0005140

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019553**	**.1068670**	**.0024977**	**.1436228**	**.0032435**	**-.000843**
Stddev	.0003058	.0082930	.0002007	.0109990	.0003880	.000285
%RSD	15.64165	7.760104	8.035978	7.658246	11.96076	33.80561
#1	.0019217	.1116414	.0026602	.1309258	.0028523	-.000766
#2	.0022766	.1116686	.0025595	.1497111	.0032502	-.001158
#3	.0016677	.0972911	.0022733	.1502315	.0036281	-.000604

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1189.769**	**-.000572**	**.0538142**	**3.134347**	**1.730292**	**.0068124**
Stddev	14.723	.002400	.0002155	.095354	.014846	.0001856
%RSD	1.237467	419.4671	.4005278	3.042243	.8580184	2.723969
#1	1205.859	-.002366	.0535660	3.031971	1.732567	.0066225
#2	1176.969	-.001504	.0539218	3.150435	1.743869	.0068214
#3	1186.480	.002154	.0539548	3.220634	1.714439	.0069933

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05DUPDL2X10 Acquired: 10/28/2025 17:10:37 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238146	.0115764	2.715879	.0280996	F 281.9878	.0258509
Stddev	.0005275	.0008343	.043340	.0025958	2.8216	.0012095
%RSD	2.214976	7.206778	1.595801	9.237753	1.000617	4.678829
#1	.0241042	.0106287	2.691848	.0272327	278.7597	.0244545
#2	.0241338	.0119007	2.689877	.0260483	283.9840	.0265284
#3	.0232057	.0121999	2.765910	.0310179	283.2197	.0265699

Elem	Sr4077
Units	ppm
Avg	.0018965
Stddev	.0000328
%RSD	1.730197
#1	.0018745
#2	.0019342
#3	.0018808

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5040.270	78052.49	6892.237	3762.061	5596.047
Stddev	44.202	387.78	20.971	14.957	48.233
%RSD	.8769769	.4968137	.3042766	.3975861	.8619109
#1	4995.269	78233.34	6889.704	3767.823	5552.179
#2	5041.916	78316.80	6872.647	3773.281	5588.263
#3	5083.627	77607.32	6914.360	3745.079	5647.698

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05LDL2X50 Acquired: 10/28/2025 17:15:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041020**	**-.004503**	**.0003343**	**.0198960**	**.0027560**	**.1013186**
Stddev	.0022013	.002415	.0006981	.0021621	.0006993	.0089662
%RSD	53.66325	53.63372	208.8392	10.86718	25.37203	8.849458
#1	.0022126	-.005019	-.000357	.0191228	.0028229	.0917461
#2	.0035743	-.006619	.001039	.0223385	.0034194	.1026891
#3	.0065192	-.001872	.000322	.0182268	.0020257	.1095206

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051658**	**.0000458**	**-.000066**	**.0504558**	**.0010553**	**-.000020**
Stddev	.0015976	.0000125	.000022	.0020795	.0001831	.000047
%RSD	30.92609	27.34588	32.75797	4.121443	17.35088	236.7407
#1	.0061626	.0000413	-.000050	.0493162	.0009175	-.000024
#2	.0033232	.0000600	-.000091	.0491951	.0012631	.000029
#3	.0060118	.0000362	-.000058	.0528559	.0009854	-.000064

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004327**	**.0125318**	**.0007882**	**.0352435**	**.0002311**	**-.000934**
Stddev	.0002202	.0094596	.0004225	.0125899	.0002407	.000582
%RSD	50.88672	75.48469	53.60378	35.72266	104.1330	62.27713
#1	.0003936	.0169940	.0010942	.0424745	.0003316	-.000270
#2	.0002347	.0016664	.0003061	.0207060	.0004052	-.001353
#3	.0006699	.0189349	.0009643	.0425500	-.000044	-.001179

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**254.2445**	**-.001320**	**.0113140**	**1.041720**	**.4001665**	**.0023108**
Stddev	1.7786	.004426	.0001261	.076470	.0005689	.0000048
%RSD	.6995686	335.4067	1.114292	7.340754	.1421589	.2064563
#1	254.7933	.002211	.0111847	.960057	.4004590	.0023081
#2	252.2562	-.006286	.0113207	1.111638	.3995109	.0023080
#3	255.6841	.000116	.0114366	1.053466	.4005297	.0023163

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05LDL2X50 Acquired: 10/28/2025 17:15:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0253472	.0040885	.5076702	.0052048	F 55.81960	.0141529
Stddev	.0008393	.0025301	.0019104	.0015046	.28329	.0007154
%RSD	3.311119	61.88292	.3763018	28.90757	.5075044	5.054409
#1	.0255757	.0031254	.5085322	.0047598	55.52228	.0139517
#2	.0244174	.0021814	.5054807	.0068816	56.08638	.0149473
#3	.0260486	.0069587	.5089976	.0039729	55.85014	.0135597

Elem	Sr4077
Units	ppm
Avg	.0003922
Stddev	.0000678
%RSD	17.28044
#1	.0004523
#2	.0004056
#3	.0003187

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5271.191	83081.04	6683.420	3955.031	6190.185
Stddev	8.904	115.02	4.954	3.177	12.663
%RSD	.1689112	.1384482	.0741242	.0803216	.2045606
#1	5268.339	83199.33	6678.956	3958.673	6193.123
#2	5264.062	82969.59	6688.750	3952.829	6176.312
#3	5281.171	83074.20	6682.554	3953.591	6201.121

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDL2X10 Acquired: 10/28/2025 17:19:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0917396**	**.1633785**	**.0990902**	**.2936428**	**.0808621**	**.5096498**
Stddev	.0003410	.0056228	.0006946	.0015472	.0003641	.0112038
%RSD	.3717268	3.441578	.7009371	.5268878	.4502754	2.198333
#1	.0917700	.1689197	.0988425	.2942268	.0812496	.5225732
#2	.0913844	.1635382	.0985534	.2948129	.0805270	.5026748
#3	.0920644	.1576775	.0998746	.2918886	.0808098	.5037014

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0211522**	**.0195894**	**.0215061**	**.2950008**	**.0460178**	**.0212754**
Stddev	.0019882	.0001907	.0000861	.0179514	.0003083	.0001718
%RSD	9.399618	.9736396	.4005911	6.085188	.6700745	.8076797
#1	.0219488	.0198053	.0215677	.2762899	.0456783	.0214471
#2	.0188892	.0194438	.0215430	.2966311	.0460948	.0212757
#3	.0226186	.0195190	.0214076	.3120814	.0462804	.0211034

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0319327**	**.4158138**	**.0219176**	**.3394249**	**.0554094**	**.0070842**
Stddev	.0001538	.0045607	.0010599	.0052770	.0002035	.0007427
%RSD	.4815767	1.096824	4.835687	1.554678	.3672398	10.48328
#1	.0319509	.4167044	.0211720	.3413879	.0552767	.0066059
#2	.0317706	.4198636	.0231308	.3334478	.0556436	.0067071
#3	.0320765	.4108735	.0214498	.3434391	.0553077	.0079398

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1173.622**	**.0303464**	**.0726351**	**3.748708**	**1.692307**	**.0476111**
Stddev	18.981	.0045933	.0005393	.168579	.017192	.0004584
%RSD	1.617339	15.13623	.7424959	4.496999	1.015898	.9628594
#1	1162.915	.0253615	.0721956	3.554886	1.707546	.0479160
#2	1195.538	.0312698	.0724727	3.830002	1.673669	.0478333
#3	1162.414	.0344078	.0732369	3.861236	1.695704	.0470839

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDL2X10 Acquired: 10/28/2025 17:19:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0967212	.0281898	2.318786	.7148199	F 268.9186	.0402361
Stddev	.0009816	.0003690	.033117	.0049437	4.0891	.0018458
%RSD	1.014845	1.309137	1.428214	.6916033	1.520559	4.587339
#1	.0974887	.0278965	2.280595	.7201241	272.9307	.0385791
#2	.0970597	.0280688	2.336200	.7139951	269.0685	.0422255
#3	.0956151	.0286042	2.339564	.7103405	264.7567	.0399036

Elem	Sr4077
Units	ppm
Avg	.0209210
Stddev	.0003132
%RSD	1.496869
#1	.0206806
#2	.0212751
#3	.0208072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5013.323	77080.71	6714.139	3802.603	5549.863
Stddev	22.767	808.89	28.883	34.106	27.659
%RSD	.4541217	1.049412	.4301867	.8969177	.4983738
#1	5017.780	77771.30	6711.734	3841.102	5552.533
#2	4988.658	76190.78	6686.533	3776.172	5520.966
#3	5033.532	77280.05	6744.149	3790.535	5576.091

Sample Name: Q3420-05MSDDL2X10 Acquired: 10/28/2025 17:23:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0922538**	**.1665647**	**.0994033**	**.2914867**	**.0819578**	**.5409774**
Stddev	.0018639	.0036012	.0008380	.0013510	.0022145	.0160238
%RSD	2.020428	2.162028	.8430646	.4634878	2.701955	2.962002
#1	.0910471	.1626633	.0989324	.2899269	.0801088	.5288261
#2	.0913138	.1672692	.1003709	.2922492	.0813528	.5349690
#3	.0944006	.1697616	.0989066	.2922842	.0844119	.5591369

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0252845**	**.0203925**	**.0214035**	**.3092064**	**.0461639**	**.0211924**
Stddev	.0004817	.0004107	.0000413	.0060070	.0003393	.0001290
%RSD	1.905231	2.014131	.1929628	1.942730	.7349523	.6085206
#1	.0251735	.0202071	.0213678	.3125435	.0465365	.0212590
#2	.0248680	.0201072	.0213941	.3022717	.0460824	.0212746
#3	.0258120	.0208633	.0214487	.3128040	.0458727	.0210438

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0317573**	**.4070430**	**.0228253**	**.3497602**	**.0551983**	**.0074705**
Stddev	.0005491	.0037005	.0008769	.0173446	.0001489	.0005759
%RSD	1.729032	.9091231	3.841605	4.958985	.2697521	7.709605
#1	.0314817	.4079115	.0224161	.3517653	.0553389	.0068854
#2	.0323896	.4102320	.0222278	.3315002	.0552137	.0080369
#3	.0314006	.4029855	.0238319	.3660151	.0550423	.0074893

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1168.288**	**.0278040**	**.0727419**	**3.703636**	**1.757670**	**.0475263**
Stddev	17.246	.0061867	.0000897	.157002	.042397	.0001530
%RSD	1.476162	22.25113	.1233746	4.239142	2.412136	.3218766
#1	1184.287	.0286800	.0728416	3.570519	1.740291	.0476072
#2	1170.556	.0212260	.0726676	3.663613	1.726724	.0476219
#3	1150.020	.0335060	.0727165	3.876776	1.805996	.0473499

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05MSDDL2X10 Acquired: 10/28/2025 17:23:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0969265	.0286303	2.255832	.7259030	F 268.2367	.0502060
Stddev	.0008300	.0014646	.035156	.0010729	1.1895	.0032145
%RSD	.8562844	5.115625	1.558457	.1477991	.4434666	6.402618
#1	.0961632	.0279683	2.215540	.7249546	267.0720	.0485835
#2	.0968064	.0276136	2.280262	.7270675	269.4496	.0481261
#3	.0978100	.0303091	2.271695	.7256868	268.1884	.0539084

Elem	Sr4077
Units	ppm
Avg	.0212563
Stddev	.0005415
%RSD	2.547312
#1	.0210276
#2	.0208667
#3	.0218746

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4952.632	76288.48	6350.516	3770.974	5491.540
Stddev	8.042	167.74	132.334	23.226	8.375
%RSD	.1623728	.2198757	2.083838	.6159150	.1525012
#1	4958.204	76179.19	6400.044	3754.014	5500.240
#2	4956.279	76204.63	6450.942	3761.462	5490.847
#3	4943.413	76481.61	6200.561	3797.446	5483.534

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV06 Acquired: 10/28/2025 17:27:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.963511**	**4.774304**	**4.961456**	**4.967397**	**4.942761**	**9.682756**	**10.02178**
Stddev	.002492	.024810	.003857	.003940	.006034	.043177	.03495
%RSD	.0502079	.5196523	.0777356	.0793153	.1220688	.4459133	.3487859
#1	4.961871	4.755915	4.958587	4.963901	4.944789	9.730631	9.98444
#2	4.962284	4.802522	4.959941	4.966624	4.935975	9.670871	10.05372
#3	4.966379	4.764474	4.965840	4.971666	4.947519	9.646767	10.02718

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2641313**	**2.516863**	**25.03758**	**1.010609**	**2.521594**	**1.263663**	**4.882524**
Stddev	.0021202	.002251	.00433	.005018	.002521	.002519	.030805
%RSD	.8027061	.0894454	.0172878	.4965588	.0999706	.1993769	.6309282
#1	.2624580	2.514265	25.04169	1.005081	2.518695	1.262333	4.856229
#2	.2665156	2.518224	25.03306	1.011871	2.522819	1.262087	4.874926
#3	.2634202	2.518102	25.03800	1.014876	2.523268	1.266569	4.916417

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.543082**	**24.99538**	**2.509728**	**1.258635**	**25.26647**	**2.476321**	**2.520090**
Stddev	.008341	.05212	.003173	.003728	.07814	.008779	.007061
%RSD	.3280070	.2085308	.1264476	.2961632	.3092648	.3545058	.2801976
#1	2.533503	25.04701	2.506089	1.255815	25.21303	2.466343	2.512207
#2	2.548744	24.94278	2.511174	1.262861	25.23022	2.479762	2.525835
#3	2.546999	24.99634	2.511920	1.257228	25.35615	2.482857	2.522228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.50434**	**5.225356**	**5.042103**	**5.096312**	**4.983647**	**4.921948**	**5.304164**
Stddev	.06610	.040824	.001394	.010371	.007545	.037174	.005336
%RSD	.2697665	.7812734	.0276515	.2034974	.1513892	.7552661	.1005934
#1	24.43002	5.212204	5.040494	5.086530	4.977958	4.930385	5.299973
#2	24.52643	5.271135	5.042942	5.107186	4.992205	4.881281	5.302348
#3	24.55657	5.192728	5.042875	5.095219	4.980778	4.954178	5.310171

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV06 Acquired: 10/28/2025 17:27:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.086707**	**4.925474**	**4.943085**
Stddev	.009859	.008091	.026080
%RSD	.1938267	.1642695	.5276040
#1	5.084269	4.917565	4.939382
#2	5.097557	4.933736	4.970819
#3	5.078295	4.925120	4.919055

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5414.402**	**86331.67**	**6541.696**	**4122.531**	**6240.500**
Stddev	6.836	462.81	14.064	12.048	11.759
%RSD	.1262591	.5360828	.2149881	.2922585	.1884357
#1	5417.220	86568.61	6557.482	4131.089	6247.323
#2	5406.608	86628.03	6530.502	4127.750	6226.922
#3	5419.379	85798.37	6537.104	4108.753	6247.255

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB06 Acquired: 10/28/2025 17:32:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001297**	**-.006665**	**.0005613**	**-.000415**	**-.001201**	**-.001497**
Stddev	.0014488	.002076	.0016039	.001978	.002510	.006490
%RSD	1116.672	31.15034	285.7478	477.1528	209.0177	433.5262
#1	.0015182	-.007512	.0017827	.000576	.000773	.000736
#2	-.001373	-.008184	-.001255	-.002692	-.000351	.003582
#3	.000244	-.004299	.001156	.000873	-.004026	-.008809

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010713**	**-.000007**	**.0000135**	**-.007364**	**.0002798**	**.0000091**
Stddev	.0017503	.000078	.0000509	.023636	.0000328	.0000988
%RSD	163.3827	1072.992	376.0693	320.9591	11.72258	1085.880
#1	-.000614	-.000030	.0000204	-.028927	.0002465	-.000048
#2	.002880	.000080	.0000606	-.011072	.0002810	-.000048
#3	.000948	-.000071	-.000040	.017906	.0003120	.000123

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**-.008929**	**-.000579**	**-.026065**	**-.000442**	**-.000577**
Stddev	.000154	.002949	.000449	.023240	.000319	.000560
%RSD	330.4998	33.02381	77.43565	89.16008	72.26549	97.10815
#1	-.000114	-.006337	-.000954	-.028483	-.000115	-.000926
#2	.000130	-.012137	-.000082	-.001711	-.000458	-.000874
#3	-.000155	-.008312	-.000701	-.048002	-.000753	.000069

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6501166**	**-.000916**	**.0008687**	**.3459273**	**.0042940**	**.0001592**
Stddev	.0315309	.003844	.0002820	.0250031	.0007409	.0003824
%RSD	4.850032	419.7009	32.46716	7.227842	17.25335	240.1617
#1	.6173223	-.003188	.0008764	.3261382	.0051319	.0004424
#2	.6528173	-.003082	.0005828	.3376161	.0040243	.0003110
#3	.6802103	.003522	.0011467	.3740275	.0037258	-.000276

Sample Name: CCB06 Acquired: 10/28/2025 17:32:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	.0008681	.0020010	.0222835	-.001030	F .0140813	.0044840
Stddev	.0003489	.0016231	.0053344	.000712	.0031276	.0022243
%RSD	40.18527	81.11343	23.93871	69.12397	22.21084	49.60455
#1	.0010820	.0032868	.0234043	-.001720	.0175620	.0029434
#2	.0010569	.0025390	.0164778	-.001071	.0131746	.0034746
#3	.0004656	.0001772	.0269685	-.000298	.0115072	.0070339

Elem	Sr4077
Units	ppm
Avg	.0000105
Stddev	.0001091
%RSD	1034.946
#1	.0001349
#2	-.000034
#3	-.000069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5646.216	90960.49	6802.063	4259.921	7225.343
Stddev	3.702	363.56	15.755	9.948	3.562
%RSD	.0655629	.3996897	.2316174	.2335148	.0492987
#1	5647.567	91364.27	6813.377	4269.895	7222.773
#2	5642.028	90659.12	6784.068	4259.867	7223.847
#3	5649.052	90858.10	6808.742	4250.000	7229.409

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05ADLX10 Acquired: 10/28/2025 17:36:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0968302**	**.1685237**	**.0991291**	**.2992268**	**.0837381**	**.5282398**
Stddev	.0012635	.0043638	.0006955	.0019533	.0017122	.0036940
%RSD	1.304906	2.589422	.7016250	.6527779	2.044658	.6993113
#1	.0957067	.1659062	.0996106	.2989525	.0850246	.5280879
#2	.0981981	.1661036	.0994451	.3013027	.0817947	.5320074
#3	.0965858	.1735613	.0983317	.2974252	.0843949	.5246240

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0241594**	**.0199706**	**.0216803**	**.2842767**	**.0468601**	**.0217337**
Stddev	.0013502	.0001456	.0000369	.0049276	.0004559	.0001093
%RSD	5.588874	.7289292	.1702590	1.733397	.9729351	.5031089
#1	.0232483	.0201190	.0216947	.2803886	.0472967	.0217037
#2	.0257107	.0199649	.0217079	.2826230	.0468966	.0218549
#3	.0235193	.0198280	.0216384	.2898185	.0463870	.0216425

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0330835**	**.4175628**	**.0223244**	**.3238525**	**.0560593**	**.0071784**
Stddev	.0002037	.0113244	.0006061	.0332240	.0000357	.0004398
%RSD	.6157604	2.712016	2.714830	10.25898	.0637075	6.127421
#1	.0332631	.4298644	.0228951	.3129903	.0560986	.0067907
#2	.0328621	.4075722	.0223899	.3611481	.0560288	.0076564
#3	.0331253	.4152518	.0216883	.2974193	.0560505	.0070881

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1187.356**	**.0290590**	**.0733853**	**3.285920**	**1.721550**	**.0484721**
Stddev	16.335	.0034073	.0003775	.107058	.008614	.0002528
%RSD	1.375764	11.72548	.5143776	3.258097	.5003648	.5214715
#1	1184.444	.0257174	.0737495	3.166444	1.729088	.0484576
#2	1204.952	.0325284	.0734104	3.318171	1.723400	.0487318
#3	1172.673	.0289310	.0729959	3.373146	1.712161	.0482269

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3420-05ADLX10 Acquired: 10/28/2025 17:36:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0986514	.0285587	2.271061	.7249221	F 274.7870	.0390927
Stddev	.0007823	.0003559	.039405	.0016858	.8986	.0021844
%RSD	.7929757	1.246156	1.735097	.2325479	.3270204	5.587678
#1	.0994480	.0284864	2.228519	.7256198	275.0293	.0367765
#2	.0986220	.0282445	2.278356	.7229994	273.7921	.0393860
#3	.0978843	.0289452	2.306310	.7261470	275.5396	.0411156

Elem	Sr4077
Units	ppm
Avg	.0207243
Stddev	.0002589
%RSD	1.249085
#1	.0210204
#2	.0206115
#3	.0205409

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4995.476	77081.45	6665.290	3761.966	5554.149
Stddev	4.917	64.21	21.775	6.556	8.442
%RSD	.0984255	.0833065	.3266878	.1742587	.1520011
#1	4999.181	77013.28	6642.194	3766.329	5560.363
#2	4989.898	77090.27	6685.443	3754.427	5544.537
#3	4997.349	77140.79	6668.234	3765.142	5557.547

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170265BL Acquired: 10/28/2025 17:40:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000483**	**-.006065**	**.0007187**	**.0009808**	**-.000171**	**.0024008**
Stddev	.001856	.002127	.0004140	.0006060	.001491	.0124889
%RSD	384.6963	35.07006	57.60891	61.78239	873.1915	520.1964
#1	.000264	-.003621	.0009489	.0016514	.000762	.0093705
#2	.000884	-.007081	.0002407	.0008187	.000615	-.012018
#3	-.002596	-.007494	.0009665	.0004724	-.001890	.009849

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046176**	**-.000019**	**-.000018**	**-.006088**	**.0002471**	**-.000157**
Stddev	.0041349	.000037	.000030	.010997	.0003073	.000162
%RSD	89.54635	198.7674	168.9426	180.6445	124.3699	103.1316
#1	.0008371	.000014	-.000045	-.018762	.0003402	-.000228
#2	.0039824	-.000012	-.000022	.000935	.0004970	-.000272
#3	.0090334	-.000059	.000014	-.000437	-.000096	.000028

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000008**	**-.003658**	**.0003125**	**-.019352**	**-.000396**	**-.001332**
Stddev	.000587	.000951	.0001473	.020588	.000188	.000144
%RSD	7283.427	26.00110	47.12134	106.3862	47.53164	10.77581
#1	.000496	-.004736	.0002828	.004310	-.000231	-.001489
#2	-.000653	-.002940	.0001823	-.029199	-.000356	-.001298
#3	.000132	-.003297	.0004724	-.033166	-.000601	-.001208

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9101842**	**-.001336**	**.0003791**	**.3066569**	**.0014618**	**.0011718**
Stddev	.0448246	.001663	.0002603	.0150048	.0008213	.0001190
%RSD	4.924786	124.5438	68.66262	4.893016	56.17953	10.15984
#1	.9610249	-.003110	.0003511	.3050507	.0005758	.0013065
#2	.8931699	.000188	.0001339	.3224002	.0016123	.0011281
#3	.8763578	-.001084	.0006523	.2925199	.0021975	.0010807

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170265BL Acquired: 10/28/2025 17:40:41 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0225773	.0019701	.0002020	.0003655	F .0205084	.0078885
Stddev	.0004908	.0006964	.0108135	.0014309	.0061666	.0013438
%RSD	2.173684	35.35067	5352.662	391.4971	30.06873	17.03551
#1	.0227670	.0017369	-.005495	.0012216	.0267606	.0070621
#2	.0220200	.0014202	.012673	-.001286	.0203336	.0071643
#3	.0229449	.0027532	-.006572	.001161	.0144311	.0094392

Elem	Sr4077
Units	ppm
Avg	-.000111
Stddev	.000107
%RSD	96.84612
#1	-.000012
#2	-.000225
#3	-.000096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5664.658	91298.40	6901.209	4249.597	7251.186
Stddev	65.479	139.27	444.093	9.680	88.173
%RSD	1.155915	.1525487	6.434998	.2277820	1.215978
#1	5590.502	91238.03	7245.687	4240.276	7151.032
#2	5688.966	91457.68	7057.937	4259.599	7285.413
#3	5714.507	91199.50	6400.002	4248.916	7317.115

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170265BS Acquired: 10/28/2025 17:45:00 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7555137**	**1.641906**	**.9101546**	**1.902673**	**.7800346**	**1.818810**
Stddev	.0002379	.045702	.0018779	.005536	.0019272	.121035
%RSD	.0314884	2.783454	.2063317	.2909750	.2470617	6.654621
#1	.7553370	1.597833	.9087753	1.904834	.7822581	1.679734
#2	.7554200	1.638806	.9122933	1.896383	.7788451	1.900295
#3	.7557842	1.689078	.9093952	1.906804	.7790005	1.876403

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1861079**	**.1983281**	**.1847199**	**.9498007**	**.3925104**	**.1907043**
Stddev	.0143014	.0126861	.0002346	.0704768	.0009460	.0002368
%RSD	7.684455	6.396507	.1269900	7.420169	.2410014	.1241749
#1	.1696912	.1839898	.1848977	.8713718	.3921507	.1905334
#2	.1958654	.2080948	.1844540	1.007821	.3935834	.1906049
#3	.1927670	.2028996	.1848078	.970209	.3917970	.1909746

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3043619**	**2.857561**	**.1937152**	**1.870128**	**.4756420**	**.0742802**
Stddev	.0002583	.018320	.0130547	.133317	.0004595	.0006520
%RSD	.0848706	.6411131	6.739130	7.128772	.0965999	.8777983
#1	.3040746	2.839181	.1787228	1.724793	.4760387	.0749176
#2	.3044362	2.857682	.2025701	1.986748	.4751386	.0743085
#3	.3045750	2.875821	.1998527	1.898843	.4757487	.0736145

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.278206**	**.2776211**	**.2018878**	**9.367262**	**.2907140**	**.3982396**
Stddev	.081427	.0193009	.0003801	.057527	.0191469	.0003083
%RSD	2.483898	6.952236	.1882776	.6141320	6.586150	.0774270
#1	3.226281	.2554058	.2018727	9.309762	.2690943	.3978928
#2	3.236284	.2902722	.2022753	9.367207	.3055296	.3984829
#3	3.372052	.2871854	.2015155	9.424816	.2975179	.3983432

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170265BS Acquired: 10/28/2025 17:45:00 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6834224**	**.1858148**	**.8271403**	**5.571559**	F **.0084760**	**.1947419**
Stddev	.0002876	.0105438	.0064140	.012931	.0004461	.0130500
%RSD	.0420830	5.674378	.7754431	.2320825	5.262918	6.701174
#1	.6837503	.1736540	.8338981	5.560142	.0081260	.1798479
#2	.6833043	.1913864	.8263860	5.568934	.0083236	.2041709
#3	.6832127	.1924039	.8211368	5.585600	.0089783	.2002069

Elem	Sr4077
Units	ppm
Avg	**.1822943**
Stddev	.0125627
%RSD	6.891441
#1	.1678943
#2	.1910116
#3	.1879769

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5703.253**	**92179.21**	**7211.719**	**4343.915**	**7079.756**
Stddev	2.921	349.89	476.407	19.425	4.712
%RSD	.0512171	.3795808	6.606006	.4471867	.0665627
#1	5706.062	92355.05	7757.848	4356.446	7082.557
#2	5700.231	92406.30	6881.464	4353.761	7082.395
#3	5703.467	91776.27	6995.846	4321.538	7074.315

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-01 Acquired: 10/28/2025 17:49:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0416953**	**-.025254**	**.1294968**	**.0019370**	**-.010065**	**166.6237**	**.4576419**
Stddev	.0026730	.002145	.0023244	.0022702	.002384	.2445	.0017418
%RSD	6.410702	8.495200	1.794952	117.2015	23.68690	.1467309	.3806055
#1	.0415637	-.024161	.1268173	.0042104	-.012145	166.3572	.4594338
#2	.0390905	-.023874	.1307025	-.000330	-.010586	166.6760	.4575371
#3	.0444316	-.027725	.1309707	.001930	-.007463	166.8377	.4559549

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097106**	**.0036192**	**6.457334**	**.1853305**	**.1055545**	**.2863908**	**232.4750**
Stddev	.0000305	.0001568	.001911	.0006615	.0006744	.0006188	1.3382
%RSD	.3143089	4.332077	.0295934	.3569178	.6389157	.2160602	.5756362
#1	.0097459	.0036296	6.455129	.1851718	.1047810	.2857631	232.4796
#2	.0096932	.0034575	6.458491	.1860570	.1058635	.2864092	233.8110
#3	.0096928	.0037705	6.458384	.1847629	.1060191	.2870002	231.1346

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992902**	**40.58811**	**.2154170**	**.0045613**	**8.599322**	**.3033662**	**.4717397**
Stddev	.002837	.09711	.0003455	.0010681	.068358	.0023008	.0020257
%RSD	.1423595	.2392533	.1604060	23.41689	.7949205	.7584107	.4294182
#1	1.996163	40.54966	.2151395	.0046950	8.591116	.3012412	.4695732
#2	1.990999	40.51612	.2158041	.0055563	8.671412	.3058095	.4735866
#3	1.991544	40.69855	.2153075	.0034327	8.535437	.3030479	.4720593

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.69115**	**.1538869**	**.0043032**	**.0059430**	**3.141688**	**5.171776**	**6.043152**
Stddev	.04645	.0044354	.0002548	.0001470	.007137	.033593	.013147
%RSD	.3392646	2.882234	5.921658	2.474214	.2271609	.6495365	.2175459
#1	13.68381	.1564442	.0044919	.0057946	3.149875	5.142360	6.047060
#2	13.74083	.1564512	.0044043	.0060886	3.136779	5.208381	6.053902
#3	13.64880	.1487654	.0040133	.0059459	3.138411	5.164586	6.028495

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-01 Acquired: 10/28/2025 17:49:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9519581	.2348520	-.130557
Stddev	.0038202	.0032684	.000979
%RSD	.4012984	1.391670	.7497347
#1	.9499602	.2323998	-.130585
#2	.9563630	.2385625	-.131521
#3	.9495511	.2335938	-.129564

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6396.957	100195.4	7874.275	4856.441	6478.752
Stddev	1.925	94.2	20.730	11.956	6.048
%RSD	.0300966	.0940437	.2632579	.2461872	.0933496
#1	6398.023	100295.0	7875.561	4859.501	6485.703
#2	6398.113	100107.7	7894.332	4843.253	6475.855
#3	6394.734	100183.5	7852.933	4866.570	6474.697

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05 Acquired: 10/28/2025 17:53:04 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290205**	**-.013584**	**.1406115**	**-.003167**	**-.007441**	**95.23130**	**.3969975**
Stddev	.0015072	.000533	.0018047	.001255	.001336	.20742	.0015521
%RSD	5.193570	3.926357	1.283492	39.62299	17.95845	.2178069	.3909505
#1	.0302080	-.014164	.1419295	-.002244	-.008159	95.05076	.3987249
#2	.0295285	-.013116	.1385545	-.002660	-.008264	95.45787	.3965470
#3	.0273249	-.013471	.1413503	-.004595	-.005899	95.18526	.3957204

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072569**	**.0039300**	**29.72070**	**.1177686**	**.0646878**	**.2800716**	**156.9058**
Stddev	.0000627	.0000634	.08098	.0003250	.0001319	.0001326	.6810
%RSD	.8634110	1.613919	.2724836	.2759955	.2038662	.0473308	.4339930
#1	.0071860	.0039900	29.70601	.1176257	.0645385	.2802155	157.5663
#2	.0073049	.0038636	29.80802	.1181405	.0647883	.2800447	156.2061
#3	.0072798	.0039363	29.64807	.1175394	.0647367	.2799545	156.9450

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.646105**	**21.54285**	**.1294644**	**.0024239**	**7.260159**	**.1984229**	**.3563871**
Stddev	.001815	.05453	.0002249	.0005349	.057292	.0008576	.0007308
%RSD	.0685734	.2531383	.1736958	22.06948	.7891299	.4322183	.2050672
#1	2.644337	21.50622	.1297156	.0030330	7.324981	.1985549	.3562711
#2	2.646014	21.60553	.1292818	.0020306	7.216304	.1975070	.3571690
#3	2.647963	21.51682	.1293957	.0022081	7.239192	.1992070	.3557212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.949477**	**.0877309**	**.0014305**	**.0021998**	**2.141337**	**5.804894**	**4.246618**
Stddev	.070320	.0044120	.0002030	.0003433	.004185	.013647	.012231
%RSD	.8845926	5.029008	14.19275	15.60570	.1954409	.2350916	.2880109
#1	8.028157	.0925377	.0016000	.0025941	2.136937	5.811247	4.257205
#2	7.892756	.0838659	.0012055	.0020379	2.141805	5.789229	4.249418
#3	7.927520	.0867890	.0014859	.0019673	2.145268	5.814206	4.233229

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05 Acquired: 10/28/2025 17:53:04 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4816596	.1153369	.1222765
Stddev	.0034644	.0013417	.0004773
%RSD	.7192528	1.163306	.3903873
#1	.4778275	.1168390	.1222793
#2	.4845695	.1142573	.1227524
#3	.4825818	.1149143	.1217977

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6429.783	101922.6	7980.476	4907.496	6521.421
Stddev	9.005	375.5	70.985	19.651	3.366
%RSD	.1400583	.3683940	.8894828	.4004243	.0516206
#1	6419.597	102063.5	8028.322	4912.126	6517.653
#2	6433.065	101497.0	7898.916	4885.943	6524.131
#3	6436.687	102207.2	8014.188	4924.418	6522.480

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05DUP Acquired: 10/28/2025 17:57:07 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0303788**	**-.016667**	**.1137016**	**-.004196**	**-.006793**	**90.20524**	**.3855795**
Stddev	.0030410	.002180	.0021336	.001674	.002708	.96090	.0040499
%RSD	10.01027	13.08055	1.876475	39.90534	39.86221	1.065233	1.050343
#1	.0270285	-.018347	.1159978	-.002872	-.004581	89.28793	.3816132
#2	.0329646	-.017451	.1133269	-.003638	-.005985	91.20448	.3897081
#3	.0311433	-.014203	.1117803	-.006078	-.009813	90.12331	.3854172

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069122**	**.0041630**	**43.06645**	**.1183409**	**.0626805**	**.2816091**	**162.5908**
Stddev	.0001329	.0004253	.48035	.0011777	.0022604	.0097407	1.2949
%RSD	1.921978	10.21499	1.115365	.9951588	3.606157	3.458949	.7964441
#1	.0067617	.0046473	42.61033	.1195226	.0652904	.2928027	164.0663
#2	.0070133	.0038510	43.56783	.1171673	.0614007	.2769657	161.6431
#3	.0069616	.0039906	43.02120	.1183327	.0613505	.2750589	162.0630

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.483557**	**21.37199**	**.1280867**	**.0020113**	**6.787668**	**.1952337**	**.3667296**
Stddev	.025307	.31989	.0036790	.0002657	.096312	.0014816	.0058297
%RSD	1.018972	1.496793	2.872279	13.20877	1.418924	.7588993	1.589650
#1	2.460573	21.03494	.1323306	.0022202	6.898437	.1936428	.3711613
#2	2.510677	21.67139	.1257996	.0021014	6.723698	.1965742	.3601256
#3	2.479421	21.40965	.1261299	.0017123	6.740870	.1954840	.3689020

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.742293**	**.0931364**	**.0016358**	**.0014557**	**2.084410**	**5.384879**	**4.296471**
Stddev	.076036	.0066005	.0001405	.0014316	.015425	.035838	.130488
%RSD	.9820920	7.086932	8.591104	98.34327	.7400332	.6655388	3.037102
#1	7.822379	.1003862	.0015055	.0029373	2.070571	5.416184	4.446556
#2	7.671086	.0874752	.0017847	.0013500	2.101040	5.345788	4.209895
#3	7.733414	.0915478	.0016172	.0000799	2.081619	5.392666	4.232962

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05DUP Acquired: 10/28/2025 17:57:07 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8850961	.1104460	.2721341
Stddev	.0245626	.0014336	.0039965
%RSD	2.775137	1.298004	1.468559
#1	.9123940	.1089821	.2680991
#2	.8647807	.1118472	.2760908
#3	.8781135	.1105087	.2722123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6392.289	101671.2	8188.874	4843.307	6515.718
Stddev	147.501	632.1	89.992	45.850	175.724
%RSD	2.307490	.6217580	1.098950	.9466618	2.696929
#1	6223.612	101067.9	8287.393	4815.201	6313.578
#2	6456.192	102328.7	8110.995	4896.216	6601.509
#3	6497.063	101616.9	8168.235	4818.505	6632.067

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05LX5 Acquired: 10/28/2025 18:01:10 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054426**	**-.007864**	**.0290521**	**-.001701**	**-.001767**	**21.00026**	**.0874637**
Stddev	.0004020	.001442	.0002951	.000465	.001419	.09371	.0009022
%RSD	7.386491	18.33444	1.015875	27.36451	80.27806	.4462470	1.031519
#1	.0052593	-.009297	.0293833	-.002203	-.002098	21.04599	.0879030
#2	.0051649	-.007883	.0289563	-.001616	-.000213	21.06233	.0880620
#3	.0059036	-.006413	.0288168	-.001283	-.002992	20.89246	.0864259

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016923**	**.0002679**	**6.609156**	**.0263678**	**.0125085**	**.0653990**	**34.28198**
Stddev	.0000469	.0000526	.039759	.0000823	.0001088	.0001362	.13569
%RSD	2.773861	19.64037	.6015743	.3120646	.8698357	.2082371	.3958185
#1	.0017465	.0002181	6.646574	.0263551	.0126304	.0653689	34.41284
#2	.0016638	.0002625	6.613484	.0264557	.0124213	.0652804	34.14192
#3	.0016666	.0003230	6.567410	.0262927	.0124737	.0655477	34.29118

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5866908**	**4.807764**	**.0250433**	**-.000662**	**1.705214**	**.0441324**	**.0793983**
Stddev	.0061231	.039930	.0001199	.000273	.000651	.0032370	.0004948
%RSD	1.043664	.8305373	.4788288	41.26435	.0381966	7.334693	.6232094
#1	.5937507	4.832328	.0250323	-.000348	1.705383	.0474032	.0789144
#2	.5834923	4.829273	.0251682	-.000796	1.704495	.0409303	.0799033
#3	.5828293	4.761690	.0249292	-.000842	1.705764	.0440637	.0793771

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.749097**	**.0152187**	**.0014065**	**.0172791**	**.4686322**	**1.224477**	**.8181159**
Stddev	.009287	.0009009	.0000517	.0001060	.0035086	.015616	.0010118
%RSD	.5309832	5.920007	3.677394	.6131837	.7486869	1.275339	.1236724
#1	1.757095	.0147022	.0014203	.0173631	.4724565	1.210875	.8190136
#2	1.751285	.0146949	.0014499	.0173140	.4655619	1.241531	.8183147
#3	1.738911	.0162591	.0013493	.0171600	.4678781	1.221027	.8170195

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05LX5 Acquired: 10/28/2025 18:01:10 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1015676	.0258159	.0271648
Stddev	.0020538	.0007476	.0004855
%RSD	2.022117	2.896029	1.787333
#1	.1032692	.0256384	.0277204
#2	.0992862	.0266363	.0269523
#3	.1021473	.0251730	.0268217

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5997.867	96033.96	7404.489	4514.107	7113.643
Stddev	15.183	212.18	20.510	31.979	15.085
%RSD	.2531355	.2209376	.2769939	.7084254	.2120541
#1	5980.697	96108.12	7381.042	4528.259	7096.897
#2	6009.517	96199.11	7419.102	4536.568	7126.167
#3	6003.387	95794.66	7413.322	4477.494	7117.865

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05MS Acquired: 10/28/2025 18:05:22 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7010845**	**1.553176**	**1.041820**	**1.595762**	**.3543753**	**111.2445**	**.5752923**
Stddev	.0023981	.024701	.002081	.003470	.0031134	.3465	.0045076
%RSD	.3420486	1.590328	.1997764	.2174373	.8785460	.3114935	.7835351
#1	.7028233	1.581696	1.039969	1.595507	.3560593	110.9159	.5727857
#2	.6983488	1.539239	1.044073	1.599352	.3562840	111.2112	.5725950
#3	.7020814	1.538594	1.041418	1.592426	.3507827	111.6065	.5804961

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1812786**	**.1947116**	**25.71111**	**.4832372**	**.2679193**	**.5469447**	**175.1132**
Stddev	.0009590	.0004212	.11938	.0012434	.0002366	.0015461	1.2100
%RSD	.5290197	.2162942	.4643257	.2573137	.0883071	.2826814	.6909908
#1	.1805947	.1949850	25.62633	.4818069	.2681923	.5482547	173.8680
#2	.1808662	.1949232	25.65937	.4838434	.2677732	.5473402	175.1868
#3	.1823748	.1942266	25.84764	.4840612	.2677924	.5452393	176.2847

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.636592**	**25.97620**	**.6320037**	**.0683950**	**9.734216**	**.4638865**	**.5125220**
Stddev	.015977	.15863	.0010704	.0000860	.059001	.0043871	.0012690
%RSD	.6059839	.6106681	.1693644	.1257451	.6061191	.9457291	.2475933
#1	2.622547	25.92610	.6321788	.0683123	9.702159	.4589323	.5133909
#2	2.633256	25.84868	.6329757	.0684839	9.698184	.4654478	.5131093
#3	2.653974	26.15383	.6308565	.0683889	9.802306	.4672794	.5110657

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.40992**	**.3205067**	**.3488277**	**.6560948**	**2.445222**	**5.241413**	**9.603775**
Stddev	.09126	.0023902	.0011775	.0011970	.016874	.028029	.016982
%RSD	.5241929	.7457561	.3375464	.1824447	.6900704	.5347609	.1768261
#1	17.32122	.3177718	.3501696	.6555635	2.430299	5.210238	9.617397
#2	17.40500	.3221957	.3479672	.6552554	2.441836	5.249467	9.584748
#3	17.50354	.3215524	.3483465	.6574655	2.463532	5.264533	9.609179

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05MS Acquired: 10/28/2025 18:05:22 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3678017	.3076318	.2777069
Stddev	.0009730	.0016677	.0024998
%RSD	.2645547	.5421228	.9001423
#1	.3666782	.3057759	.2764405
#2	.3683734	.3090048	.2760939
#3	.3683536	.3081146	.2805865

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6462.954	102724.5	8122.039	4893.888	6592.679
Stddev	10.686	251.4	36.074	10.592	14.121
%RSD	.1653349	.2447404	.4441462	.2164371	.2141856
#1	6470.426	102974.6	8129.626	4890.760	6605.969
#2	6450.715	102727.1	8153.717	4885.211	6577.854
#3	6467.722	102471.8	8082.776	4905.691	6594.215

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05MSD Acquired: 10/28/2025 18:09:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6735606**	**1.590745**	**.9983724**	**1.562289**	**.3530636**	**107.5247**	**.5644518**
Stddev	.0041894	.070701	.0029327	.002248	.0020924	.3416	.0029036
%RSD	.6219772	4.444535	.2937433	.1438711	.5926387	.3176850	.5144050
#1	.6766436	1.515109	.9952953	1.559839	.3510479	107.1324	.5616240
#2	.6752474	1.655173	1.001135	1.564257	.3552250	107.6859	.5643057
#3	.6687907	1.601953	.998686	1.562769	.3529179	107.7559	.5674256

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1771566**	**.1880305**	**30.11725**	**.4568004**	**.2563771**	**.5093657**	**160.1223**
Stddev	.0012611	.0005045	.08206	.0012484	.0001941	.0027281	1.0670
%RSD	.7118664	.2683185	.2724524	.2732868	.0757116	.5355796	.6663581
#1	.1758740	.1874484	30.02304	.4575117	.2561673	.5063722	161.0042
#2	.1772008	.1883412	30.17309	.4575305	.2565502	.5100133	160.4264
#3	.1783950	.1883020	30.15562	.4553589	.2564138	.5117118	158.9362

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.860979**	**23.41807**	**.5938960**	**.0666942**	**9.276963**	**.4438906**	**.4828210**
Stddev	.006311	.15183	.0014318	.0004092	.038300	.0031734	.0010519
%RSD	.2205989	.6483508	.2410787	.6135347	.4128494	.7148969	.2178624
#1	2.854861	23.28568	.5922921	.0667900	9.317078	.4438192	.4816371
#2	2.860609	23.58380	.5943506	.0670470	9.273030	.4407536	.4836478
#3	2.867468	23.38474	.5950452	.0662456	9.240782	.4470991	.4831782

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.43482**	**.3117772**	**.3361372**	**.6306262**	**2.293925**	**5.248975**	**9.616017**
Stddev	.10130	.0041520	.0009363	.0027496	.001160	.037083	.026682
%RSD	.6163652	1.331707	.2785420	.4360175	.0505780	.7064819	.2774787
#1	16.52210	.3143791	.3356541	.6274899	2.293109	5.263635	9.598080
#2	16.45861	.3139635	.3372163	.6326229	2.295253	5.276488	9.646680
#3	16.32374	.3069889	.3355411	.6317656	2.293412	5.206804	9.603291

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05MSD Acquired: 10/28/2025 18:09:19 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4640171	.2813833	.2926700
Stddev	.0028745	.0023637	.0024364
%RSD	.6194745	.8400322	.8324740
#1	.4610106	.2786967	.2905913
#2	.4667382	.2823101	.2920677
#3	.4643026	.2831432	.2953511

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6496.501	103290.6	8100.464	4993.076	6608.166
Stddev	19.459	406.5	40.930	17.319	21.453
%RSD	.2995281	.3935837	.5052805	.3468699	.3246463
#1	6517.814	102949.9	8143.032	4987.239	6630.701
#2	6479.684	103181.3	8096.964	4979.430	6587.990
#3	6492.006	103740.7	8061.397	5012.560	6605.806

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05A Acquired: 10/28/2025 18:13:16 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7042860**	**1.733091**	**1.068749**	**1.659756**	**.6715673**	**94.13768**	**.5571143**
Stddev	.0021754	.071924	.004516	.004408	.0037362	1.41392	.0085473
%RSD	.3088856	4.150069	.4225245	.2655764	.5563399	1.501973	1.534216
#1	.7027016	1.761225	1.066046	1.656813	.6690356	93.46521	.5549848
#2	.7033900	1.786696	1.073962	1.664824	.6758584	95.76233	.5665251
#3	.7067663	1.651352	1.066239	1.657631	.6698079	93.18550	.5498331

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1865818**	**.1968218**	**29.87791**	**.4664639**	**.2623337**	**.5334737**	**154.9082**
Stddev	.0021734	.0003638	.44998	.0037952	.0005448	.0009547	.7223
%RSD	1.164835	.1848554	1.506058	.8136068	.2076842	.1789559	.4662753
#1	.1864415	.1968578	29.64157	.4705876	.2625632	.5324241	155.5800
#2	.1888219	.1971663	30.39681	.4656863	.2627263	.5337067	155.0003
#3	.1844820	.1964413	29.59533	.4631177	.2617117	.5342904	154.1442

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.756147**	**22.56549**	**.6182868**	**.0688278**	**9.172129**	**.4511056**	**.5228814**
Stddev	.035501	.32298	.0010626	.0005507	.055750	.0055455	.0030039
%RSD	1.288067	1.431302	.1718578	.8000911	.6078232	1.229312	.5744982
#1	2.737336	22.34426	.6174368	.0682793	9.234559	.4448877	.5263319
#2	2.797095	22.93613	.6194781	.0693807	9.127315	.4555396	.5214630
#3	2.734011	22.41609	.6179454	.0688235	9.154511	.4528896	.5208493

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.12745**	**.3357444**	**.3573895**	**.6958029**	**2.262302**	**6.538805**	**9.994373**
Stddev	.10286	.0034842	.0001162	.0020729	.029800	.052277	.036560
%RSD	.6378039	1.037765	.0325084	.2979090	1.317221	.7994874	.3658082
#1	16.22734	.3397549	.3573955	.6968196	2.243204	6.564979	10.02172
#2	16.13316	.3334624	.3575026	.6971710	2.296640	6.572825	10.00856
#3	16.02185	.3340157	.3572704	.6934179	2.247064	6.478611	9.95285

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3451-05A Acquired: 10/28/2025 18:13:16 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4586965	.2824357	.2889844
Stddev	.0022972	.0055303	.0054702
%RSD	.5008190	1.958066	1.892905
#1	.4570761	.2781099	.2862817
#2	.4613255	.2886667	.2952799
#3	.4576879	.2805306	.2853916

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6400.460	101968.5	7883.528	4891.705	6480.235
Stddev	11.632	599.2	107.140	4.447	10.702
%RSD	.1817429	.5876187	1.359031	.0908989	.1651551
#1	6411.867	101426.9	7926.577	4888.676	6490.766
#2	6400.899	101866.4	7761.560	4889.629	6469.369
#3	6388.614	102612.2	7962.448	4896.810	6480.570

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV07 Acquired: 10/28/2025 18:17:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.972109**	**4.743323**	**4.951852**	**4.967717**	**4.965495**	**9.737043**	**10.18119**
Stddev	.008377	.057838	.003201	.009229	.008403	.006323	.02594
%RSD	.1684697	1.219361	.0646415	.1857693	.1692298	.0649357	.2547927
#1	4.963502	4.810106	4.954455	4.974483	4.975101	9.731463	10.19469
#2	4.972593	4.709450	4.948278	4.971464	4.959505	9.743910	10.19760
#3	4.980234	4.710412	4.952823	4.957205	4.961879	9.735755	10.15129

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2582730**	**2.520336**	**25.18949**	**1.011008**	**2.529515**	**1.265767**	**4.988869**
Stddev	.0003920	.001683	.04079	.003089	.002275	.001023	.023784
%RSD	.1517711	.0667573	.1619470	.3055088	.0899416	.0808475	.4767408
#1	.2580292	2.522234	25.16151	1.007451	2.531219	1.264916	4.973303
#2	.2580646	2.519026	25.23629	1.013009	2.526931	1.266903	5.016247
#3	.2587252	2.519750	25.17066	1.012564	2.530393	1.265484	4.977058

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.565787**	**25.07646**	**2.525131**	**1.257719**	**25.18494**	**2.488725**	**2.515040**
Stddev	.007129	.12501	.001731	.000320	.15387	.008394	.015218
%RSD	.2778425	.4985010	.0685640	.0254796	.6109541	.3372960	.6050903
#1	2.566534	24.94149	2.526230	1.257349	25.16705	2.492560	2.518921
#2	2.572512	25.18827	2.523135	1.257894	25.34697	2.494517	2.527942
#3	2.558314	25.09962	2.526027	1.257913	25.04080	2.479098	2.498257

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.54749**	**5.116302**	**5.088402**	**5.094975**	**5.032776**	**4.896264**	**5.170478**
Stddev	.09894	.010922	.005131	.006488	.009297	.036284	.017373
%RSD	.4030531	.2134785	.1008375	.1273459	.1847229	.7410648	.3359946
#1	24.48889	5.107469	5.092124	5.101807	5.023589	4.856545	5.177805
#2	24.66173	5.112923	5.090532	5.088896	5.042178	4.927671	5.182986
#3	24.49186	5.128514	5.082549	5.094221	5.032561	4.904576	5.150642

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV07 Acquired: 10/28/2025 18:17:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.027787**	**4.977624**	**5.030220**
Stddev	.010338	.014076	.065797
%RSD	.2056179	.2827834	1.308036
#1	5.038734	4.974123	4.988613
#2	5.018190	4.993120	5.106077
#3	5.026437	4.965629	4.995970

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5598.253**	**89522.08**	**6869.561**	**4273.040**	**6470.173**
Stddev	4.969	117.80	10.728	28.570	3.410
%RSD	.0887584	.1315862	.1561654	.6686150	.0527013
#1	5594.124	89646.63	6874.832	4289.058	6466.353
#2	5596.866	89412.46	6876.633	4240.055	6471.257
#3	5603.767	89507.16	6857.217	4290.008	6472.909

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB07 Acquired: 10/28/2025 18:21:14 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001511**	**-.006105**	**-.000420**	**.0002053**	**.0003827**	**.0019823**	**.0019627**
Stddev	.001952	.001898	.001613	.0027136	.0007732	.0107736	.0016405
%RSD	129.1780	31.09361	384.3783	1321.550	202.0369	543.5004	83.58093
#1	-.000815	-.005979	.001440	.0025880	-.000404	-.010420	.0036626
#2	-.000003	-.004273	-.001269	-.002748	.001142	.009020	.0018367
#3	-.003716	-.008063	-.001430	.000776	.000410	.007347	.0003889

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000020**	**.0000286**	**-.007926**	**.0000984**	**-.000009**	**.0001951**	**.0214620**
Stddev	.000041	.0000507	.008311	.0001538	.000061	.0001315	.0073390
%RSD	208.5611	176.8323	104.8632	156.2816	664.4970	67.38658	34.19555
#1	.000007	-.000027	-.013347	.0001057	-.000044	.0000571	.0203003
#2	.000001	.000071	.001643	-.000059	-.000045	.0002091	.0293125
#3	-.000067	.000042	-.012073	.000248	.000062	.0003189	.0147730

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000261**	**-.016242**	**-.000325**	**-.000542**	**.2308843**	**-.002064**	**-.000035**
Stddev	.000627	.023368	.000230	.000190	.0267960	.003125	.000202
%RSD	240.3000	143.8722	70.77257	35.05865	11.60582	151.3753	581.6802
#1	-.000594	-.012537	-.000489	-.000369	.2001391	-.005118	-.000170
#2	.000463	.005052	-.000424	-.000512	.2492693	-.002202	.000198
#3	-.000652	-.041241	-.000062	-.000745	.2432445	.001127	-.000132

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0667072**	**.0010555**	**.0003163**	**.0008558**	**.0013382**	**.0097676**	**-.001171**
Stddev	.0237586	.0005454	.0002455	.0004606	.0011431	.0153241	.000774
%RSD	35.61632	51.67051	77.62091	53.81603	85.42730	156.8869	66.08658
#1	.0584739	.0016851	.0001934	.0013252	.0000482	.0273048	-.000830
#2	.0481604	.0007304	.0005990	.0008377	.0022257	.0030397	-.002058
#3	.0934873	.0007510	.0001566	.0004046	.0017405	-.001042	-.000627

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB07 Acquired: 10/28/2025 18:21:14 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0024984	-.001750	-.000117
Stddev	.0031724	.001500	.000084
%RSD	126.9790	85.69578	71.80738
#1	.0061216	-.000568	-.000053
#2	.0011542	-.001245	-.000086
#3	.0002193	-.003437	-.000212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5597.745	88822.81	6854.553	4163.163	7208.653
Stddev	12.073	955.64	38.398	47.770	9.628
%RSD	.2156681	1.075899	.5601820	1.147434	.1335550
#1	5585.519	89728.93	6814.228	4204.084	7199.773
#2	5598.060	87824.35	6858.752	4110.671	7207.302
#3	5609.658	88915.16	6890.678	4174.735	7218.885

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-01 Acquired: 10/28/2025 18:25:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2930026**	**-.027803**	**13.25561**	**.0147154**	**.0055073**	**73.45687**
Stddev	.0013001	.003682	.01512	.0026064	.0030721	.29799
%RSD	.4437073	13.24384	.1140729	17.71240	55.78335	.4056611
#1	.2921320	-.030048	13.24056	.0168204	.0031883	73.13149
#2	.2944970	-.023554	13.25548	.0155258	.0043420	73.71645
#3	.2923788	-.029808	13.27080	.0118000	.0089915	73.52268

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.947053**	**.0130540**	**.0170132**	**116.9656**	**.3433155**	**.1313317**
Stddev	.041043	.0000602	.0002031	.3690	.0015662	.0002389
%RSD	.6901453	.4610656	1.193785	.3154703	.4561898	.1818684
#1	5.944495	.0130043	.0172083	116.6227	.3415700	.1310560
#2	5.989315	.0131209	.0168030	117.3561	.3445979	.1314775
#3	5.907348	.0130369	.0170284	116.9180	.3437786	.1314615

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.943206**	**336.0136**	**2.965914**	**18.57307**	**.3680793**	**.0243689**
Stddev	.006752	2.1089	.013284	.07439	.0004940	.0008243
%RSD	.1712356	.6276326	.4478847	.4005088	.1342161	3.382656
#1	3.941096	334.8977	2.969242	18.48837	.3675257	.0250070
#2	3.937761	338.4460	2.977218	18.62780	.3684753	.0246615
#3	3.950761	334.6969	2.951283	18.60303	.3682369	.0234382

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.22926**	**.3494708**	**5.605944**	**9.940023**	**.1691329**	**.0340857**
Stddev	.17865	.0067441	.023206	.056762	.0102349	.0001348
%RSD	1.036881	1.929801	.4139611	.5710423	6.051400	.3953445
#1	17.23513	.3422980	5.580415	9.878549	.1693285	.0339643
#2	17.40490	.3556833	5.625761	9.990448	.1792685	.0340622
#3	17.04775	.3504312	5.611656	9.951072	.1588015	.0342307

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3452-01 Acquired: 10/28/2025 18:25:33 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.053301	2.487891	3.603274	F 20.66007	F 20.77320	.1371514
Stddev	.003289	.009348	.032925	.05952	.08068	.0006859
%RSD	.3122287	.3757480	.9137399	.2880735	.3883799	.5000835
#1	1.050703	2.482355	3.565270	20.68717	20.76154	.1365223
#2	1.052202	2.498684	3.621376	20.59183	20.69898	.1378826
#3	1.056999	2.482634	3.623175	20.70121	20.85907	.1370492

Elem	Sr4077
Units	ppm
Avg	1.435798
Stddev	.008919
%RSD	.6211654
#1	1.436216
#2	1.444500
#3	1.426677

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6192.730	99353.05	7864.729	4700.214	6407.219
Stddev	8.961	558.06	36.085	24.983	10.065
%RSD	.1447067	.5616945	.4588182	.5315231	.1570884
#1	6202.406	99952.85	7906.301	4725.790	6418.737
#2	6191.069	98849.16	7841.506	4675.870	6402.804
#3	6184.716	99257.15	7846.381	4698.984	6400.116

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3457-01 Acquired: 10/28/2025 18:29:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0871211**	**-.023312**	**.8054582**	**-.000442**	**-.011560**	**113.9472**	**.4458060**
Stddev	.0028030	.005000	.0006599	.000487	.001279	1.3544	.0054680
%RSD	3.217337	21.44763	.0819268	110.1629	11.06493	1.188601	1.226533
#1	.0900590	-.029044	.8047826	-.000589	-.012860	115.5085	.4520318
#2	.0868282	-.019851	.8061011	.000101	-.011518	113.2454	.4417833
#3	.0844760	-.021040	.8054909	-.000839	-.010303	113.0878	.4436028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103947**	**.0082065**	**51.78814**	**.2135535**	**.1890253**	**.3689073**	**265.7876**
Stddev	.0002139	.0004412	.55186	.0020497	.0000625	.0018571	3.5652
%RSD	2.057608	5.376526	1.065602	.9597987	.0330401	.5034001	1.341354
#1	.0106159	.0087026	52.42475	.2111876	.1890050	.3708511	261.8422
#2	.0101890	.0078580	51.49421	.2147904	.1889756	.3671512	268.7778
#3	.0103791	.0080589	51.44546	.2146825	.1890954	.3687196	266.7429

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.773937**	**33.94670**	**.1911166**	**.0054795**	**4.674087**	**.3671839**	**3.475978**
Stddev	.034446	.37008	.0003113	.0007077	.065132	.0035249	.029503
%RSD	.9127254	1.090193	.1629041	12.91536	1.393461	.9599743	.8487552
#1	3.813677	34.37362	.1908334	.0048235	4.608775	.3712135	3.444986
#2	3.755507	33.71686	.1914500	.0062295	4.739037	.3646723	3.503722
#3	3.752628	33.74963	.1910665	.0053855	4.674450	.3656661	3.479226

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.54356**	**.1490868**	**.0049874**	**.0190301**	**1.757035**	**3.996981**	**4.569992**
Stddev	.11294	.0175606	.0001077	.0007686	.018068	.060407	.008301
%RSD	1.071192	11.77875	2.160019	4.039027	1.028317	1.511328	.1816423
#1	10.41474	.1304072	.0049648	.0183762	1.776901	3.939927	4.570373
#2	10.62556	.1652587	.0048928	.0188374	1.752619	4.060260	4.578096
#3	10.59039	.1515946	.0051047	.0198768	1.741584	3.990755	4.561507

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3457-01 Acquired: 10/28/2025 18:29:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.138997	.1551491	-.020980
Stddev	.013905	.0015143	.005430
%RSD	.4429885	.9760282	25.88406
#1	3.142295	.1562508	-.014729
#2	3.150957	.1557742	-.024536
#3	3.123740	.1534223	-.023674

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6320.581	100726.4	8068.719	4788.364	6414.454
Stddev	6.187	734.7	127.147	37.747	6.785
%RSD	.0978789	.7294271	1.575799	.7883170	.1057762
#1	6326.003	101568.8	7924.106	4824.034	6419.546
#2	6313.842	100218.5	8162.973	4748.835	6406.751
#3	6321.898	100391.8	8119.079	4792.222	6417.064

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-01 Acquired: 10/28/2025 18:33:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0775159**	**-.021119**	**6.391344**	**-.007512**	**-.031814**	**72.53180**
Stddev	.0001359	.002682	.009417	.001360	.000493	.24318
%RSD	.1752863	12.69798	.1473469	18.10163	1.550483	.3352766
#1	.0774980	-.018476	6.401490	-.006040	-.031672	72.34573
#2	.0776599	-.021045	6.389660	-.008721	-.031407	72.80696
#3	.0773899	-.023838	6.382882	-.007777	-.032363	72.44270

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.371176**	**.0092922**	**.0126808**	**98.67389**	**.1634176**	**.1335622**
Stddev	.005515	.0000937	.0002604	.65942	.0003606	.0005471
%RSD	.4022389	1.008212	2.053796	.6682816	.2206713	.4096094
#1	1.365679	.0093442	.0124183	98.11164	.1632843	.1340266
#2	1.376710	.0093482	.0129391	99.39970	.1638259	.1337009
#3	1.371138	.0091840	.0126850	98.51034	.1631426	.1329591

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6574375**	**302.3934**	**2.990773**	**38.56924**	**.2087744**	**.0060583**
Stddev	.0007933	1.3254	.020727	.34248	.0007215	.0005204
%RSD	.1206683	.4383133	.6930415	.8879539	.3456000	8.589607
#1	.6565362	302.2609	2.971761	38.19455	.2083286	.0058867
#2	.6580300	301.1392	3.012870	38.86611	.2096069	.0056454
#3	.6577462	303.7801	2.987688	38.64705	.2083879	.0066428

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.649408**	**.3261110**	**2.910306**	**17.52542**	**.3126432**	**.0190299**
Stddev	.025592	.0015048	.003901	.13151	.0072922	.0002614
%RSD	.7012696	.4614313	.1340563	.7503724	2.332421	1.373473
#1	3.653396	.3252964	2.910954	17.56828	.3176795	.0187556
#2	3.622056	.3278474	2.906122	17.37784	.3042811	.0190580
#3	3.672773	.3251890	2.913844	17.63016	.3159691	.0192760

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-01 Acquired: 10/28/2025 18:33:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.931728	5.939068	3.322524	F 16.50333	3.885546	.1084091
Stddev	.004406	.041398	.019329	.07884	.009331	.0013671
%RSD	.1502777	.6970418	.5817534	.4777329	.2401436	1.261030
#1	2.936168	5.900059	3.319393	16.57162	3.895169	.1078053
#2	2.927358	5.982500	3.304952	16.41705	3.884932	.1099742
#3	2.931658	5.934645	3.343227	16.52132	3.876538	.1074480

Elem	Sr4077
Units	ppm
Avg	-.039934
Stddev	.002147
%RSD	5.375880
#1	-.040660
#2	-.037518
#3	-.041623

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7175.922	115175.6	9018.414	5482.730	6319.539
Stddev	8.672	359.1	91.121	24.006	6.158
%RSD	.1208516	.3117455	1.010389	.4378529	.0974485
#1	7184.641	115351.6	9099.633	5499.536	6324.376
#2	7167.297	115412.7	8919.877	5493.417	6312.607
#3	7175.827	114762.5	9035.734	5455.236	6321.635

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-05 Acquired: 10/28/2025 18:37:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0262230**	**-.023205**	**.0671928**	**-.014394**	**-.016869**	**32.48829**
Stddev	.0008439	.003157	.0019701	.002152	.001904	.35322
%RSD	3.218143	13.60657	2.932079	14.94848	11.28485	1.087209
#1	.0268507	-.025780	.0694515	-.012431	-.014778	32.89569
#2	.0265546	-.019682	.0662979	-.016694	-.017327	32.26793
#3	.0252637	-.024153	.0658289	-.014057	-.018502	32.30124

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5391423**	**.0071710**	**.0172109**	**54.71932**	**.0156093**	**.1273951**
Stddev	.0101294	.0000574	.0002117	.73645	.0002408	.0000268
%RSD	1.878801	.7999383	1.229830	1.345875	1.542887	.0210559
#1	.5505946	.0072155	.0169684	55.56965	.0155246	.1274044
#2	.5313572	.0071914	.0173062	54.30269	.0158811	.1274160
#3	.5354753	.0071063	.0173583	54.28563	.0154223	.1273648

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3354840**	**274.8190**	**2.125067**	**24.65238**	**.0787145**	**.0020501**
Stddev	.0004016	2.7825	.037548	.27541	.0001756	.0014744
%RSD	.1197029	1.012471	1.766930	1.117157	.2231094	71.92028
#1	.3351689	277.5068	2.166896	24.96944	.0789171	.0034152
#2	.3359362	271.9506	2.094271	24.47252	.0786221	.0004864
#3	.3353470	274.9995	2.114035	24.51519	.0786044	.0022487

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.116931**	**.1253749**	**.2989522**	**15.45044**	**.1057827**	**.0143229**
Stddev	.020661	.0017941	.0006845	.09743	.0076673	.0000553
%RSD	.9759726	1.430960	.2289718	.6305905	7.248179	.3862157
#1	2.138607	.1265860	.2991562	15.54109	.1054584	.0143639
#2	2.097463	.1233138	.2995115	15.34741	.0982827	.0142600
#3	2.114723	.1262250	.2981888	15.46281	.1136071	.0143449

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-05 Acquired: 10/28/2025 18:37:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041030	5.303066	2.651357	F 21.19713	5.084624	.0603127
Stddev	.0008191	.077436	.016335	.02549	.015775	.0014751
%RSD	19.96342	1.460208	.6161101	.1202469	.3102523	2.445798
#1	.0033548	5.391962	2.664788	21.22581	5.068853	.0617988
#2	.0049782	5.250288	2.633172	21.18854	5.100404	.0588488
#3	.0039759	5.266948	2.656111	21.17705	5.084615	.0602906

Elem	Sr4077
Units	ppm
Avg	-.170811
Stddev	.001377
%RSD	.8064419
#1	-.171808
#2	-.169239
#3	-.171386

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9050.682	146180.1	11307.87	6889.175	6326.725
Stddev	20.695	411.5	118.41	14.657	15.789
%RSD	.2286519	.2814765	1.047182	.2127503	.2495643
#1	9032.372	145716.4	11171.87	6874.354	6310.579
#2	9073.135	146501.7	11363.64	6889.510	6342.132
#3	9046.539	146322.2	11388.11	6903.662	6327.462

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-09 Acquired: 10/28/2025 18:41:42 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0258346**	**-.009332**	**.0613788**	**-.005842**	**-.005923**	**72.99346**
Stddev	.0024309	.000553	.0015413	.001592	.001392	.08044
%RSD	9.409387	5.927374	2.511199	27.25464	23.50707	.1102042
#1	.0234871	-.009722	.0629313	-.007076	-.007275	72.95901
#2	.0283411	-.009574	.0598489	-.006406	-.004493	72.93597
#3	.0256756	-.008699	.0613560	-.004045	-.006002	73.08539

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4849581**	**.0062041**	**.0093690**	**32.29286**	**.3546126**	**.1749892**
Stddev	.0015951	.0001422	.0008176	.07049	.0012439	.0049109
%RSD	.3289123	2.292749	8.726617	.2182983	.3507866	2.806422
#1	.4847771	.0060400	.0102893	32.21838	.3541454	.1806522
#2	.4866359	.0062927	.0087266	32.35855	.3560225	.1724119
#3	.4834612	.0062796	.0090911	32.30163	.3536699	.1719033

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6020172**	**216.5722**	**1.507505**	**69.92442**	**.2822161**	**.0001314**
Stddev	.0124505	1.0726	.004978	.15205	.0065186	.0007110
%RSD	2.068128	.4952462	.3302330	.2174432	2.309803	541.2174
#1	.6163594	217.1227	1.507468	69.74886	.2897395	.0007136
#2	.5939856	217.2576	1.512502	70.01115	.2786559	.0003414
#3	.5957065	215.3361	1.502546	70.01326	.2782527	-.000661

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.508139**	**.3347015**	**.2555435**	**48.69278**	**.0964963**	**.0150757**
Stddev	.027824	.0018472	.0015195	.20141	.0030817	.0002552
%RSD	1.844912	.5518942	.5945958	.4136380	3.193602	1.692801
#1	1.510754	.3358143	.2553292	48.80623	.0985362	.0153175
#2	1.534564	.3325692	.2541426	48.81188	.0980014	.0151008
#3	1.479100	.3357209	.2571587	48.46023	.0929513	.0148089

Sample Name: Q3460-09 Acquired: 10/28/2025 18:41:42 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0144088	F 11.96106	3.125993	F 13.14339	5.423984	.1415586
Stddev	.0003261	.01876	.005801	.32051	.127011	.0011747
%RSD	2.263532	.1568132	.1855695	2.438557	2.341648	.8298603
#1	.0147739	11.95240	3.132041	13.51333	5.570397	.1419989
#2	.0141463	11.98258	3.125464	12.94904	5.358132	.1402273
#3	.0143062	11.94819	3.120475	12.96781	5.343422	.1424495

Elem	Sr4077
Units	ppm
Avg	-.156884
Stddev	.000835
%RSD	.5321543
#1	-.157510
#2	-.157205
#3	-.155936

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7149.165	112985.9	9199.111	5318.490	6078.863
Stddev	110.248	309.5	21.173	14.805	134.952
%RSD	1.542106	.2739321	.2301667	.2783688	2.220021
#1	7021.864	112912.4	9219.349	5334.889	5923.132
#2	7213.476	112719.8	9177.112	5306.108	6151.931
#3	7212.154	113325.6	9200.872	5314.474	6161.525

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-13 Acquired: 10/28/2025 18:45:45 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0794049**	**-.026022**	**2.072351**	**-.010940**	**-.018656**	**75.80704**
Stddev	.0016776	.006167	.021362	.003576	.000204	1.41470
%RSD	2.112666	23.70052	1.030806	32.68557	1.095849	1.866189
#1	.0776625	-.031233	2.047810	-.015062	-.018494	77.44053
#2	.0795432	-.027620	2.082468	-.008678	-.018589	74.97817
#3	.0810091	-.019213	2.086774	-.009080	-.018886	75.00241

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.154182**	**.0089375**	**.0200452**	**94.32127**	**.1800563**	**.1366251**
Stddev	.024487	.0001161	.0009974	1.66073	.0006195	.0018239
%RSD	2.121618	1.298986	4.975903	1.760713	.3440830	1.334971
#1	1.182230	.0090619	.0188962	96.23869	.1795074	.1345203
#2	1.137054	.0088321	.0205520	93.38754	.1807281	.1376151
#3	1.143263	.0089185	.0206876	93.33757	.1799334	.1377400

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8318921**	**316.2275**	**3.227940**	**48.21664**	**.2400771**	**.0024862**
Stddev	.0086795	3.2649	.066562	.78952	.0025935	.0018671
%RSD	1.043347	1.032446	2.062044	1.637441	1.080291	75.09893
#1	.8220381	319.9529	3.304796	49.12808	.2371553	.0045293
#2	.8352352	313.8643	3.188937	47.77786	.2409691	.0008683
#3	.8384029	314.8654	3.190087	47.74397	.2421069	.0020612

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.882249**	**.3099296**	**1.760184**	**19.38205**	**1.681342**	**.0135735**
Stddev	.047780	.0066545	.000294	.19363	.015399	.0002138
%RSD	1.230740	2.147094	.0167219	.9990192	.9158551	1.574840
#1	3.936276	.3171655	1.759866	19.60227	1.698923	.0134146
#2	3.864922	.3040727	1.760238	19.23846	1.670253	.0134893
#3	3.845550	.3085504	1.760447	19.30543	1.674848	.0138165

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-13 Acquired: 10/28/2025 18:45:45 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.520435	7.738163	2.988735	F 24.58416	3.499667	.1037698
Stddev	.015623	.152219	.022442	.32732	.066490	.0017983
%RSD	1.027515	1.967120	.7508999	1.331409	1.899884	1.732963
#1	1.502485	7.912794	3.013836	24.20775	3.423939	.1054315
#2	1.527857	7.633564	2.981763	24.74290	3.526582	.1018605
#3	1.530963	7.668132	2.970607	24.80184	3.548480	.1040175

Elem	Sr4077
Units	ppm
Avg	-.120065
Stddev	.000837
%RSD	.6970755
#1	-.119130
#2	-.120744
#3	-.120321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7404.997	118489.5	9421.458	5567.364	6273.838
Stddev	47.046	498.6	99.224	20.049	58.408
%RSD	.6353216	.4208058	1.053174	.3601117	.9309761
#1	7459.181	118335.7	9320.205	5559.645	6340.974
#2	7374.542	118085.8	9425.648	5552.321	6234.703
#3	7381.267	119046.8	9518.520	5590.124	6245.837

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-17 Acquired: 10/28/2025 18:49:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0450810**	**-.023165**	**1.029291**	**-.011683**	**-.013676**	**69.98407**
Stddev	.0010244	.003707	.004893	.002301	.002942	.55654
%RSD	2.272372	16.00364	.4753920	19.69194	21.51071	.7952326
#1	.0459233	-.019071	1.023681	-.010419	-.016024	70.62585
#2	.0453791	-.026295	1.031519	-.014338	-.014627	69.63457
#3	.0439406	-.024128	1.032674	-.010291	-.010376	69.69178

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9097971**	**.0078830**	**.0192478**	**70.29104**	**.1188815**	**.1363056**
Stddev	.0116637	.0001958	.0000486	.68210	.0008624	.0001551
%RSD	1.282014	2.484156	.2522310	.9703938	.7253917	.1137838
#1	.9227952	.0080412	.0192469	71.07708	.1182254	.1361266
#2	.9063526	.0076640	.0191997	69.94123	.1185607	.1363987
#3	.9002435	.0079439	.0192968	69.85481	.1198582	.1363916

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6762132**	**290.4381**	**3.038965**	**36.94913**	**.1587881**	**.0025477**
Stddev	.0011915	.6054	.032127	.25029	.0009285	.0004110
%RSD	.1762080	.2084558	1.057178	.6773935	.5847107	16.13402
#1	.6750267	290.2834	3.075546	37.22937	.1577176	.0025466
#2	.6762033	291.1059	3.026015	36.87019	.1593734	.0029593
#3	.6774097	289.9250	3.015334	36.74782	.1592733	.0021372

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.117862**	**.3075279**	**1.024124**	**23.03555**	**.9753436**	**.0206804**
Stddev	.013100	.0036772	.001923	.03253	.0033337	.0002008
%RSD	.6185722	1.195727	.1878136	.1412268	.3417982	.9707067
#1	2.113551	.3100412	1.022498	23.00013	.9788838	.0205683
#2	2.107460	.3092351	1.026247	23.06409	.9748825	.0209121
#3	2.132574	.3033074	1.023628	23.04242	.9722644	.0205608

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-17 Acquired: 10/28/2025 18:49:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0407375	5.924248	2.624832	F 20.11634	3.148463	.0839663
Stddev	.0004947	.062446	.009601	.12725	.019949	.0019246
%RSD	1.214444	1.054067	.3657753	.6325584	.6336073	2.292073
#1	.0410613	5.995848	2.635623	19.96987	3.126376	.0861800
#2	.0401680	5.895836	2.617237	20.19971	3.165170	.0826906
#3	.0409832	5.881061	2.621635	20.17943	3.153844	.0830282

Elem	Sr4077
Units	ppm
Avg	-.134162
Stddev	.001812
%RSD	1.350644
#1	-.132104
#2	-.135517
#3	-.134866

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8197.971	131980.7	10572.58	6202.417	6216.567
Stddev	27.188	576.6	87.45	12.188	23.354
%RSD	.3316486	.4369115	.8271848	.1965045	.3756726
#1	8228.938	132542.5	10480.10	6215.176	6243.532
#2	8186.958	132009.3	10653.95	6201.180	6203.328
#3	8178.017	131390.3	10583.68	6190.894	6202.842

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170291BL Acquired: 10/28/2025 18:53:49 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013027**	**-.004782**	**.0000445**	**-.000373**	**.0000445**	**.0084214**
Stddev	.0009048	.001053	.0004623	.001787	.0007378	.0100597
%RSD	69.45562	22.02789	1037.964	478.6403	1659.276	119.4541
#1	.0022010	-.004082	.0005673	-.001404	-.000730	.0030014
#2	.0003915	-.005993	-.000123	.001690	.000124	.0200290
#3	.0013156	-.004271	-.000310	-.001406	.000740	.0022339

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038498**	**.0000116**	**-.000027**	**.0038144**	**.0004145**	**-.000057**
Stddev	.0016916	.0000554	.000066	.0096480	.0003133	.000265
%RSD	43.94039	476.4412	240.1735	252.9366	75.58950	466.9403
#1	.0056941	-.000051	-.000054	-.007145	.0007596	.000166
#2	.0034848	.000056	-.000076	.011029	.0003361	.000014
#3	.0023705	.000030	.000048	.007559	.0001478	-.000349

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001108**	**.0069755**	**.0001839**	**-.008285**	**-.000305**	**-.001031**
Stddev	.0003092	.0067078	.0005408	.008605	.000267	.000419
%RSD	279.2080	96.16096	294.0534	103.8697	87.39591	40.65914
#1	.0003969	.0057595	-.000213	-.016015	-.000609	-.001417
#2	-.000217	.0142081	-.000036	.000987	-.000113	-.001090
#3	.000153	.0009590	.000800	-.009827	-.000193	-.000585

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0812917**	**-.000050**	**.0000999**	**-.041131**	**-.002534**	**.0010109**
Stddev	.0067046	.003049	.0001830	.058538	.000531	.0001344
%RSD	8.247591	6064.946	183.1943	142.3225	20.94858	13.28970
#1	.0744026	.002526	-.000108	-.011386	-.002005	.0008583
#2	.0877951	.000740	.000235	-.003437	-.003067	.0011114
#3	.0816775	-.003417	.000173	-.108569	-.002529	.0010631

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170291BL Acquired: 10/28/2025 18:53:49 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0214903	.0024320	-.020991	.0010781	.0071181	.0004586
Stddev	.0002103	.0012649	.014507	.0017649	.0042827	.0004409
%RSD	.9785447	52.00918	69.10895	163.6969	60.16596	96.14926
#1	.0216502	.0016766	-.005705	.0019207	.0096835	.0008958
#2	.0212521	.0038923	-.034567	.0022639	.0094968	.0004657
#3	.0215685	.0017273	-.022701	-.000950	.0021741	.0000141

Elem	Sr4077
Units	ppm
Avg	-.000060
Stddev	.000094
%RSD	158.3325
#1	.000049
#2	-.000121
#3	-.000107

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5698.839	92537.86	6788.118	4305.920	7325.514
Stddev	19.016	538.66	131.601	27.992	22.338
%RSD	.3336859	.5820973	1.938695	.6500818	.3049392
#1	5687.834	91926.21	6649.640	4275.032	7317.928
#2	5687.885	92745.87	6803.166	4313.120	7307.957
#3	5720.797	92941.49	6911.548	4329.609	7350.658

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170291BS Acquired: 10/28/2025 18:58:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7594016**	**1.673266**	**.9232442**	**1.905113**	**.7822911**	**1.906460**
Stddev	.0049778	.035679	.0018697	.011863	.0060144	.006090
%RSD	.6554893	2.132285	.2025179	.6227014	.7688131	.3194508
#1	.7638524	1.686999	.9220985	1.913542	.7865104	1.899445
#2	.7603259	1.700037	.9254018	1.910250	.7849584	1.909538
#3	.7540264	1.632761	.9222323	1.891547	.7754043	1.910397

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1988927**	**.2063060**	**.1874107**	**1.009945**	**.3960164**	**.1931887**
Stddev	.0011321	.0011523	.0001560	.005371	.0012229	.0003873
%RSD	.5692109	.5585245	.0832308	.5318067	.3087978	.2004749
#1	.1995925	.2070399	.1872593	1.005108	.3946265	.1933094
#2	.1994991	.2049780	.1874020	1.009000	.3969276	.1927555
#3	.1975866	.2069003	.1875709	1.015725	.3964949	.1935013

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3071830**	**2.930903**	**.2063404**	**1.952419**	**.4824636**	**.0732757**
Stddev	.0004401	.039513	.0005584	.007806	.0010146	.0004848
%RSD	.1432680	1.348165	.2706150	.3998033	.2103042	.6616736
#1	.3073604	2.890209	.2056983	1.957420	.4813685	.0732345
#2	.3075066	2.969119	.2066111	1.943425	.4826505	.0728128
#3	.3066818	2.933383	.2067118	1.956414	.4833717	.0737798

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.975220**	**.2927036**	**.2014970**	**9.263369**	**.2971835**	**.4022985**
Stddev	.052100	.0021339	.0008545	.070387	.0014500	.0013839
%RSD	1.751136	.7290429	.4240680	.7598475	.4879009	.3440061
#1	2.919398	.2908286	.2024528	9.186441	.2988449	.4038510
#2	3.022557	.2922565	.2012313	9.324548	.2961737	.4018505
#3	2.983705	.2950256	.2008070	9.279118	.2965319	.4011941

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170291BS Acquired: 10/28/2025 18:58:08 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6921741	.1955674	.8274649	5.547577	F .0057156	.2032110
Stddev	.0006212	.0018315	.0017709	.004287	.0009549	.0009838
%RSD	.0897442	.9365049	.2140117	.0772763	16.70668	.4841257
#1	.6917918	.1963468	.8254651	5.543622	.0046174	.2027855
#2	.6928909	.1968803	.8280954	5.546978	.0061797	.2025115
#3	.6918398	.1934751	.8288343	5.552132	.0063498	.2043359

Elem	Sr4077
Units	ppm
Avg	.1919600
Stddev	.0014196
%RSD	.7395389
#1	.1905387
#2	.1933779
#3	.1919633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5787.678	93222.56	6944.483	4459.975	7138.077
Stddev	2.005	328.05	8.866	8.905	15.604
%RSD	.0346405	.3519008	.1276722	.1996694	.2186007
#1	5785.404	93538.81	6943.192	4463.288	7152.047
#2	5788.435	92883.86	6953.924	4449.888	7140.948
#3	5789.193	93245.01	6936.333	4466.748	7121.238

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170261TB Acquired: 10/28/2025 19:02:09 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002229**	**-.009673**	**.0000168**	**.0048545**	**.0011875**	**.0092540**	**-.000076**
Stddev	.000906	.000916	.0013258	.0024309	.0010002	.0073718	.001072
%RSD	40.66078	9.473443	7909.364	50.07429	84.22650	79.66122	1408.890
#1	-.002849	-.009508	-.000737	.0020561	.0001193	.0146702	.000831
#2	-.002649	-.008851	.001548	.0064427	.0021018	.0122329	-.001259
#3	-.001189	-.010661	-.000760	.0060647	.0013414	.0008588	.000200

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000195**	**.0000096**	**.0030595**	**.0013229**	**-.000309**	**.0001889**	**.0139363**
Stddev	.000026	.0000723	.0050233	.0000907	.000088	.0001538	.0063198
%RSD	13.24378	755.3632	164.1866	6.854157	28.44806	81.41369	45.34752
#1	-.000165	-.000074	.0069898	.0013323	-.000268	.0000130	.0124748
#2	-.000212	.000045	-.002600	.0012278	-.000410	.0002559	.0084753
#3	-.000208	.000058	.004789	.0014084	-.000250	.0002978	.0208588

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004926**	**-.003588**	**.0008580**	**-.001018**	**413.8239**	**-.002136**	**.0040657**
Stddev	.0008179	.003765	.0001038	.000255	3.2770	.000397	.0004833
%RSD	166.0437	104.9311	12.09240	25.05752	.7918881	18.59739	11.88778
#1	.0009671	-.003460	.0008827	-.001156	411.1191	-.001703	.0040060
#2	.0009625	.000112	.0009472	-.000724	417.4680	-.002484	.0045761
#3	-.000452	-.007415	.0007441	-.001175	412.8845	-.002221	.0036150

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.090411**	**-.006578**	**.0008063**	**-.012967**	**.0003218**	**.0038569**	**.0071399**
Stddev	.016699	.000765	.0001043	.000279	.0012718	.0130201	.0006720
%RSD	18.47020	11.62891	12.93907	2.150482	395.2151	337.5764	9.411379
#1	-.082593	-.005897	.0007244	-.013111	-.000871	-.003837	.0067567
#2	-.079054	-.007405	.0007707	-.012646	.000176	-.003482	.0067473
#3	-.109584	-.006430	.0009237	-.013146	.001660	.018890	.0079158

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: PB170261TB Acquired: 10/28/2025 19:02:09 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0091150	-.004680	.0000380
Stddev	.0016394	.001071	.0000848
%RSD	17.98593	22.89448	223.2468
#1	.0083497	-.004743	.0001110
#2	.0109972	-.005719	.0000579
#3	.0079982	-.003579	-.000055

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5266.544	83926.71	6741.341	4049.544	6159.633
Stddev	16.290	277.41	27.560	21.569	23.227
%RSD	.3093204	.3305359	.4088202	.5326370	.3770859
#1	5253.660	84008.14	6715.825	4070.385	6140.262
#2	5261.116	84154.29	6770.569	4050.932	6153.253
#3	5284.855	83617.70	6737.628	4027.313	6185.383

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV08 Acquired: 10/28/2025 19:06:36 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.113983**	**4.878483**	**5.091340**	**5.122995**	**5.101292**	**10.83697**	**10.53643**
Stddev	.001024	.084387	.007994	.012643	.005267	.03657	.02843
%RSD	.0200279	1.729785	.1570080	.2467983	.1032453	.3374678	.2697949
#1	5.112810	4.870241	5.088960	5.113139	5.096613	10.85587	10.56897
#2	5.114697	4.798519	5.100254	5.137250	5.100268	10.79481	10.52388
#3	5.114444	4.966689	5.084807	5.118596	5.106996	10.86021	10.51643

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2690727**	**2.601345**	**26.08556**	**1.032519**	**2.613687**	**1.304197**	**5.137427**
Stddev	.0023105	.002595	.02531	.004545	.003466	.001566	.037136
%RSD	.8586970	.0997629	.0970240	.4401725	.1326158	.1200664	.7228490
#1	.2669593	2.601980	26.08268	1.035452	2.615196	1.302932	5.166424
#2	.2687193	2.603563	26.11219	1.034822	2.616143	1.305948	5.150286
#3	.2715396	2.598491	26.06182	1.027284	2.609722	1.303710	5.095570

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.671651**	**25.93373**	**2.597898**	**1.293251**	**26.37559**	**2.586585**	**2.594017**
Stddev	.002035	.03136	.004951	.001689	.40595	.008569	.010322
%RSD	.0761574	.1209319	.1905649	.1306054	1.539121	.3312995	.3978969
#1	2.670122	25.91985	2.599919	1.293644	26.79781	2.576897	2.588643
#2	2.673960	25.91171	2.601518	1.294709	26.34081	2.589687	2.605917
#3	2.670869	25.96964	2.592256	1.291400	25.98815	2.593172	2.587492

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.19978**	**5.356596**	**5.214133**	**5.253038**	**5.227970**	**5.027289**	**5.338106**
Stddev	.32263	.059828	.002117	.006446	.002514	.057136	.009562
%RSD	1.280288	1.116908	.0406000	.1227147	.0480879	1.136511	.1791284
#1	25.51868	5.296184	5.214779	5.256031	5.229921	5.076441	5.349104
#2	25.20710	5.357779	5.215852	5.257443	5.228856	5.040825	5.331757
#3	24.87355	5.415824	5.211768	5.245639	5.225133	4.964601	5.333458

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV08 Acquired: 10/28/2025 19:06:36 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.223209**	**5.215107**	**5.229766**
Stddev	.006979	.005022	.072733
%RSD	.1336076	.0962989	1.390752
#1	5.228390	5.220884	5.153940
#2	5.225962	5.212663	5.236406
#3	5.215273	5.211776	5.298951

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5561.840**	**88971.55**	**6730.805**	**4253.833**	**6395.090**
Stddev	4.108	398.00	52.141	19.952	11.478
%RSD	.0738656	.4473384	.7746562	.4690241	.1794845
#1	5560.542	88605.39	6778.605	4248.666	6383.922
#2	5558.538	88914.12	6738.606	4236.974	6394.493
#3	5566.441	89395.15	6675.203	4275.860	6406.855

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB08 Acquired: 10/28/2025 19:10:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**-.000524**	**-.006307**	**.0003329**	**.0001125**	**-.000266**	**.0090585**	**.0031865**
Stddev	.000608	.001936	.0007739	.0002243	.000859	.0091300	.0012290
%RSD	116.0812	30.69494	232.4615	199.2727	323.2614	100.7892	38.56930
#1	-.001054	-.007422	-.000561	.0003569	.000505	.0159187	.0017879
#2	.000140	-.004072	.000796	-.000084	-.000110	-.001304	.0040942
#3	-.000657	-.007429	.000763	.000064	-.001192	.012561	.0036775

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000084**	**.0000176**	**.0069734**	**.0003836**	**-.000032**	**.0011366**	**.0157811**
Stddev	.000037	.0000341	.0066559	.0003264	.000111	.0002552	.0040446
%RSD	43.42579	193.1721	95.44714	85.10385	348.8801	22.45278	25.62914
#1	-.000109	.0000431	.0092561	.0007592	-.000160	.0009613	.0139675
#2	-.000042	.0000310	-.000523	.0001683	.000020	.0014294	.0204150
#3	-.000102	-.000021	.012188	.0002233	.000044	.0010192	.0129606

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011054**	**-.006235**	**-.000384**	**-.000940**	**.1671640**	**-.001146**	**.0028702**
Stddev	.0002043	.002121	.000183	.000171	.0257283	.002364	.0001833
%RSD	18.47690	34.01023	47.80282	18.18769	15.39102	206.2301	6.385266
#1	.0013087	-.008346	-.000190	-.000743	.1433486	-.003360	.0026773
#2	.0011074	-.004105	-.000406	-.001035	.1944524	.001343	.0028912
#3	.0009002	-.006255	-.000555	-.001044	.1636911	-.001421	.0030420

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0423116**	**.0005497**	**.0006786**	**-.000691**	**.0014644**	**.0070242**	**.0008071**
Stddev	.0265062	.0001826	.0001954	.000309	.0006868	.0061701	.0014216
%RSD	62.64511	33.22485	28.79579	44.77899	46.90097	87.83992	176.1500
#1	.0364199	.0007298	.0004533	-.001016	.0007071	.0020825	.0024421
#2	.0192471	.0005546	.0007807	-.000658	.0020469	.0050505	.0001159
#3	.0712679	.0003646	.0008019	-.000399	.0016393	.0139397	-.000137

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB08 Acquired: 10/28/2025 19:10:39 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0019653	.0011905	-.000051
Stddev	.0008577	.0024454	.000083
%RSD	43.64142	205.4117	162.7776
#1	.0013483	-.001342	.000044
#2	.0029447	.001376	-.000085
#3	.0016028	.003538	-.000112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5716.400	91748.16	6842.627	4286.410	7353.193
Stddev	5.087	132.65	59.707	2.872	2.312
%RSD	.0889926	.1445805	.8725704	.0670046	.0314468
#1	5711.015	91617.72	6891.557	4286.735	7355.266
#2	5717.062	91882.92	6776.099	4283.390	7350.699
#3	5721.124	91743.84	6860.225	4289.106	7353.612

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04 Acquired: 10/28/2025 19:14:57 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003699**	**-.006453**	**.1068092**	**.0040757**	**.0023147**	**.0405116**	**.2083979**
Stddev	.001566	.002156	.0007978	.0012496	.0008287	.0053692	.0023662
%RSD	42.34854	33.40664	.7469488	30.65866	35.80327	13.25357	1.135423
#1	-.004970	-.005288	.1071827	.0052121	.0015011	.0352526	.2108462
#2	-.001949	-.005130	.1073517	.0027376	.0031579	.0402975	.2061233
#3	-.004177	-.008940	.1058931	.0042774	.0022852	.0459847	.2082242

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000109**	**.0004879**	**49.32340**	**.0010161**	**.0054350**	**.0237842**	**.0314030**
Stddev	.000047	.0000519	.10020	.0000862	.0000484	.0001293	.0097273
%RSD	43.61558	10.63646	.2031426	8.483281	.8915281	.5437973	30.97557
#1	-.000163	.0004318	49.36735	.0010917	.0054908	.0239167	.0262624
#2	-.000075	.0004977	49.20874	.0009222	.0054034	.0236583	.0426220
#3	-.000088	.0005341	49.39411	.0010344	.0054107	.0237775	.0253246

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2753903**	**1.151290**	**.0046211**	**-.001004**	**293.5595**	**-.001080**	**.3577051**
Stddev	.0014907	.003031	.0002557	.000264	3.4594	.001605	.0012595
%RSD	.5413037	.2632328	5.532387	26.25376	1.178440	148.5669	.3521085
#1	.2768204	1.151502	.0044506	-.000709	296.5420	-.000402	.3578248
#2	.2738456	1.154208	.0049150	-.001216	294.3696	-.002913	.3589005
#3	.2755047	1.148158	.0044976	-.001088	289.7670	.000074	.3563900

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.612653**	**.0042978**	**.0011424**	**-.015251**	**-.000608**	**1.209466**	**.0252756**
Stddev	.041354	.0003275	.0002230	.000422	.000931	.023256	.0014171
%RSD	2.564316	7.619465	19.51739	2.769966	153.0957	1.922804	5.606392
#1	1.656662	.0045082	.0009138	-.015092	.000253	1.231890	.0263258
#2	1.606698	.0039205	.0011539	-.014931	-.000481	1.185460	.0258370
#3	1.574601	.0044647	.0013593	-.015730	-.001597	1.211049	.0236638

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04 Acquired: 10/28/2025 19:14:57 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7981973	-.009102	.1003501
Stddev	.0006918	.000467	.0007779
%RSD	.0866756	5.133281	.7752128
#1	.7989850	-.008607	.1011798
#2	.7976882	-.009535	.0996371
#3	.7979187	-.009166	.1002334

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5295.598	84892.05	6799.136	4055.069	6142.867
Stddev	1.728	113.89	9.477	14.256	9.353
%RSD	.0326338	.1341577	.1393847	.3515597	.1522563
#1	5295.612	84915.28	6808.762	4057.157	6149.367
#2	5293.863	84768.33	6789.815	4039.885	6132.148
#3	5297.319	84992.53	6798.832	4068.167	6147.086

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04DUP Acquired: 10/28/2025 19:19:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002660**	**-.006598**	**.1068274**	**.0043818**	**.0032258**	**.0417629**	**.2011003**
Stddev	.001256	.002147	.0009172	.0021737	.0010065	.0051800	.0004162
%RSD	47.20355	32.54113	.8585630	49.60800	31.20253	12.40339	.2069687
#1	-.004108	-.004538	.1064361	.0062318	.0039391	.0360746	.2006716
#2	-.001987	-.006433	.1078753	.0049257	.0036639	.0462086	.2015027
#3	-.001884	-.008822	.1061707	.0019877	.0020745	.0430054	.2011266

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000144**	**.0005074**	**48.67766**	**.0010152**	**.0054828**	**.0237158**	**.0296664**
Stddev	.000068	.0000681	.05797	.0001096	.0000794	.0000608	.0024174
%RSD	47.20350	13.42177	.1190908	10.79736	1.448859	.2564389	8.148726
#1	-.000066	.0005412	48.61160	.0010422	.0055727	.0237830	.0269271
#2	-.000190	.0005520	48.70134	.0011087	.0054538	.0236647	.0305710
#3	-.000176	.0004290	48.72004	.0008946	.0054220	.0236995	.0315010

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2688789**	**1.124509**	**.0049433**	**-.000932**	**286.6383**	**-.001266**	**.3587214**
Stddev	.0016524	.022976	.0001564	.000342	2.6459	.002206	.0009797
%RSD	.6145538	2.043204	3.164617	36.71617	.9230790	174.2474	.2730952
#1	.2669971	1.119303	.0047662	-.001314	283.9362	-.001797	.3595936
#2	.2695466	1.104582	.0050628	-.000831	286.7545	.001157	.3576615
#3	.2700929	1.149641	.0050009	-.000652	289.2242	-.003159	.3589091

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.680277**	**.0032015**	**.0012392**	**-.015043**	**.0012166**	**1.220412**	**.0236441**
Stddev	.057029	.0003752	.0000878	.000411	.0009820	.026129	.0010724
%RSD	3.394023	11.71821	7.084025	2.731426	80.71779	2.140989	4.535701
#1	1.614842	.0036259	.0011688	-.015185	.0017440	1.221420	.0227107
#2	1.706586	.0029140	.0012112	-.015364	.0000836	1.246022	.0248155
#3	1.719401	.0030647	.0013375	-.014580	.0018223	1.193793	.0234061

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04DUP Acquired: 10/28/2025 19:19:21 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7914444	-.010576	.0991266
Stddev	.0015282	.001444	.0004421
%RSD	.1930917	13.65664	.4460262
#1	.7920156	-.009977	.0987573
#2	.7926048	-.012223	.0996165
#3	.7897129	-.009528	.0990059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5365.633	85070.56	6979.196	4054.882	6224.659
Stddev	4.797	186.07	19.539	14.929	9.144
%RSD	.0894102	.2187189	.2799554	.3681757	.1468971
#1	5370.040	84863.07	6967.658	4037.685	6235.092
#2	5360.523	85126.02	7001.756	4064.519	6220.845
#3	5366.335	85222.59	6968.175	4062.442	6218.039

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04LX5 Acquired: 10/28/2025 19:23:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003435**	**-.007077**	**.0202870**	**.0033487**	**.0003841**	**.0084636**	**.0428907**
Stddev	.0006285	.001368	.0009378	.0042503	.0008291	.0139676	.0020989
%RSD	182.9572	19.32609	4.622928	126.9228	215.8387	165.0310	4.893610
#1	.0003904	-.008629	.0213064	-.001278	-.000328	-.007315	.0423845
#2	-.000307	-.006045	.0200938	.007080	.001294	.013459	.0451964
#3	.000947	-.006559	.0194608	.004244	.000186	.019247	.0410912

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000186**	**.0001369**	**9.923891**	**.0003412**	**.0011303**	**.0048217**	**.0017472**
Stddev	.0001154	.0000533	.019869	.0002917	.0001579	.0002757	.0070598
%RSD	621.3375	38.94420	.2002127	85.48176	13.97468	5.717062	404.0504
#1	.0000839	.0001457	9.934757	.0005064	.0012083	.0050694	.0036662
#2	.0000865	.0000797	9.935957	.0000044	.0012340	.0048710	-.006074
#3	-.000115	.0001852	9.900959	.0005128	.0009485	.0045247	.007649

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0547045**	**.2223927**	**.0006655**	**-.000683**	**55.73116**	**.0014475**	**.0703503**
Stddev	.0008065	.0256449	.0001625	.000107	.36634	.0000805	.0000892
%RSD	1.474323	11.53136	24.41506	15.66664	.6573334	5.563363	.1268369
#1	.0537949	.1947199	.0004857	-.000662	56.14157	.0014143	.0704454
#2	.0549865	.2271008	.0008017	-.000798	55.43718	.0013890	.0703372
#3	.0553322	.2453573	.0007091	-.000587	55.61475	.0015394	.0702684

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3555486**	**-.004137**	**.0009424**	**.0148361**	**.0032586**	**.2171005**	**.0053905**
Stddev	.0160069	.000359	.0001906	.0002955	.0011073	.0035882	.0016772
%RSD	4.502036	8.689043	20.21969	1.992035	33.97967	1.652808	31.11311
#1	.3690441	-.004428	.0011548	.0149325	.0031116	.2163074	.0054873
#2	.3597383	-.003735	.0008862	.0150715	.0044320	.2139752	.0070172
#3	.3378635	-.004247	.0007863	.0145045	.0022322	.2210190	.0036671

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04LX5 Acquired: 10/28/2025 19:23:46 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1589950	.0024455	.0199436
Stddev	.0026640	.0014612	.0000955
%RSD	1.675505	59.75279	.4788776
#1	.1560536	.0040783	.0200331
#2	.1596860	.0019975	.0199546
#3	.1612454	.0012607	.0198431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5564.843	89403.68	6945.592	4255.416	6719.998
Stddev	12.235	239.52	9.918	10.107	18.789
%RSD	.2198675	.2679030	.1427949	.2375002	.2795995
#1	5556.750	89610.45	6949.692	4248.869	6707.538
#2	5578.918	89459.38	6934.281	4267.056	6741.610
#3	5558.860	89141.23	6952.801	4250.324	6710.848

Sample Name: Q3460-04MS Acquired: 10/28/2025 19:28:03 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7729201**	**1.616323**	**1.047629**	**1.936231**	**.7731619**	**1.879393**	**.4831761**
Stddev	.0018063	.034767	.008002	.004627	.0017862	.032388	.0053410
%RSD	.2336984	2.151016	.7638596	.2389595	.2310238	1.723331	1.105403
#1	.7739306	1.649188	1.043630	1.939374	.7711105	1.902964	.4873253
#2	.7739950	1.619859	1.056842	1.938401	.7743731	1.892752	.4850530
#3	.7708347	1.579923	1.042414	1.930918	.7740019	1.842462	.4771499

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1927075**	**.1925688**	**70.78267**	**.3936750**	**.2027986**	**.3160342**	**3.021657**
Stddev	.0020127	.0013027	.76457	.0014365	.0012811	.0018023	.034862
%RSD	1.044414	.6764964	1.080163	.3648962	.6317270	.5702737	1.153723
#1	.1934054	.1918448	71.12110	.3945850	.2023555	.3142662	3.055807
#2	.1942782	.1940727	71.31962	.3920189	.2042425	.3178689	2.986125
#3	.1904387	.1917890	69.90730	.3944210	.2017979	.3159675	3.023040

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5895329**	**3.489011**	**.4886780**	**.0708586**	**432.3997**	**.2795259**	**.7069431**
Stddev	.0065040	.026262	.0028855	.0005998	4.8777	.0063146	.0033353
%RSD	1.103250	.7527172	.5904641	.8465477	1.128060	2.259034	.4717970
#1	.5940228	3.514271	.4865072	.0715512	433.1864	.2850380	.7105164
#2	.5925018	3.490911	.4919524	.0705029	427.1764	.2809033	.7064006
#3	.5820742	3.461850	.4875745	.0705218	436.8362	.2726363	.7039122

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.59846**	**.2626107**	**.4160988**	**.6805284**	**.1892627**	**2.609461**	**6.066362**
Stddev	.05248	.0034148	.0012197	.0027090	.0049279	.012527	.025616
%RSD	.4165778	1.300337	.2931297	.3980719	2.603724	.4800505	.4222605
#1	12.60145	.2643171	.4157097	.6802301	.1924172	2.623664	6.071106
#2	12.64938	.2648361	.4174656	.6833741	.1917868	2.599987	6.089273
#3	12.54455	.2586790	.4151210	.6779808	.1835842	2.604733	6.038705

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04MS Acquired: 10/28/2025 19:28:03 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.154383	.1842766	.3245813
Stddev	.006910	.0017064	.0035012
%RSD	.5986110	.9260220	1.078689
#1	1.161931	.1849475	.3267513
#2	1.152852	.1855456	.3264505
#3	1.148367	.1823367	.3205422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5349.078	85240.27	6871.665	4108.394	6087.647
Stddev	32.467	91.60	63.595	16.499	47.299
%RSD	.6069615	.1074562	.9254605	.4015883	.7769720
#1	5367.788	85134.95	6859.324	4089.941	6110.600
#2	5311.588	85301.34	6815.145	4113.518	6033.251
#3	5367.858	85284.53	6940.525	4121.723	6119.091

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04MSD Acquired: 10/28/2025 19:32:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8060926**	**1.696753**	**1.060878**	**2.017854**	**.7956171**	**1.984422**	**.4632092**
Stddev	.0025834	.024898	.002952	.002931	.0030762	.016639	.0009094
%RSD	.3204791	1.467386	.2782674	.1452675	.3866395	.8384932	.1963339
#1	.8033938	1.714470	1.060561	2.016376	.7966223	1.965957	.4640239
#2	.8085425	1.707503	1.058097	2.021230	.7980649	1.998252	.4633758
#3	.8063415	1.668286	1.063976	2.015956	.7921640	1.989056	.4622280

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2059810**	**.1987198**	**63.28973**	**.4079158**	**.2078938**	**.3222749**	**3.100157**
Stddev	.0006959	.0000647	.13316	.0015050	.0001634	.0007524	.018022
%RSD	.3378238	.0325544	.2104052	.3689473	.0785981	.2334717	.5813112
#1	.2061795	.1987922	63.36428	.4096097	.2080242	.3230095	3.110922
#2	.2052075	.1986994	63.13599	.4067325	.2077105	.3223092	3.110197
#3	.2065560	.1986678	63.36892	.4074052	.2079467	.3215058	3.079352

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5548813**	**3.429526**	**.5038104**	**.0742542**	**382.7285**	**.2979318**	**.6534458**
Stddev	.0039629	.008920	.0003324	.0002326	2.9879	.0014772	.0014970
%RSD	.7141891	.2600994	.0659749	.3132658	.7806959	.4958065	.2290974
#1	.5590698	3.426167	.5041888	.0745168	384.0757	.2983939	.6518413
#2	.5511911	3.422774	.5036768	.0740740	384.8057	.2962788	.6548051
#3	.5543832	3.439638	.5035656	.0741717	379.3042	.2991226	.6536909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.49232**	**.2787450**	**.4285686**	**.6986519**	**.1988490**	**2.430042**	**6.258684**
Stddev	.03793	.0017506	.0003532	.0003521	.0012234	.003711	.009295
%RSD	.3036176	.6280377	.0824170	.0504021	.6152447	.1527284	.1485192
#1	12.51170	.2779596	.4284504	.6982459	.1974390	2.426697	6.266239
#2	12.51665	.2775247	.4289658	.6988747	.1994794	2.429396	6.248304
#3	12.44862	.2807508	.4282897	.6988350	.1996287	2.434035	6.261509

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04MSD Acquired: 10/28/2025 19:32:11 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.015366	.1955826	.3172643
Stddev	.003020	.0032317	.0005134
%RSD	.2974595	1.652319	.1618097
#1	1.017381	.1973457	.3167100
#2	1.011894	.1918528	.3177235
#3	1.016824	.1975491	.3173593

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5332.660	84642.56	6649.974	4071.931	6090.117
Stddev	7.861	366.18	29.127	13.196	10.120
%RSD	.1474083	.4326134	.4380025	.3240802	.1661647
#1	5325.243	84221.01	6632.048	4056.694	6078.489
#2	5331.838	84824.89	6683.582	4079.681	6094.931
#3	5340.900	84881.77	6634.292	4079.418	6096.931

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04A Acquired: 10/28/2025 19:36:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8109553**	**1.717953**	**1.041669**	**2.035968**	**.8262483**	**1.988089**	**.4055470**
Stddev	.0043398	.007185	.000670	.002566	.0021940	.008294	.0032698
%RSD	.5351476	.4182067	.0643544	.1260541	.2655343	.4171816	.8062609
#1	.8059460	1.709662	1.041790	2.035148	.8254652	1.979043	.4018859
#2	.8133407	1.721832	1.042271	2.038844	.8245534	1.989888	.4081767
#3	.8135791	1.722364	1.040947	2.033911	.8287264	1.995335	.4065785

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2039441**	**.1996926**	**49.43884**	**.4119225**	**.2079649**	**.3203836**	**3.164681**
Stddev	.0015277	.0000975	.08068	.0016501	.0001569	.0006217	.019048
%RSD	.7490758	.0488288	.1631882	.4005849	.0754673	.1940388	.6018849
#1	.2022398	.1998029	49.34701	.4123498	.2079308	.3210595	3.186251
#2	.2044019	.1996180	49.47121	.4101008	.2081361	.3198363	3.157620
#3	.2051906	.1996569	49.49831	.4133169	.2078278	.3202549	3.150171

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4772624**	**3.104481**	**.5071702**	**.0721119**	**294.9468**	**.3050374**	**.5601558**
Stddev	.0041072	.013470	.0005674	.0012315	1.8770	.0019306	.0008584
%RSD	.8605637	.4338892	.1118755	1.707818	.6363778	.6329194	.1532498
#1	.4729057	3.106529	.5077259	.0719635	296.5554	.3033187	.5605154
#2	.4810634	3.090104	.5071927	.0734109	292.8846	.3071263	.5591760
#3	.4778182	3.116809	.5065918	.0709613	295.4003	.3046671	.5607759

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.08091**	**.2788652**	**.4415934**	**.7203999**	**.2017372**	**2.158656**	**6.191542**
Stddev	.06735	.0025017	.0003244	.0008368	.0020306	.020931	.016248
%RSD	.5575184	.8970859	.0734625	.1161514	1.006538	.9696448	.2624203
#1	12.10998	.2763680	.4413439	.7195160	.2038235	2.181786	6.177232
#2	12.12884	.2788562	.4414762	.7211798	.2016206	2.141019	6.209205
#3	12.00390	.2813713	.4419601	.7205039	.1997675	2.153164	6.188191

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-04A Acquired: 10/28/2025 19:36:20 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7698115	.1962856	.2907053
Stddev	.0011852	.0011629	.0014908
%RSD	.1539570	.5924734	.5128369
#1	.7686082	.1970618	.2889999
#2	.7698487	.1949485	.2917612
#3	.7709776	.1968466	.2913547

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5353.999	84587.85	6789.602	4041.942	6174.639
Stddev	4.696	231.09	51.617	15.844	3.817
%RSD	.0877093	.2731917	.7602412	.3920015	.0618194
#1	5348.621	84473.94	6839.148	4039.163	6171.049
#2	5357.291	84853.78	6793.519	4058.992	6174.220
#3	5356.084	84435.84	6736.137	4027.671	6178.649

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-08 Acquired: 10/28/2025 19:40:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002934**	**-.007302**	**.0238975**	**.0028322**	**.0041702**	**.1612895**	**.1385719**
Stddev	.000150	.001269	.0004716	.0011184	.0013075	.0033617	.0010988
%RSD	5.110310	17.38236	1.973453	39.48857	31.35388	2.084253	.7929586
#1	-.002980	-.007436	.0240165	.0037200	.0056005	.1606764	.1390040
#2	-.003055	-.005971	.0242981	.0015761	.0030364	.1582766	.1393891
#3	-.002766	-.008499	.0233777	.0032004	.0038736	.1649155	.1373228

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000142**	**.0000823**	**14.26904**	**.0013167**	**.0176821**	**.0298531**	**.0343893**
Stddev	.000088	.0000620	.04173	.0000308	.0001025	.0002831	.0016220
%RSD	61.91786	75.27741	.2924545	2.338273	.5795241	.9484283	4.716556
#1	-.000137	.0001052	14.30832	.0013273	.0175699	.0301194	.0325232
#2	-.000057	.0000122	14.27357	.0013407	.0177055	.0298843	.0351840
#3	-.000233	.0001295	14.22523	.0012820	.0177708	.0295557	.0354607

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3583368**	**.2425671**	**.0032905**	**-.000893**	**310.6903**	**-.002727**	**.0871013**
Stddev	.0020968	.0340790	.0000964	.000325	4.0622	.005101	.0001020
%RSD	.5851500	14.04932	2.929405	36.41674	1.307491	187.0558	.1171200
#1	.3577402	.2713844	.0033056	-.000520	311.6157	-.000695	.0870123
#2	.3606673	.2513652	.0033785	-.001040	306.2452	-.008530	.0872126
#3	.3566030	.2049517	.0031875	-.001118	314.2100	.001045	.0870791

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.192757**	**-.000136**	**.0008368**	**-.014009**	**.0001047**	**.5761384**	**.0112715**
Stddev	.066050	.000504	.0000473	.000483	.0008618	.0102281	.0013151
%RSD	3.012173	371.5840	5.646606	3.444647	822.9789	1.775293	11.66710
#1	2.144725	-.000005	.0008230	-.014280	.0010998	.5644185	.0119805
#2	2.165468	.000290	.0007980	-.014295	-.000402	.5832625	.0120799
#3	2.268078	-.000691	.0008894	-.013452	-.000384	.5807341	.0097541

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-08 Acquired: 10/28/2025 19:40:29 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4219813	-.003969	.0222189
Stddev	.0023013	.002081	.0001031
%RSD	.5453484	52.42887	.4637834
#1	.4242646	-.005104	.0221442
#2	.4196624	-.005235	.0223364
#3	.4220169	-.001567	.0221759

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5365.552	85071.60	6886.121	4056.705	6277.786
Stddev	10.811	86.90	56.860	23.402	10.060
%RSD	.2014831	.1021473	.8257229	.5768633	.1602530
#1	5364.044	84987.22	6853.343	4052.765	6278.041
#2	5355.575	85066.76	6853.243	4035.524	6267.600
#3	5377.038	85160.82	6951.777	4081.827	6287.716

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-12 Acquired: 10/28/2025 19:44:52 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003482**	**-.007447**	**.0207277**	**.0058912**	**.0006483**	**.1009452**	**.1186446**
Stddev	.000917	.002136	.0015527	.0006909	.0012325	.0065501	.0006357
%RSD	26.32079	28.68092	7.490756	11.72841	190.0928	6.488782	.5357960
#1	-.003053	-.004981	.0220327	.0064396	.0016207	.1077254	.1188439
#2	-.002859	-.008639	.0190106	.0061188	.0010622	.0946524	.1191568
#3	-.004535	-.008719	.0211399	.0051152	-.000738	.1004580	.1179332

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000107**	**.0000610**	**4.227089**	**.0012690**	**.0273318**	**.0555995**	**.1123052**
Stddev	.000016	.0000925	.020617	.0000614	.0009384	.0018996	.0105616
%RSD	14.79871	151.6125	.4877409	4.837322	3.433185	3.416516	9.404374
#1	-.000091	.0000207	4.207221	.0012783	.0284149	.0577745	.1149599
#2	-.000107	-.000004	4.225665	.0012034	.0268170	.0547570	.1212862
#3	-.000123	.000167	4.248382	.0013251	.0267636	.0542668	.1006695

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3112974**	**.2958998**	**.0166167**	**-.000787**	**328.0422**	**-.001637**	**.0618533**
Stddev	.0024582	.0124879	.0005870	.000381	3.8577	.002840	.0004155
%RSD	.7896540	4.220319	3.532711	48.37447	1.175987	173.5271	.6717090
#1	.3140513	.2832387	.0172927	-.000807	327.0338	-.004231	.0618771
#2	.3093248	.3082070	.0163214	-.000397	332.3040	-.002078	.0622564
#3	.3105163	.2962537	.0162360	-.001157	324.7888	.001398	.0614265

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986305**	**.0011100**	**.0007697**	**-.014116**	**.0045866**	**.6844172**	**.0123319**
Stddev	.051453	.0002392	.0001644	.000341	.0022619	.0130779	.0002513
%RSD	2.590394	21.55300	21.36526	2.417914	49.31399	1.910803	2.037569
#1	2.020692	.0013508	.0008002	-.014107	.0020494	.6711165	.0126218
#2	2.011071	.0011069	.0005921	-.013780	.0063918	.6848750	.0121786
#3	1.927153	.0008723	.0009167	-.014462	.0053187	.6972602	.0121951

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-12 Acquired: 10/28/2025 19:44:52 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1634106	-.002302	.0094150
Stddev	.0075810	.002088	.0000485
%RSD	4.639215	90.71254	.5154550
#1	.1719881	-.004346	.0094629
#2	.1606353	-.002386	.0093658
#3	.1576083	-.000173	.0094162

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5236.807	85007.24	6938.468	4053.184	6137.117
Stddev	139.186	566.10	31.449	32.721	169.946
%RSD	2.657847	.6659450	.4532591	.8072907	2.769143
#1	5076.092	85350.70	6970.547	4059.235	5940.925
#2	5318.051	84353.85	6937.168	4017.860	6238.860
#3	5316.279	85317.18	6907.689	4082.457	6231.564

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-16 Acquired: 10/28/2025 19:49:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001620**	**-.007060**	**.0690133**	**.0020451**	**.0020329**	**.0615301**	**.2390746**
Stddev	.001008	.003040	.0004246	.0024824	.0010618	.0071671	.0014905
%RSD	62.22231	43.05849	.6152724	121.3838	52.23149	11.64805	.6234480
#1	-.000785	-.006721	.0691986	.0049026	.0017926	.0687634	.2379863
#2	-.002741	-.010256	.0693138	.0004206	.0031943	.0544312	.2384640
#3	-.001336	-.004204	.0685275	.0008120	.0011119	.0613957	.2407734

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000080**	**.0009935**	**23.32168**	**.0012543**	**.0038081**	**.1420999**	**.0592828**
Stddev	.000028	.0000576	.05970	.0003178	.0002266	.0006769	.0047603
%RSD	34.67384	5.796851	.2560025	25.33727	5.951522	.4763838	8.029821
#1	-.000051	.0009658	23.29306	.0009934	.0035695	.1425086	.0546653
#2	-.000106	.0009550	23.39031	.0016082	.0040206	.1424726	.0590091
#3	-.000084	.0010597	23.28168	.0011611	.0038343	.1413185	.0641740

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3609135**	**1.193701**	**.0029005**	**-.001221**	**342.2001**	**.0002277**	**.1592701**
Stddev	.0017851	.012915	.0001999	.000354	2.0238	.0048526	.0005026
%RSD	.4946043	1.081953	6.891425	28.99123	.5913987	2130.840	.3155664
#1	.3592779	1.203267	.0028395	-.000828	341.3326	-.002326	.1588434
#2	.3606450	1.198827	.0031238	-.001320	340.7547	.005824	.1591429
#3	.3628176	1.179010	.0027382	-.001515	344.5130	-.002815	.1598241

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006878**	**.0069277**	**.0005455**	**-.014564**	**.0010759**	**.9434937**	**.0187942**
Stddev	.022634	.0009129	.0000508	.000221	.0018277	.0084358	.0008412
%RSD	1.127834	13.17750	9.316517	1.518532	169.8732	.8941019	4.475679
#1	2.010194	.0060689	.0005253	-.014572	-.000690	.9356108	.0194745
#2	2.027672	.0068279	.0006033	-.014782	.000959	.9424797	.0178537
#3	1.982769	.0078864	.0005078	-.014340	.002959	.9523907	.0190545

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-16 Acquired: 10/28/2025 19:49:15 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2873011	-.006095	.0537330
Stddev	.0013595	.003356	.0001462
%RSD	.4732082	55.05855	.2721193
#1	.2857478	-.002448	.0536187
#2	.2882747	-.006782	.0538978
#3	.2878808	-.009053	.0536825

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5349.556	85585.18	6880.764	4134.711	6213.763
Stddev	20.129	165.45	61.418	13.804	16.658
%RSD	.3762734	.1933160	.8926010	.3338507	.2680889
#1	5331.981	85593.52	6951.458	4129.315	6200.471
#2	5345.171	85415.72	6850.307	4150.398	6208.367
#3	5371.516	85746.31	6840.528	4124.421	6232.450

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-20 Acquired: 10/28/2025 19:53:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001901**	**-.007828**	**.0793856**	**.0051059**	**.0021895**	**.0899857**	**.2126044**
Stddev	.001019	.001593	.0016082	.0013190	.0005523	.0019522	.0010186
%RSD	53.61736	20.34415	2.025802	25.83294	25.22427	2.169492	.4791079
#1	-.001171	-.006856	.0804111	.0065555	.0015753	.0920116	.2124943
#2	-.003066	-.009666	.0802135	.0039763	.0023480	.0881166	.2116453
#3	-.001467	-.006963	.0775321	.0047860	.0026452	.0898289	.2136735

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000211**	**.0007233**	**33.26457**	**.0021960**	**.0097635**	**.0340950**	**.0745803**
Stddev	.000035	.0000666	.09538	.0009788	.0002270	.0004840	.0037051
%RSD	16.80173	9.212612	.2867234	44.57261	2.325324	1.419695	4.967955
#1	-.000172	.0006486	33.17010	.0019231	.0098157	.0335364	.0727681
#2	-.000241	.0007765	33.26278	.0032824	.0095149	.0343904	.0788427
#3	-.000219	.0007449	33.36083	.0013827	.0099598	.0343583	.0721301

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3523562**	**1.081605**	**.0035585**	**-.001164**	**334.7320**	**-.001621**	**.1270611**
Stddev	.0007892	.049243	.0001903	.000251	3.1002	.002823	.0005462
%RSD	.2239770	4.552778	5.348938	21.58908	.9261776	174.1384	.4298444
#1	.3517193	1.101617	.0037645	-.001242	336.9879	-.001439	.1265184
#2	.3521102	1.025506	.0033891	-.000883	331.1968	-.004530	.1270541
#3	.3532391	1.117691	.0035220	-.001367	336.0112	.001107	.1276107

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.299817**	**.0020963**	**.0013148**	**-.014889**	**.0021128**	**.9316560**	**.0144960**
Stddev	.018411	.0003175	.0002022	.000339	.0010781	.0127315	.0012241
%RSD	.8005328	15.14371	15.38060	2.276098	51.02930	1.366549	8.444698
#1	2.298962	.0018515	.0011209	-.015281	.0030714	.9174157	.0158324
#2	2.281848	.0019825	.0012991	-.014685	.0009456	.9356138	.0134291
#3	2.318640	.0024550	.0015244	-.014703	.0023213	.9419386	.0142264

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3460-20 Acquired: 10/28/2025 19:53:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3771793	-.007947	.0717956
Stddev	.0004332	.002419	.0001344
%RSD	.1148483	30.43985	.1872132
#1	.3773765	-.007392	.0717431
#2	.3774788	-.005853	.0716953
#3	.3766826	-.010595	.0719483

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5327.597	83410.86	6841.445	4027.136	6165.644
Stddev	11.462	200.04	28.558	23.916	15.299
%RSD	.2151390	.2398215	.4174204	.5938665	.2481392
#1	5318.520	83561.25	6874.404	4039.476	6149.831
#2	5323.794	83487.50	6824.076	4042.363	6166.730
#3	5340.477	83183.83	6825.854	3999.571	6180.372

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV09 Acquired: 10/28/2025 19:58:00 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.987443**	**4.668960**	**4.957260**	**4.999229**	**4.980257**	**9.843036**
Stddev	.009096	.154335	.007171	.016130	.006639	.002326
%RSD	.1823873	3.305565	.1446476	.3226447	.1333123	.0236290
#1	4.996742	4.840492	4.949736	5.012816	4.973520	9.843111
#2	4.978563	4.625052	4.964014	4.981403	4.980458	9.845323
#3	4.987024	4.541336	4.958032	5.003467	4.986795	9.840673

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.34515**	**.2619072**	**2.531571**	**25.51153**	**1.010904**	**2.544728**
Stddev	.06024	.0004785	.001126	.07852	.003095	.000479
%RSD	.5822690	.1826942	.0444971	.3077770	.3062041	.0188168
#1	10.41164	.2620865	2.532218	25.59547	1.009355	2.544645
#2	10.29421	.2613650	2.532224	25.43988	1.008889	2.545243
#3	10.32961	.2622702	2.530270	25.49923	1.014469	2.544297

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.271679**	**5.120055**	**2.618311**	**25.25873**	**2.530632**	**1.278102**
Stddev	.001496	.012832	.014714	.05224	.000348	.002746
%RSD	.1176427	.2506215	.5619628	.2068248	.0137658	.2148796
#1	1.271322	5.134836	2.635298	25.23179	2.530614	1.281098
#2	1.270394	5.111769	2.609555	25.22547	2.530990	1.275705
#3	1.273322	5.113560	2.610079	25.31894	2.530294	1.277502

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **27.94889**	**2.521908**	**2.564011**	**25.59627**	**5.222776**	**5.087211**
Stddev	.26589	.003420	.002953	.12039	.002017	.005527
%RSD	.9513270	.1356243	.1151591	.4703496	.0386108	.1086526
#1	28.25504	2.520134	2.566985	25.73418	5.223154	5.092967
#2	27.81574	2.519738	2.561080	25.51216	5.220597	5.081945
#3	27.77588	2.525850	2.563966	25.54246	5.224576	5.086721

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV09 Acquired: 10/28/2025 19:58:00 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.115759**	**5.112018**	**4.964824**	**5.216502**	**5.071089**	**5.107003**
Stddev	.006991	.018074	.032209	.027362	.036134	.023206
%RSD	.1366531	.3535681	.6487378	.5245333	.7125480	.4544033
#1	5.121974	5.132887	4.929117	5.246413	5.106641	5.133020
#2	5.117113	5.101388	4.973668	5.192733	5.034400	5.088438
#3	5.108191	5.101778	4.991686	5.210359	5.072226	5.099551

Elem	Sr4077
Units	ppm
Avg	**5.056255**
Stddev	.028026
%RSD	.5542862
#1	5.088611
#2	5.039547
#3	5.040608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5514.635**	**87445.81**	**6768.225**	**4171.334**	**6349.936**
Stddev	2.334	256.47	17.973	22.598	7.106
%RSD	.0423178	.2932861	.2655500	.5417517	.1119064
#1	5517.325	87514.93	6769.816	4164.894	6347.562
#2	5513.418	87660.63	6785.350	4196.453	6344.321
#3	5513.161	87161.86	6749.510	4152.654	6357.925

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB09 Acquired: 10/28/2025 20:02:03 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000894**	**-.006222**	**.0008053**	**-.001755**	**-.000952**	**.0017013**	**.0023815**
Stddev	.001517	.000942	.0004874	.002643	.001582	.0016415	.0006544
%RSD	169.6671	15.13948	60.52304	150.5932	166.1594	96.48929	27.47915
#1	-.002314	-.005771	.0013415	-.000094	-.000924	.0032885	.0018761
#2	-.001072	-.007305	.0003890	-.004803	-.002548	.0018050	.0031207
#3	.000704	-.005590	.0006856	-.000369	.000616	.0000103	.0021478

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000038**	**.0000613**	**-.000755**	**.0001471**	**-.000058**	**-.000078**	**.0041513**
Stddev	.000045	.0000397	.009590	.0001579	.000045	.000182	.0031558
%RSD	117.3262	64.72682	1269.934	107.3698	77.62945	233.6006	76.01852
#1	-.000005	.0000180	.010041	.0001575	-.000078	.000083	.0005097
#2	-.000020	.0000701	-.008284	.0002994	-.000089	-.000276	.0058597
#3	-.000089	.0000959	-.004023	-.000016	-.000006	-.000041	.0060846

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003546**	**.0250863**	**-.000053**	**-.001015**	**.8325837**	**-.000202**	**.0004160**
Stddev	.0009900	.0176075	.000217	.000223	.0233776	.000636	.0001540
%RSD	279.2087	70.18782	409.6603	21.92074	2.807833	315.4839	37.01385
#1	-.000061	.0452692	-.000302	-.000769	.8536068	.000365	.0004978
#2	-.000360	.0128708	.000096	-.001203	.8074082	-.000081	.0005118
#3	.001485	.0171189	.000047	-.001073	.8367361	-.000890	.0002384

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2891461**	**-.000805**	**.0006258**	**.0005380**	**.0016924**	**-.007563**	**.0012874**
Stddev	.0025818	.000462	.0001802	.0002067	.0020782	.015839	.0005914
%RSD	.8929098	57.41392	28.78932	38.42330	122.7946	209.4176	45.93786
#1	.2920008	-.000279	.0007223	.0007766	.0009030	-.014981	.0010630
#2	.2884628	-.000989	.0007373	.0004252	.0001246	-.018332	.0019581
#3	.2869747	-.001146	.0004180	.0004122	.0040496	.010623	.0008410

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB09 Acquired: 10/28/2025 20:02:03 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000423	.0084579	.0000130
Stddev	.003514	.0009693	.0001103
%RSD	830.0844	11.46014	846.6632
#1	-.002141	.0073424	-.000058
#2	.003619	.0089363	.000140
#3	-.002749	.0090950	-.000043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5754.082	92969.38	6900.442	4365.595	7397.446
Stddev	8.719	237.79	24.775	9.022	16.319
%RSD	.1515290	.2557775	.3590289	.2066544	.2206015
#1	5750.658	92695.47	6879.260	4355.358	7388.430
#2	5747.595	93122.94	6927.685	4372.387	7387.624
#3	5763.994	93089.73	6894.380	4369.038	7416.284

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3466-03 Acquired: 10/28/2025 20:06:22 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003033**	**-.007693**	**.0109333**	**.0037125**	**.0022461**	**.0258009**	**.2179900**
Stddev	.001292	.002177	.0011100	.0011682	.0008089	.0024717	.0003487
%RSD	42.61021	28.29922	10.15273	31.46530	36.01584	9.579825	.1599642
#1	-.004348	-.005574	.0100937	.0030019	.0013284	.0252181	.2181256
#2	-.002986	-.007581	.0105143	.0050608	.0028558	.0236727	.2175939
#3	-.001765	-.009924	.0121918	.0030749	.0025541	.0285119	.2182505

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000130**	**.0001789**	**9.989359**	**.0027742**	**-.000121**	**.0010378**	**.0209457**
Stddev	.000053	.0000188	.024444	.0004111	.000174	.0001604	.0017770
%RSD	40.71960	10.50497	.2446985	14.81878	143.5988	15.45506	8.484044
#1	-.000179	.0001584	10.01209	.0025186	.000061	.0010780	.0211298
#2	-.000139	.0001953	9.96350	.0025557	-.000138	.0008611	.0190838
#3	-.000073	.0001831	9.99248	.0032485	-.000286	.0011742	.0226235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0425416**	**.6474506**	**.0010489**	**-.001473**	**249.5044**	**-.001988**	**.0794889**
Stddev	.0006494	.0065271	.0005100	.000299	1.4588	.003304	.0005397
%RSD	1.526580	1.008130	48.62130	20.26974	.5846641	166.1657	.6789525
#1	.0431025	.6436859	.0006023	-.001705	247.8984	-.001007	.0791280
#2	.0426923	.6549875	.0009397	-.001577	250.7473	-.005672	.0792294
#3	.0418301	.6436783	.0016047	-.001136	249.8677	.000713	.0801093

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8143934**	**.0174055**	**.0008274**	**-.013809**	**.0010123**	**.4593886**	**.0147684**
Stddev	.0217630	.0004370	.0003314	.000811	.0001627	.0110503	.0003602
%RSD	2.672289	2.510552	40.04584	5.870874	16.07215	2.405431	2.438957
#1	.7904663	.0177072	.0006500	-.013231	.0010209	.4549220	.0145241
#2	.8330087	.0176049	.0012097	-.013461	.0011706	.4512707	.0145990
#3	.8197051	.0169044	.0006226	-.014736	.0008455	.4719730	.0151820

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3466-03 Acquired: 10/28/2025 20:06:22 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2953616	-.006616	.0903091
Stddev	.0008070	.001875	.0003113
%RSD	.2732231	28.34075	.3446525
#1	.2962903	-.005214	.0904843
#2	.2949637	-.008745	.0899498
#3	.2948308	-.005888	.0904934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5378.599	85936.32	6959.191	4090.264	6336.525
Stddev	9.589	513.29	57.344	31.612	12.112
%RSD	.1782717	.5972870	.8239970	.7728661	.1911424
#1	5367.546	86522.76	6907.861	4125.866	6322.623
#2	5383.569	85717.46	7021.080	4065.485	6344.799
#3	5384.684	85568.75	6948.632	4079.440	6342.153

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3469-04 Acquired: 10/28/2025 20:10:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000460**	**-.007090**	**.0109765**	**.0040977**	**.0020651**	**.0436235**	**.1118786**
Stddev	.001795	.003586	.0015023	.0024133	.0020864	.0026516	.0002935
%RSD	389.9424	50.57731	13.68628	58.89458	101.0343	6.078341	.2622930
#1	.001578	-.003600	.0108502	.0060666	.0004135	.0411417	.1115908
#2	-.001805	-.010764	.0095413	.0014054	.0044099	.0433116	.1118677
#3	-.001153	-.006906	.0125379	.0048211	.0013718	.0464173	.1121774

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000148**	**-.000027**	**4.875647**	**.0014829**	**-.000291**	**.0063744**	**.0257033**
Stddev	.000054	.000044	.032116	.0002926	.000087	.0003679	.0043096
%RSD	36.44886	162.9003	.6586965	19.73011	29.82985	5.771618	16.76661
#1	-.000155	.000010	4.848579	.0018178	-.000196	.0067377	.0217870
#2	-.000091	-.000016	4.867227	.0013545	-.000366	.0063834	.0250025
#3	-.000198	-.000076	4.911133	.0012765	-.000311	.0060021	.0303202

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176676**	**.2302108**	**.0000634**	**-.001208**	**345.8321**	**.0004100**	**.0378075**
Stddev	.0004854	.0376581	.0001266	.000610	3.4644	.0036239	.0002320
%RSD	2.747310	16.35811	199.4769	50.45204	1.001744	883.9457	.6136036
#1	.0177004	.2722656	.0001873	-.001552	349.4213	-.000271	.0376735
#2	.0171666	.1996085	.0000687	-.000504	342.5078	-.002825	.0380753
#3	.0181357	.2187583	-.000066	-.001568	345.5673	.004326	.0376736

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8797529**	**.0054994**	**.0008016**	**.0070435**	**.0007093**	**.4619566**	**.0758023**
Stddev	.0237638	.0005910	.0002066	.0006480	.0021764	.0253388	.0014386
%RSD	2.701186	10.74761	25.77050	9.200614	306.8339	5.485113	1.897818
#1	.9057289	.0048276	.0010380	.0066768	-.001112	.4881173	.0742696
#2	.8591066	.0059395	.0006560	.0077918	.000120	.4602241	.0760139
#3	.8744231	.0057311	.0007107	.0066621	.003120	.4375285	.0771234

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3469-04 Acquired: 10/28/2025 20:10:47 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1503764	-.004141	.0743146
Stddev	.0023939	.001802	.0004125
%RSD	1.591959	43.52412	.5551007
#1	.1529205	-.003957	.0738987
#2	.1481682	-.002438	.0743215
#3	.1500405	-.006028	.0747237

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5266.979	82940.55	6912.837	3972.475	6158.880
Stddev	26.542	208.67	47.389	5.913	25.111
%RSD	.5039268	.2515930	.6855217	.1488501	.4077160
#1	5246.988	82702.11	6964.875	3966.556	6142.979
#2	5256.858	83029.69	6901.470	3972.487	6145.833
#3	5297.093	83089.85	6872.165	3978.382	6187.829

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-05 Acquired: 10/28/2025 20:15:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003381**	**-.005590**	**.0036111**	**.0084676**	**.0036646**	**.0111563**	**.1297967**
Stddev	.001963	.003812	.0013031	.0014005	.0026434	.0088605	.0007080
%RSD	58.07116	68.19376	36.08574	16.53905	72.13301	79.42176	.5454544
#1	-.002553	-.009552	.0049357	.0090202	.0008392	.0015616	.1297621
#2	-.001967	-.001948	.0023307	.0068752	.0040771	.0190302	.1291066
#3	-.005623	-.005271	.0035668	.0095075	.0060774	.0128772	.1305213

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000152**	**.0019264**	**.4617032**	**.0021617**	**-.000296**	**.0057033**	**.1349644**
Stddev	.000042	.0000715	.0047926	.0002515	.000266	.0003423	.0037161
%RSD	27.47771	3.711992	1.038036	11.63308	90.03314	6.000994	2.753399
#1	-.000162	.0020031	.4667967	.0021160	-.000600	.0054767	.1374244
#2	-.000189	.0019147	.4610304	.0024329	-.000187	.0055362	.1306896
#3	-.000106	.0018615	.4572825	.0019362	-.000101	.0060970	.1367793

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081192**	**.0354938**	**.0005333**	**-.001361**	**306.3892**	**-.001866**	**.2328048**
Stddev	.0005064	.0179290	.0002751	.000810	4.4039	.002844	.0010420
%RSD	6.236782	50.51299	51.57773	59.51325	1.437357	152.4089	.4475636
#1	.0077791	.0554267	.0002602	-.001895	307.7918	-.005016	.2331832
#2	.0087011	.0303707	.0008103	-.001760	301.4548	-.001098	.2316266
#3	.0078774	.0206840	.0005295	-.000429	309.9209	.000515	.2336047

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0254641**	**.0140440**	**.0006413**	**-.012973**	**.0013894**	**.0286904**	**.0231781**
Stddev	.0584065	.0006109	.0001310	.000757	.0018518	.0159380	.0009663
%RSD	229.3679	4.349871	20.43095	5.836915	133.2808	55.55178	4.169168
#1	.0707405	.0142893	.0004932	-.013817	.0002869	.0245324	.0221024
#2	.0461139	.0144941	.0006888	-.012352	.0035273	.0462953	.0239728
#3	-.040462	.0133486	.0007420	-.012750	.0003540	.0152435	.0234591

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-05 Acquired: 10/28/2025 20:15:13 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2121509	-.003304	.0028405
Stddev	.0010741	.000357	.0001452
%RSD	.5062996	10.79620	5.110437
#1	.2133295	-.003025	.0027091
#2	.2118961	-.003706	.0028160
#3	.2112270	-.003180	.0029963

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5260.202	84529.21	6926.085	4055.123	6209.014
Stddev	18.884	712.20	12.721	20.750	20.311
%RSD	.3590022	.8425473	.1836731	.5116969	.3271270
#1	5281.368	84627.04	6940.739	4052.961	6230.733
#2	5254.159	85187.43	6919.633	4076.869	6205.818
#3	5245.079	83773.15	6917.882	4035.539	6190.490

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-07 Acquired: 10/28/2025 20:19:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002517**	**-.006618**	**.0021858**	**.0028353**	**.0033168**	**.0056208**	**.1463952**
Stddev	.000802	.001807	.0005158	.0003894	.0012779	.0103631	.0008580
%RSD	31.87527	27.31334	23.59824	13.73495	38.52804	184.3714	.5860483
#1	-.002621	-.008529	.0027578	.0024149	.0046547	-.006340	.1470734
#2	-.003263	-.006388	.0020436	.0031837	.0031869	.011299	.1466814
#3	-.001668	-.004936	.0017560	.0029073	.0021088	.011904	.1454307

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000203**	**.0001404**	**.2306994**	**.0026095**	**-.000220**	**.0216645**	**.0263841**
Stddev	.000029	.0000402	.0163145	.0000334	.000040	.0002108	.0063682
%RSD	14.00639	28.58733	7.071733	1.278942	18.09665	.9727723	24.13641
#1	-.000194	.0001568	.2183436	.0025848	-.000191	.0214220	.0314855
#2	-.000181	.0000947	.2245622	.0026475	-.000203	.0217688	.0192470
#3	-.000235	.0001698	.2491924	.0025963	-.000265	.0218028	.0284197

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022072**	**-.001412**	**.0004009**	**-.001604**	**248.4789**	**-.000812**	**.2318912**
Stddev	.0004609	.019837	.0000875	.000236	2.3968	.001531	.0001549
%RSD	20.88122	1405.096	21.81742	14.68989	.9645734	188.5877	.0667928
#1	.0026220	.015672	.0003142	-.001378	250.7561	.000422	.2317410
#2	.0022886	.003260	.0004891	-.001585	245.9782	-.002526	.2320504
#3	.0017111	-.023168	.0003993	-.001848	248.7025	-.000332	.2318821

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1734906**	**.0153172**	**.0005343**	**-.014114**	**.0009406**	**.0050282**	**.0180944**
Stddev	.0470120	.0004946	.0001475	.000090	.0008785	.0070751	.0010885
%RSD	27.09773	3.228919	27.60151	.6400028	93.39347	140.7082	6.015849
#1	.2004844	.0151653	.0006072	-.014046	.0018607	.0014018	.0168530
#2	.2007813	.0158698	.0006312	-.014079	.0001108	.0005016	.0185442
#3	.1192061	.0149163	.0003646	-.014217	.0008503	.0131812	.0188859

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-07 Acquired: 10/28/2025 20:19:38 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1864990	-.007636	.0028597
Stddev	.0014130	.000360	.0000103
%RSD	.7576325	4.718414	.3620878
#1	.1860828	-.007551	.0028611
#2	.1880733	-.007326	.0028693
#3	.1853408	-.008031	.0028487

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5347.429	85895.60	6888.190	4096.096	6362.529
Stddev	3.835	246.40	11.668	11.871	9.875
%RSD	.0717105	.2868611	.1693944	.2898108	.1552056
#1	5345.436	86177.41	6890.389	4097.945	6358.698
#2	5345.000	85788.65	6875.579	4083.409	6355.144
#3	5351.849	85720.74	6898.602	4106.934	6373.746

Sample Name: Q3472-09 Acquired: 10/28/2025 20:24:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002429**	**-.007956**	**.0040999**	**.0057672**	**.0019355**	**.0152552**	**.1496901**
Stddev	.001117	.000623	.0007803	.0017055	.0017264	.0051209	.0012981
%RSD	45.97202	7.828384	19.03208	29.57185	89.19497	33.56812	.8671810
#1	-.003630	-.007315	.0049063	.0049959	.0037562	.0163029	.1490017
#2	-.001421	-.008559	.0033486	.0077221	.0003221	.0197712	.1511874
#3	-.002237	-.007995	.0040447	.0045837	.0017283	.0096915	.1488813

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000188**	**.0000043**	**.9340585**	**.0117115**	**-.000244**	**.0091139**	**.1928057**
Stddev	.000044	.0000284	.0161142	.0001656	.000048	.0003999	.0012091
%RSD	23.57990	658.8158	1.725176	1.413739	19.53879	4.388188	.6270923
#1	-.000220	.0000022	.9189962	.0117176	-.000204	.0091607	.1915982
#2	-.000206	-.000023	.9321287	.0118740	-.000297	.0086926	.1940164
#3	-.000137	.000034	.9510507	.0115430	-.000233	.0094883	.1928024

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0277008**	**.0591977**	**.0072432**	**-.001394**	**347.9522**	**-.000238**	**.1809005**
Stddev	.0004869	.0257171	.0004643	.000301	6.6495	.002849	.0008464
%RSD	1.757625	43.44271	6.410195	21.60351	1.911038	1199.000	.4678844
#1	.0271895	.0741030	.0071737	-.001327	350.6185	.000869	.1811177
#2	.0281589	.0295022	.0077383	-.001132	352.8547	.001892	.1816172
#3	.0277539	.0739879	.0068175	-.001723	340.3833	-.003474	.1799667

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1186640**	**.0113386**	**.0006877**	**-.013965**	**.0010906**	**.0489942**	**.0091421**
Stddev	.0281587	.0008887	.0000266	.000139	.0022185	.0238888	.0011047
%RSD	23.72979	7.837546	3.864089	.9943163	203.4313	48.75833	12.08398
#1	.1338833	.0120918	.0007129	-.014112	-.000475	.0295025	.0104173
#2	.0861708	.0115655	.0006599	-.013948	.000117	.0418366	.0084746
#3	.1359380	.0103585	.0006901	-.013836	.003629	.0756436	.0085345

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-09 Acquired: 10/28/2025 20:24:01 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2483197	-.005350	.0055853
Stddev	.0006930	.001236	.0001268
%RSD	.2790617	23.10151	2.271217
#1	.2482927	-.004368	.0056938
#2	.2476406	-.004944	.0054458
#3	.2490258	-.006738	.0056163

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5282.248	84366.32	6835.721	4025.575	6228.638
Stddev	4.346	375.27	25.456	27.708	7.666
%RSD	.0822698	.4448135	.3723923	.6883108	.1230817
#1	5277.767	83994.18	6823.881	3995.791	6221.633
#2	5282.532	84360.12	6864.940	4030.345	6227.454
#3	5286.445	84744.65	6818.342	4050.589	6236.827

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-11 Acquired: 10/28/2025 20:28:27 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003772**	**-.007230**	**.0507575**	**.0049547**	**.0029119**	**.0247511**	**.2486953**
Stddev	.001705	.001877	.0002815	.0044432	.0021315	.0031442	.0014528
%RSD	45.19433	25.95834	.5546752	89.67563	73.19918	12.70333	.5841639
#1	-.005618	-.006931	.0505086	.0032033	.0047408	.0257348	.2476605
#2	-.003441	-.009239	.0507009	.0100067	.0005711	.0212326	.2480692
#3	-.002257	-.005521	.0510631	.0016541	.0034238	.0272858	.2503562

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000155**	**.0049903**	**3.085282**	**.0019391**	**-.000109**	**.0214645**	**.1268212**
Stddev	.000005	.0000750	.011107	.0002464	.000200	.0003456	.0092150
%RSD	2.998358	1.501980	.3599959	12.70659	184.5113	1.610168	7.266115
#1	-.000150	.0049927	3.073036	.0020227	-.000188	.0217986	.1187721
#2	-.000156	.0049142	3.094705	.0021328	-.000257	.0214864	.1368727
#3	-.000159	.0050640	3.088106	.0016618	.000119	.0211085	.1248188

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0383019**	**.1337880**	**.0020510**	**-.000699**	**360.2211**	**-.000747**	**3.692143**
Stddev	.0006323	.0065649	.0000958	.000481	6.0953	.004430	.006062
%RSD	1.650766	4.906917	4.670643	68.76224	1.692088	592.9026	.1641949
#1	.0389091	.1317715	.0021467	-.000550	356.9377	-.004687	3.685163
#2	.0376472	.1284679	.0020514	-.001237	356.4715	-.001604	3.696094
#3	.0383494	.1411246	.0019551	-.000311	367.2542	.004049	3.695171

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4379343**	**.0196662**	**-.000735**	**-.012921**	**.0017534**	**.1220103**	**.0912914**
Stddev	.0396869	.0004557	.000102	.000071	.0010026	.0082585	.0030787
%RSD	9.062288	2.317383	13.83406	.5531807	57.17879	6.768715	3.372336
#1	.4068123	.0196985	-.000783	-.012841	.0026966	.1229204	.0928088
#2	.4826263	.0201049	-.000619	-.012978	.0018632	.1297760	.0877486
#3	.4243643	.0191951	-.000804	-.012946	.0007005	.1133344	.0933168

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-11 Acquired: 10/28/2025 20:28:27 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4735319	-.006359	.0291601
Stddev	.0030929	.000962	.0000250
%RSD	.6531515	15.12733	.0857268
#1	.4705500	-.005389	.0291378
#2	.4733207	-.006377	.0291871
#3	.4767250	-.007312	.0291553

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5375.240	86828.81	6759.895	4115.366	6336.325
Stddev	10.911	267.74	31.279	8.400	6.089
%RSD	.2029786	.3083512	.4627148	.2041098	.0960980
#1	5386.576	86897.47	6777.714	4123.806	6343.346
#2	5364.812	86533.43	6778.193	4107.007	6332.491
#3	5374.331	87055.53	6723.779	4115.284	6333.137

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-13 Acquired: 10/28/2025 20:32:51 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004147**	**-.007547**	**.0020935**	**.0071883**	**.0064108**	**.1525318**	**.2933736**
Stddev	.001420	.000396	.0002020	.0004035	.0010641	.0069622	.0004969
%RSD	34.24250	5.249060	9.649322	5.612822	16.59917	4.564402	.1693861
#1	-.005050	-.007232	.0018819	.0075124	.0059252	.1570808	.2933617
#2	-.002510	-.007417	.0021144	.0073161	.0076311	.1445169	.2928828
#3	-.004880	-.007992	.0022842	.0067364	.0056760	.1559977	.2938764

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000143**	**.0299410**	**7.429400**	**.0039695**	**.0016996**	**.0471439**	**.9350090**
Stddev	.000056	.0001099	.033343	.0002607	.0000919	.0000497	.0057482
%RSD	39.26922	.3671631	.4487921	6.567607	5.405324	.1054966	.6147775
#1	-.000159	.0298778	7.400627	.0036888	.0016130	.0471661	.9392128
#2	-.000080	.0298773	7.465941	.0042041	.0017959	.0470869	.9373555
#3	-.000188	.0300679	7.421633	.0040157	.0016898	.0471787	.9284587

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0863647**	**.4884071**	**.0072996**	**-.000997**	**292.8106**	**-.000609**	**1.630633**
Stddev	.0006885	.0056881	.0001447	.000220	1.0620	.001561	.006697
%RSD	.7972006	1.164626	1.982548	22.09607	.3626902	256.2169	.4106892
#1	.0855724	.4947686	.0074528	-.000971	294.0364	-.002230	1.636996
#2	.0867042	.4838109	.0072810	-.000791	292.1680	-.000481	1.623646
#3	.0868175	.4866420	.0071652	-.001229	292.2275	.000884	1.631257

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9897937**	**.0458959**	**.0471092**	**-.008345**	**.0006687**	**.2849242**	**.1120253**
Stddev	.0475192	.0008699	.0000734	.000394	.0010942	.0122624	.0016233
%RSD	4.800921	1.895350	.1557953	4.717390	163.6304	4.303724	1.449069
#1	.9400707	.0448921	.0470299	-.008704	-.000087	.2848812	.1137935
#2	1.034750	.0463675	.0471748	-.008406	.000169	.2972081	.1106025
#3	.994561	.0464282	.0471230	-.007924	.001924	.2726835	.1116798

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-13 Acquired: 10/28/2025 20:32:51 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7626039	.0147103	.0245167
Stddev	.0032712	.0011699	.0001629
%RSD	.4289479	7.952859	.6645100
#1	.7653557	.0157356	.0244220
#2	.7589872	.0134359	.0244233
#3	.7634688	.0149595	.0247048

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5369.302	85728.94	7046.139	4052.203	6354.802
Stddev	6.589	233.33	56.883	22.872	5.442
%RSD	.1227188	.2721687	.8072866	.5644388	.0856390
#1	5374.386	85515.67	7103.595	4032.255	6360.691
#2	5371.662	85692.99	6989.848	4077.167	6353.759
#3	5361.858	85978.15	7044.976	4047.188	6349.957

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-15 Acquired: 10/28/2025 20:37:14 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003679**	**-.005575**	**-.001245**	**.0038353**	**.0173306**	**.0218194**	**.1218009**
Stddev	.0017065	.000488	.000884	.0019176	.0009729	.0081569	.0003038
%RSD	463.8475	8.744492	70.96919	49.99853	5.614062	37.38351	.2494029
#1	.0020673	-.005781	-.002259	.0044972	.0177332	.0127476	.1221445
#2	.0003820	-.005927	-.000839	.0053343	.0162209	.0285487	.1215679
#3	-.001346	-.005019	-.000638	.0016744	.0180376	.0241620	.1216904

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000102**	**.0000704**	**8.319250**	**.0034043**	**.0023624**	**.0021963**	**4.615240**
Stddev	.000033	.0000632	.042094	.0000348	.0000642	.0002214	.020015
%RSD	31.82863	89.75890	.5059879	1.021744	2.715748	10.07817	.4336811
#1	-.000137	.0000922	8.299752	.0034250	.0022999	.0019909	4.600529
#2	-.000072	.0001197	8.290440	.0034238	.0024281	.0024308	4.638033
#3	-.000099	-.000001	8.367558	.0033642	.0023591	.0021673	4.607159

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0762207**	**2.106254**	**.0045206**	**-.000905**	**247.8059**	**-.000198**	**7.946333**
Stddev	.0005769	.013049	.0000705	.000351	2.4451	.001711	.011748
%RSD	.7568674	.6195540	1.560460	38.78862	.9867059	865.3090	.1478420
#1	.0765963	2.107556	.0045408	-.000876	250.6288	.000296	7.935923
#2	.0765094	2.092603	.0044422	-.000569	246.3513	.001212	7.959070
#3	.0755565	2.118605	.0045788	-.001270	246.4376	-.002101	7.944006

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.878701**	**.0431926**	**.0059333**	**-.014421**	**.0007556**	**.2060080**	**.3015937**
Stddev	.040921	.0008625	.0002177	.000538	.0005672	.0125186	.0020964
%RSD	2.178149	1.996867	3.668227	3.730108	75.06835	6.076753	.6951150
#1	1.925936	.0427723	.0057114	-.014294	.0003567	.1925214	.2992180
#2	1.854018	.0426209	.0061465	-.013958	.0014049	.2172567	.3031840
#3	1.856148	.0441847	.0059419	-.015011	.0005052	.2082459	.3023793

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-15 Acquired: 10/28/2025 20:37:14 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8680158	.1097882	.0472043
Stddev	.0071401	.0017225	.0000956
%RSD	.8225761	1.568908	.2025879
#1	.8600791	.1091366	.0472557
#2	.8700511	.1084866	.0470940
#3	.8739173	.1117414	.0472633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5510.017	87098.21	7224.742	4073.635	6542.769
Stddev	7.273	225.61	38.716	22.959	6.837
%RSD	.1319993	.2590325	.5358758	.5635916	.1045005
#1	5507.846	87187.27	7230.608	4089.003	6548.291
#2	5518.128	86841.66	7260.191	4047.243	6544.895
#3	5504.076	87265.70	7183.429	4084.658	6535.122

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3472-17 Acquired: 10/28/2025 20:41:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066903**	**-.005725**	**1.195585**	**.0000899**	**-.001789**	**.0052362**
Stddev	.0008826	.001077	.003448	.0038593	.001177	.0008530
%RSD	13.19274	18.80495	.2883731	4293.997	65.83143	16.29104
#1	.0071297	-.004575	1.199563	.0045404	-.000832	.0055177
#2	.0056742	-.006710	1.193746	-.002333	-.001430	.0059128
#3	.0072670	-.005889	1.193447	-.001937	-.003103	.0042780

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057285**	**-.000117**	**.0033340**	**2.128941**	**.0004074**	**-.000021**
Stddev	.0045860	.000063	.0000462	.217663	.0003543	.000179
%RSD	80.05581	53.81899	1.387128	10.22403	86.96219	866.7708
#1	.0029359	-.000183	.0033330	2.019912	.0001936	-.000091
#2	.0032284	-.000057	.0033808	1.987338	.0008163	.000183
#3	.0110213	-.000113	.0032883	2.379572	.0002122	-.000154

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.661504**	**.0936698**	**.0078226**	**.0023118**	**.0005311**	**.0000919**
Stddev	.001318	.0034975	.0006050	.0319766	.0002037	.0005334
%RSD	.0793292	3.733820	7.733525	1383.171	38.34589	580.6496
#1	1.662201	.0917848	.0072880	.0076247	.0007644	-.000519
#2	1.659984	.0977055	.0077006	-.031988	.0003886	.000327
#3	1.662328	.0915193	.0084793	.031299	.0004404	.000467

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.226603**	**-.001413**	**18.66685**	**-.182682**	**-.008376**	**-.007673**
Stddev	.025430	.003979	.03261	.018051	.000702	.000264
%RSD	11.22226	281.4826	.1747037	9.881172	8.382938	3.439351
#1	-.198959	-.000187	18.70153	-.167309	-.009186	-.007883
#2	-.231848	.001807	18.63680	-.202559	-.007935	-.007759
#3	-.249001	-.005861	18.66224	-.178178	-.008007	-.007376

Sample Name: Q3472-17 Acquired: 10/28/2025 20:41:35 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014400	.0014192	-.005783	.7083063	F 13.50059	-.003270
Stddev	.000321	.0022376	.008585	.0049177	.05707	.000272
%RSD	2.225901	157.6695	148.4535	.6942898	.4227068	8.328681
#1	-.014767	.0019374	-.008593	.7137261	13.54113	-.003583
#2	-.014172	-.001032	-.012610	.7070638	13.52530	-.003138
#3	-.014262	.003352	.003855	.7041291	13.43533	-.003089

Elem	Sr4077
Units	ppm
Avg	.0005927
Stddev	.0001377
%RSD	23.22390
#1	.0005035
#2	.0005234
#3	.0007513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5998.273	98727.24	7042.651	4621.718	7802.471
Stddev	7.780	429.00	600.384	8.706	7.047
%RSD	.1297102	.4345330	8.524975	.1883649	.0903181
#1	5998.728	99081.55	7411.272	4625.022	7803.993
#2	6005.816	98849.91	7366.819	4628.288	7808.632
#3	5990.275	98250.26	6349.862	4611.844	7794.787

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3465-01 Acquired: 10/28/2025 20:45:57 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0479522**	**-.016933**	**.1635959**	**-.002209**	**-.011056**	**138.3307**	**.5759230**
Stddev	.0006411	.002589	.0007450	.003253	.000649	.3534	.0010343
%RSD	1.337012	15.29092	.4553732	147.2606	5.869471	.2554922	.1795864
#1	.0473993	-.019312	.1628060	-.005316	-.010719	138.5944	.5754101
#2	.0486550	-.014175	.1636957	-.002482	-.010646	137.9291	.5752453
#3	.0478024	-.017314	.1642859	.001172	-.011804	138.4685	.5771134

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0109076**	**.0097003**	**34.50196**	**.2576569**	**.1322172**	**.2639149**	**274.9337**
Stddev	.0000879	.0002173	.07789	.0008315	.0002666	.0011667	1.8056
%RSD	.8060358	2.240201	.2257429	.3227282	.2016516	.4420883	.6567331
#1	.0110086	.0099300	34.57171	.2569672	.1320294	.2651919	272.9918
#2	.0108480	.0096729	34.41792	.2585803	.1320997	.2636482	275.2473
#3	.0108662	.0094980	34.51626	.2574232	.1325224	.2629046	276.5619

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.743322**	**42.63278**	**.2107941**	**.0060609**	**4.969842**	**.4910969**	**.4438356**
Stddev	.006202	.24966	.0003303	.0003728	.059813	.0015345	.0006287
%RSD	.2260756	.5856144	.1567115	6.151692	1.203523	.3124615	.1416450
#1	2.749517	42.88642	.2111711	.0057363	4.920034	.4899545	.4438826
#2	2.737113	42.38730	.2106554	.0059781	4.953310	.4904951	.4431848
#3	2.743335	42.62464	.2105557	.0064681	5.036183	.4928411	.4444395

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.86849**	**.1989048**	**.0068029**	**.0089034**	**7.529554**	**6.629306**	**7.011686**
Stddev	.03544	.0137068	.0003633	.0010416	.017428	.034613	.013980
%RSD	.3260779	6.891145	5.340909	11.69904	.2314585	.5221189	.1993769
#1	10.82876	.1849854	.0064121	.0077299	7.520846	6.611797	7.023878
#2	10.87987	.1993404	.0071306	.0092619	7.518196	6.669175	7.014751
#3	10.89685	.2123886	.0068658	.0097185	7.549620	6.606946	6.996428

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: Q3465-01 Acquired: 10/28/2025 20:45:57 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.061800**	**.1097500**	**-.134458**
Stddev	.013446	.0016197	.001421
%RSD	.6521437	1.475815	1.057027
#1	2.062246	.1079655	-.132865
#2	2.075017	.1101571	-.134916
#3	2.048137	.1111273	-.135595

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7261.248**	**114180.9**	**9204.305**	**5473.334**	**6337.440**
Stddev	12.549	224.5	53.311	23.778	6.889
%RSD	.1728175	.1966205	.5791992	.4344418	.1087091
#1	7267.133	114421.0	9142.858	5483.976	6339.576
#2	7269.773	114145.6	9231.819	5489.933	6343.008
#3	7246.838	113976.2	9238.238	5446.093	6329.736

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV10 Acquired: 10/28/2025 20:49:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.882374**	F **4.473187**	**4.851180**	**4.882209**	**4.893374**	**9.478712**
Stddev	.007127	.005127	.008139	.010824	.013903	.033218
%RSD	.1459697	.1146216	.1677819	.2217025	.2841247	.3504511
#1	4.876204	4.468011	4.855104	4.875954	4.883649	9.517068
#2	4.880744	4.473285	4.841822	4.875966	4.887174	9.459805
#3	4.890175	4.478264	4.856614	4.894708	4.909299	9.459262

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.09376**	**.2506729**	**2.477984**	**24.79265**	**.9869682**	**2.493713**
Stddev	.04108	.0021238	.003388	.07016	.0017704	.003900
%RSD	.4070236	.8472213	.1367296	.2829701	.1793793	.1563881
#1	10.11188	.2531227	2.479606	24.84998	.9855607	2.495764
#2	10.04672	.2493508	2.474090	24.71442	.9863879	2.489215
#3	10.12266	.2495453	2.480256	24.81355	.9889559	2.496160

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.248731**	**4.967662**	**2.545678**	**24.43509**	**2.479635**	**1.233134**
Stddev	.000938	.044070	.008310	.05312	.003796	.001432
%RSD	.0750924	.8871371	.3264279	.2174002	.1530820	.1161620
#1	1.248111	4.926631	2.551027	24.44636	2.481638	1.233800
#2	1.249810	4.962109	2.536104	24.37723	2.475257	1.234112
#3	1.248272	5.014245	2.549901	24.48167	2.482010	1.231490

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.75132**	**2.451166**	**2.446098**	**24.62345**	**4.975157**	**5.000212**
Stddev	.16446	.006412	.005623	.15890	.035455	.003778
%RSD	.6386485	.2615745	.2298644	.6453372	.7126482	.0755485
#1	25.59515	2.457554	2.447162	24.48781	5.016058	4.996119
#2	25.73585	2.444731	2.440020	24.58425	4.956262	5.000955
#3	25.92297	2.451213	2.451113	24.79828	4.953152	5.003564

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCV10 Acquired: 10/28/2025 20:49:59 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.995247**	**4.972489**	**4.758243**	**5.098461**	**4.943987**	**4.859749**
Stddev	.012176	.011296	.025006	.011700	.013359	.019298
%RSD	.2437578	.2271658	.5255296	.2294879	.2702107	.3971026
#1	5.000574	4.980445	4.730594	5.110754	4.949578	4.875529
#2	4.981315	4.959560	4.764862	5.087460	4.928741	4.838234
#3	5.003853	4.977461	4.779275	5.097169	4.953642	4.865485

Elem	Sr4077
Units	ppm
Avg	**4.937933**
Stddev	.031043
%RSD	.6286632
#1	4.937712
#2	4.907001
#3	4.969086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5644.194**	**90918.60**	**7017.802**	**4332.487**	**6517.424**
Stddev	3.904	294.37	38.167	7.678	6.901
%RSD	.0691726	.3237706	.5438554	.1772294	.1058784
#1	5648.702	91171.09	6974.394	4325.866	6514.653
#2	5641.909	90989.43	7046.101	4340.905	6525.279
#3	5641.970	90595.28	7032.912	4330.690	6512.340

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB10 Acquired: 10/28/2025 20:54:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002032**	**-.006364**	**.0007045**	**.0005441**	**-.000265**	**.0144217**
Stddev	.002694	.001851	.0011618	.0015055	.001520	.0016849
%RSD	132.5479	29.08303	164.9032	276.7009	573.6825	11.68341
#1	-.002727	-.004592	-.000586	-.000644	-.001965	.0146402
#2	-.004310	-.006216	.001032	.002237	.000207	.0159867
#3	.000941	-.008285	.001668	.000040	.000963	.0126381

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001769**	**.0000381**	**.0000578**	**.0133931**	**.0000885**	**-.000219**
Stddev	.0016579	.0000131	.0000457	.0083073	.0003531	.000093
%RSD	937.1105	34.31562	79.06752	62.02659	398.8904	42.26103
#1	-.001577	.0000489	.0001106	.0186043	-.000263	-.000183
#2	.000390	.0000418	.0000290	.0177621	.000443	-.000150
#3	.001718	.0000236	.0000339	.0038130	.000086	-.000324

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019133**	F **.0704322**	**.0005540**	**-.011762**	**-.000152**	**-.000325**
Stddev	.0004611	.0092750	.0003925	.013380	.000124	.000562
%RSD	24.09869	13.16869	70.84757	113.7595	81.53052	173.1852
#1	.0013909	.0601923	.0008745	-.018572	-.000140	-.000660
#2	.0020856	.0782693	.0006714	.003654	-.000035	-.000639
#3	.0022635	.0728351	.0001162	-.020368	-.000282	.000324

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8168922**	**-.003260**	**.0076690**	**.2821279**	**-.001242**	**.0003657**
Stddev	.0255244	.002289	.0006448	.0303382	.000440	.0001875
%RSD	3.124575	70.19351	8.407252	10.75334	35.39729	51.26227
#1	.7910561	-.004057	.0069250	.2512612	-.001602	.0002558
#2	.8175274	-.005044	.0080659	.2832140	-.001372	.0002592
#3	.8420931	-.000680	.0080160	.3119084	-.000752	.0005822

Reviewed By:mohan
On:11/3/2025 10:11:27 AM
Inst Id :P4
LB :LB137677

Sample Name: CCB10 Acquired: 10/28/2025 20:54:02 Type: Unk
Method: 6010-200.7 NEW(v320) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008559	.0017706	-.006890	.0020869	F .0101871	.0074831
Stddev	.0005225	.0013989	.015732	.0006064	.0030649	.0017885
%RSD	61.05255	79.00728	228.3290	29.05801	30.08598	23.90001
#1	.0008103	.0009246	-.000061	.0027724	.0118722	.0057305
#2	.0013997	.0033854	.004273	.0016203	.0120398	.0074133
#3	.0003576	.0010020	-.024883	.0018680	.0066494	.0093054

Elem	Sr4077
Units	ppm
Avg	-.000040
Stddev	.000154
%RSD	384.0681
#1	-.000216
#2	.000074
#3	.000022

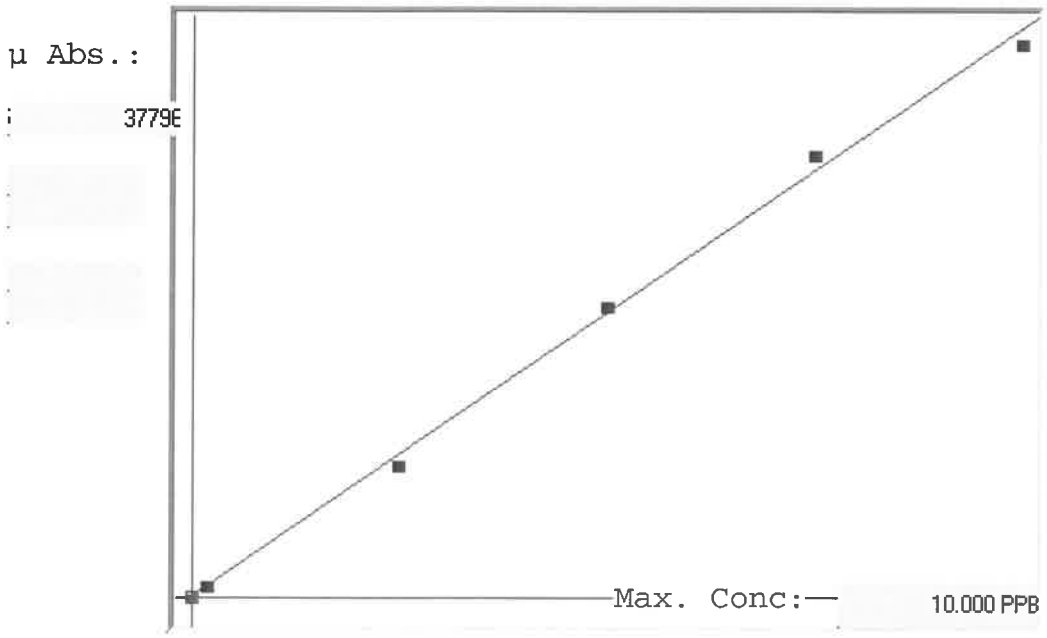
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.308	92550.91	6985.885	4352.597	7306.305
Stddev	3.767	762.10	31.240	24.130	3.708
%RSD	.0663687	.8234415	.4471931	.5543719	.0507550
#1	5680.648	92737.83	7021.958	4360.002	7308.468
#2	5673.892	93202.16	6967.732	4372.157	7302.023
#3	5674.382	91712.73	6967.965	4325.633	7308.425

Reviewed By:mohan
On:10/29/2025
10:08:20 AM
Inst Id :CV1
LB :LB137666

LB137666

7470A INSTRUMENT ID: CV1

Linear



A= 0.0000e+000
B= 2.5798e-004
C= -1.5047e-002
Rho= 0.9987983
Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	-0.014	-0.014	3	0.000	3	0			
0.2	0.200	0.214	0.014	888	0.0 %	888	0			
2.5	2.500	2.346	-0.154	9153	0.0 %	9153	0			
5.0	5.000	5.123	0.123	19918	0.0 %	19918				
7.5	7.500	7.795	0.295	30274	0.0 %	30274				
10.0	10.000	9.736	-0.264	37796	0.0 %	37796				

Reviewed By:mohan
On:10/29/2025
10:08:20 AM
Inst Id :CV1
LB :LB137666

LB170666 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 28 Oct 2025 08:50:10

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	S0	-	3	PPB	Std	0.0000	7470A	28 Oct 2025 09:02:38
S	0.2 - 1	S0.2	-	888	PPB	Std	0.2000	7470A	28 Oct 2025 09:04:56
S	2.5 - 1	S2.5	-	9153	PPB	Std	2.5000	7470A	28 Oct 2025 09:07:13
S	5.0 - 1	S5	-	19918	PPB	Std	5.0000	7470A	28 Oct 2025 09:09:30
S	7.5 - 1	S7.5	-	30274	PPB	Std	7.5000	7470A	28 Oct 2025 09:11:49
S	10.0 - 1	S10	-	37796	PPB	Std	10.0000	7470A	28 Oct 2025 09:17:09
U	ICV89 - 1	ICV89	3.7484	14588	PPB	SMPL		7470A	28 Oct 2025 09:25:36
U	ICB89 - 1	ICB89	-0.0705	-215	PPB	SMPL		7470A	28 Oct 2025 09:27:52
U	CCV93 - 1	CCV93	5.2312	20336	PPB	SMPL		7470A	28 Oct 2025 09:30:10
U	CCB93 - 1	CCB93	-0.0723	-222	PPB	SMPL		7470A	28 Oct 2025 09:32:25
U	CRA - 1	CRA	0.2053	854	PPB	SMPL		7470A	28 Oct 2025 09:34:45
U	HighStd - 1	HighStd	9.6752	37562	PPB	SMPL		7470A	28 Oct 2025 09:37:00
U	ChkStd - 1	ChkStd	6.5379	25401	PPB	SMPL		7470A	28 Oct 2025 09:39:15
U	PB170268BL - 1	PBW	-0.0171	-8	PPB	SMPL		7470A	28 Oct 2025 09:44:28
U	PB170268BS - 1	LCSW	3.8023	14797	PPB	SMPL		7470A	28 Oct 2025 09:46:43
U	Q3439-04 - 1	TP-9	-0.0705	-215	PPB	SMPL		7470A	28 Oct 2025 09:49:00
U	Q3439-08 - 1	TP-10	-0.0163	-5	PPB	SMPL		7470A	28 Oct 2025 09:51:19
U	Q3440-04 - 1	JB-2	0.0244	153	PPB	SMPL		7470A	28 Oct 2025 09:53:36
U	Q3446-01 - 1	SB-14	-0.0218	-26	PPB	SMPL		7470A	28 Oct 2025 09:55:53
U	Q3446-02 - 1	SB-15	-0.0254	-40	PPB	SMPL		7470A	28 Oct 2025 09:58:08
U	CCV94 - 1	CCV94	4.8742	18952	PPB	SMPL		7470A	28 Oct 2025 10:00:24
U	CCB94 - 1	CCB94	-0.0138	5	PPB	SMPL		7470A	28 Oct 2025 10:05:25
U	Q3446-03 - 1	SB-16	-0.0032	46	PPB	SMPL		7470A	28 Oct 2025 10:07:40
U	Q3446-04 - 1	SB-17	-0.0076	29	PPB	SMPL		7470A	28 Oct 2025 10:09:55
U	Q3446-05 - 1	SB-18	-0.0145	2	PPB	SMPL		7470A	28 Oct 2025 10:12:10
U	Q3446-06 - 1	SB-19	-0.0050	39	PPB	SMPL		7470A	28 Oct 2025 10:14:26
U	Q3446-07 - 1	SB-20	-0.0212	-24	PPB	SMPL		7470A	28 Oct 2025 10:16:42
U	Q3446-08 - 1	SB-21	-0.0140	4	PPB	SMPL		7470A	28 Oct 2025 10:18:58
U	Q3447-02 - 1	P001-TW1-251023-01	-0.0158	-3	PPB	SMPL		7470A	28 Oct 2025 10:21:15
U	Q3447-04 - 1	P001-TW2-251023-01	-0.0143	3	PPB	SMPL		7470A	28 Oct 2025 10:23:32
U	Q3447-06 - 1	P001-TW3-251023-01	-0.0148	1	PPB	SMPL		7470A	28 Oct 2025 10:25:48
U	Q3447-08 - 1	P001-TW4-251023-01	-0.0158	-3	PPB	SMPL		7470A	28 Oct 2025 10:28:04
U	CCV95 - 1	CCV95	4.6949	18257	PPB	SMPL		7470A	28 Oct 2025 10:30:20
U	CCB95 - 1	CCB95	-0.0264	-44	PPB	SMPL		7470A	28 Oct 2025 10:35:23
U	Q3449-06 - 1	CF-620-COMP-41	-0.0179	-11	PPB	SMPL		7470A	28 Oct 2025 10:37:38
U	Q3451-04 - 1	TP-11	-0.0112	15	PPB	SMPL		7470A	28 Oct 2025 10:39:54
U	Q3451-08 - 1	TP-12	-0.0042	42	PPB	SMPL		7470A	28 Oct 2025 10:42:09
U	Q3452-04 - 1	JB-1	-0.0042	42	PPB	SMPL		7470A	28 Oct 2025 10:44:25
U	Q3452-04DUP - 1	JB-1DUP	-0.0058	36	PPB	SMPL		7470A	28 Oct 2025 10:46:41
U	Q3452-04MS - 1	JB-1MS	3.9460	15354	PPB	SMPL		7470A	28 Oct 2025 10:48:57
U	Q3452-04MSD - 1	JB-1MSD	3.9684	15441	PPB	SMPL		7470A	28 Oct 2025 10:51:13
U	PB170239TB - 1	PB170239TB	-0.0806	-254	PPB	SMPL		7470A	28 Oct 2025 10:53:33
U	Q3452-04LX5 - 1		-0.0150	0	PPB	SMPL		7470A	28 Oct 2025 10:55:53
U	Q3452-04A - 1		3.5482	13812	PPB	SMPL		7470A	28 Oct 2025 10:58:09
U	CCV96 - 1	CCV96	5.1631	20072	PPB	SMPL		7470A	28 Oct 2025 11:00:24
U	CCB96 - 1	CCB96	-0.0819	-259	PPB	SMPL		7470A	28 Oct 2025 11:02:43

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170263

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 #1 2. N/A

Start Digest Date: 10/27/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 10/27/2025 **Time :** 15:32 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLS

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6209
LFS-2	0.25	M6201
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	MP87148
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 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/27/25 16:32	SLS met dig	50 Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170263

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB170239TB	PB170239TB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	1
PB170263BL	PBW263	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	2
PB170263BS	LCS263	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	3
Q3439-04	TP-9	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	4
Q3439-08	TP-10	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	5
Q3440-04	JB-2	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	6
Q3446-01	SB-14	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	7
Q3446-02	SB-15	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	8
Q3446-03	SB-16	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	9
Q3446-04	SB-17	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	10
Q3446-05	SB-18	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	11
Q3446-06	SB-19	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	12
Q3446-07	SB-20	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	13
Q3446-08	SB-21	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	14
Q3447-02	P001-TW1-251023-01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	15
Q3447-04	P001-TW2-251023-01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	16
Q3447-06	P001-TW3-251023-01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	17
Q3447-08	P001-TW4-251023-01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	18
Q3449-06	CF-620-COMP-41	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	19
Q3451-04	TP-11	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	20
Q3451-08	TP-12	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	21
Q3452-04	JB-1	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	22
Q3452-04MS	JB-1MS	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	24
Q3452-04MSD	JB-1MSD	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	25
Q3452-04DUP	JB-1DUP	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	23

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170239

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	Pr... Po...
PB170239TB	LEB239	20	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3439-04	TP-9	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q3439-08	TP-10	02	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3440-04	JB-2	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3446-01	SB-14	04	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-02	SB-15	05	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3446-03	SB-16	06	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-04	SB-17	07	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-05	SB-18	08	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-1
Q3446-06	SB-19	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-07	SB-20	10	100.02	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-08	SB-21	11	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-2
Q3447-02	P001-TW1-251023-01	12	100.01	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q3447-04	P001-TW2-251023-01	13	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q3447-06	P001-TW3-251023-01	14	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-2
Q3447-08	P001-TW4-251023-01	15	100.04	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3449-06	CF-620-COMP-41	16	100.02	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3451-04	TP-11	17	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3451-08	TP-12	18	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q3452-04	JB-1	19	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB170268

SOP ID : M7470A-Mercury-20

SDG No : N/A

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK #3 2. N/A

Start Digest Date: 10/27/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 10/27/2025 **Time :** 14:32 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG. # 3

Dig Technician Signature: MB

Supervisor Signature: [signature]

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP87742
CCV	30mL	MP87744
CRA	30mL	MP87746
Blank Spike	0.48mL	MP87734
Matrix Spike	0.48ml	MP87734

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.25mL	MP87071
KMnO4 (5%)	4.5mL	MP87072
K2S2O8 (5%)	2.4mL	MP87073
Hydroxylamine HCL (12%)	1.8mL	MP87149
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	MP87735
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP87737
2.5 ppb	S2.5	30mL	MP87738
5.0 ppb	S5.0	30mL	MP87739
7.5 ppb	S7.5	30mL	MP87740
10.0 ppb	S10.0	30mL	MP87741
ICV	ICV	30mL	MP87742
ICB	ICB	30mL	MP87743
CCV	CCV	30mL	MP87744
CCB	CCB	30mL	MP87745
CRI	CRI	30mL	MP87746
CHK STD	CHK STD	30mL	MP87747

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/27/25 @ 15:10	MB – Dig. Lab	MB – Metal Lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB170268

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB170239TB	PB170239TB	3	30	<2	N/A	3-1
PB170268BL	PBW268	30	30	<2	N/A	2
PB170268BS	LCS268	30	30	<2	MP87734	3
Q3439-04	TP-9	3	30	<2	N/A	4
Q3439-08	TP-10	3	30	<2	N/A	5
Q3440-04	JB-2	3	30	<2	N/A	6
Q3446-01	SB-14	3	30	<2	N/A	7
Q3446-02	SB-15	3	30	<2	N/A	8
Q3446-03	SB-16	3	30	<2	N/A	9
Q3446-04	SB-17	3	30	<2	N/A	10
Q3446-05	SB-18	3	30	<2	N/A	11
Q3446-06	SB-19	3	30	<2	N/A	12
Q3446-07	SB-20	3	30	<2	N/A	13
Q3446-08	SB-21	3	30	<2	N/A	14
Q3447-02	P001-TW1-251023-01	3	30	<2	N/A	15
Q3447-04	P001-TW2-251023-01	3	30	<2	N/A	16
Q3447-06	P001-TW3-251023-01	3	30	<2	N/A	17
Q3447-08	P001-TW4-251023-01	3	30	<2	N/A	18
Q3449-06	CF-620-COMP-41	3	30	<2	N/A	19
Q3451-04	TP-11	3	30	<2	N/A	20
Q3451-08	TP-12	3	30	<2	N/A	21
Q3452-04	JB-1	3	30	<2	N/A	22
Q3452-04MS	JB-1MS	3	30	<2	MP87734	24
Q3452-04MSD	JB-1MSD	3	30	<2	MP87734	25
Q3452-04DUP	JB-1DUP	3	30	<2	N/A	23

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170239

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
PB170239TB	LEB239	20	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3439-04	TP-9	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q3439-08	TP-10	02	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3440-04	JB-2	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3446-01	SB-14	04	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-02	SB-15	05	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3446-03	SB-16	06	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-04	SB-17	07	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-05	SB-18	08	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-1
Q3446-06	SB-19	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-07	SB-20	10	100.02	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-08	SB-21	11	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-2
Q3447-02	P001-TW1-251023-01	12	100.01	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q3447-04	P001-TW2-251023-01	13	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q3447-06	P001-TW3-251023-01	14	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-2
Q3447-08	P001-TW4-251023-01	15	100.04	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3449-06	CF-620-COMP-41	16	100.02	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3451-04	TP-11	17	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3451-08	TP-12	18	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q3452-04	JB-1	19	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2

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 # LB137666

Review By	jaswal	Review On	10/28/2025 3:12:37 PM
Supervise By	mohan	Supervise On	10/29/2025 10:08:20 AM

STD. NAME	STD REF.#
ICAL Standard	MP87735,MP87736,MP87737,MP87738,MP87739,MP87740,MP87741
ICV Standard	MP87742
CCV Standard	MP87744
ICSA Standard	
CRI Standard	MP87746
LCS Standard	
Chk Standard	MP87743,MP87745,MP87747,MP87751

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/28/25 09:02		mohan	OK
2	S0.2	S0.2	CAL2	10/28/25 09:04		mohan	OK
3	S2.5	S2.5	CAL3	10/28/25 09:07		mohan	OK
4	S5	S5	CAL4	10/28/25 09:09		mohan	OK
5	S7.5	S7.5	CAL5	10/28/25 09:11		mohan	OK
6	S10	S10	CAL6	10/28/25 09:17		mohan	OK
7	ICV89	ICV89	ICV	10/28/25 09:25		mohan	OK
8	ICB89	ICB89	ICB	10/28/25 09:27		mohan	OK
9	CCV93	CCV93	CCV	10/28/25 09:30		mohan	OK
10	CCB93	CCB93	CCB	10/28/25 09:32		mohan	OK
11	CRA	CRA	CRDL	10/28/25 09:34		mohan	OK
12	HighStd	HighStd	HIGH STD	10/28/25 09:37		mohan	OK
13	ChkStd	ChkStd	SAM	10/28/25 09:39		mohan	OK
14	PB170268BL	PB170268BL	MB	10/28/25 09:44		mohan	OK
15	PB170268BS	PB170268BS	LCS	10/28/25 09:46		mohan	OK
16	Q3439-04	TP-9	SAM	10/28/25 09:49		mohan	OK
17	Q3439-08	TP-10	SAM	10/28/25 09:51		mohan	OK
18	Q3440-04	JB-2	SAM	10/28/25 09:53		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137666

Review By	jaswal	Review On	10/28/2025 3:12:37 PM
Supervise By	mohan	Supervise On	10/29/2025 10:08:20 AM

STD. NAME	STD REF.#
ICAL Standard	MP87735,MP87736,MP87737,MP87738,MP87739,MP87740,MP87741
ICV Standard	MP87742
CCV Standard	MP87744
ICSA Standard	
CRI Standard	MP87746
LCS Standard	
Chk Standard	MP87743,MP87745,MP87747,MP87751

19	Q3446-01	SB-14	SAM	10/28/25 09:55		mohan	OK
20	Q3446-02	SB-15	SAM	10/28/25 09:58		mohan	OK
21	CCV94	CCV94	CCV	10/28/25 10:00		mohan	OK
22	CCB94	CCB94	CCB	10/28/25 10:05		mohan	OK
23	Q3446-03	SB-16	SAM	10/28/25 10:07		mohan	OK
24	Q3446-04	SB-17	SAM	10/28/25 10:09		mohan	OK
25	Q3446-05	SB-18	SAM	10/28/25 10:12		mohan	OK
26	Q3446-06	SB-19	SAM	10/28/25 10:14		mohan	OK
27	Q3446-07	SB-20	SAM	10/28/25 10:16		mohan	OK
28	Q3446-08	SB-21	SAM	10/28/25 10:18		mohan	OK
29	Q3447-02	P001-TW1-251023-01	SAM	10/28/25 10:21		mohan	OK
30	Q3447-04	P001-TW2-251023-01	SAM	10/28/25 10:23		mohan	OK
31	Q3447-06	P001-TW3-251023-01	SAM	10/28/25 10:25		mohan	OK
32	Q3447-08	P001-TW4-251023-01	SAM	10/28/25 10:28		mohan	OK
33	CCV95	CCV95	CCV	10/28/25 10:30		mohan	OK
34	CCB95	CCB95	CCB	10/28/25 10:35		mohan	OK
35	Q3449-06	CF-620-COMP-41	SAM	10/28/25 10:37		mohan	OK
36	Q3451-04	TP-11	SAM	10/28/25 10:39		mohan	OK
37	Q3451-08	TP-12	SAM	10/28/25 10:42		mohan	OK
38	Q3452-04	JB-1	SAM	10/28/25 10:44		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137666

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Supervise By	mohan	Supervise On	10/29/2025 10:08:20 AM

STD. NAME	STD REF.#
ICAL Standard	MP87735,MP87736,MP87737,MP87738,MP87739,MP87740,MP87741
ICV Standard	MP87742
CCV Standard	MP87744
ICSA Standard	
CRI Standard	MP87746
LCS Standard	
Chk Standard	MP87743,MP87745,MP87747,MP87751

39	Q3452-04DUP	JB-1DUP	DUP	10/28/25 10:46		mohan	OK
40	Q3452-04MS	JB-1MS	MS	10/28/25 10:48		mohan	OK
41	Q3452-04MSD	JB-1MSD	MSD	10/28/25 10:51		mohan	OK
42	PB170239TB	PB170239TB	MB	10/28/25 10:53		mohan	OK
43	Q3452-04L	JB-1L	SD	10/28/25 10:55		mohan	OK
44	Q3452-04A	JB-1A	PS	10/28/25 10:58		mohan	OK
45	CCV96	CCV96	CCV	10/28/25 11:00		mohan	OK
46	CCB96	CCB96	CCB	10/28/25 11:02		mohan	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

Review By	jaswal	Review On	10/29/2025 3:56:34 PM
Supervise By	mohan	Supervise On	11/3/2025 10:11:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/28/25 11:52		Jaswal	OK
2	S1	S1	CAL2	10/28/25 11:56		Jaswal	OK
3	S2	S2	CAL3	10/28/25 12:01		Jaswal	OK
4	S3	S3	CAL4	10/28/25 12:05		Jaswal	OK
5	S4	S4	CAL5	10/28/25 12:09		Jaswal	OK
6	S5	S5	CAL6	10/28/25 12:13		Jaswal	OK
7	ICV01	ICV01	ICV	10/28/25 12:30		Jaswal	OK
8	LLICV01	LLICV01	LLICV	10/28/25 12:34		Jaswal	OK
9	ICB01	ICB01	ICB	10/28/25 12:38		Jaswal	OK
10	CRI01	CRI01	CRDL	10/28/25 12:42		Jaswal	OK
11	ICSA01	ICSA01	ICSA	10/28/25 12:47		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	10/28/25 12:51		Jaswal	OK
13	ICSADL	ICSADL	ICSA	10/28/25 12:55		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	10/28/25 12:59		Jaswal	OK
15	CCV01	CCV01	CCV	10/28/25 13:03		Jaswal	OK
16	CCB01	CCB01	CCB	10/28/25 13:08		Jaswal	OK
17	LR-1	LR-1	HIGH STD	10/28/25 13:12		Jaswal	OK
18	LR-3	LR-3	HIGH STD	10/28/25 13:21		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

Review By	jaswal	Review On	10/29/2025 3:56:34 PM
Supervise By	mohan	Supervise On	11/3/2025 10:11:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

19	Q3446-01	SB-14	SAM	10/28/25 13:26		Jaswal	OK
20	LR-2	LR-2	HIGH STD	10/28/25 13:30		Jaswal	OK
21	Q3446-02	SB-15	SAM	10/28/25 13:35		Jaswal	OK
22	Q3446-03	SB-16	SAM	10/28/25 13:39		Jaswal	OK
23	Q3446-04	SB-17	SAM	10/28/25 13:44		Jaswal	OK
24	Q3446-05	SB-18	SAM	10/28/25 13:48		Jaswal	OK
25	Q3446-06	SB-19	SAM	10/28/25 13:52		Jaswal	OK
26	Q3446-07	SB-20	SAM	10/28/25 13:57		Jaswal	OK
27	CCV02	CCV02	CCV	10/28/25 14:01		Jaswal	OK
28	CCB02	CCB02	CCB	10/28/25 14:05		Jaswal	OK
29	Q3446-08	SB-21	SAM	10/28/25 14:09		Jaswal	OK
30	Q3449-06	CF-620-COMP-41	SAM	10/28/25 14:14		Jaswal	OK
31	PB170263BL	PB170263BL	MB	10/28/25 14:18		Jaswal	OK
32	PB170263BS	PB170263BS	LCS	10/28/25 14:22		Jaswal	OK
33	PB170239TB	PB170239TB	MB	10/28/25 14:27		Jaswal	OK
34	PB170202TB	PB170202TB	MB	10/28/25 14:31		Jaswal	OK
35	Q3439-04	TP-9	SAM	10/28/25 14:35		Jaswal	OK
36	Q3439-08	TP-10	SAM	10/28/25 14:40		Jaswal	OK
37	Q3440-04	JB-2	SAM	10/28/25 14:44		Jaswal	OK
38	Q3447-02	P001-TW1-251023-01	SAM	10/28/25 14:49		Jaswal	OK

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Review By	jaswal	Review On	10/29/2025 3:56:34 PM
Supervise By	mohan	Supervise On	11/3/2025 10:11:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

39	CCV03	CCV03	CCV	10/28/25 14:53		Jaswal	OK
40	CCB03	CCB03	CCB	10/28/25 14:57		Jaswal	OK
41	Q3447-04	P001-TW2-251023-01	SAM	10/28/25 15:01		Jaswal	OK
42	Q3447-06	P001-TW3-251023-01	SAM	10/28/25 15:06		Jaswal	OK
43	Q3447-08	P001-TW4-251023-01	SAM	10/28/25 15:10		Jaswal	OK
44	Q3451-04	TP-11	SAM	10/28/25 15:14		Jaswal	OK
45	Q3451-08	TP-12	SAM	10/28/25 15:19		Jaswal	OK
46	Q3452-04	JB-1	SAM	10/28/25 15:23		Jaswal	OK
47	Q3452-04DUP	JB-1DUP	DUP	10/28/25 15:28		Jaswal	OK
48	Q3452-04L	JB-1L	SD	10/28/25 15:32		Jaswal	OK
49	Q3452-04MS	JB-1MS	MS	10/28/25 15:36		Jaswal	OK
50	Q3452-04MSD	JB-1MSD	MSD	10/28/25 15:40		Jaswal	OK
51	CCV04	CCV04	CCV	10/28/25 15:45		Jaswal	OK
52	CCB04	CCB04	CCB	10/28/25 15:49		Jaswal	OK
53	Q3452-04A	JB-1A	PS	10/28/25 15:53		Jaswal	OK
54	Q3422-02	PR132-FB2-2025102	SAM	10/28/25 15:57		Jaswal	OK
55	PB170251BL	PB170251BL	MB	10/28/25 16:01		Jaswal	OK
56	PB170251BS	PB170251BS	LCS	10/28/25 16:06		Jaswal	OK
57	Q3434-02DL	PR132-WC2-2025102	SAM	10/28/25 16:10	5X For Na	Jaswal	Confirms
58	Q3447-01DL	P001-TW1-251023-01	SAM	10/28/25 16:14	5X For Fe, AG	Jaswal	Confirms

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

Review By	jaswal	Review On	10/29/2025 3:56:34 PM
Supervise By	mohan	Supervise On	11/3/2025 10:11:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

59	Q3447-03DL	P001-TW2-251023-01	SAM	10/28/25 16:18	5X For Ag	Jaswal	Confirms
60	Q3447-05DL	P001-TW3-251023-01	SAM	10/28/25 16:22	5X for Cu,Pb, Still Cu,Pb high	Jaswal	Dilution
61	Q3420-05DL	COMPOSITEDL	SAM	10/28/25 16:26	NOT USE	Jaswal	Not Ok
62	Q3420-05DUPDL	COMPOSITEDUPDL	DUP	10/28/25 16:31	NOT USE	Jaswal	Not Ok
63	CCV05	CCV05	CCV	10/28/25 16:35		Jaswal	OK
64	CCB05	CCB05	CCB	10/28/25 16:39		Jaswal	OK
65	Q3417-01DL	101425DL	SAM	10/28/25 16:44	NOT USE	Jaswal	Not Ok
66	Q3420-05MSDL	COMPOSITEMSDL	MS	10/28/25 16:48	NOT USE	Jaswal	Not Ok
67	Q3420-05MSDDL	COMPOSITEMSDDL	MSD	10/28/25 16:53	NOT USE	Jaswal	Not Ok
68	Q3420-05ADL	COMPOSITEADL	PS	10/28/25 16:57	NOT USE	Jaswal	Not Ok
69	Q3420-05LDL	COMPOSITELDL	SD	10/28/25 17:01	NOT USE	Jaswal	Not Ok
70	Q3420-05DL2	COMPOSITEDL2	SAM	10/28/25 17:06	10x for Na	Jaswal	Confirms
71	Q3420-05DUPDL2	COMPOSITEDUPDL2	DUP	10/28/25 17:10	10x for Na	Jaswal	Confirms
72	Q3420-05LDL2	COMPOSITELDL2	SD	10/28/25 17:15	10x for Na	Jaswal	Confirms
73	Q3420-05MSDL2	COMPOSITEMSDL2	MS	10/28/25 17:19	10x for Na	Jaswal	Confirms
74	Q3420-05MSDDL2	COMPOSITEMSDDL2	MSD	10/28/25 17:23	10 x for Na	Jaswal	Confirms
75	CCV06	CCV06	CCV	10/28/25 17:27		Jaswal	OK
76	CCB06	CCB06	CCB	10/28/25 17:32		Jaswal	OK
77	Q3420-05ADL2	COMPOSITEADL2	PS	10/28/25 17:36	NOT REQUIRED	Jaswal	Not Ok

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

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STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

78	PB170265BL	PB170265BL	MB	10/28/25 17:40		Jaswal	OK
79	PB170265BS	PB170265BS	LCS	10/28/25 17:45		Jaswal	OK
80	Q3451-01	TP-11	SAM	10/28/25 17:49		Jaswal	OK
81	Q3451-05	TP-12	SAM	10/28/25 17:53		Jaswal	OK
82	Q3451-05DUP	TP-12DUP	DUP	10/28/25 17:57		Jaswal	OK
83	Q3451-05L	TP-12L	SD	10/28/25 18:01		Jaswal	OK
84	Q3451-05MS	TP-12MS	MS	10/28/25 18:05		Jaswal	OK
85	Q3451-05MSD	TP-12MSD	MSD	10/28/25 18:09		Jaswal	OK
86	Q3451-05A	TP-12A	PS	10/28/25 18:13		Jaswal	OK
87	CCV07	CCV07	CCV	10/28/25 18:17		Jaswal	OK
88	CCB07	CCB07	CCB	10/28/25 18:21		Jaswal	OK
89	Q3452-01	JB-1	SAM	10/28/25 18:25		Jaswal	OK
90	Q3457-01	TR-05-102425	SAM	10/28/25 18:29		Jaswal	OK
91	Q3460-01	WC-1	SAM	10/28/25 18:33		Jaswal	OK
92	Q3460-05	WC-2	SAM	10/28/25 18:37		Jaswal	OK
93	Q3460-09	WC-3	SAM	10/28/25 18:41		Jaswal	OK
94	Q3460-13	WC-4	SAM	10/28/25 18:45		Jaswal	OK
95	Q3460-17	WC-5	SAM	10/28/25 18:49		Jaswal	OK
96	PB170291BL	PB170291BL	MB	10/28/25 18:53		Jaswal	OK
97	PB170291BS	PB170291BS	LCS	10/28/25 18:58		Jaswal	OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

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ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

98	PB170261TB	PB170261TB	MB	10/28/25 19:02		Jaswal	OK
99	CCV08	CCV08	CCV	10/28/25 19:06		Jaswal	OK
100	CCB08	CCB08	CCB	10/28/25 19:10		Jaswal	OK
101	Q3460-04	WC-1	SAM	10/28/25 19:14		Jaswal	OK
102	Q3460-04DUP	WC-1DUP	DUP	10/28/25 19:19		Jaswal	OK
103	Q3460-04L	WC-1L	SD	10/28/25 19:23		Jaswal	OK
104	Q3460-04MS	WC-1MS	MS	10/28/25 19:28		Jaswal	OK
105	Q3460-04MSD	WC-1MSD	MSD	10/28/25 19:32		Jaswal	OK
106	Q3460-04A	WC-1A	PS	10/28/25 19:36		Jaswal	OK
107	Q3460-08	WC-2	SAM	10/28/25 19:40		Jaswal	OK
108	Q3460-12	WC-3	SAM	10/28/25 19:44		Jaswal	OK
109	Q3460-16	WC-4	SAM	10/28/25 19:49		Jaswal	OK
110	Q3460-20	WC-5	SAM	10/28/25 19:53		Jaswal	OK
111	CCV09	CCV09	CCV	10/28/25 19:58	CCV fail for Na	Jaswal	OK
112	CCB09	CCB09	CCB	10/28/25 20:02		Jaswal	OK
113	Q3466-03	B8-0.0-1.0-20251023	SAM	10/28/25 20:06		Jaswal	OK
114	Q3469-04	TP-13	SAM	10/28/25 20:10		Jaswal	OK
115	Q3472-05	COMP-1	SAM	10/28/25 20:15		Jaswal	OK
116	Q3472-07	COMP-2	SAM	10/28/25 20:19		Jaswal	OK
117	Q3472-09	COMP-3	SAM	10/28/25 20:24		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137677

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ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

118	Q3472-11	COMP-4	SAM	10/28/25 20:28		Jaswal	OK
119	Q3472-13	COMP-5	SAM	10/28/25 20:32		Jaswal	OK
120	Q3472-15	155	SAM	10/28/25 20:37		Jaswal	OK
121	Q3472-17	142	SAM	10/28/25 20:41		Jaswal	OK
122	Q3465-01	SU-03-10242025	SAM	10/28/25 20:45	NOT USE	Jaswal	Not Ok
123	CCV10	CCV10	CCV	10/28/25 20:49	CCV fail for Tl	Jaswal	OK
124	CCB10	CCB10	CCB	10/28/25 20:54	CCB fail for Fe	Jaswal	OK

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170239

SOP ID : M1311-TCLP-16

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-1 / T-2

TCLP Filter ID : 40718710

Start Prep Date : 10/23/2025 **Time :** 15:30

End Prep Date : 10/24/2025 **Time :** 08:35

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 70

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : IZ

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
TCLP-FLUID-1	N/A	WP114525
HCL-TCLP,1N	N/A	WP114527
HNO3-TCLP,1N	N/A	WP114528
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1940,W1941,W1942	W3166,W1938,W1939,
1 Liter Amber	N/A	90924-08
120ml Plastic bottle	N/A	2738
1:1 HNO3	N/A	MP86978

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-1 /T-2 checked,30 rpm. q3452-04 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/27/25 10:00	JP / Prep Room	S/B. QC Ext -
	Preparation Group	Analysis Group Metals

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170239

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
PB170239TB	LEB239	20	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3439-04	TP-9	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q3439-08	TP-10	02	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3440-04	JB-2	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3446-01	SB-14	04	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-02	SB-15	05	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3446-03	SB-16	06	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-04	SB-17	07	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-05	SB-18	08	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-1
Q3446-06	SB-19	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3446-07	SB-20	10	100.02	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q3446-08	SB-21	11	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-2
Q3447-02	P001-TW1-251023-01	12	100.01	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q3447-04	P001-TW2-251023-01	13	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q3447-06	P001-TW3-251023-01	14	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-2
Q3447-08	P001-TW4-251023-01	15	100.04	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3449-06	CF-620-COMP-41	16	100.02	2000	N/A	N/A	N/A	4.0	1.0	T-2
Q3451-04	TP-11	17	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3451-08	TP-12	18	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q3452-04	JB-1	19	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB170239TB	LEB239	N/A	N/A	N/A	N/A	N/A	N/A
Q3439-04	TP-9	N/A	N/A	N/A	N/A	100	N/A
Q3439-08	TP-10	N/A	N/A	N/A	N/A	100	N/A
Q3440-04	JB-2	N/A	N/A	N/A	N/A	100	N/A
Q3446-01	SB-14	N/A	N/A	N/A	N/A	100	N/A
Q3446-02	SB-15	N/A	N/A	N/A	N/A	100	N/A
Q3446-03	SB-16	N/A	N/A	N/A	N/A	100	N/A
Q3446-04	SB-17	N/A	N/A	N/A	N/A	100	N/A
Q3446-05	SB-18	N/A	N/A	N/A	N/A	100	N/A
Q3446-06	SB-19	N/A	N/A	N/A	N/A	100	N/A
Q3446-07	SB-20	N/A	N/A	N/A	N/A	100	N/A
Q3446-08	SB-21	N/A	N/A	N/A	N/A	100	N/A
Q3447-02	P001-TW1-251023-01	N/A	N/A	N/A	N/A	100	N/A
Q3447-04	P001-TW2-251023-01	N/A	N/A	N/A	N/A	100	N/A
Q3447-06	P001-TW3-251023-01	N/A	N/A	N/A	N/A	100	N/A
Q3447-08	P001-TW4-251023-01	N/A	N/A	N/A	N/A	100	N/A
Q3449-06	CF-620-COMP-41	N/A	N/A	N/A	N/A	100	N/A
Q3451-04	TP-11	N/A	N/A	N/A	N/A	100	N/A
Q3451-08	TP-12	N/A	N/A	N/A	N/A	100	N/A
Q3452-04	JB-1	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

TCLP Fluid Determination

PB170239

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
PB170239TB	LEB239	N/A	N/A	N/A	N/A	#1	4.94
Q3439-04	TP-9	5.01	96.5	7.6	2.5	#1	4.94
Q3439-08	TP-10	5.02	96.5	7.0	2.5	#1	4.94
Q3440-04	JB-2	5.03	96.5	7.6	2.5	#1	4.94
Q3446-01	SB-14	5.02	96.5	5.5	1.5	#1	4.94
Q3446-02	SB-15	5.03	96.5	5.6	1.5	#1	4.94
Q3446-03	SB-16	5.02	96.5	5.6	2.0	#1	4.94
Q3446-04	SB-17	5.03	96.5	5.5	1.5	#1	4.94
Q3446-05	SB-18	5.02	96.5	5.6	1.5	#1	4.94
Q3446-06	SB-19	5.01	96.5	5.5	2.0	#1	4.94
Q3446-07	SB-20	5.02	96.5	5.6	1.5	#1	4.94
Q3446-08	SB-21	5.03	96.5	5.5	2.0	#1	4.94
Q3447-02	P001-TW1-251023-01	5.04	96.5	7.6	2.5	#1	4.94
Q3447-04	P001-TW2-251023-01	5.03	96.5	7.4	2.5	#1	4.94
Q3447-06	P001-TW3-251023-01	5.02	96.5	6.0	2.0	#1	4.94
Q3447-08	P001-TW4-251023-01	5.01	96.5	5.5	1.5	#1	4.94
Q3449-06	CF-620-COMP-41	5.02	96.5	6.2	2.0	#1	4.94
Q3451-04	TP-11	5.02	96.5	5.8	1.5	#1	4.94
Q3451-08	TP-12	5.01	96.5	7.6	2.5	#1	4.94
Q3452-04	JB-1	5.02	96.5	8.0	3.0	#1	4.94

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Prep Standard - Chemical Standard Summary

Order ID : Q3447

Test : TCLP ICP Metals,TCLP Mercury

Prepbatch ID : PB170263,PB170268,

Sequence ID/Qc Batch ID: LB137666,LB137677,LB137677,

Standard ID :
MP87071,MP87072,MP87073,MP87148,MP87149,MP87637,MP87638,MP87639,MP87640,MP87641,MP87642,MP87643,MP87644,MP87645,MP87646,MP87647,MP87648,MP87649,MP87650,MP87651,MP87668,MP87734,MP87735,MP87736,MP87737,MP87738,MP87739,MP87740,MP87741,MP87742,MP87743,MP87744,MP87745,MP87746,MP87747,MP87751,

Chemical ID :
M4397,M4916,M5062,M5467,M5658,M5697,M5748,M5798,M5799,M5800,M5801,M5814,M5820,M5882,M5884,M5962,M5969,M5971,M5979,M5985,M5998,M6021,M6023,M6026,M6027,M6028,M6030,M6032,M6058,M6077,M6086,M6128,M6137,M6140,M6142,M6144,M6145,M6151,M6157,M6158,M6159,M6160,M6161,M6163,M6164,M6165,M6171,M6174,M6176,M6177,M6178,M6179,M6182,M6184,M6187,M6196,M6200,M6201,M6209,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	MP87071	09/04/2025	11/07/2025	Mohan Bera	None	None	Sarabjit Jaswal 09/04/2025

FROM 1600.00000ml of M6157 + 800.00000ml of M6187 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP87072	09/04/2025	03/04/2026	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/04/2025

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 %	MP87073	09/04/2025	03/05/2026	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/04/2025

FROM 100.00000ml of M4397 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP87148	09/09/2025	02/17/2026	Sagar Kanani	None	None	Sarabjit Jaswal 09/10/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = 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
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP87149	09/09/2025	02/03/2026	Mohan Bera	METALS_SCALE_2 (M SC-2)	None	Sarabjit Jaswal 09/10/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M5884 + 240.00000ml of M6196 = 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)	MP87637	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 125.00000ml of M6200 + 2350.00000ml of W3112 + 25.00000ml of M6187 = 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)	MP87638	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5971 + 5.00000ml of M5998 + 5.00000ml of M6077 + 5.00000ml of M6160 + 5.00000ml of M6174 + 5.00000ml of M6176 + 455.00000ml of MP87637 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP87639	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = 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	MP87640	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of MP87638 + 75.00000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP87641	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 16.00000ml of MP87638 + 184.00000ml of MP87637 = 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	MP87642	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6140 + 0.05000ml of M6159 + 0.06000ml of M6177 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5969 + 0.10000ml of M5971 + 0.10000ml of M6128 + 0.10000ml of M6176 + 0.15000ml of M5800 + 0.20000ml of M5799 + 0.20000ml of M5979 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6027 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6160 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6086 + 1.00000ml of M6142 + 1.00000ml of M6144 + 1.00000ml of M6171 + 1.00000ml of M6178 + 2.00000ml of M6137 + 89.03000ml of MP87637 = 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	MP87643	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 2.00000ml of MP87642 + 98.00000ml of MP87637 = 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
4163	NEW ICV-060925	MP87644	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.20000ml of M6058 + 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.60000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP87645	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of M6182 + 225.00000ml of MP87637 = 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	MP87646	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.10000ml of M6077 + 10.00000ml of M6182 + 10.00000ml of M6184 + 79.90000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP87647	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = 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
903	ICP AES RINSE SOLN	MP87648	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 200.00000ml of M6187 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4226	LR-2	MP87649	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 13.50000ml of M6140 + 9.00000ml of M6142 + 9.50000ml of M6159 + 18.00000ml of MP87637 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4227	LR-3	MP87650	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 1.15000ml of M6026 + 1.25000ml of M5658 + 1.25000ml of M5748 + 1.50000ml of M6145 + 2.50000ml of M5697 + 2.50000ml of M6128 + 39.85000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4225	LR-1	MP87651	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 11.50000ml of M6086 + 11.50000ml of M6144 + 11.50000ml of M6171 + 15.50000ml of MP87637 = Final Quantity: 50.000 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	MP87668	10/17/2025	11/11/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICPA)	Sarabjit Jaswal 10/28/2025

FROM 1.00000ml of M6179 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6187 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP87734	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 1.00000ml of M6187 + 2.50000ml of M5062 + 96.50000ml of W3112 = 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
1340	Hg 0.00 PPB STD	MP87735	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2750	Hg 0.05ppb	MP87736	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.45000ml of W3112 + 0.05000ml of MP87734 = 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	MP87737	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.30000ml of W3112 + 0.20000ml of MP87734 = 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	MP87738	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 245.00000ml of W3112 + 2.50000ml of MP87734 = 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	MP87739	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 242.50000ml of W3112 + 5.00000ml of MP87734 = 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	MP87740	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 240.00000ml of W3112 + 7.50000ml of MP87734 = 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	MP87741	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 237.50000ml of W3112 + 10.00000ml of MP87734 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP87742	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6187 + 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)	MP87743	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 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)	MP87744	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6187 + 10.00000ml of MP87734 = 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
1352	CCB (Hg 0.00 PPB SOLUTION)	MP87745	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6187 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP87746	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.30000ml of W3112 + 0.20000ml of MP87734 = 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
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP87747	10/27/2025	10/28/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 240.50000ml of W3112 + 7.00000ml of MP87734 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP87751	10/28/2025	10/29/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 10/28/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6200 = 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-3238-05 / Potassium Persulfate (2.5kg)	0000227540	09/24/2025	08/16/2019 / RICHARD	07/17/2019 / RICHARD	M4397

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

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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.	/ 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.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

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

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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.	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 #
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 #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

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	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

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	06/06/2025 / Janvi	07/01/2024 / Jaswal	M5971

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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	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	07/30/2026	07/30/2025 / Janvi	02/22/2024 / kareem	M5998

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

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.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

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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.	57028 / Ni, 1000 PPM, 125 ml	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

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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.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

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 #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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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.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / Jaswal	01/13/2025 / Jaswal	M6145

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	02/17/2026	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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	24i1262013	11/07/2025	05/07/2025 / RUPESH	02/18/2025 / Mohan	M6157

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	10/30/2025	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

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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	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	12/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

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	011525	01/15/2028	07/15/2025 / jaswal	02/13/2025 / Janvi	M6171

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	V2-MEB742428	07/31/2026	07/31/2025 / Janvi	05/05/2025 / Janvi	M6174

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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	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	031525	03/15/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6177

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	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

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	08/05/2026	08/06/2025 / Janvi	06/02/2024 / Janvi	M6179

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	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6182

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	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6184

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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)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	H330-500 / HYDROXYLAMINE HYDROCHLORIDE ACS 500G	243373	02/03/2026	09/04/2025 / mohan	08/04/2025 / mohan	M6196

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)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

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	V2-MEB743480	10/15/2026	10/15/2025 / Jaswal	07/20/2025 / janvi	M6201

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	V2-MEB752149	10/15/2026	10/15/2025 / Janvi	07/20/2025 / Janvi	M6209

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.
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Certified Reference Material CRM

M6032

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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R 8/5/24

CERTIFIED WEIGHT REPORT:

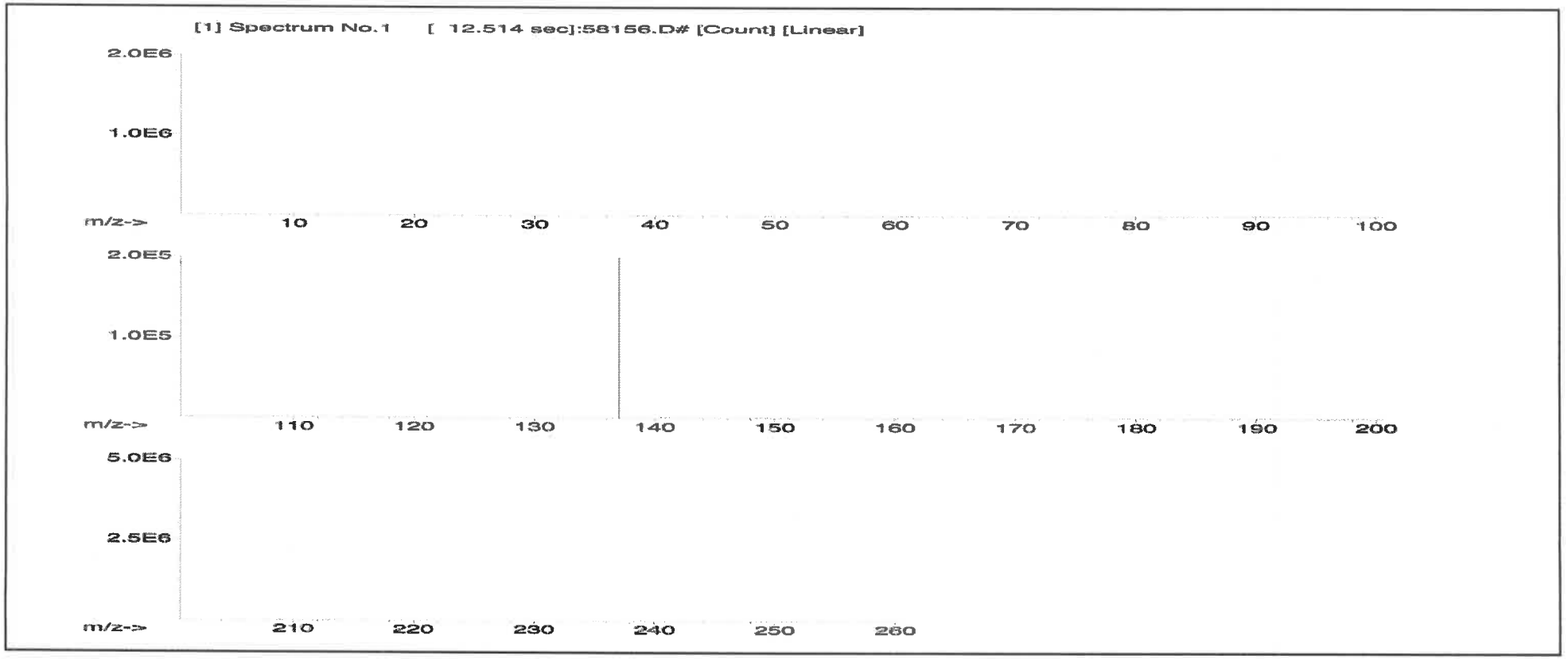
Part Number: 57056
Lot Number: 010924
Description: Barium (Ba)
Expiration Date: 010927
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 010924

Pedro Rentas
Reviewed By: Pedro L. Rentas 010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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Q3447-METALS

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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	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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Revd 10/14/2024 M6085/M6086/M6087

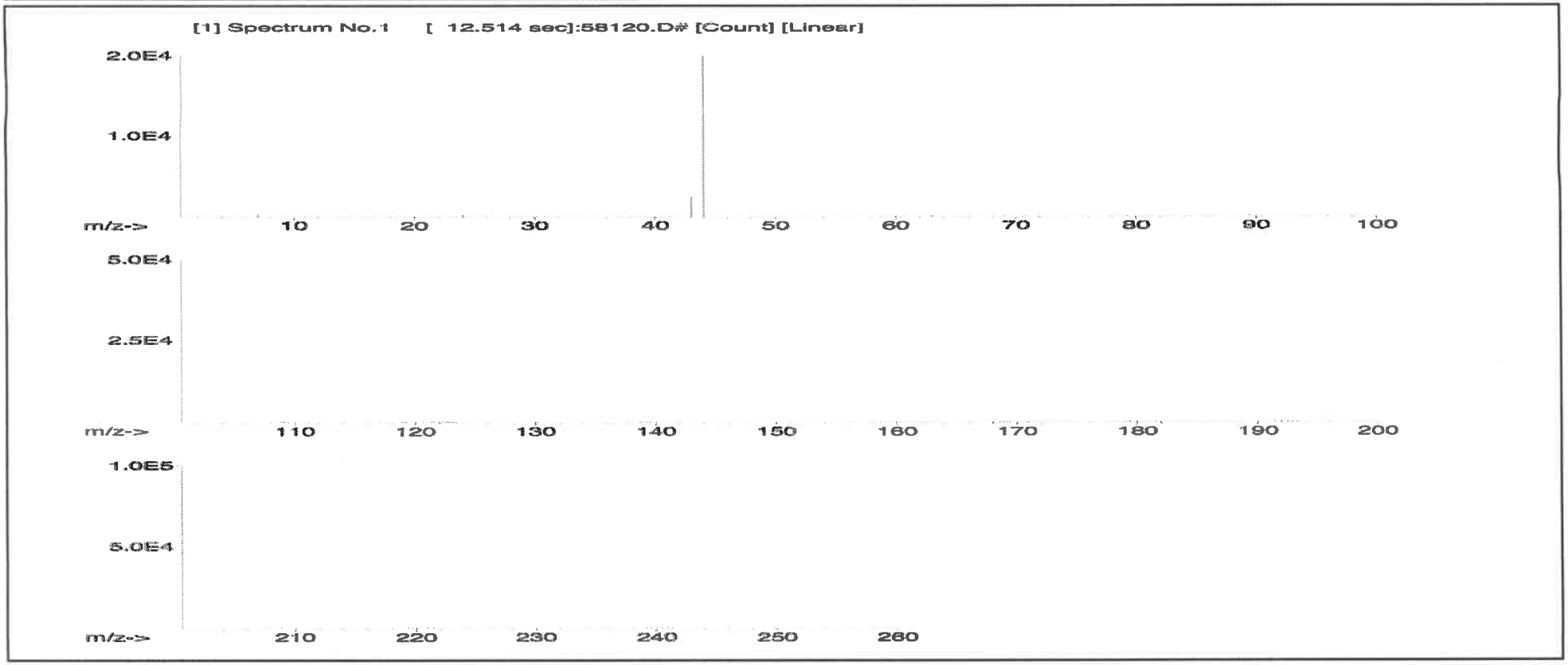
CERTIFIED WEIGHT REPORT:

Part Number:	**58120**		**Lot #**		
Lot Number:	**082324**		**Solvent:**	24002546	Nitric Acid
Description:	**Calcium (Ca)**				
			2%	80.0 (mL)	Nitric Acid
Expiration Date:	082327				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	082324
Reviewed By:	Pedro L. Rentas	082324

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2656	**10001.2**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



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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	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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R 8/15/24

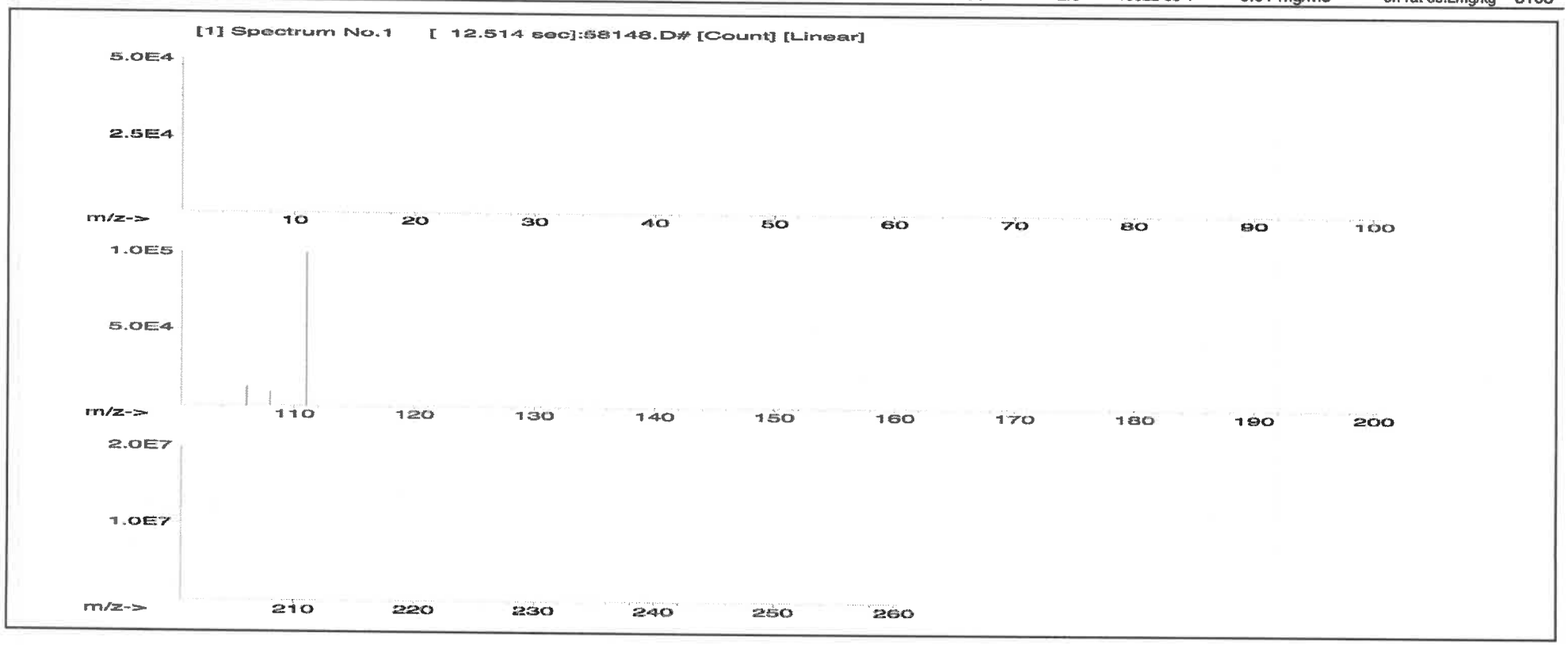
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CERTIFIED WEIGHT REPORT:

Part Number:	**57048**			**Lot #**	
Lot Number:	**070124**		**Solvent:**	24002546	Nitric Acid
Description:	**Cadmium (Cd)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady		
Formulated By:	Aleah O'Brady	070124
Pedro Rentas		
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.

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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:

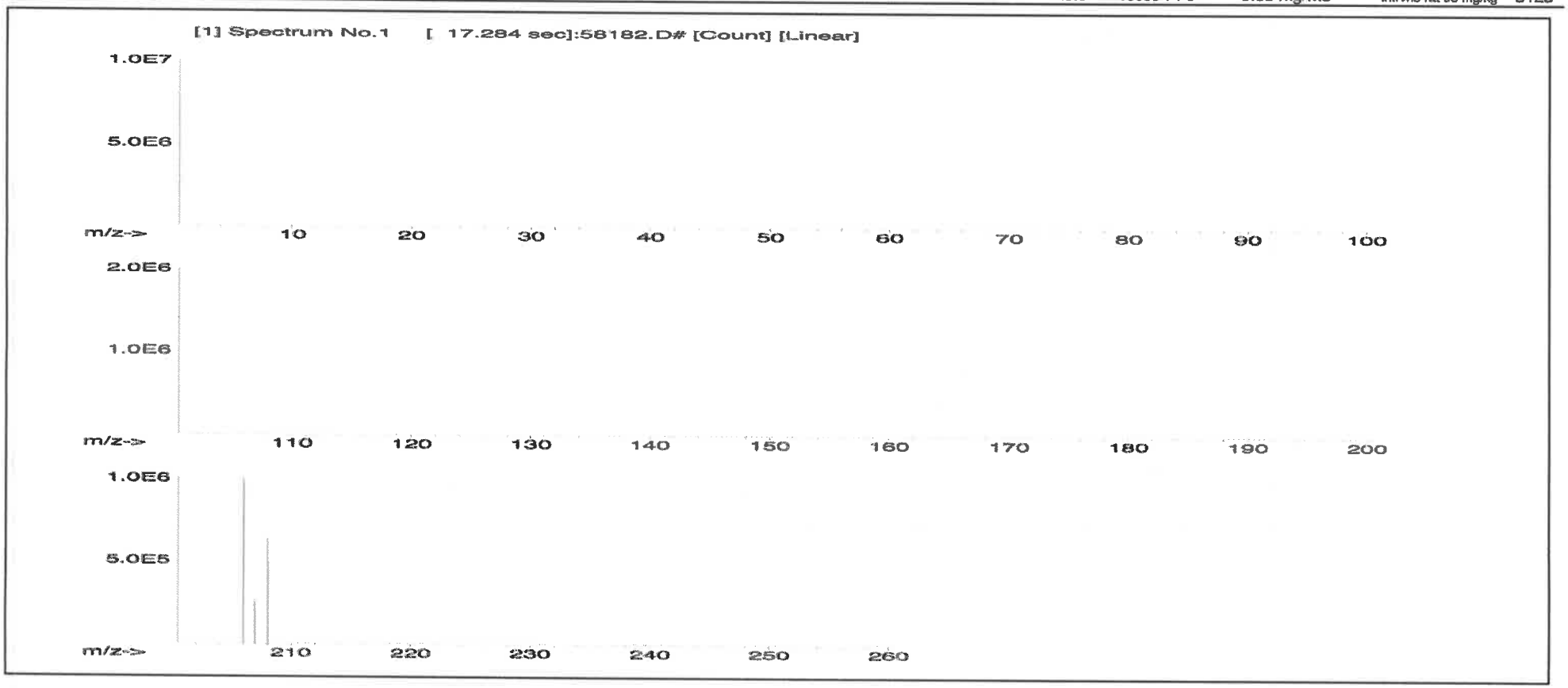
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
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:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

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	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	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.

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Potassium Permanganate
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination

avantor™ | J.T.Baker®

M4397
Supplied – 07.17.19
Opened – 08.16.19
exp – 09.24.25

Material No.: 3227-05
Batch No.: 0000227540
Manufactured Date: 2018/09/26
Retest Date: 2025/09/24
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
ACS - Assay ($KMnO_4$)	>= 99.0 %	99.0
ACS - Insoluble Matter	<= 0.2 %	< 0.1
ACS - Chloride and Chlorate (as Cl)	<= 0.005 %	0.005
ACS - Sulfate (SO_4)	<= 0.02 %	0.02
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	0.004

For Laboratory, Research or Manufacturing Use

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

RS
08.16.19

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

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

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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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M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ 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

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/4}$$

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

M5467 R: 03/01/23 (LA)

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

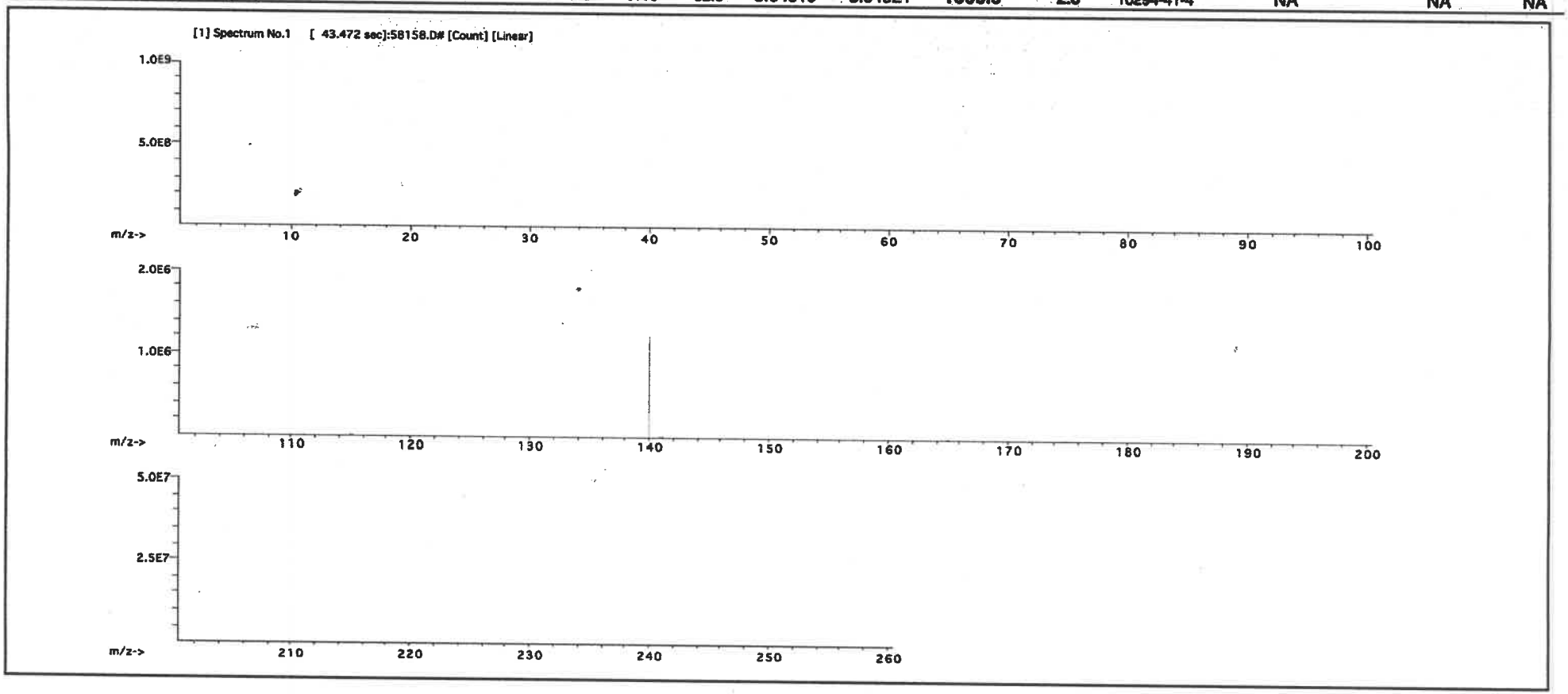
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



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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).
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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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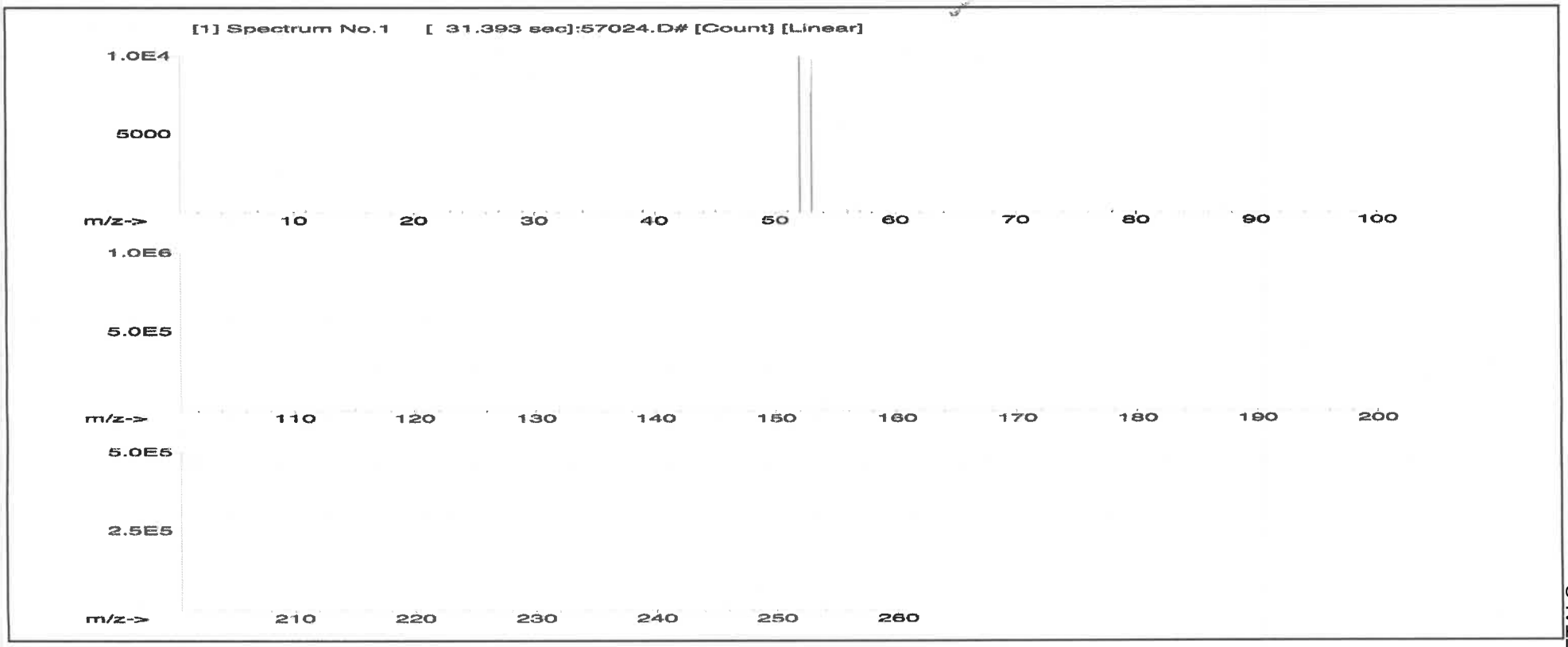
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CERTIFIED WEIGHT REPORT:

		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.

* 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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M5697 R: 10/27/23

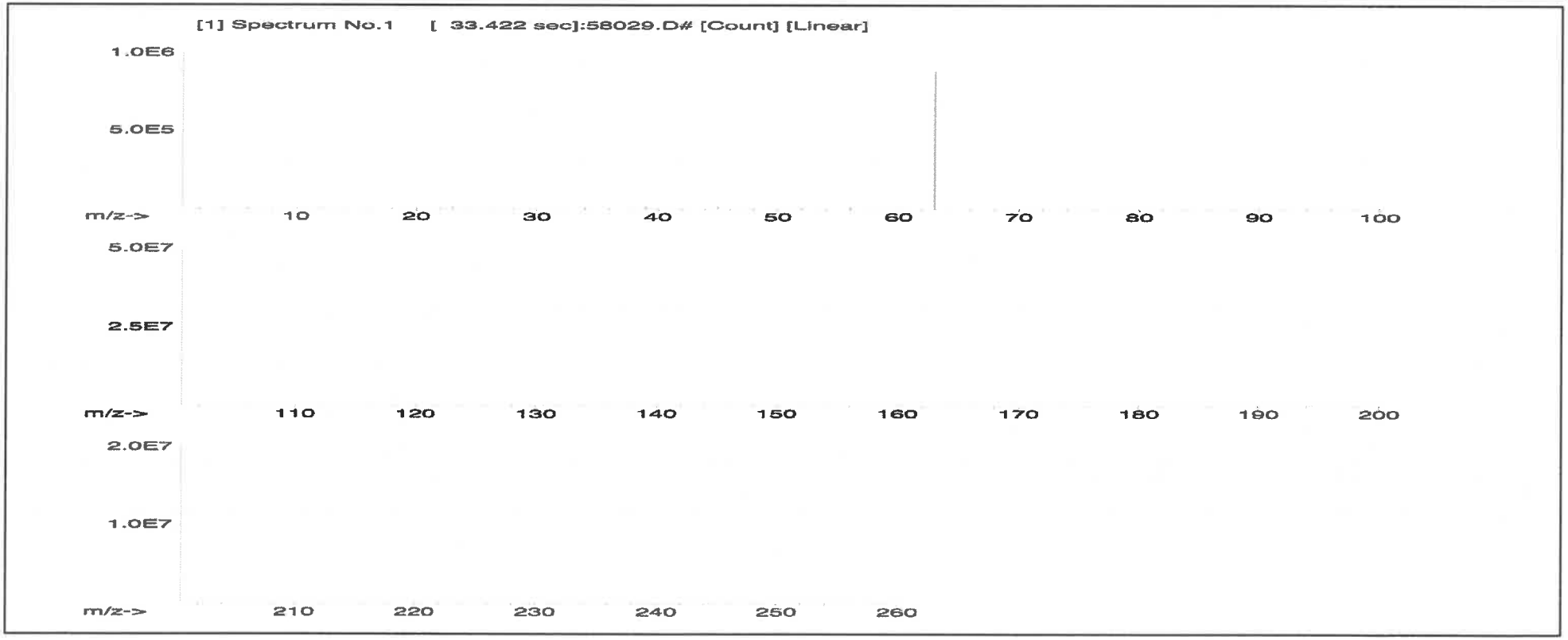
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**58029**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Copper (Cu)**				
		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. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**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:

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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Certified Reference Material CRM

R: 12/20/23 M5748

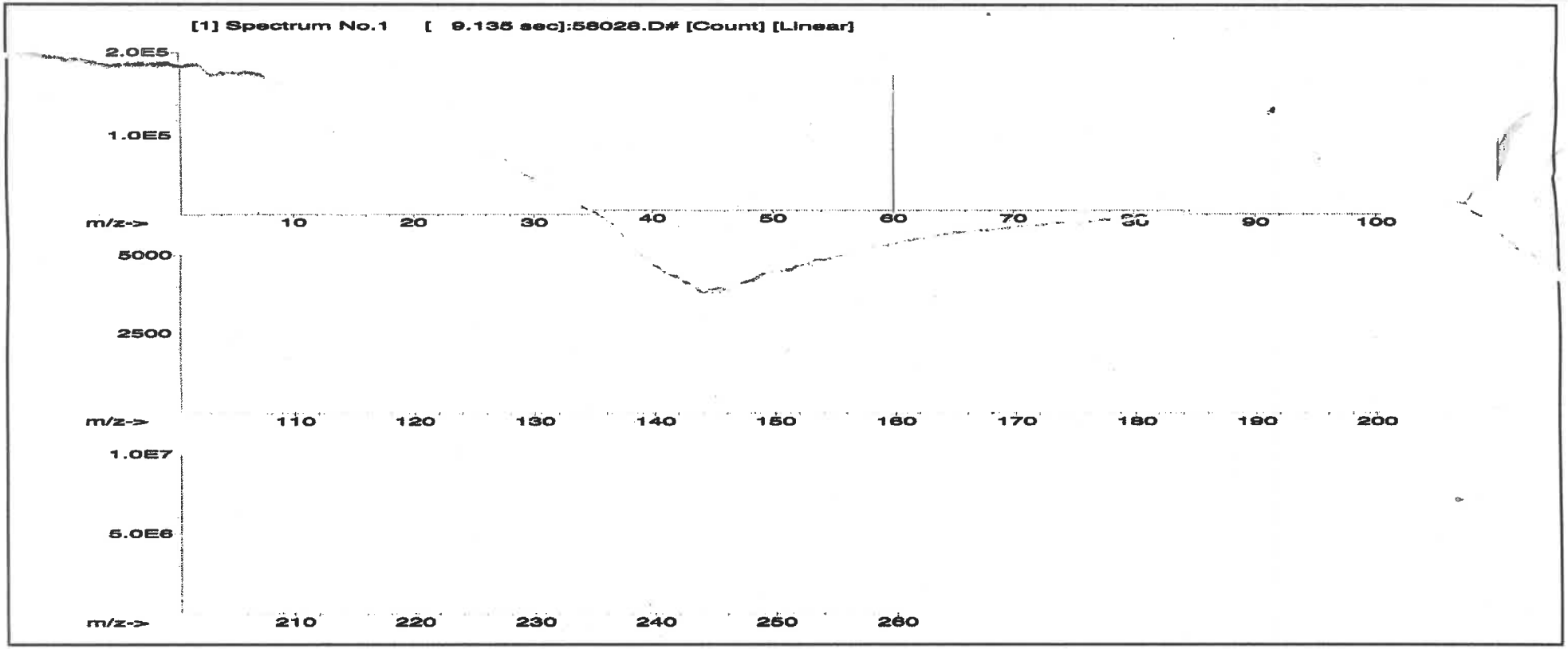
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CERTIFIED WEIGHT REPORT:

		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:

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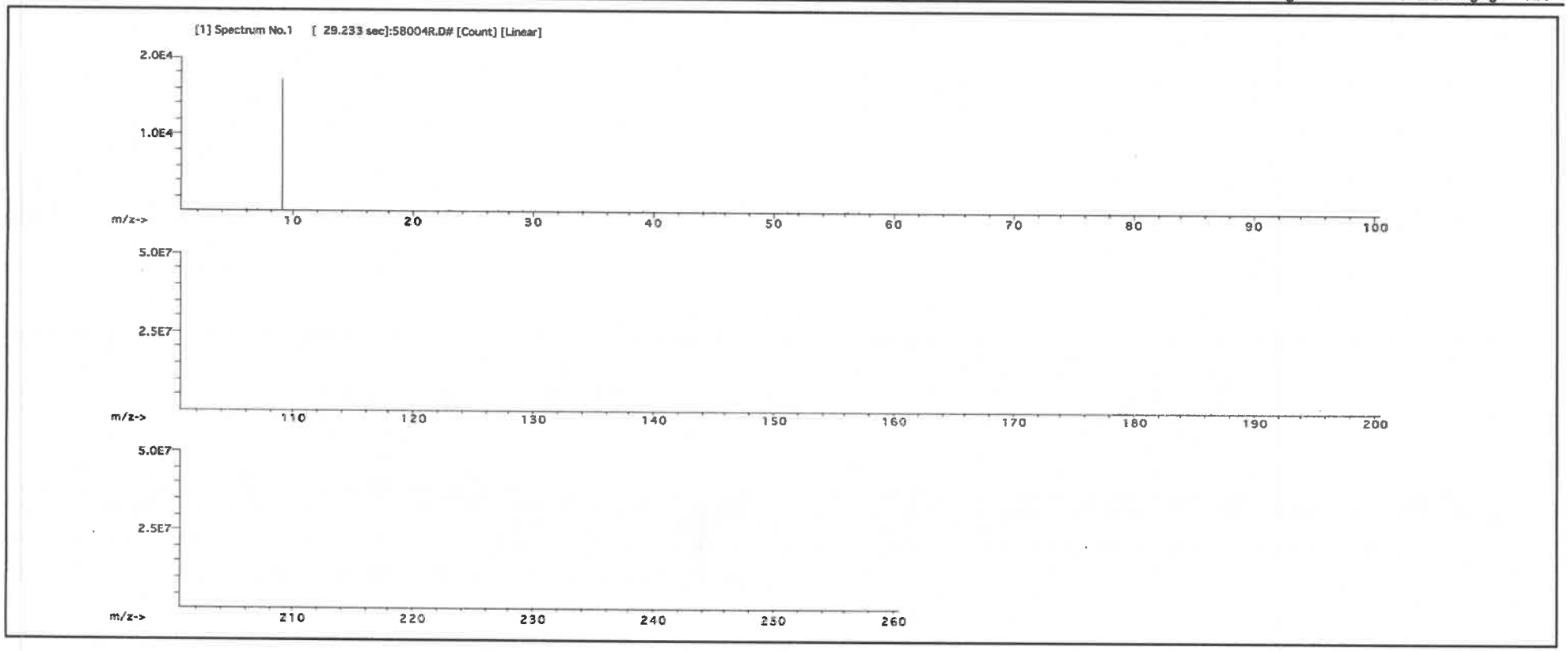
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57004**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



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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.

* 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:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

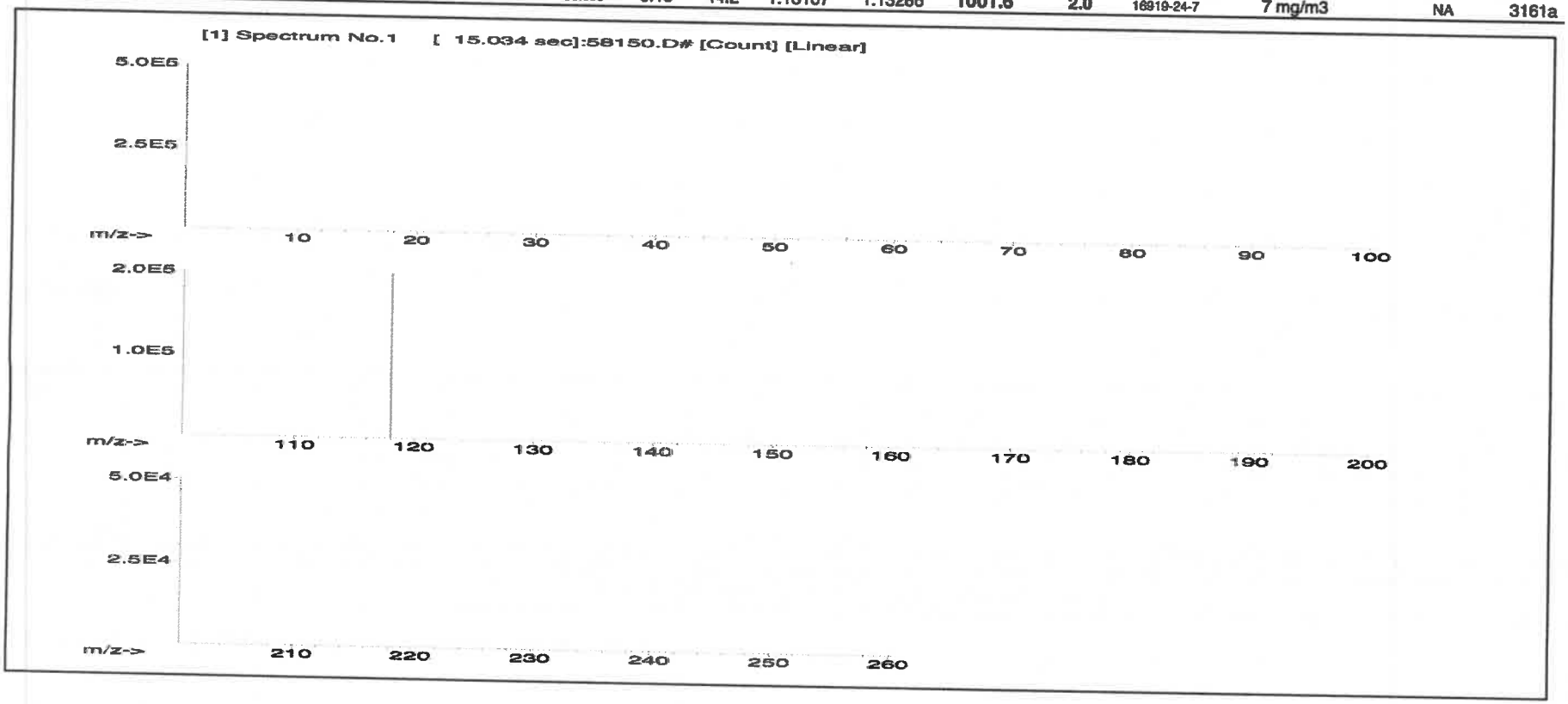
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

* 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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* 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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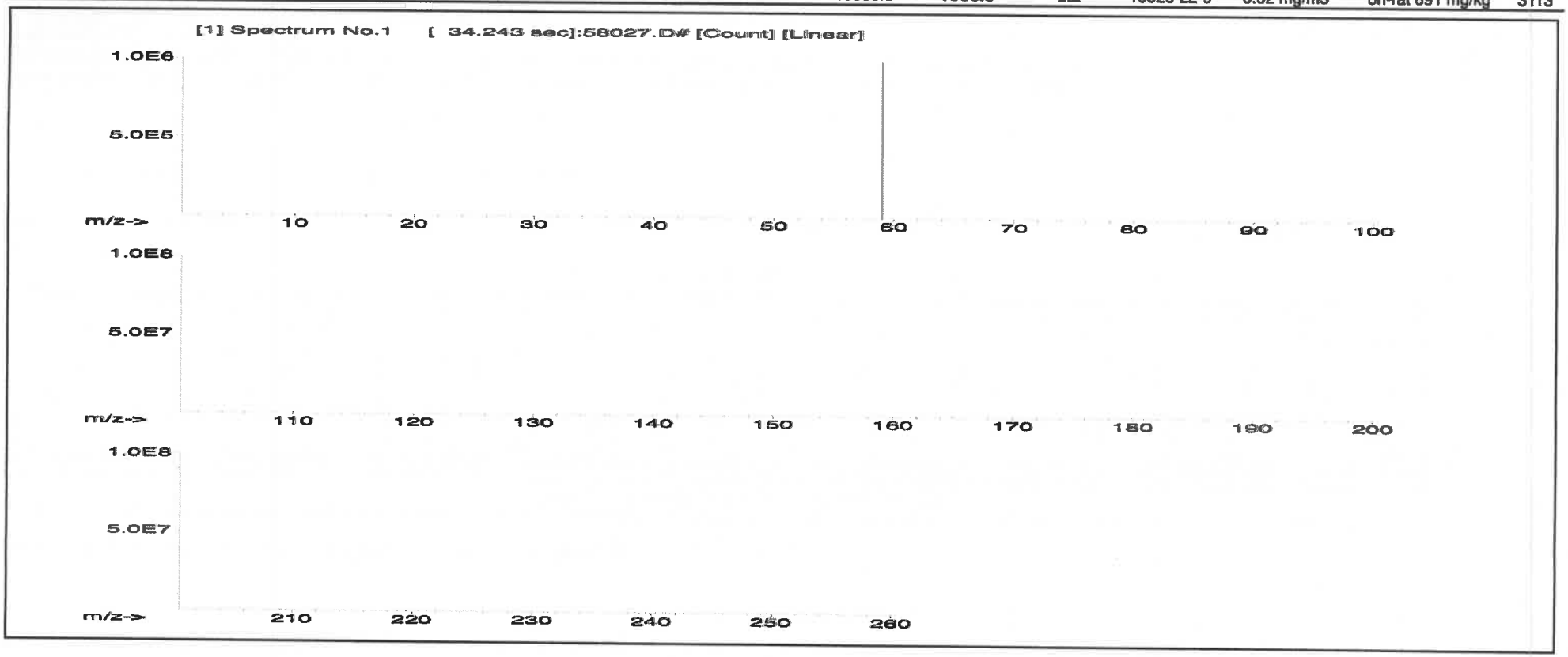
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**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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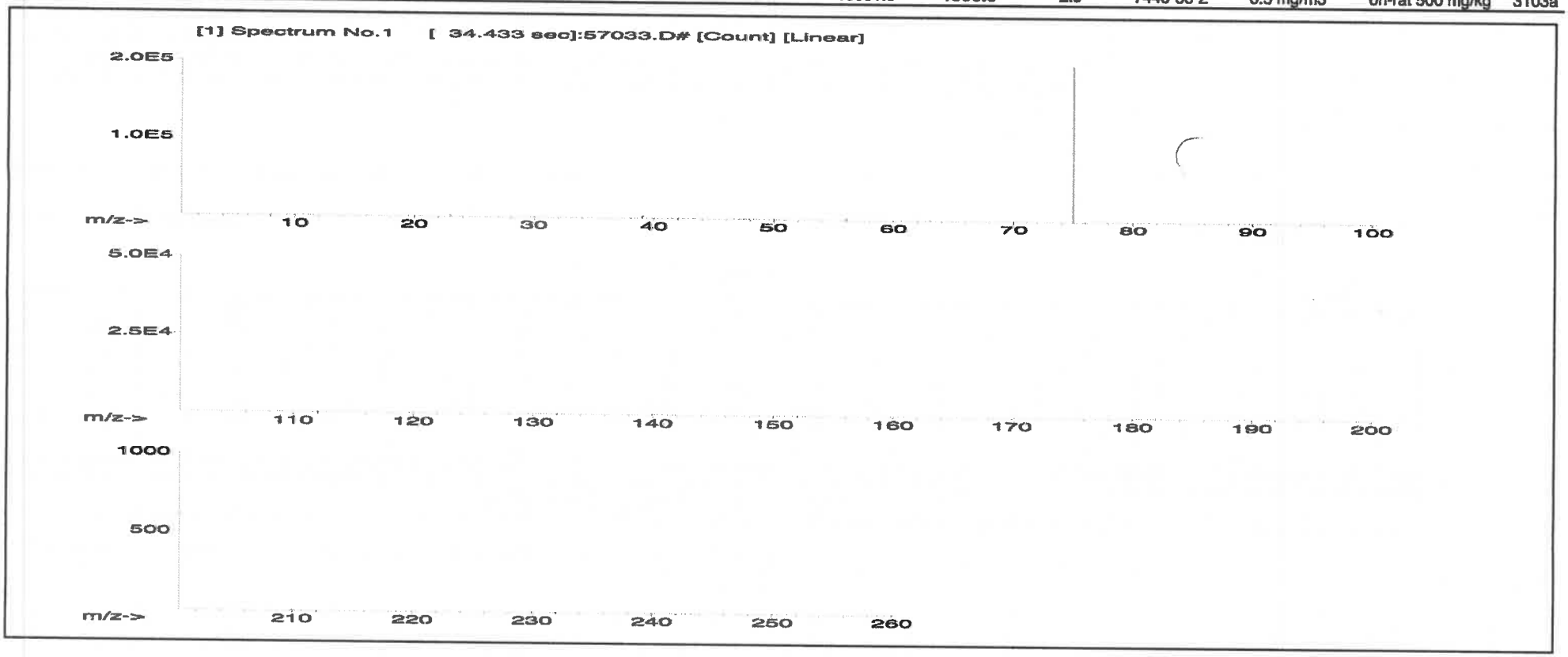
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CERTIFIED WEIGHT REPORT:

		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.
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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

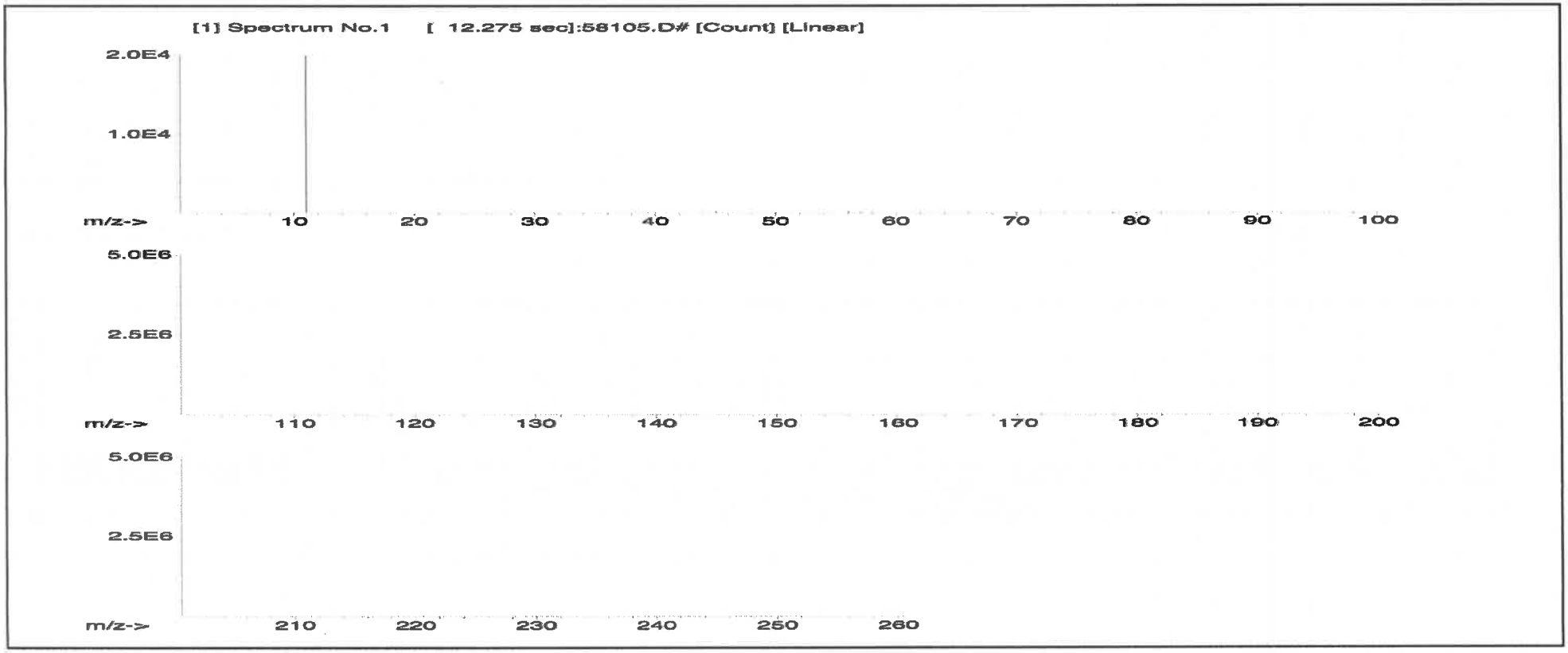
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

	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:

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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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* 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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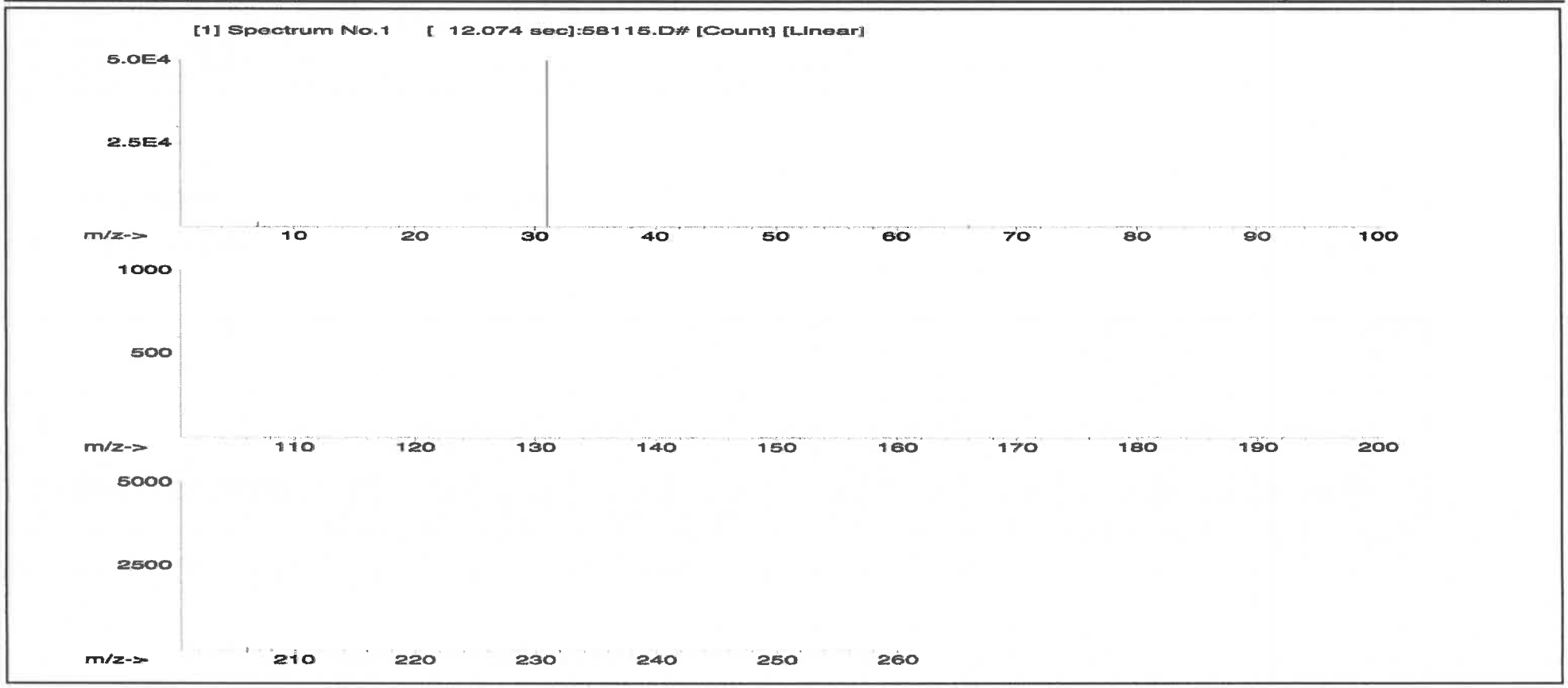
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CERTIFIED WEIGHT REPORT:

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

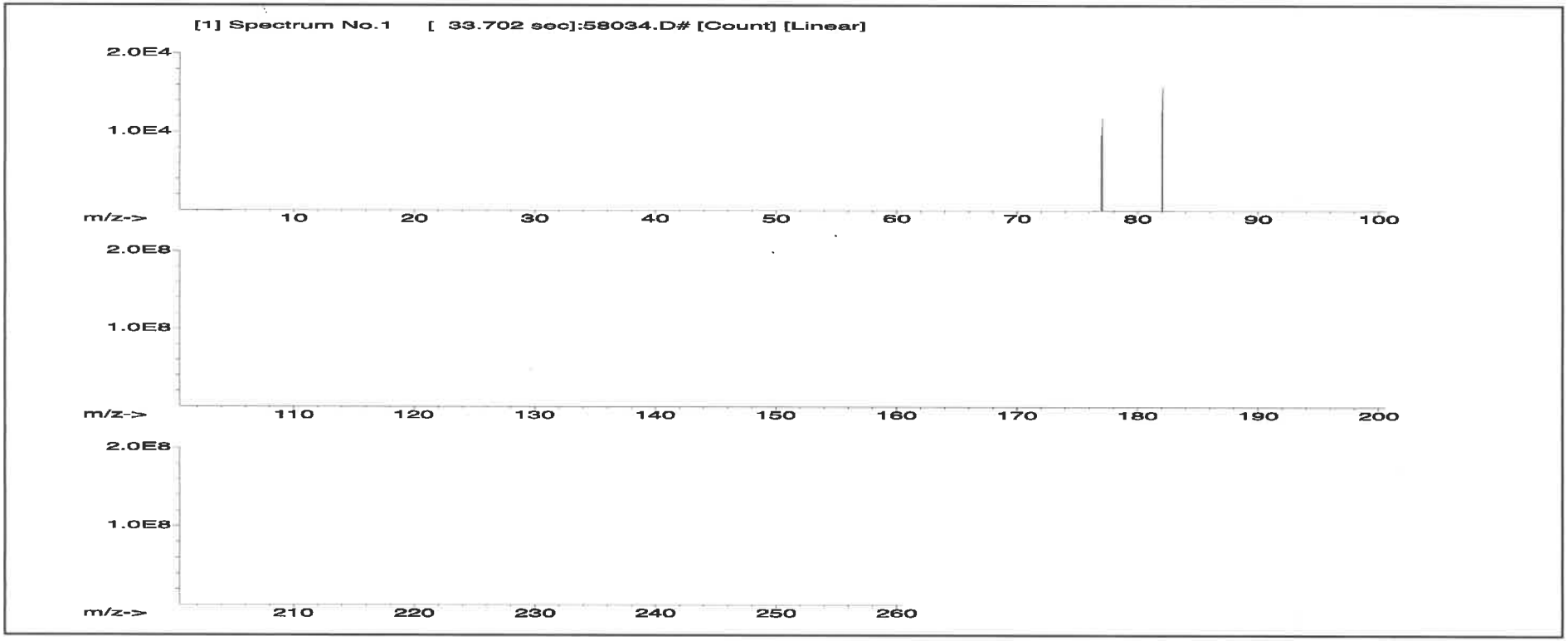
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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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	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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Certified Reference Material CRM

M5969 R: 06/11/24

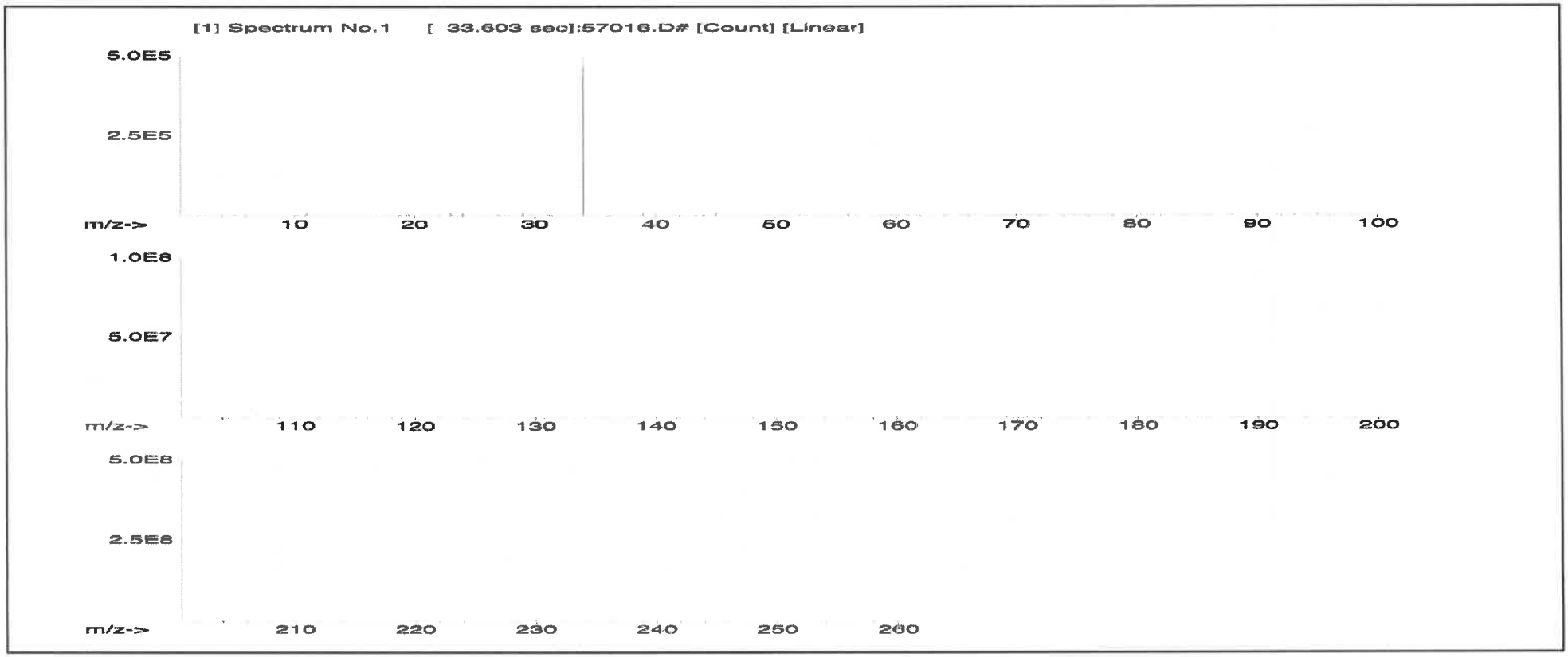
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57016**		**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**				
Description:	**Sulfur (S)**				
Expiration Date:	122926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57003**	24002546	Nitric Acid		
Lot Number:	**062124**				
Description:	**Lithium (Li)**				
		2.0%	5.0 (mL)	Nitric Acid	
Expiration Date:	062127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	250.11	0.016	Flask Uncertainty		

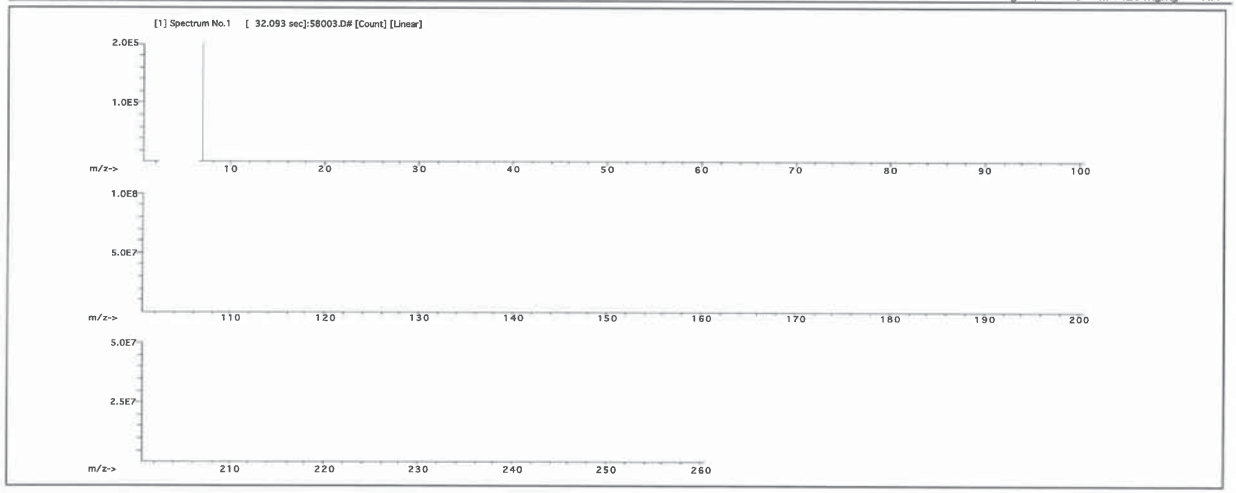
Giovanni Esposito

Formulated By: Giovanni Esposito 062124

Pedro Rentas

Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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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	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:

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MS978, MS979

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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

R: 2/22/24

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 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 Ti Metal
Starting Material:	
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**1002 ± 4 µg/mL**
	ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)\,(x_i)$$

x_i = mean of Assay Method i with standard uncertainty $u_{Char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{Char\ i})^2 \,/\, (\Sigma(1/u_{Char\ i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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:

$$X_{CRM/RM} = (\Sigma x_a)\,(n_{char\ a})$$

X_a = mean of Assay Method A with $n_{char\ a}$ = 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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

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



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MS-997

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	1 000 ± 7 µg/mL	Cadmium, Cd	500.0 ± 2.2 µg/mL
Lead, Pb	1 000 ± 4 µg/mL	Selenium, Se	1 000 ± 6 µg/mL
Thallium, Tl	1 000 ± 7 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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

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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

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- 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



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:

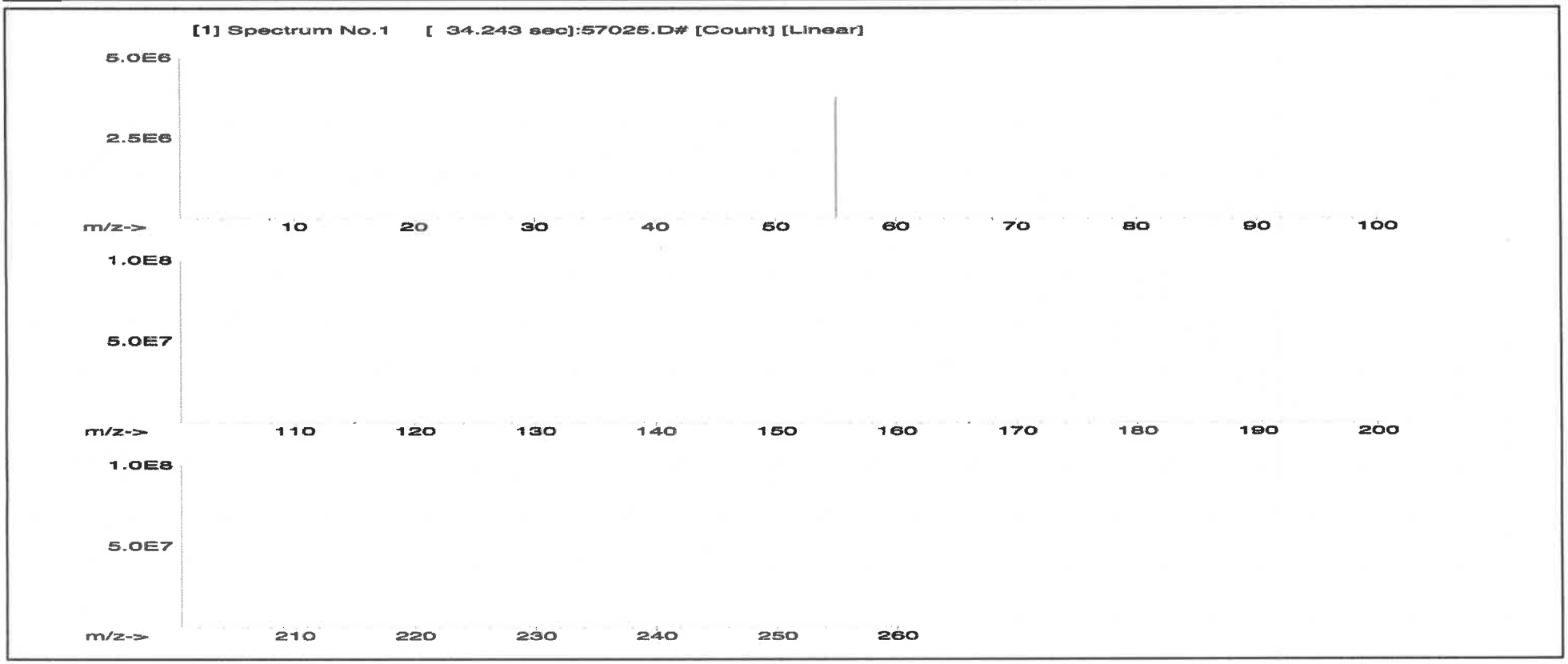
R->1/13/25
M6128

Part Number:	**58025**		**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**				
Description:	**Manganese (Mn)**		2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
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



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	<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

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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



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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

R->1|B|2S

Part Number: 58126
Lot Number: 011025
Description: Iron (Fe) M6140

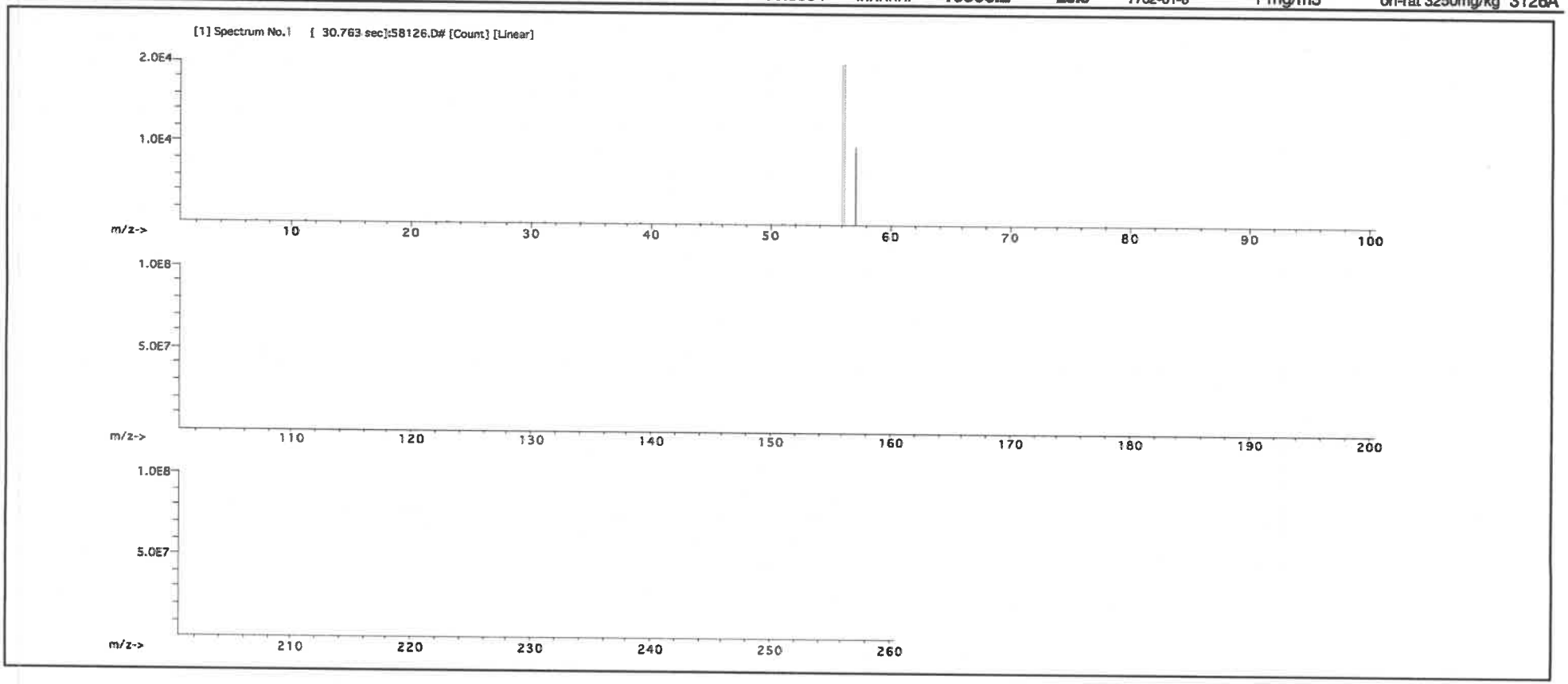
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #	
Solvent:	24012496	Nitric Acid
2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Formulated By: Benson Chan 011025
Reviewed By: Pedro L. Rentas 011025

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(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



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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	T	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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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

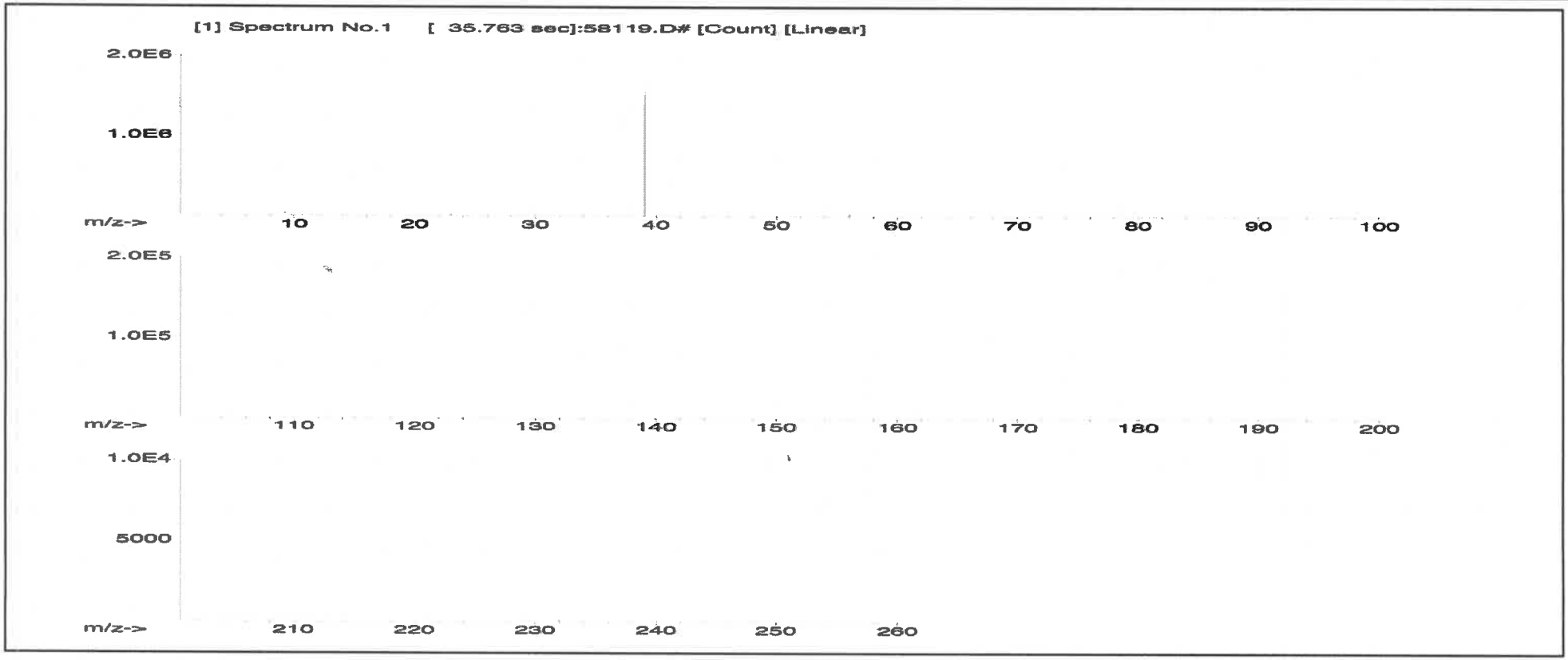
Part Number:	**57119**		**Lot #**		
Lot Number:	**103024**	**Solvent:**	24002546	Nitric Acid	
Description:	**Potassium (K)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	103027				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

M6141
M6142
M6143

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



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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:

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

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CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 58111
Lot Number: 072424
Description: Sodium (Na)

MG144

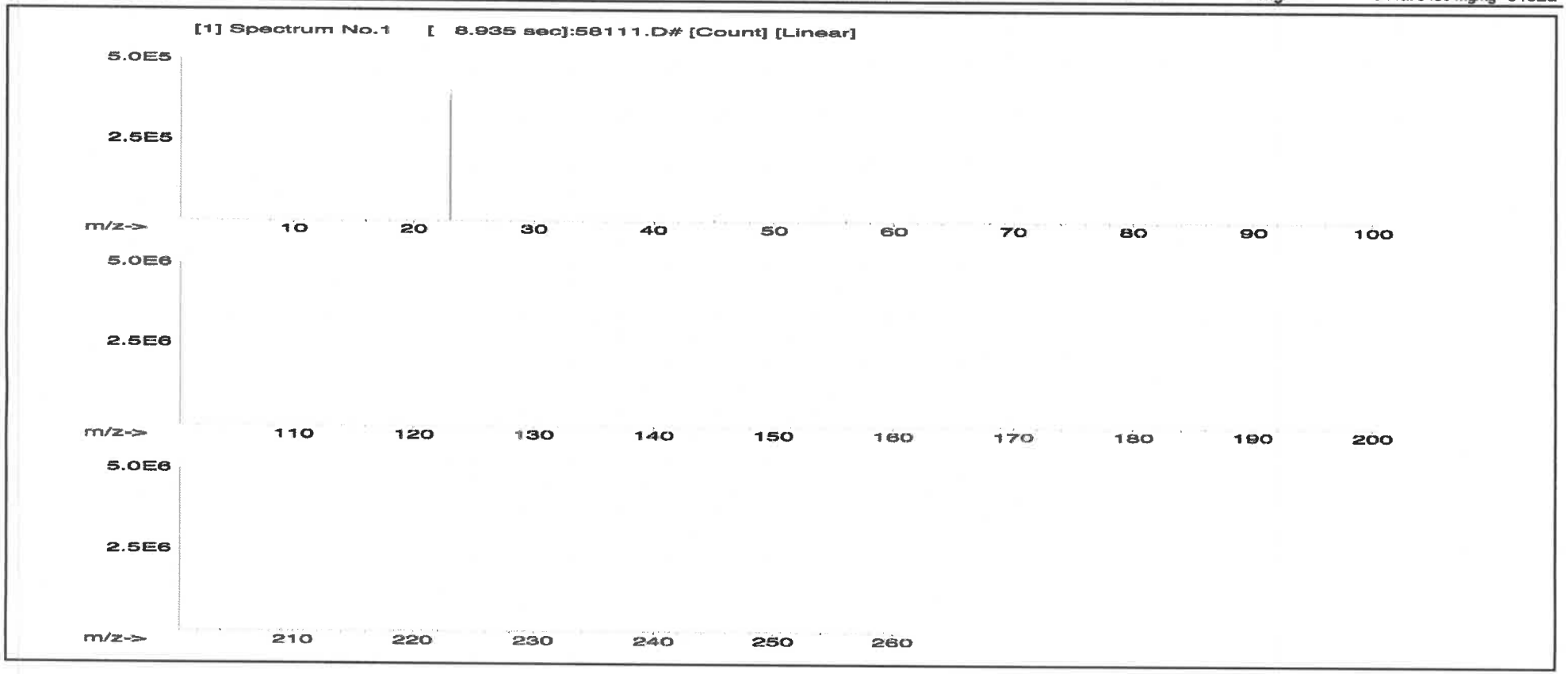
Expiration Date: 072427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
5E-05	Balance Uncertainty		
0.10	Flask Uncertainty		

Formulated By: Benson Chan 072424

Reviewed By: Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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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	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

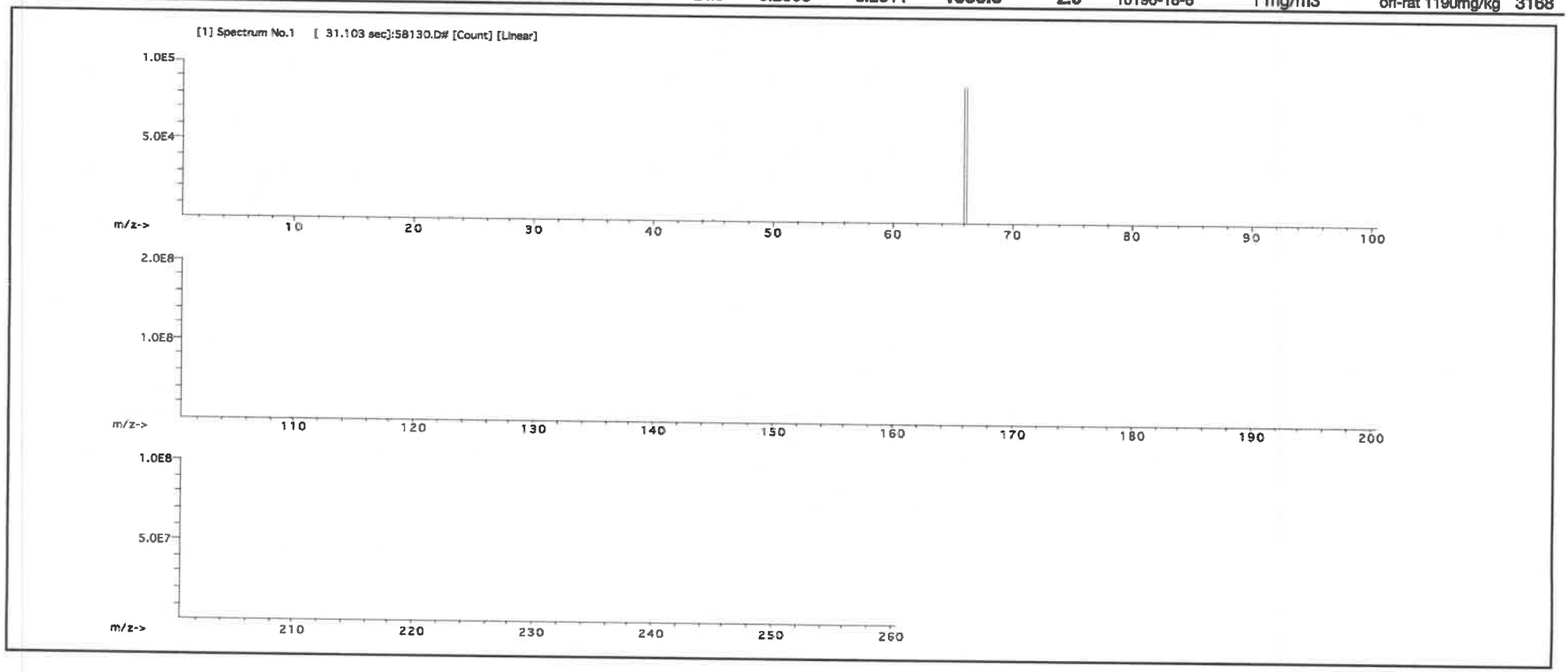
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

				Lot #	
Solvent:	24012496	Nitric Acid			
	2%	40.0 (mL)	Nitric Acid		
		5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



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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	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.

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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

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M615 MB

avantor™ | J.T.Baker

Material No.: 9673-33
Batch No.: 24I1262013
Manufactured Date: 2024-08-07
Retest Date:2029-08-06
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.2 %
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 & Antimony (as As)	<= 4.0 ppb	<2.0 ppb
Trace Impurities – Boron (B)	<= 10.0 ppb	<5.0 ppb
Trace Impurities – Cadmium (Cd)	<= 2.0 ppb	<1.0 ppb
Trace Impurities – Chromium (Cr)	<= 6.0 ppb	<1.0 ppb
Trace Impurities – Cobalt (Co)	<= 0.5 ppb	<0.3 ppb
Trace Impurities – Copper (Cu)	<= 1.0 ppb	<1.0 ppb
Trace Impurities – Gold (Au)	<= 10.0 ppb	<5.0 ppb
Heavy Metals (as Pb)	<= 500.0 ppb	<100.0 ppb
Trace Impurities – Iron (Fe)	<= 50.0 ppb	<1.0 ppb
Trace Impurities – Lead (Pb)	<= 0.5 ppb	<0.5 ppb
Trace Impurities – Magnesium (Mg)	<= 7.0 ppb	<1.0 ppb
Trace Impurities – Manganese (Mn)	<= 1.0 ppb	<1.0 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	<10.0 ppb
Trace Impurities – Selenium (Se)	<= 50.0 ppb	7.2 ppb
Trace Impurities – Silicon (Si)	<= 100.0 ppb	12.8 ppb
Trace Impurities – Silver (Ag)	<= 1.0 ppb	<1.0 ppb

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker

Material No.: 9673-33
Batch No.: 24I1262013

Test	Specification	Result
Trace Impurities - Sodium (Na)	<= 500.0 ppb	<5.0 ppb
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	<1.0 ppb
Trace Impurities - Tin (Sn)	<= 5.0 ppb	1.1 ppb
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	<1.0 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

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

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Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
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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:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Aluminum, Barium, 500 µg/mL ea: Iron, 250 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 125 µg/mL ea: Silver, Copper, 100 µg/mL ea: Chromium, 25 µg/mL ea: Beryllium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 000 ± 4 µg/mL	Barium, Ba	1 000 ± 6 µg/mL
Beryllium, Be	24.98 ± 0.12 µg/mL	Calcium, Ca	2 500 ± 8 µg/mL
Chromium, Cr	99.9 ± 0.6 µg/mL	Cobalt, Co	250.2 ± 1.2 µg/mL
Copper, Cu	125.0 ± 0.5 µg/mL	Iron, Fe	500.0 ± 2.2 µg/mL
Magnesium, Mg	2 500 ± 11 µg/mL	Manganese, Mn	249.9 ± 1.1 µg/mL
Nickel, Ni	250.0 ± 1.2 µg/mL	Potassium, K	2 500 ± 11 µg/mL
Silver, Ag	125.0 ± 0.6 µg/mL	Sodium, Na	2 500 ± 11 µg/mL
Vanadium, V	250.0 ± 1.1 µg/mL	Zinc, Zn	249.9 ± 1.1 µg/mL

Density: 1.081 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
Cu	ICP Assay	3114	120618
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	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 22, 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

- **May 22, 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

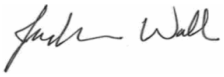
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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:	QCP-CICV-2
Lot Number:	U2-MEB733713
Matrix:	3% (w/v) Tartaric acid 1% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**500.0 ± 2.8 µg/mL**		

Density: 1.017 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

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**

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

June 01, 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

- June 01, 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

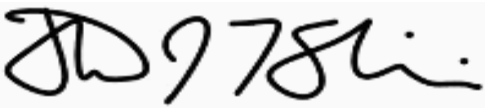
- Sealed TCT Bag Open Date: _____

- 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



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1.0 ACCREDITATION / REGISTRATION

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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:	QCP-CICV-3
Lot Number:	V2-MEB749572
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 250 µg/mL ea: Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**500.0 ± 3.1 µg/mL**	**Cadmium, Cd**	**250.1 ± 1.1 µg/mL**
Lead, Pb	**500.0 ± 2.3 µg/mL**	**Selenium, Se**	**500.0 ± 3.2 µg/mL**
Thallium, Tl	**500.0 ± 3.0 µg/mL**		

Density: 1.040 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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

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 02, 2025

- 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 02, 2030**

- 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

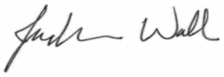
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

M 6171

Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

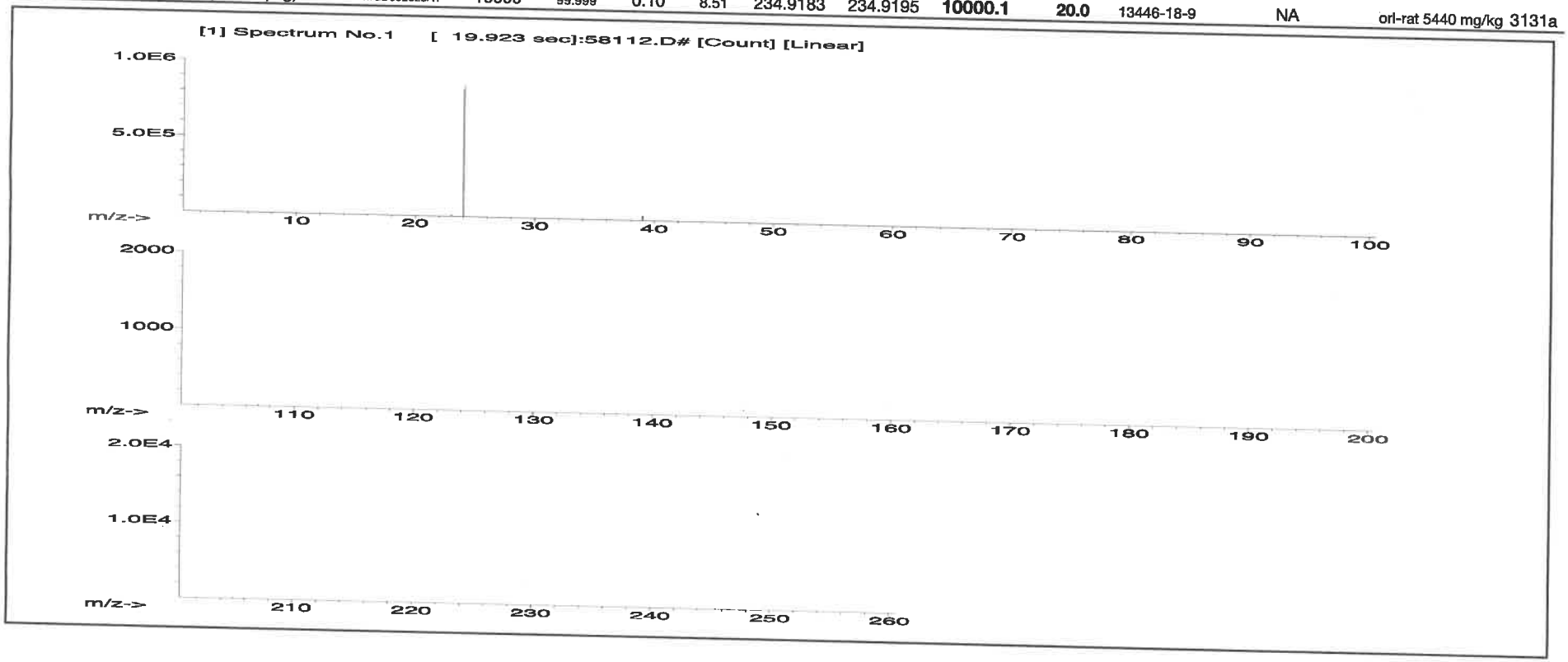
Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.100	Flask Uncertainty	

Formulated By: Benson Chan 011525

Reviewed By: Pedro L. Rentas 011525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-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:

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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Certificate of Analysis

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R->5/5/24

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:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	V2-MEB742428
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	50.03 ± 0.30 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Chromium, Cr	200.0 ± 1.1 µg/mL	Cobalt, Co	500.0 ± 2.3 µg/mL
Copper, Cu	250.0 ± 1.1 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 22 µg/mL	Manganese, Mn	499.9 ± 2.2 µg/mL
Nickel, Ni	500.1 ± 2.3 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.117 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
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
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
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	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 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

- March 22, 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:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

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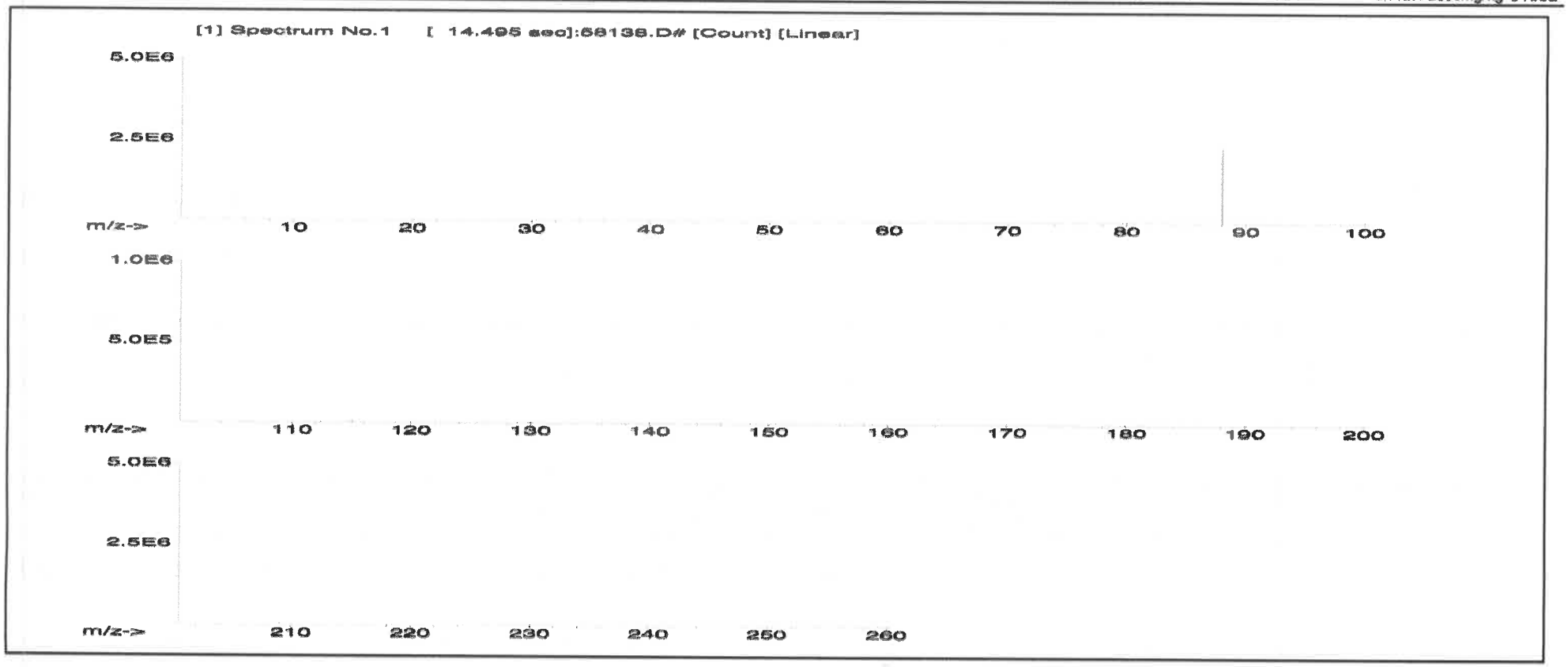
CERTIFIED WEIGHT REPORT:

R->8/6/25

Part Number:	57038			**Lot #**	
Lot Number:	092724		**Solvent:**	24002546	Nitric Acid
Description:	Strontium (Sr)				
		M6176	2%	40.0 (mL)	Nitric Acid
Expiration Date:	092727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan 092724
Reviewed By:	Pedro L. Rentas 092724

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. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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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	T	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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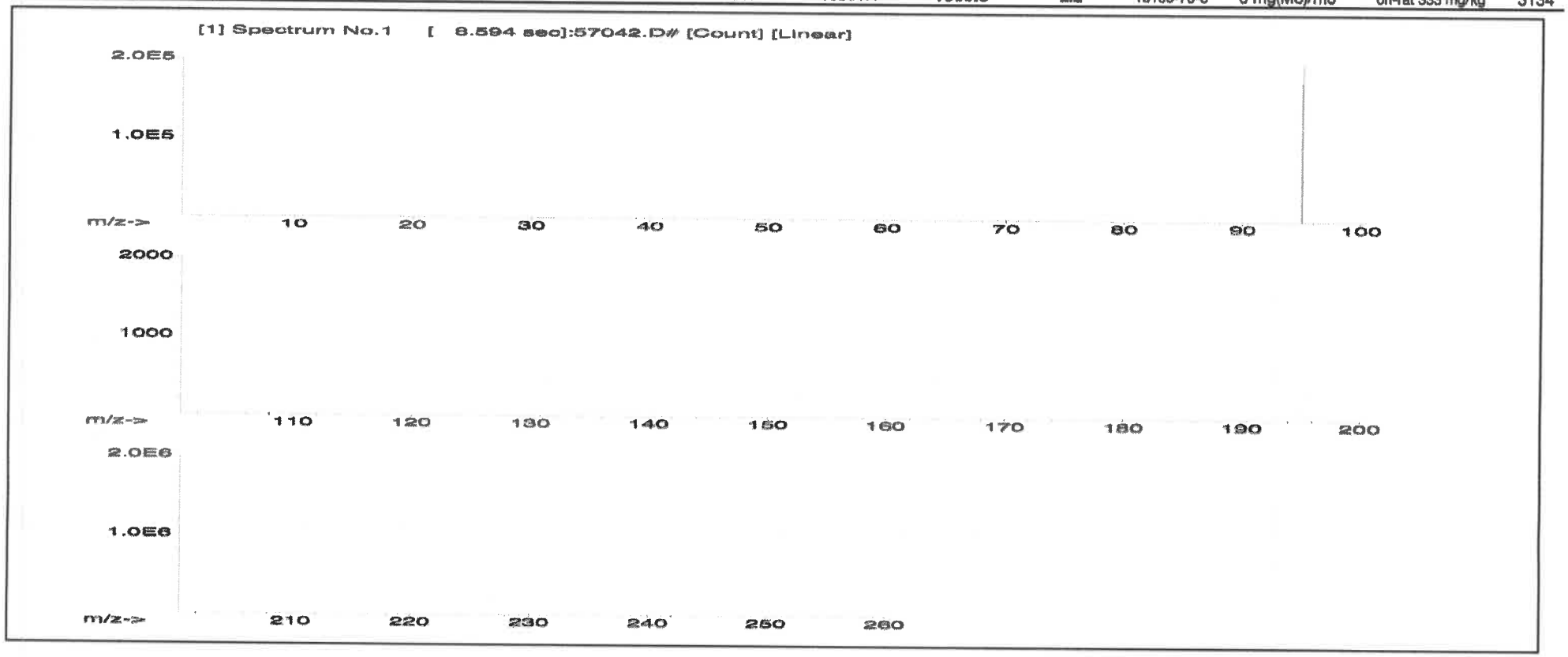
CERTIFIED WEIGHT REPORT:

R→ 8/6/25
M6177

		Lot #	Solvent:		
Part Number:	57042	MKBQ8597V	Ammonium hydroxide		
Lot Number:	080525	080525	ASTM Type 1 Water		
Description:	Molybdenum (Mo)	0.5%	10.0 (mL)	Ammonium hydroxide	
Expiration Date:	080528				
Recommended Storage:	Ambient (15 - 30 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	1999.41	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	080525
Reviewed By:	Pedro L. Rentas	080525

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	200.0	0.084	1000	10001.4	**1000.5**	**2.2**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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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	<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:

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 by an ISO17025 certified organization with weights traceable through NIST to the SI kilogram (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).
Rev 1.0, 2/25/2025

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CERTIFIED WEIGHT REPORT:

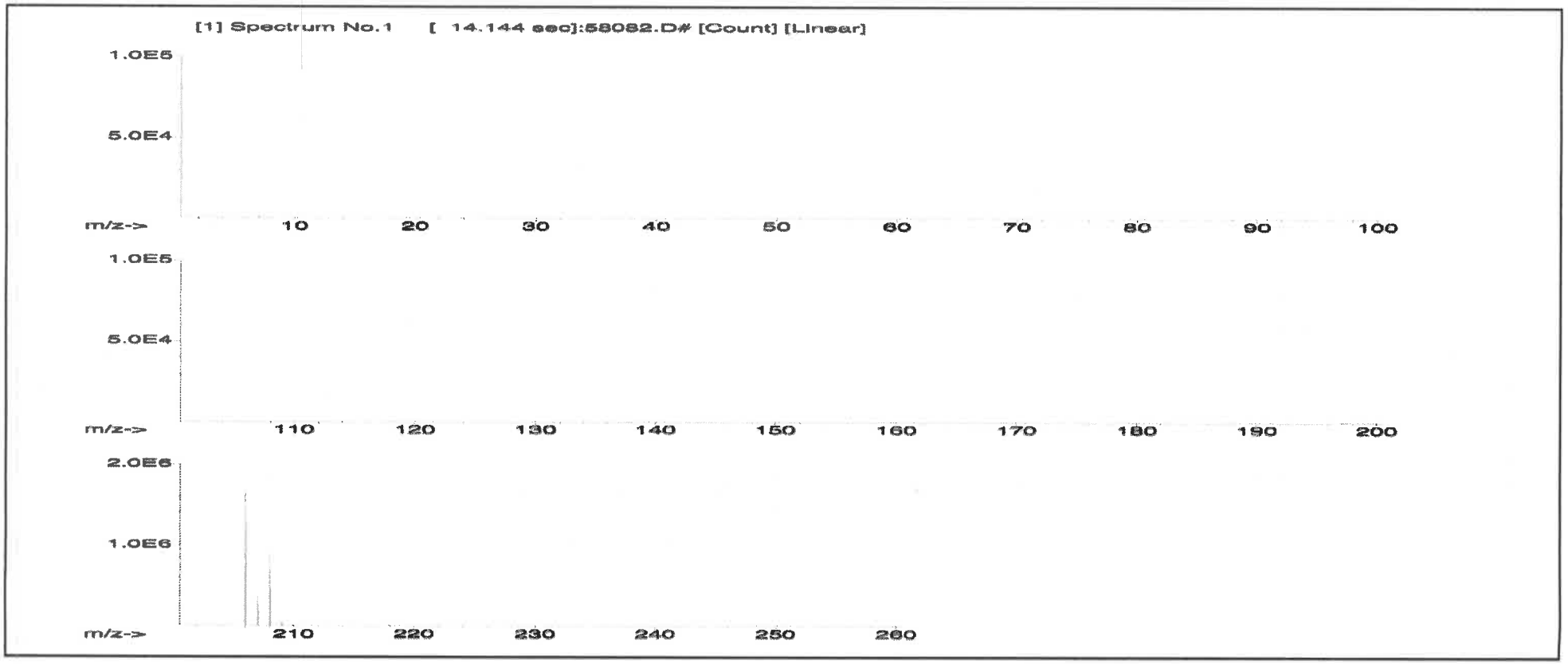
R>8/6/28
M6178

Part Number:	**57082**		**Lot #**		
Lot Number:	**031525**	**Solvent:**	24014457	Nitric Acid	
Description:	**Lead (Pb)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.10	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	031525
Reviewed By:	Pedro L. Rentas	031525

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	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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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	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	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6179
R -> 6/2/24

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:	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



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.

M6182

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,

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.

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.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M6184

(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,

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.

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
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	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 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	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 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	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 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	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
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	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 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	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 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.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 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	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 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.: 24D1562005

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

Jamie Croak
Director Quality Operations, Bioscience Production

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

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 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	V2-MEB743480
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

R - 7/20/23
M6201
M6202
M6203
M6204

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.5 µg/mL	Molybdenum, Mo	40.05 ± 0.22 µg/mL
Silica, SiO2	200.3 ± 1.4 µg/mL	Tin, Sn	70.1 ± 0.4 µg/mL
Titanium, Ti	20.03 ± 0.12 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
Sb	ICP Assay	3102a	140911
SiO2	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 07, 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

- May 07, 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:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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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-1
Lot Number:	W2-MEB752149
Matrix:	5% (v/v) HNO3

R -> 7/20/23

M6209
M6210
M6211
M6212

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	200.2 ± 0.7 µg/mL	Arsenic, As	80.1 ± 0.5 µg/mL
Barium, Ba	20.02 ± 0.12 µg/mL	Beryllium, Be	20.02 ± 0.11 µg/mL
Boron, B	30.02 ± 0.15 µg/mL	Cadmium, Cd	20.04 ± 0.09 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	200.2 ± 1.0 µg/mL
Chromium, Cr	40.02 ± 0.26 µg/mL	Cobalt, Co	20.03 ± 0.09 µg/mL
Copper, Cu	30.03 ± 0.13 µg/mL	Iron, Fe	300.3 ± 1.3 µg/mL
Lead, Pb	100.1 ± 0.5 µg/mL	Lithium, Li	20.03 ± 0.09 µg/mL
Magnesium, Mg	200.2 ± 0.9 µg/mL	Manganese, Mn	19.99 ± 0.09 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.05 ± 0.22 µg/mL
Phosphorus, P	600.5 ± 2.9 µg/mL	Potassium, K	1 001 ± 4 µg/mL
Selenium, Se	200.2 ± 1.1 µg/mL	Silver, Ag	7.52 ± 0.03 µg/mL
Sodium, Na	300.3 ± 1.3 µg/mL	Strontium, Sr	20.02 ± 0.10 µg/mL
Thallium, Tl	200.2 ± 1.0 µg/mL	Vanadium, V	30.02 ± 0.13 µg/mL
Zinc, Zn	20.05 ± 0.09 µg/mL		

Density: 1.037 g/mL (measured at 20 ± 5 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
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	160830
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
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	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, 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° - 25° C to minimize the effects of transpiration. Use at 20° ± 5° 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

April 08, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 08, 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:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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M6027

R1 8/05/24

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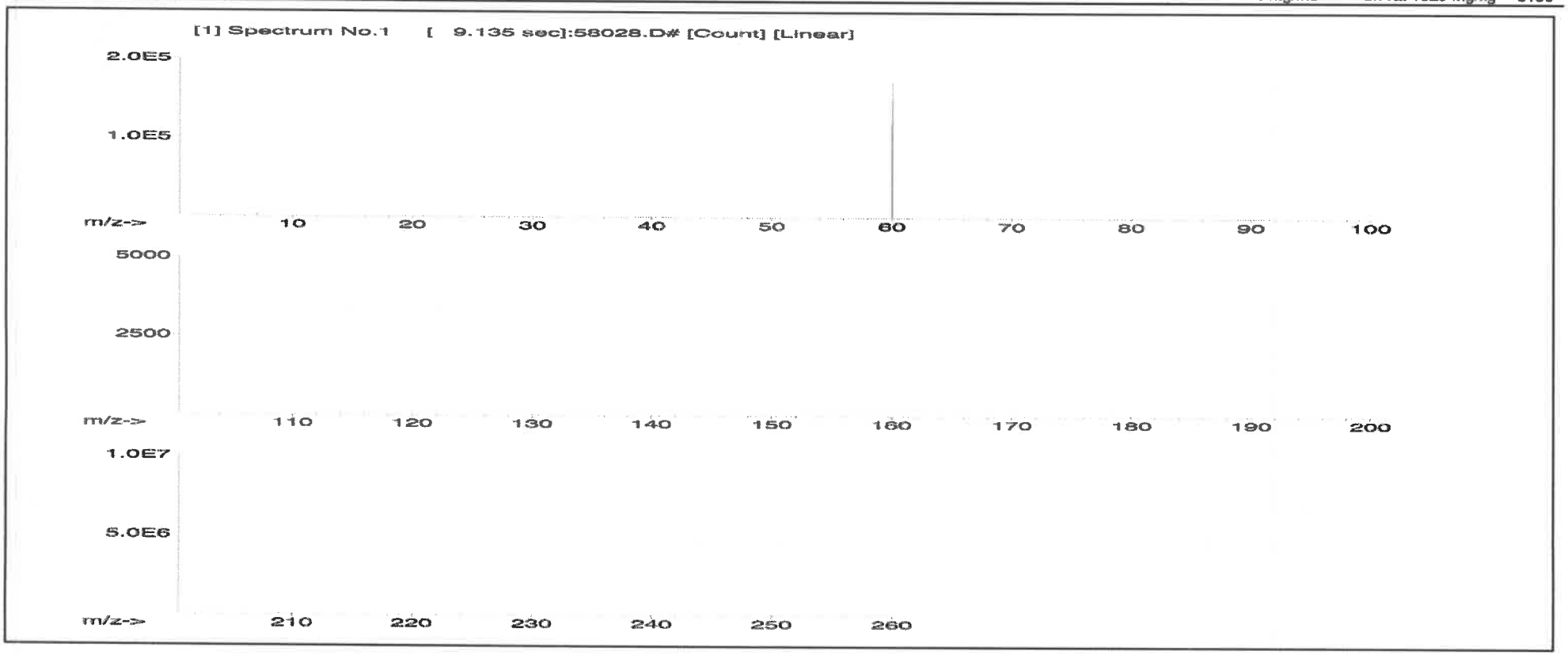
CERTIFIED WEIGHT REPORT:

Part Number:	**57028**
Lot Number:	**062024**
Description:	**Nickel (Ni)**
Expiration Date:	062027
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	**1000**
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	2000.07

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	
		5E-05	Balance Uncertainty
		0.100	Flask Uncertainty

Formulated **By:**	Benson Chan	062024
Reviewed By:	Pedro L. Rentas	062024

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 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	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

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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

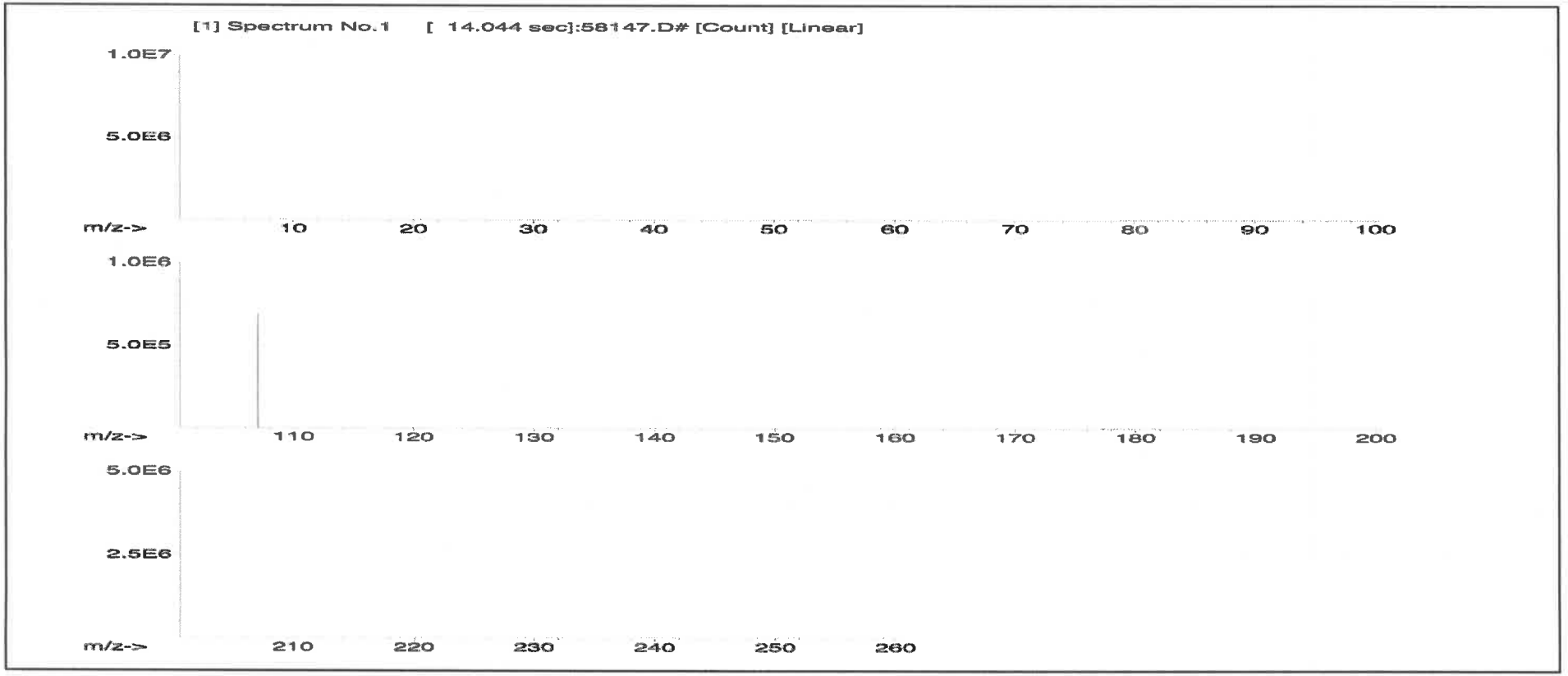
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	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



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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	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).

opened : 3/24/25

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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

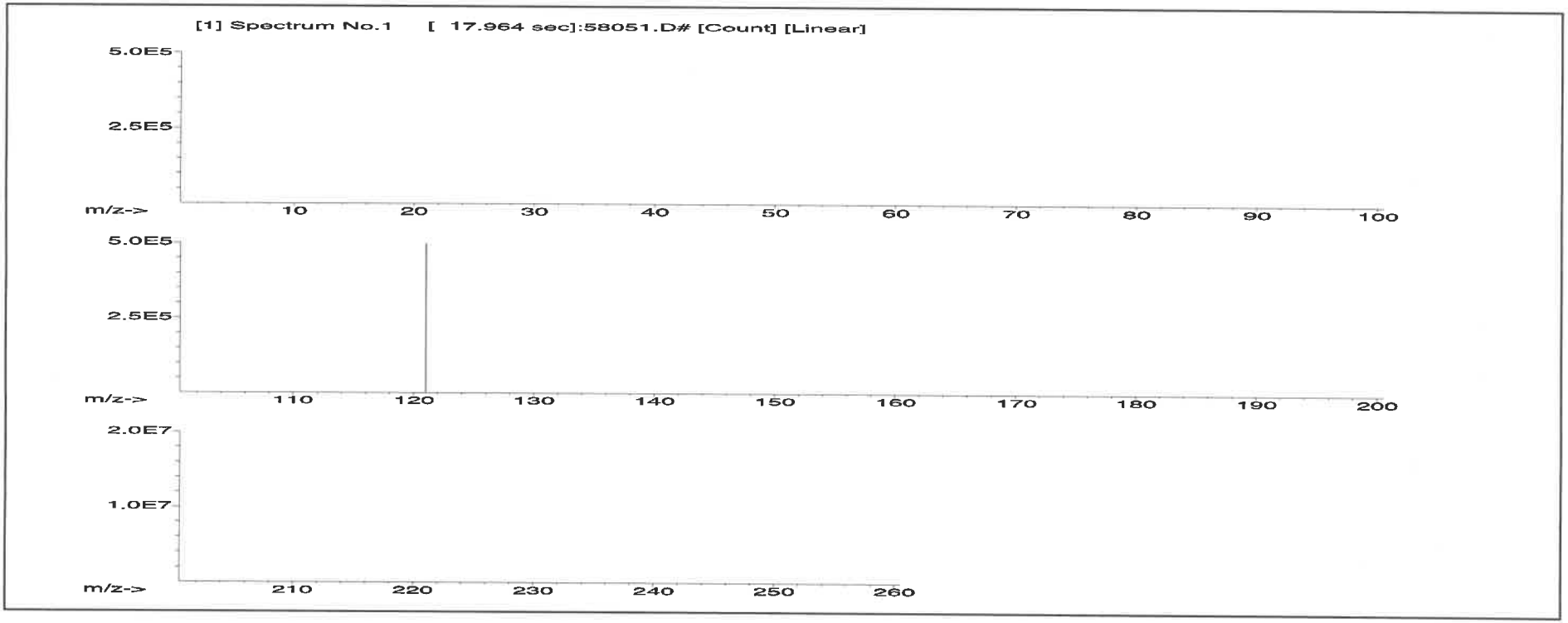
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 071724

Pedro Rentas
Reviewed By: Pedro L. Rentas 071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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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	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.
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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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M6023

R ! 8/5/24

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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		

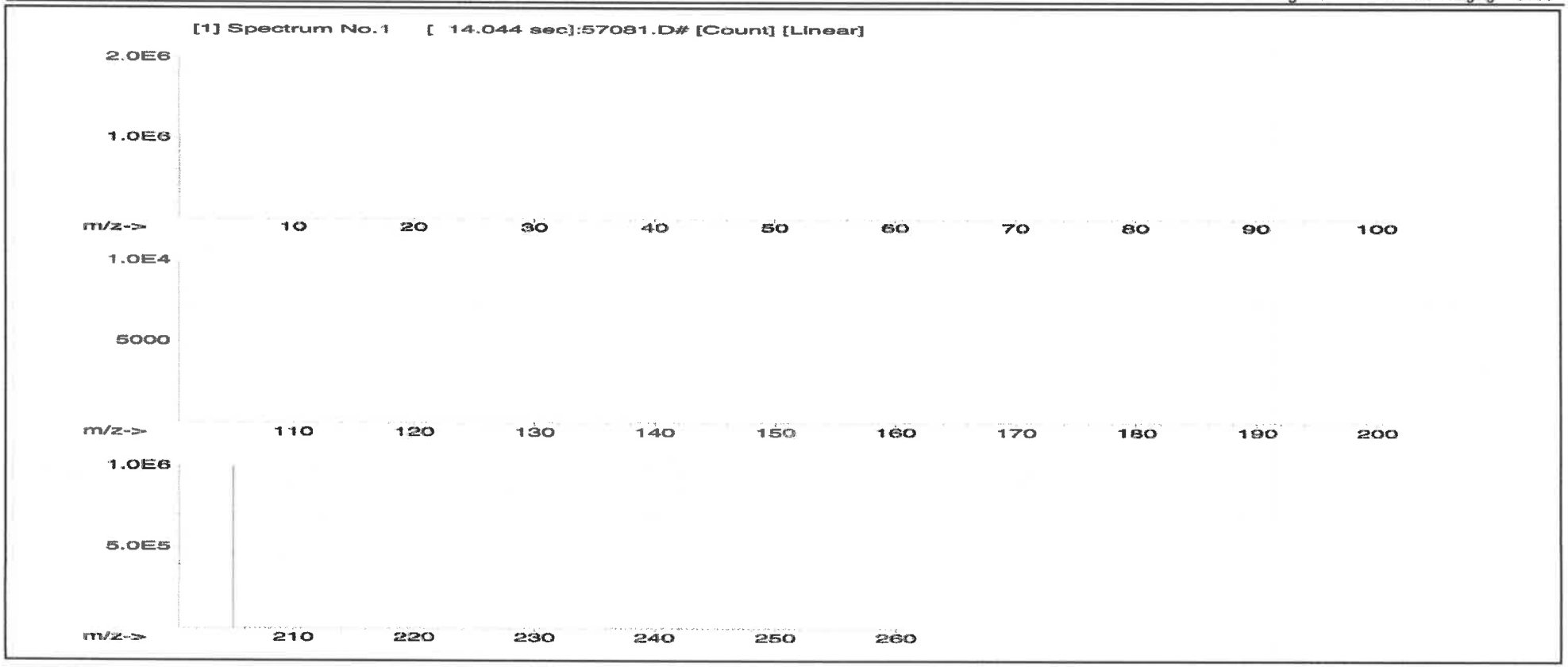
Aleah O'Brady

Formulated By:	Aleah O'Brady	062724

Pedro Rentas

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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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.
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Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
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	

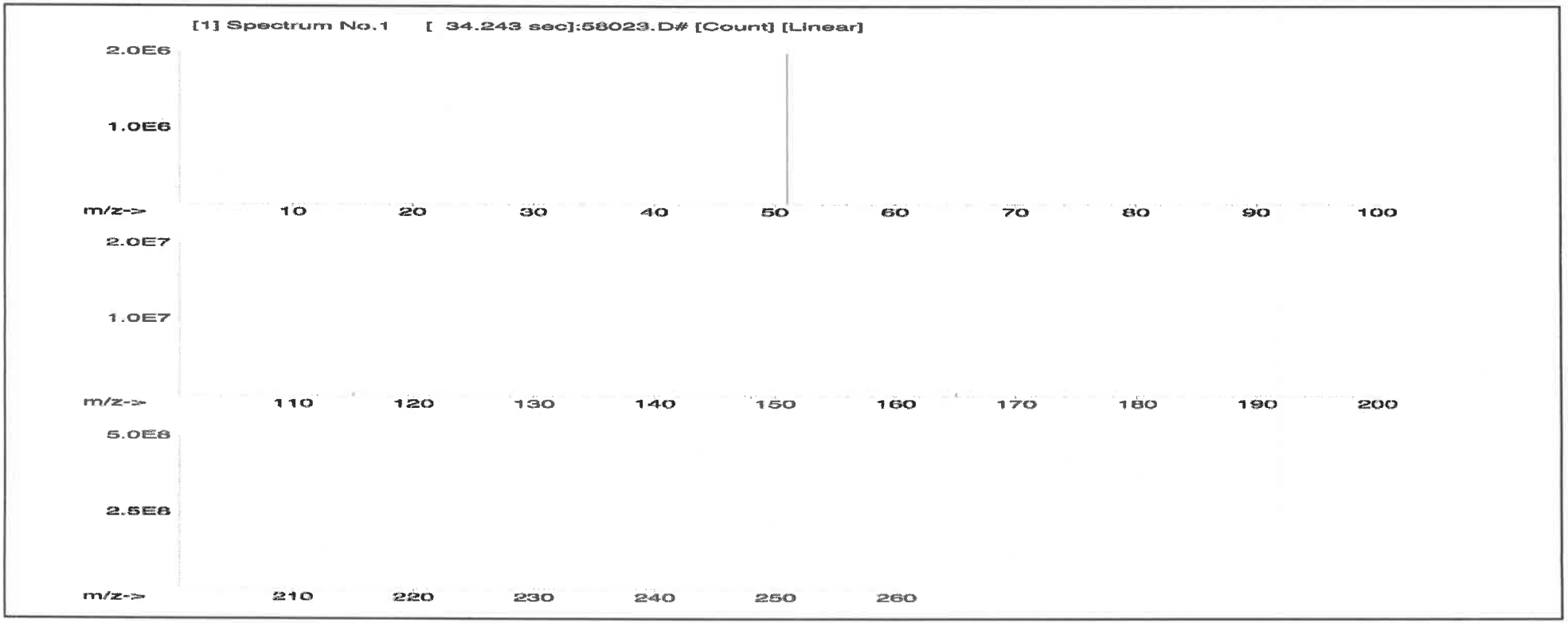
Aleah O'Brady

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



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	<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

Q3447

USEPA

DateShipped: 10/23/2025

CarrierName: Hand Deliver

AirbillNo: N/A

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-102325-0004-0037-1

RFP #905

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-TW1-251023-01	Waste		A	TAL VOCs		10/23/2025	10:00	4	5 gram Encore/4 oz glass	4 C	N
	P001-TW1-251023-01	Waste		B	TAL SVOCs		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		C	TAL PCBs		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		D	TAL Pesticides		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		E	TAL Metals + Hg + CN		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		F	TCLP VOC		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		G	TCLP SVOC, TCLP Pesticide		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		I	TCLP Metals + Hg		10/23/2025	10:00	1	8 oz glass	4 C	N
	P001-TW1-251023-01	Waste		J	TCLP Herbicide		10/23/2025	10:00	1	8 oz glass	4 C	N

Special Instructions: POSSIBLE HIGH CONCENTRATIONS. Please email results to s.sumbaly@westonsolutions.com and josh.frizzell@westonsolutions.com. Associate with RFP# 905. 10 Days TAT. Sample P001-TW4-251023-01 has limited volume and may require warming to remove from the sample jar. Samples too hard for Encore are in 4 oz. septum jars.

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	Olga Kuzmitskene	10/23/25 1330		10/23/25 1330	Ice-Cool # 1 2.1 °C

Q3447

USEPA

DateShipped: 10/23/2025

CarrierName: Hand Deliver

AirbillNo: N/A

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-102325-0004-0037-1

RFP #905

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-TW2-251023-01	Waste		A	TAL VOCs		10/23/2025	10:30	4	5 gram Encore/4 oz glass	4 C	N
	P001-TW2-251023-01	Waste		B	TAL SVOCs		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		C	TAL PCBs		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		D	TAL Pesticides		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		E	TAL Metals + Hg + CN		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		F	TCLP VOC		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		G	TCLP SVOC, TCLP Pesticide		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		I	TCLP Metals + Hg		10/23/2025	10:30	1	8 oz glass	4 C	N
	P001-TW2-251023-01	Waste		J	TCLP Herbicide		10/23/2025	10:30	1	8 oz glass	4 C	N

Special Instructions: POSSIBLE HIGH CONCENTRATIONS. Please email results to s.sumbaly@westonsolutions.com and josh.frizzell@westonsolutions.com. Associate with RFP# 905. 10 Days TAT. Sample P001-TW4-251023-01 has limited volume and may require warming to remove from the sample jar. Samples too hard for Encore are in 4 oz. septum jars.

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	Olga Kuzmitskaya	10/23/25 1330		10/23/25 13:30	If Cooler #1 2.1 °C

Q3447

USEPA
DateShipped: 10/23/2025
CarrierName: Hand Deliver
AirbillNo: N/A

CHAIN OF CUSTODY RECORD
Site #: 02FP
Contact Name Josh Frizzell
(470) 277-4600

No: 2-102325-0004-0037-1
RFP #905
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-TW3-251023-01	Waste		A	TAL VOCs		10/23/2025	11:00	1	4 oz glass w/septum	4 C	N
	P001-TW3-251023-01	Waste		B	TAL SVOCs		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		C	TAL PCBs		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		D	TAL Pesticides		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		E	TAL Metals + Hg + CN		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		F	TCLP VOC		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		G	TCLP SVOC, TCLP Pesticide		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		I	TCLP Metals + Hg		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW3-251023-01	Waste		J	TCLP Herbicide		10/23/2025	11:00	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		A	TAL VOCs		10/23/2025	11:30	1	4 oz glass w/septum	4 C	N

Special Instructions: POSSIBLE HIGH CONCENTRATIONS. Please email results to s.sumbaly@westonsolutions.com and josh.frizzell@westonsolutions.com. Associate with RFP# 905. 10 Days TAT. Sample P001-TW4-251023-01 has limited volume and may require warming to remove from the sample jar. Samples too hard for Encore are in 4 oz. septum jars.

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	Olga Kuzmitskaya	10/23/25 1330		10/23/25 1330	Ice Chest 1 2.1 °C

Q3447

USEPA

DateShipped: 10/23/2025

CarrierName: Hand Deliver

AirbillNo: N/A

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-102325-0004-0037-1

RFP #905

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-TW4-251023-01	Waste		B	TAL SVOCs		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		C	TAL PCBs		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		D	TAL Pesticides		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		E	TAL Metals + Hg + CN		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		F	TCLP VOC		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		G	TCLP SVOC, TCLP Pesticide		10/23/2025	11:30	1 2 JDF 10-23-25	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		I	TCLP Metals + Hg		10/23/2025	11:30	1	8 oz glass	4 C	N
	P001-TW4-251023-01	Waste		J	TCLP Herbicide		10/23/2025	11:30	1	8 oz glass	4 C	N
			JDF									
					10-23-2025							

Special Instructions: POSSIBLE HIGH CONCENTRATIONS. Please email results to s.sumbaly@westonsolutions.com and josh.frizzell@westonsolutions.com. Associate with RFP# 905. 10 Days TAT. Sample P001-TW4-251023-01 has limited volume and may require warming to remove from the sample jar. Samples too hard for Encore are in 4 oz. septum jars.

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	Olga Kuzmitskaya	10/23/25 1330		1330 10/23/25	Ice Chest # 12.1°

Precautionary Measures Against Hidden Hazards in Laboratory Samples

Notice to Laboratory Personnel

Background

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) of 1980, as amended, Section 311 of the Clean Water Act (CWA), as amended, by the Oil Pollution Act of 1990, Subtitle I of the Resource Conservation and Recovery Act (RCRA), an pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and Presidential Decision Document (PDD) #39, the Environmental Protection Agency (EPA) has been delegated the responsibility to undertake response actions with respect to, as a general matter, the release or threat of release of oil, petroleum products, hazardous substances, or pollutants and contaminants, that pose an actual or potential threat to human health or welfare, or to the environment. EPA is responsible for conducting evaluations and cleanups of uncontrolled hazardous substance disposal sites and placing those that are considered to pose a significant threat to the public health or the environment on the National Priorities List (NPL).

EPA's successful implementation of these emergency response action responsibilities requires that technical support capabilities be provided in the form of a contracted Superfund Technical Assessment & Response Team (START) for EPA. The WESTON START Contract 68HE0319D0004, provides this support to EPA Region II.

Hazardous Communication

The Samples which accompany this notice were shipped to your laboratory for analysis in accordance with applicable D.O.T. or IATA Regulations and were collected by the WESTON START and tentatively designated by the field response team, as either environmental or hazardous material samples.

In general, *Environmental Samples* are collected from streams, farm ponds, small lakes, wells, and off-site soil locations that are not reasonably expected to be contaminated with hazardous materials. Samples of on-site soils or water, and materials collected from drums, bulk storage tanks, obviously contaminated ponds, impoundments, lagoons, pools, and leachates from hazardous waste sites are considered *Hazardous Samples*. Samples which are obtained from a known radioactive material contamination site or which demonstrate beta or gamma activity greater than three times average background as scanned with a radiation survey meter are considered *Radioactive Samples.*

The samples which accompany this notice were tentatively classified by the field response team as:
_____Environmental __X__Hazardous _____Comb (Envir. & Haz) _____Radioactive

The field team which collected the samples used the following Level(s) of personal protection as designated by EPA and OSHA conventions to provide protection against possible radiological or chemical exposure:

____Level A ____Level B ____Level C __X__Level D

This information is intended for use as a guide for the safe handling of these laboratory samples in accordance with EPA and OSHA regulations. The Sample classification(s) and Levels of personal protection used by the WESTON START are not represented to be, nor are they adequate or applicable in all situations, nor are they intended to serve as substitutes for professional/personal judgement.

Laboratory Name: Alliance *RFP No.* 905

Prepared by: Josh Frizzell *Date* 10-23-2025

WESTON Office: Region II START, Edison, New Jersey; Phone: 732-585-4400

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3447 ROYF02
Client Name : Weston Solutions, Inc.
Client Contact : Smita Sumbaly
Invoice Name : Weston Solutions, Inc.
Invoice Contact : Smita Sumbaly

Order Date : 10/23/2025 1:50:00 PM
Project Name : RFP 905
Receive DateTime : 10/23/2025 1:30:00 PM
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
Q3447-01	P001-TW1-251023-01	Solid	10/23/2025	10:00	VOC-TCLVOA-10		8260D		10 Bus. Days
Q3447-03	P001-TW2-251023-01	Solid	10/23/2025	10:30 ~~10:00~~	VOC-TCLVOA-10		8260D		10 Bus. Days
Q3447-05	P001-TW3-251023-01	Solid	10/23/2025	11:00 ~~10:00~~	VOC-TCLVOA-10		8260D		10 Bus. Days
Q3447-07	P001-TW4-251023-01	Solid	10/23/2025	11:30 ~~10:00~~	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By :
Date / Time : 10/23/25 1437

Received By :
Date / Time : 10/23/25 1437
Storage Area : VOA Refridgerator Room