DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name : Alliance Technical Group LLC

Client : Europastry

Project Location : NJ

Project Number : MCUA Permit No 14241 - 571 Jersey Ave NB

Laboratory Sample ID(s) : Q2276

Sampling Date(s) : 6/10/2025

List DKQP Methods Used (e.g., 8260,8270, et Cetra) **1664A,6010D,9040C,Sampling,SM2540 D,SM5210 B,SM5220 D,SOP**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑ Yes ☐ No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐ Yes ☑ No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (4±2° C)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐ Yes ☑ No
5	a)Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt? b)Were these reporting limits met?	☑ Yes ☐ No ☑ Yes ☐ No ☐ N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑ Yes ☐ No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was “No” (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is “No”, the data package does not meet the requirements for “Data of Known Quality.”

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Cover Page

Order ID : Q2276

Project ID : MCUA Permit No 14241 - 571 Jersey Ave NB NJ

Client : Europastry

Lab Sample Number	Client Sample Number
Q2276-01	MH-6-10-2025
Q2276-02	Q2276-01MS
Q2276-03	Q2276-01MSD

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

Signature : _____

Date: 6/19/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Europastry
Project Name: MCUA Permit No 14241 - 571 Jersey Ave NB NJ
Project # N/A
Order ID # Q2276
Test Name: Metals Group3

A. Number of Samples and Date of Receipt:
3 Water samples were received on 06/10/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: BOD5, COD, Conductance, Metals Group3, Oil and Grease, pH, TPH and TSS. This data package contains results for Metals Group3.

C. Analytical Techniques:
The analysis of Metals Group3 was based on method 6010D and digestion based on method 3010 (waters).

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
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:
As per special requirement for this project form-1 and hit Summary are reported in mg/l. Sample Q2276-01 diluted and reported all elements from straight 5X dilution due to highly contaminated sample matrix and oily and viscous matrix and sample is taken for digestion 5ml to final volume as 25ml.

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_____

Alliance TECHNICAL GROUP

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Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

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

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q2276**

	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:** **06/19/2025**

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LAB CHRONICLE

OrderID:	Q2276	**OrderDate:**	6/10/2025 11:49:37 AM
Client:	Europastry	**Project:**	MCUA Permit No 14241 - 571 Jersey Ave NB NJ
Contact:	Kevin Carlucci	**Location:**	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2276-01	**MH-6-10-2025**	**Water**			**06/10/25**			**06/10/25**
			Metals Group3	6010D		06/11/25	06/11/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2276 **Order ID:** Q2276

Client: Europastry **Project ID:** MCUA Permit No 14241 - 571 Jersey Ave I

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : MH-6-10-2025								
Q2276-01	MH-6-10-2025	Water	Copper	0.56	D	0.12	0.50	mg/L
Q2276-01	MH-6-10-2025	Water	Zinc	0.73	JD	0.42	1.00	mg/L

SAMPLE DATA

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Report of Analysis

Client:	Europastry	Date Collected:	06/10/25
Project:	MCUA Permit No 14241 - 571 Jersey Ave NB NJ	Date Received:	06/10/25
Client Sample ID:	MH-6-10-2025	SDG No.:	Q2276
Lab Sample ID:	Q2276-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	0.13	UD	5	0.13	0.50	mg/L	06/11/25 11:15	06/11/25 19:59	6010D	SW3010
7440-50-8	Copper	0.56	D	5	0.12	0.50	mg/L	06/11/25 11:15	06/11/25 19:59	6010D	SW3010
7440-66-6	Zinc	0.73	JD	5	0.42	1.00	mg/L	06/11/25 11:15	06/11/25 19:59	6010D	SW3010

Color Before:	Colorless	Clarity Before:	Cloudy	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	Metals Group3				

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	3730	4000	93	90 - 110	P	06/11/2025	13:53	LB136119
	Copper	972	1000	97	90 - 110	P	06/11/2025	13:53	LB136119
	Zinc	1910	2000	96	90 - 110	P	06/11/2025	13:53	LB136119

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	20.1	20.0	100	80 - 120	P	06/11/2025	13:57	LB136119
	Copper	21.7	20.0	109	80 - 120	P	06/11/2025	13:57	LB136119
	Zinc	41.1	40.0	103	80 - 120	P	06/11/2025	13:57	LB136119

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	4970	5000	99	90 - 110	P	06/11/2025	14:42	LB136119
	Copper	1240	1250	99	90 - 110	P	06/11/2025	14:42	LB136119
	Zinc	2490	2500	100	90 - 110	P	06/11/2025	14:42	LB136119
CCV02	Arsenic	4770	5000	95	90 - 110	P	06/11/2025	16:33	LB136119
	Copper	1210	1250	97	90 - 110	P	06/11/2025	16:33	LB136119
	Zinc	2430	2500	97	90 - 110	P	06/11/2025	16:33	LB136119
CCV03	Arsenic	4820	5000	96	90 - 110	P	06/11/2025	17:27	LB136119
	Copper	1220	1250	98	90 - 110	P	06/11/2025	17:27	LB136119
	Zinc	2400	2500	96	90 - 110	P	06/11/2025	17:27	LB136119
CCV04	Arsenic	4860	5000	97	90 - 110	P	06/11/2025	18:21	LB136119
	Copper	1230	1250	98	90 - 110	P	06/11/2025	18:21	LB136119
	Zinc	2480	2500	99	90 - 110	P	06/11/2025	18:21	LB136119
CCV05	Arsenic	4810	5000	96	90 - 110	P	06/11/2025	19:09	LB136119
	Copper	1220	1250	97	90 - 110	P	06/11/2025	19:09	LB136119
	Zinc	2460	2500	98	90 - 110	P	06/11/2025	19:09	LB136119
CCV06	Arsenic	4810	5000	96	90 - 110	P	06/11/2025	20:06	LB136119
	Copper	1190	1250	96	90 - 110	P	06/11/2025	20:06	LB136119
	Zinc	2430	2500	97	90 - 110	P	06/11/2025	20:06	LB136119

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	3860	4000	96	90 - 110	P	06/12/2025	17:58	LB136140
	Copper	1000	1000	100	90 - 110	P	06/12/2025	17:58	LB136140
	Zinc	2040	2000	102	90 - 110	P	06/12/2025	17:58	LB136140

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	22.0	20.0	110	80 - 120	P	06/12/2025	18:02	LB136140
	Copper	21.2	20.0	106	80 - 120	P	06/12/2025	18:02	LB136140
	Zinc	42.5	40.0	106	80 - 120	P	06/12/2025	18:02	LB136140

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	4970	5000	99	90 - 110	P	06/12/2025	18:50	LB136140
	Copper	1240	1250	99	90 - 110	P	06/12/2025	18:50	LB136140
	Zinc	2500	2500	100	90 - 110	P	06/12/2025	18:50	LB136140
CCV02	Arsenic	5010	5000	100	90 - 110	P	06/12/2025	19:42	LB136140
	Copper	1260	1250	101	90 - 110	P	06/12/2025	19:42	LB136140
	Zinc	2540	2500	101	90 - 110	P	06/12/2025	19:42	LB136140
CCV03	Arsenic	4770	5000	95	90 - 110	P	06/13/2025	01:46	LB136140
	Copper	1200	1250	96	90 - 110	P	06/13/2025	01:46	LB136140
	Zinc	2480	2500	99	90 - 110	P	06/13/2025	01:46	LB136140
CCV04	Arsenic	4750	5000	95	90 - 110	P	06/13/2025	01:59	LB136140
	Copper	1190	1250	95	90 - 110	P	06/13/2025	01:59	LB136140
	Zinc	2410	2500	97	90 - 110	P	06/13/2025	01:59	LB136140

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	18.7	20.0	94	65 - 135	P	06/11/2025	14:07	LB136119
	Copper	21.3	20.0	106	65 - 135	P	06/11/2025	14:07	LB136119
	Zinc	41.3	40.0	103	65 - 135	P	06/11/2025	14:07	LB136119
CRI01	Arsenic	20.7	20.0	104	65 - 135	P	06/12/2025	18:12	LB136140
	Copper	21.8	20.0	109	65 - 135	P	06/12/2025	18:12	LB136140
	Zinc	43.4	40.0	108	65 - 135	P	06/12/2025	18:12	LB136140

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	06/11/2025	14:03	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	14:03	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	14:03	LB136119

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	06/11/2025	14:46	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	14:46	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	14:46	LB136119
CCB02	Arsenic	5.12	+/-10	U	20.0	P	06/11/2025	16:44	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	16:44	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	16:44	LB136119
CCB03	Arsenic	5.12	+/-10	U	20.0	P	06/11/2025	17:34	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	17:34	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	17:34	LB136119
CCB04	Arsenic	5.12	+/-10	U	20.0	P	06/11/2025	18:25	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	18:25	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	18:25	LB136119
CCB05	Arsenic	5.12	+/-10	U	20.0	P	06/11/2025	19:14	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	19:14	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	19:14	LB136119
CCB06	Arsenic	5.12	+/-10	U	20.0	P	06/11/2025	20:11	LB136119
	Copper	4.60	+/-10	U	20.0	P	06/11/2025	20:11	LB136119
	Zinc	16.7	+/-20	U	40.0	P	06/11/2025	20:11	LB136119

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	06/12/2025	18:06	LB136140
	Copper	4.60	+/-10	U	20.0	P	06/12/2025	18:06	LB136140
	Zinc	16.7	+/-20	U	40.0	P	06/12/2025	18:06	LB136140

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	06/12/2025	18:55	LB136140
	Copper	4.60	+/-10	U	20.0	P	06/12/2025	18:55	LB136140
	Zinc	16.7	+/-20	U	40.0	P	06/12/2025	18:55	LB136140
CCB02	Arsenic	5.12	+/-10	U	20.0	P	06/12/2025	19:47	LB136140
	Copper	4.60	+/-10	U	20.0	P	06/12/2025	19:47	LB136140
	Zinc	16.7	+/-20	U	40.0	P	06/12/2025	19:47	LB136140
CCB03	Arsenic	5.12	+/-10	U	20.0	P	06/13/2025	01:50	LB136140
	Copper	4.60	+/-10	U	20.0	P	06/13/2025	01:50	LB136140
	Zinc	16.7	+/-20	U	40.0	P	06/13/2025	01:50	LB136140
CCB04	Arsenic	5.12	+/-10	U	20.0	P	06/13/2025	02:03	LB136140
	Copper	4.60	+/-10	U	20.0	P	06/13/2025	02:03	LB136140
	Zinc	16.7	+/-20	U	40.0	P	06/13/2025	02:03	LB136140

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Europastry **SDG No.:** Q2276

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168414BL		**WATER**		**Batch Number:**	**PB168414**		**Prep Date:**	**06/11/2025**	
	Arsenic	2.56	<5	U	10.0	P	06/12/2025	19:09	LB136140
	Copper	2.30	<5	U	10.0	P	06/12/2025	19:09	LB136140
	Zinc	8.33	<10	U	20.0	P	06/12/2025	19:09	LB136140

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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	5.34			-20	20	06/11/2025	14:14	LB136119
	Copper	-6.25	2.0	312	-18	22	06/11/2025	14:14	LB136119
	Zinc	5.34			-40	40	06/11/2025	14:14	LB136119
ICSAB01	Arsenic	96.7	104	93	88.4	120	06/11/2025	14:27	LB136119
	Copper	444	511	87	434	588	06/11/2025	14:27	LB136119
	Zinc	992	952	104	809	1095	06/11/2025	14:27	LB136119
ICSA01	Arsenic	3.55			-20	20	06/12/2025	18:23	LB136140
	Copper	-10.4	2.0	521	-18	22	06/12/2025	18:23	LB136140
	Zinc	6.10			-40	40	06/12/2025	18:23	LB136140
ICSAB01	Arsenic	105	104	101	88.4	120	06/12/2025	18:34	LB136140
	Copper	446	511	87	434	588	06/12/2025	18:34	LB136140
	Zinc	1030	952	108	809	1095	06/12/2025	18:34	LB136140

METAL
QC
DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Europastry **level:** low **sdg no.:** Q2276

contract: EURO03 **lab code:** CHEM **case no.:** Q2276 **sas no.:** Q2276

matrix: Water **sample id:** Q2279-01 **client id:** 301-469-5TH-AVEMS

Percent Solids for Sample: NA **Spiked ID:** Q2279-01MS **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	381		6.72	J	400	93		P
Copper	ug/L	75 - 125	254		117		150	91		P
Zinc	ug/L	75 - 125	270		166		100	104		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Europastry **level:** low **sdg no.:** Q2276

contract: EURO03 **lab code:** CHEM **case no.:** Q2276 **sas no.:** Q2276

matrix: Water **sample id:** Q2279-01 **client id:** 301-469-5TH-AVEMSD

Percent Solids for Sample: NA **Spiked ID:** Q2279-01MSD **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	374		6.72	J	400	92		P
Copper	ug/L	75 - 125	251		117		150	89		P
Zinc	ug/L	75 - 125	259		166		100	93		P

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Metals
- 5b -

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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: Europastry **Level:** LOW **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

Matrix: Water **Sample ID:** Q2279-01 **Client ID:** 301-469-5TH-AVEDUP

Percent Solids for Sample: NA **Duplicate ID** Q2279-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	6.72	J	8.39	J	22		P
Copper	ug/L	20	117		115		2		P
Zinc	ug/L	20	166		167		1		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: Europastry **Level:** LOW **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

Matrix: Water **Sample ID:** Q2279-01MS **Client ID:** 301-469-5TH-AVEMSD

Percent Solids for Sample: NA **Duplicate ID** Q2279-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	381		374		2		P
Copper	ug/L	20	254		251		1		P
Zinc	ug/L	20	270		259		4		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168414BS							
Arsenic	ug/L	400	393		98	80 - 120	P
Copper	ug/L	150	157		105	80 - 120	P
Zinc	ug/L	100	103		103	80 - 120	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

301-469-5TH-AVEL

Lab Name: Chemtech Consulting Group **Contract:** EURO03

Lab Code: CHEM **Lb No.:** lb136119 **Lab Sample ID :** Q2279-01L **SDG No.:** Q2276

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	6.72	J	50.0	U	100.0		P
Copper	117		125		6		P
Zinc	166		161		3		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Case No.:** Q2276 **SAS No.:** Q2276

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
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Europastry **SDG No.:** Q2276

Contract: EURO03 **Lab Code:** CHEM **Method:**

Case No.: Q2276 **SAS No.:** Q2276

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168414**						
PB168414BL	PB168414BL	MB	WATER	06/11/2025	50.0	25.0	
PB168414BS	PB168414BS	LCS	WATER	06/11/2025	50.0	25.0	
Q2276-01	MH-6-10-2025	SAM	WATER	06/11/2025	5.0	25.0	
Q2279-01DUP	301-469-5TH-AVEDUP	DUP	WATER	06/11/2025	50.0	25.0	
Q2279-01MS	301-469-5TH-AVEMS	MS	WATER	06/11/2025	50.0	25.0	
Q2279-01MSD	301-469-5TH-AVEMSD	MSD	WATER	06/11/2025	50.0	25.0	

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metals
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ANALYSIS RUN LOG

Client: Europastry **Contract:** EURO03

Lab code: CHEM **Case no.:** Q2276 **Sas no.:** Q2276 **Sdg no.:** Q2276

Instrument id number: **Method:** **Run number:** LB136119

Start date: 06/11/2025 **End date:** 06/11/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1236	As,Cu,Zn
S1	S1	1	1241	As,Cu,Zn
S2	S2	1	1245	As,Cu,Zn
S3	S3	1	1249	As,Cu,Zn
S4	S4	1	1253	As,Cu,Zn
S5	S5	1	1258	As,Cu,Zn
ICV01	ICV01	1	1353	As,Cu,Zn
LLICV01	LLICV01	1	1357	As,Cu,Zn
ICB01	ICB01	1	1403	As,Cu,Zn
CRI01	CRI01	1	1407	As,Cu,Zn
ICSA01	ICSA01	1	1414	As,Cu,Zn
ICSAB01	ICSAB01	1	1427	As,Cu,Zn
CCV01	CCV01	1	1442	As,Cu,Zn
CCB01	CCB01	1	1446	As,Cu,Zn
Q2279-01DUP	301-469-5TH-AVEDUP	1	1607	As,Cu,Zn
Q2279-01L	301-469-5TH-AVEL	5	1611	As,Cu,Zn
CCV02	CCV02	1	1633	As,Cu,Zn
CCB02	CCB02	1	1644	As,Cu,Zn
Q2279-01MS	301-469-5TH-AVEMS	1	1649	As,Cu,Zn
Q2279-01MSD	301-469-5TH-AVEMSD	1	1653	As,Cu,Zn
CCV03	CCV03	1	1727	As,Cu,Zn
CCB03	CCB03	1	1734	As,Cu,Zn
CCV04	CCV04	1	1821	As,Cu,Zn
CCB04	CCB04	1	1825	As,Cu,Zn
CCV05	CCV05	1	1909	As,Cu,Zn
CCB05	CCB05	1	1914	As,Cu,Zn
Q2276-01	MH-6-10-2025	5	1959	As,Cu,Zn
CCV06	CCV06	1	2006	As,Cu,Zn
CCB06	CCB06	1	2011	As,Cu,Zn

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metals
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ANALYSIS RUN LOG

Client: Europastry **Contract:** EURO03

Lab code: CHEM **Case no.:** Q2276 **Sas no.:** Q2276 **Sdg no.:** Q2276

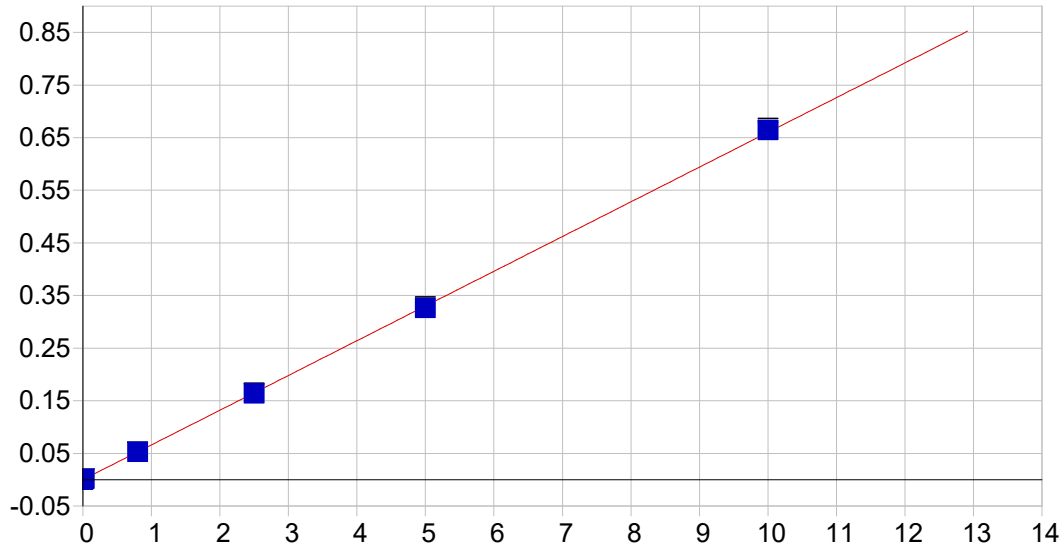
Instrument id number: **Method:** **Run number:** LB136140

Start date: 06/12/2025 **End date:** 06/13/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1712	As,Cu,Zn
S1	S1	1	1717	As,Cu,Zn
S2	S2	1	1721	As,Cu,Zn
S3	S3	1	1725	As,Cu,Zn
S4	S4	1	1729	As,Cu,Zn
S5	S5	1	1733	As,Cu,Zn
ICV01	ICV01	1	1758	As,Cu,Zn
LLICV01	LLICV01	1	1802	As,Cu,Zn
ICB01	ICB01	1	1806	As,Cu,Zn
CRI01	CRI01	1	1812	As,Cu,Zn
ICSA01	ICSA01	1	1823	As,Cu,Zn
ICSAB01	ICSAB01	1	1834	As,Cu,Zn
CCV01	CCV01	1	1850	As,Cu,Zn
CCB01	CCB01	1	1855	As,Cu,Zn
PB168414BL	PB168414BL	1	1909	As,Cu,Zn
PB168414BS	PB168414BS	1	1913	As,Cu,Zn
CCV02	CCV02	1	1942	As,Cu,Zn
CCB02	CCB02	1	1947	As,Cu,Zn
CCV03	CCV03	1	0146	As,Cu,Zn
CCB03	CCB03	1	0150	As,Cu,Zn
CCV04	CCV04	1	0159	As,Cu,Zn
CCB04	CCB04	1	0203	As,Cu,Zn

METAL
RAW DATA

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



As 189.042 {479}

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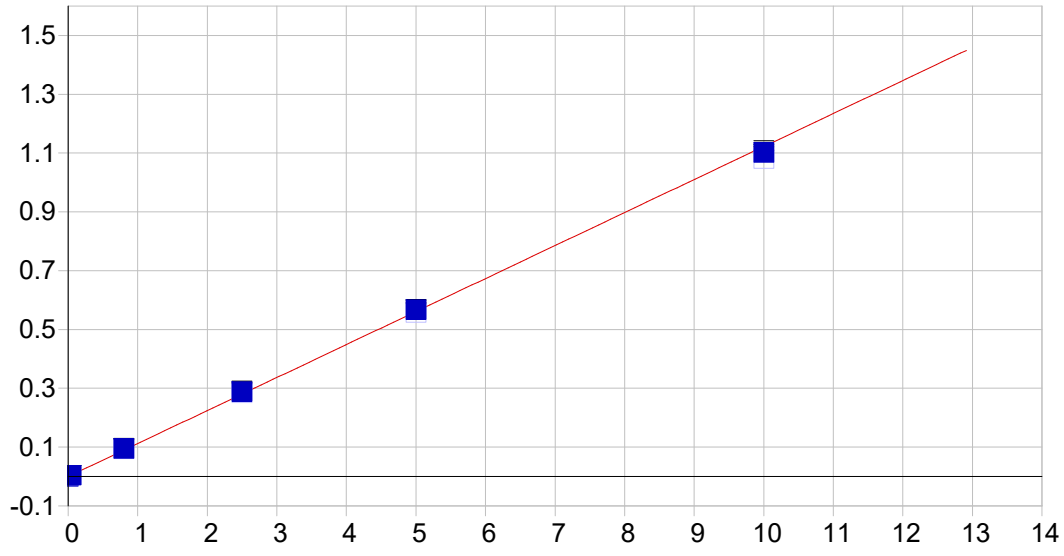
A1 (Gain):	0.066005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.002154		
Predicted MQL:	0.007181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00005	.000	1
S1	.02000	.02142	.001	7.09	.00146	.000	1
S3	2.5000	2.4823	-.018	-.709	.16372	.001	1
S4	5.0000	4.9456	-.054	-1.09	.32613	.002	1
S5	10.000	10.073	.073	.726	.66418	.004	1
S2	.80000	.79811	-.002	-.236	.05267	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



Tl 190.856 {477}

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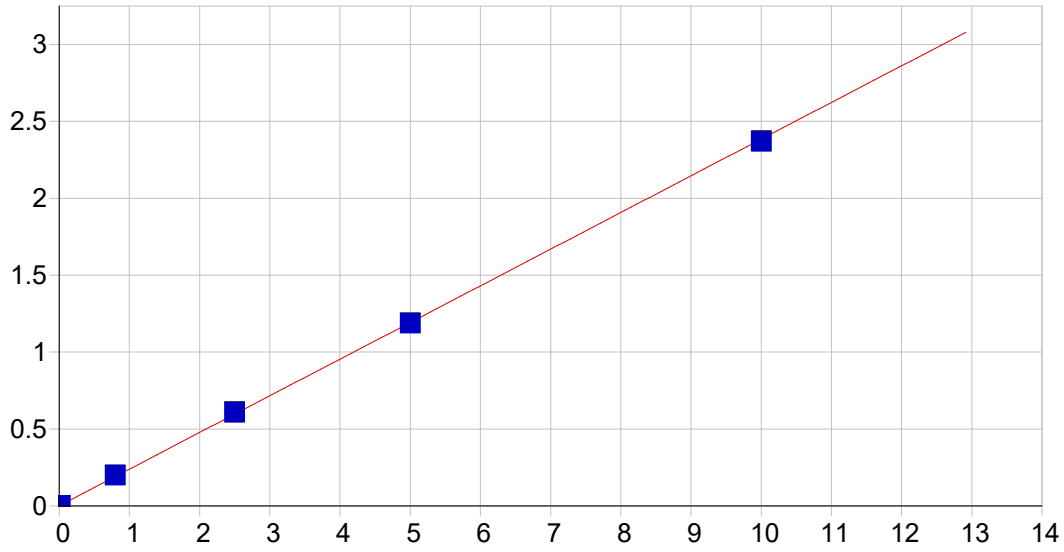
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999725	Status:	OK.
Std Error of Est:	0.000086		
Predicted MDL:	0.001626		
Predicted MQL:	0.005419		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00019	.000	1
S1	.04000	.04311	.003	7.77	.00436	.000	1
S3	2.5000	2.5760	.076	3.04	.28379	.001	1
S4	5.0000	5.0549	.055	1.10	.55687	.001	1
S5	10.000	9.8156	-.184	-1.84	1.0809	.007	1
S2	.80000	.85045	.050	6.31	.09362	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



Pb 220.353 {453}

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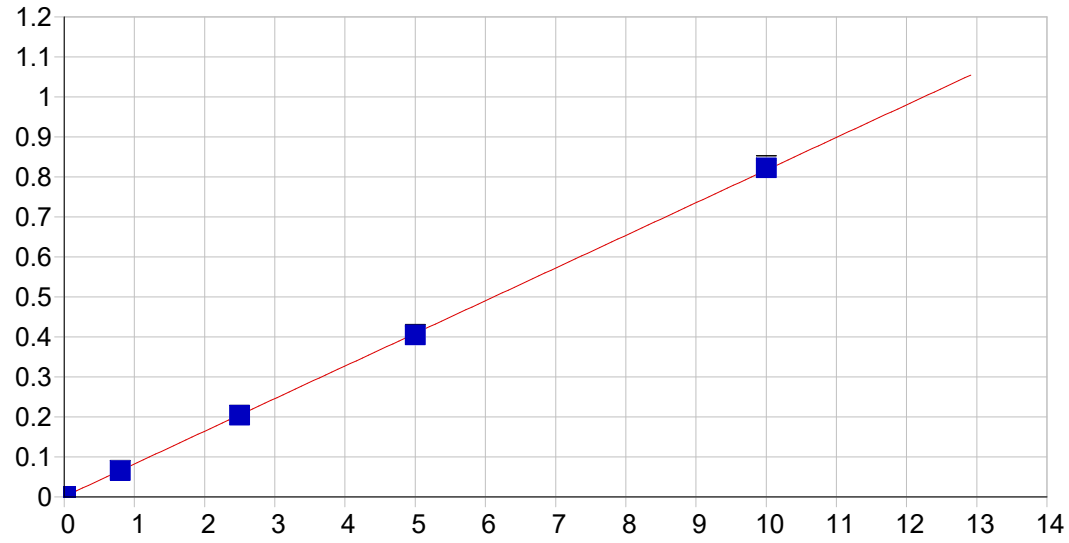
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000053		
Predicted MDL:	0.001351		
Predicted MQL:	0.004504		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00059	.000	1
S1	.01200	.01311	.001	9.29	.00366	.000	1
S3	2.5000	2.5486	.049	1.94	.60753	.003	1
S4	5.0000	4.9819	-.018	-.362	1.1870	.000	1
S5	10.000	9.9367	-.063	-.633	2.3669	.004	1
S2	.80000	.83175	.032	3.97	.19867	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



Se 196.090 {472}

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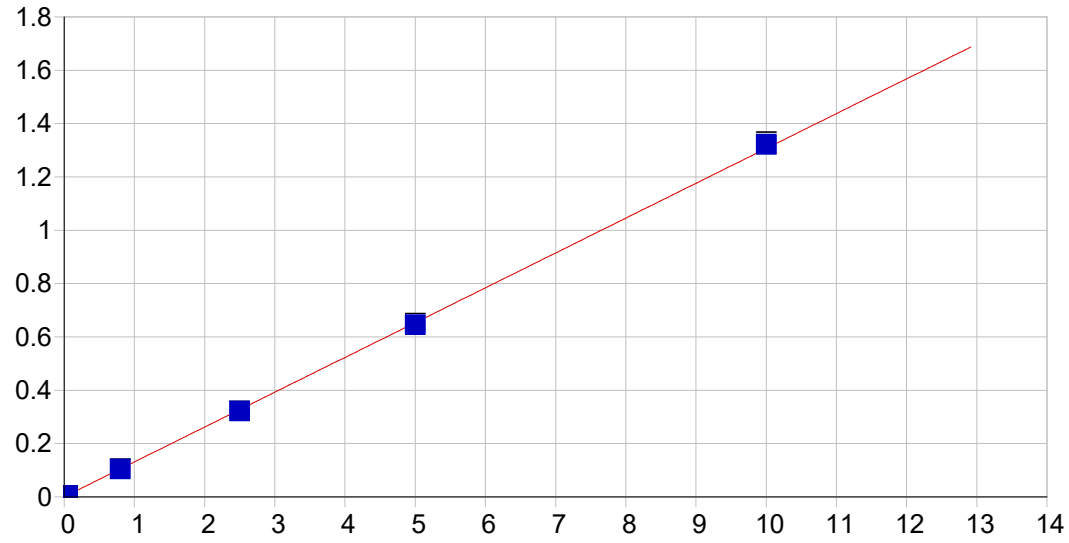
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.003303		
Predicted MQL:	0.011009		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00080	.000	1
S1	.02000	.01989	-.000	-.573	.00242	.000	1
S3	2.5000	2.4868	-.013	-.527	.20365	.000	1
S4	5.0000	4.9456	-.054	-1.09	.40421	.002	1
S5	10.000	10.071	.071	.709	.82228	.006	1
S2	.80000	.79675	-.003	-.406	.06579	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



Sb 206.833 {463}

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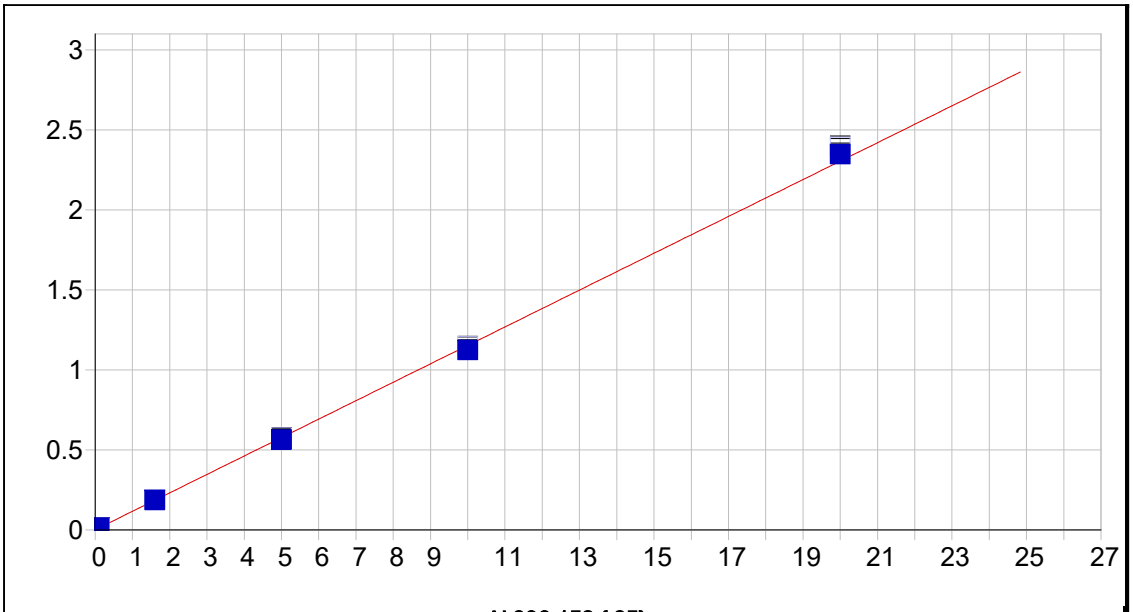
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000061		
Predicted MDL:	0.001873		
Predicted MQL:	0.006244		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00064	.000	1
S1	.05000	.05004	.000	.079	.00719	.000	1
S3	2.5000	2.4570	-.043	-1.72	.32240	.000	1
S4	5.0000	4.9356	-.064	-1.29	.64697	.005	1
S5	10.000	10.113	.113	1.13	1.3249	.007	1
S2	.80000	.79417	-.006	-.728	.10463	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



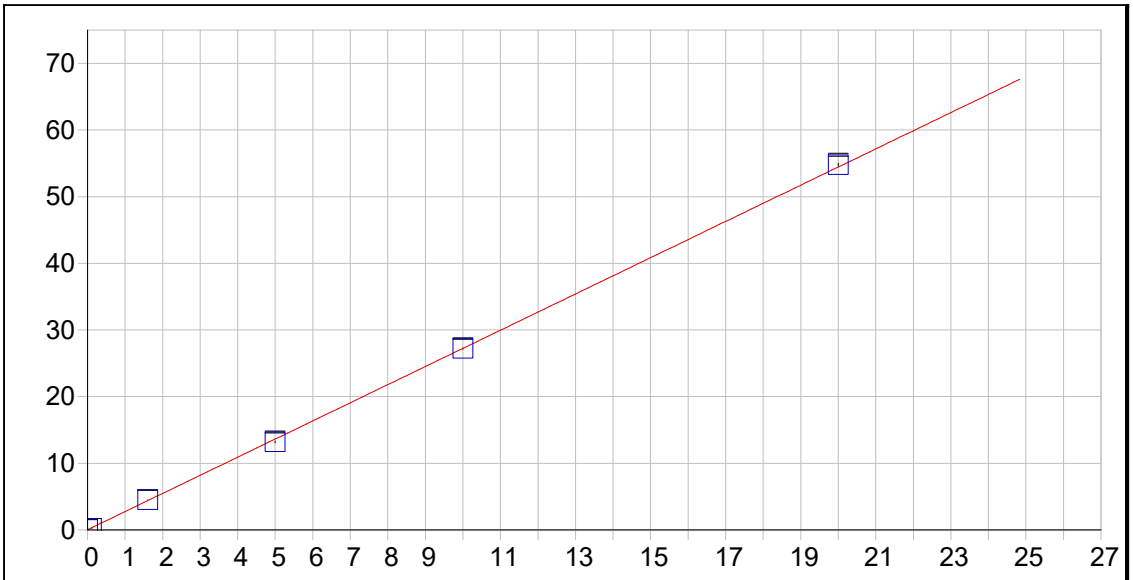
Al 396.152 { 85}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001407	Re-Slope:	1.000000
A1 (Gain):	0.115175	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999789	Status:	OK.
Std Error of Est:	0.000179		
Predicted MDL:	0.004877		
Predicted MQL:	0.016257		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00141	.000	1
S1	.10000	.10368	.004	3.68	.01424	.000	1
S3	5.0000	4.8852	-.115	-2.30	.57524	.003	1
S4	10.000	9.7436	-.256	-2.56	1.1460	.002	1
S5	20.000	20.368	.368	1.84	2.3920	.008	1
S2	1.6000	1.5992	-.001	-.049	.18917	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



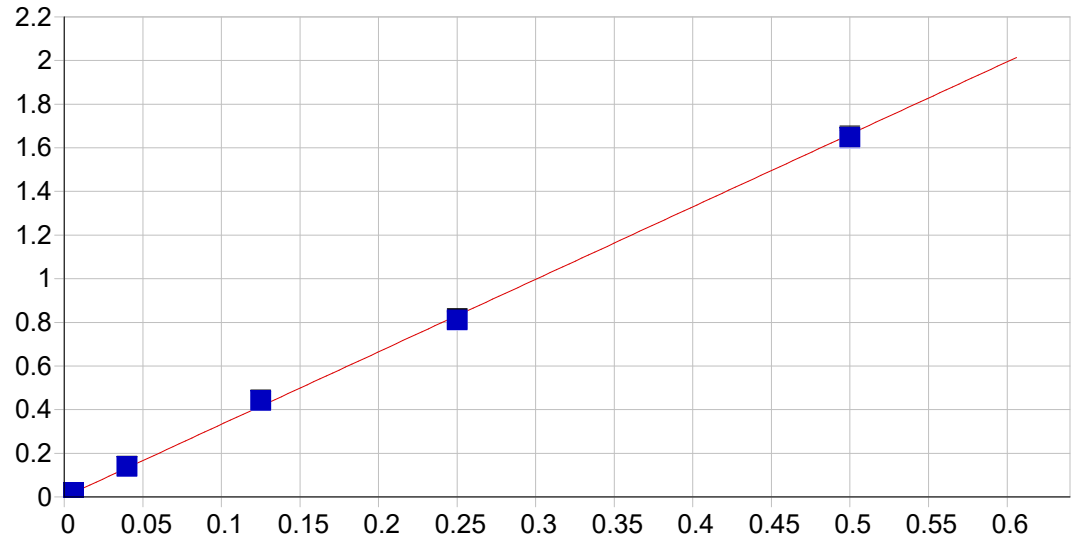
Ba 493.409 { 68}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.029726	Re-Slope:	1.000000
A1 (Gain):	2.721100	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999903	Status:	OK.
Std Error of Est:	0.002804		
Predicted MDL:	0.000640		
Predicted MQL:	0.002135		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.02972	.004	1
S1	.10000	.10171	.002	1.71	.30650	.002	1
S3	5.0000	4.8402	-.160	-3.20	13.200	.146	1
S4	10.000	9.9884	-.012	-.116	27.209	.102	1
S5	20.000	20.127	.127	.637	54.798	.219	1
S2	1.6000	1.6424	.042	2.65	4.4988	.039	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



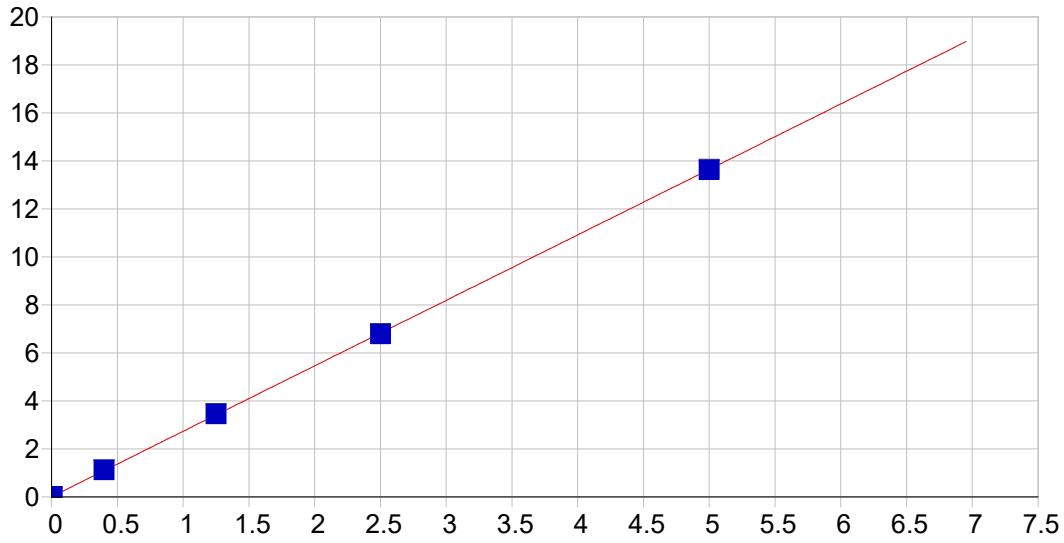
Be 234.861 {144}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000240	Re-Slope:	1.000000
A1 (Gain):	3.323544	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999595	Status:	OK.
Std Error of Est:	0.000271		
Predicted MDL:	0.000071		
Predicted MQL:	0.000238		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00024	.000	1
S1	.00600	.00623	.000	3.83	.02079	.000	1
S3	.12500	.13276	.008	6.21	.43961	.003	1
S4	.25000	.24408	-.006	-2.37	.80772	.006	1
S5	.50000	.49616	-.004	-.769	1.6418	.006	1
S2	.04000	.04178	.002	4.44	.13849	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



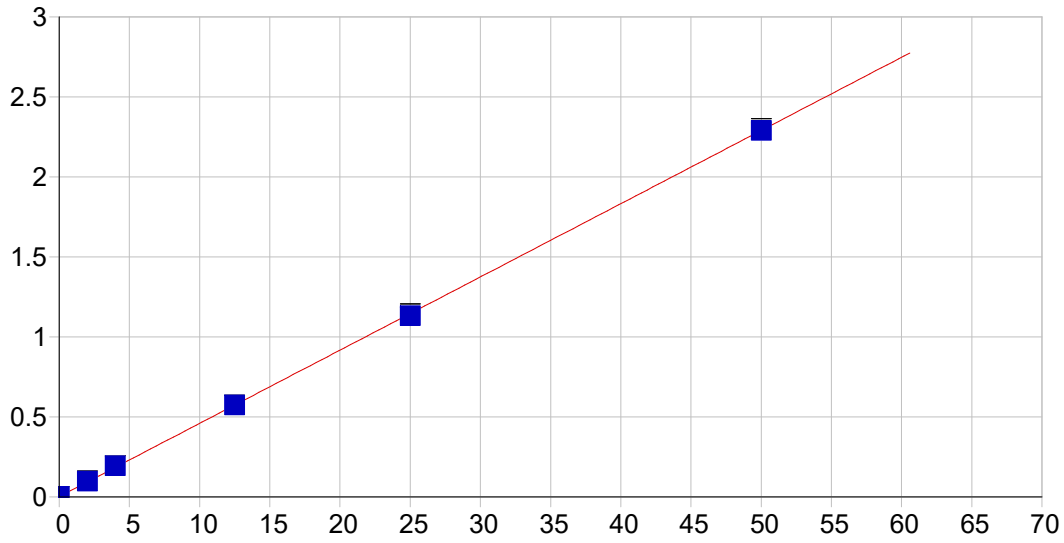
Cd 226.502 {449}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004682	Re-Slope:	1.000000
A1 (Gain):	2.728147	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000189		
Predicted MDL:	0.000097		
Predicted MQL:	0.000324		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00468	.000	1
S1	.00600	.00612	.000	1.94	.02144	.000	1
S3	1.2500	1.2627	.013	1.01	3.4521	.015	1
S4	2.5000	2.4853	-.015	-.588	6.7903	.005	1
S5	5.0000	4.9909	-.009	-.182	13.631	.021	1
S2	.40000	.41097	.011	2.74	1.1267	.002	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



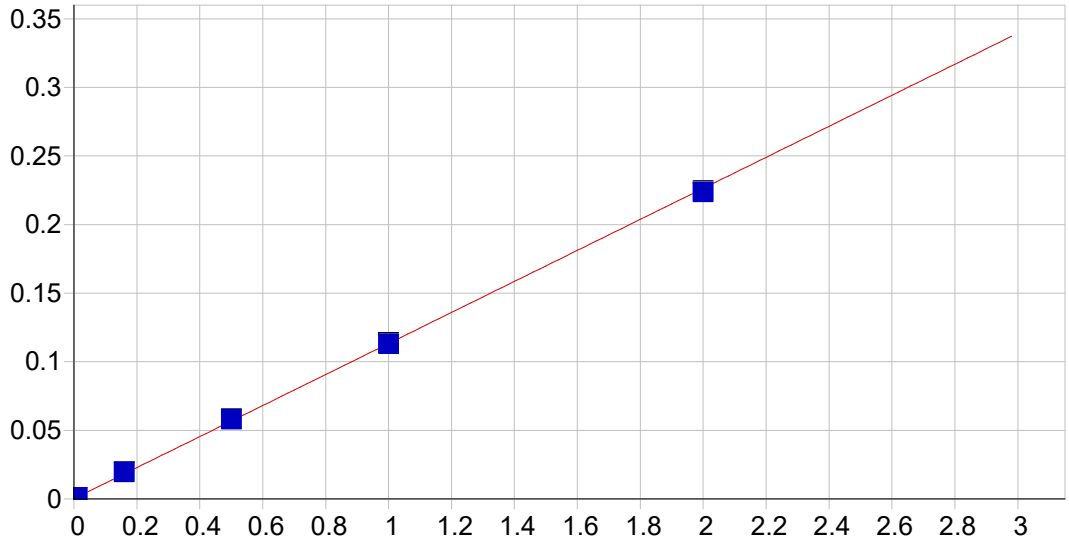
Ca 373.690 { 90}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002094	Re-Slope:	1.000000
A1 (Gain):	0.045760	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999890	Status:	OK.
Std Error of Est:	0.000358		
Predicted MDL:	0.008295		
Predicted MQL:	0.027650		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00019	-.000	.000	.00209	.001	1
S2	4.0000	4.2145	.214	5.36	.19495	.002	1
S3	12.500	12.492	-.008	-.061	.57374	.001	1
S4	25.000	24.710	-.290	-1.16	1.1328	.011	1
S5	50.000	49.978	-.022	-.044	2.2891	.013	1
S1	2.0000	2.1056	.106	5.28	.09844	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



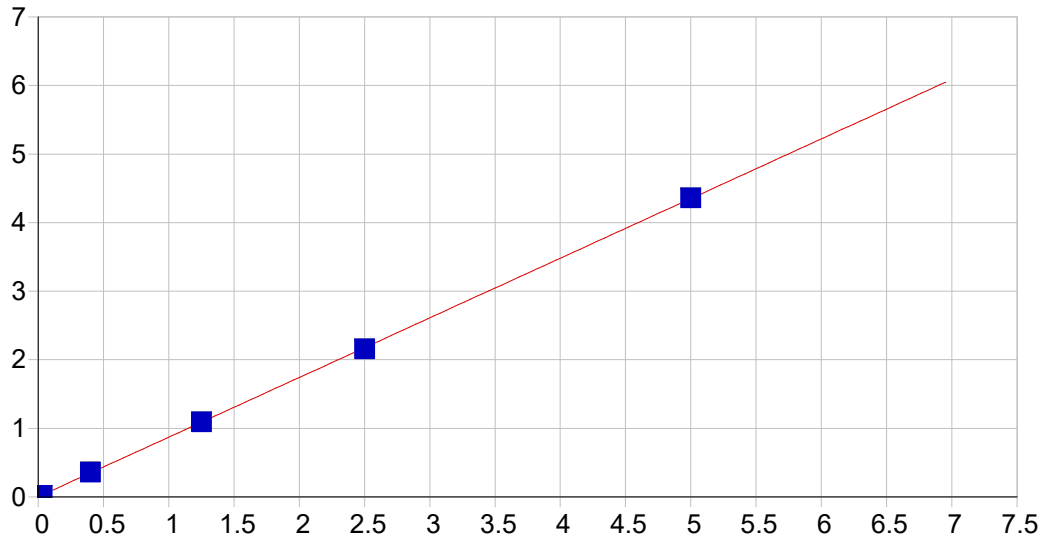
Cr 267.716 {126}

Date of Fit:	6/11/2025 13:02:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000195	Re-Slope:	1.000000
A1 (Gain):	0.113119	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999792	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.000486		
Predicted MQL:	0.001620		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00019	.000	1
S1	.01000	.01053	.001	5.26	.00139	.000	1
S3	.50000	.51151	.012	2.30	.05810	.000	1
S4	1.0000	.99954	-.000	-.046	.11335	.001	1
S5	2.0000	1.9761	-.024	-1.20	.22391	.001	1
S2	.16000	.17235	.012	7.72	.01971	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



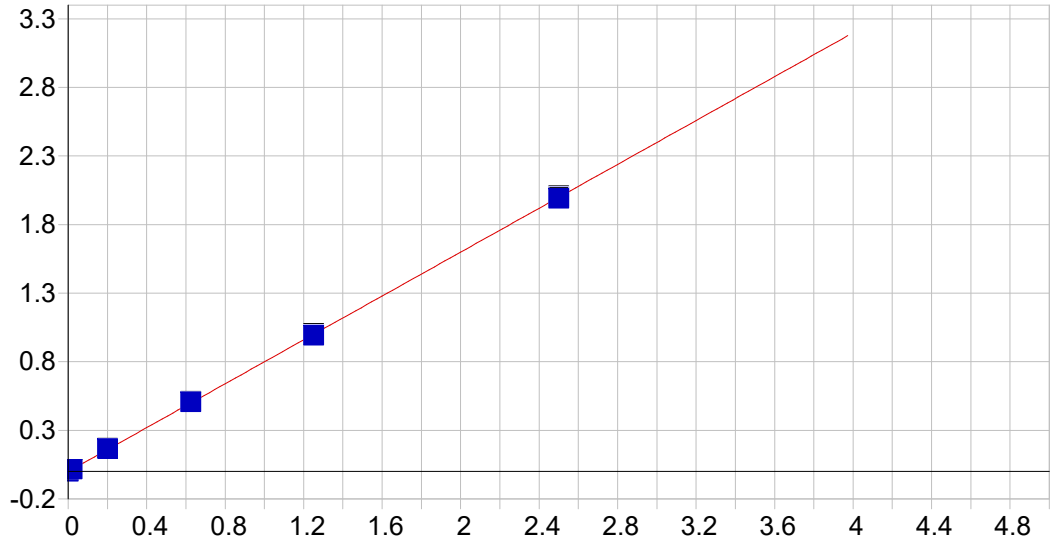
Co 228.616 {448}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001538	Re-Slope:	1.000000
A1 (Gain):	0.869848	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000130		
Predicted MDL:	0.000258		
Predicted MQL:	0.000860		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00154	.000	1
S1	.03000	.03066	.001	2.21	.02810	.000	1
S3	1.2500	1.2557	.006	.454	1.0956	.004	1
S4	2.5000	2.4762	-.024	-.953	2.1591	.003	1
S5	5.0000	5.0083	.008	.166	4.3654	.005	1
S2	.40000	.40922	.009	2.31	.35809	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



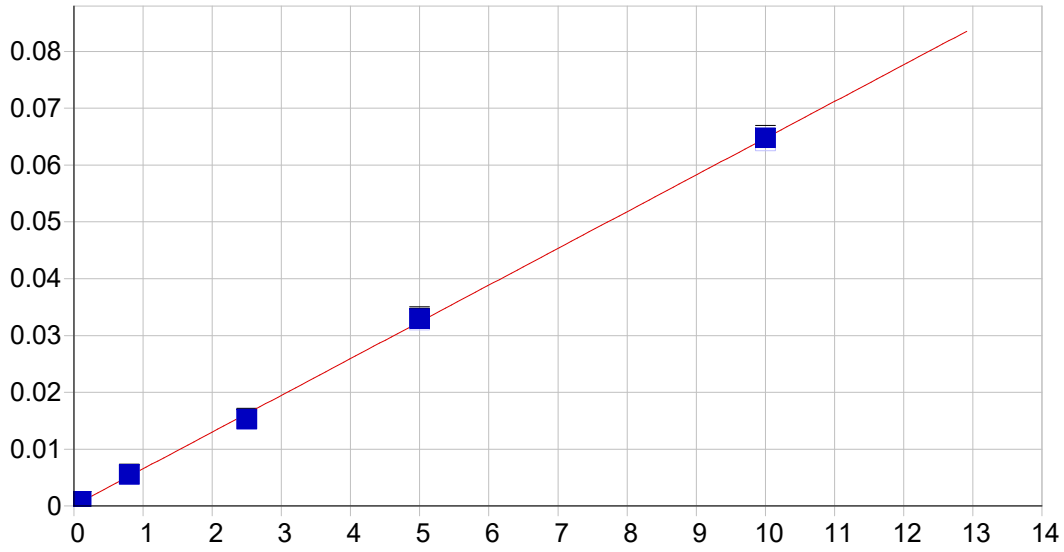
Cu 224.700 {450}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000131	Re-Slope:	1.000000
A1 (Gain):	0.799664	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999903	Status:	OK.
Std Error of Est:	0.000132		
Predicted MDL:	0.000373		
Predicted MQL:	0.001243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00013	.000	1
S1	.02000	.02224	.002	11.2	.01781	.000	1
S3	.62500	.63288	.008	1.26	.50960	.002	1
S4	1.2500	1.2417	-.008	-.665	1.0001	.005	1
S5	2.5000	2.4887	-.011	-.451	2.0046	.006	1
S2	.20000	.20948	.009	4.74	.16855	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



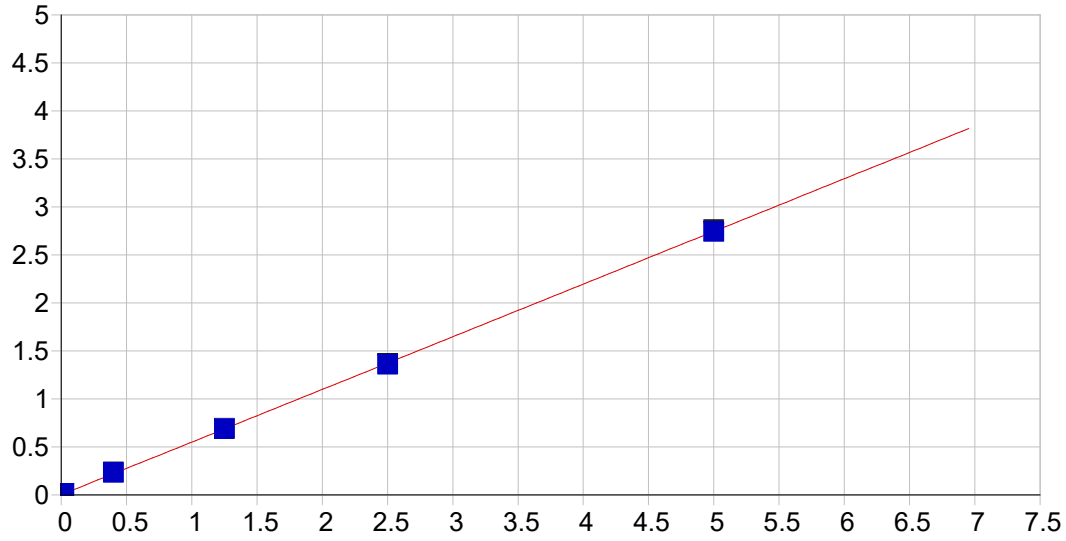
Fe 240.488 {140}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000068	Re-Slope:	1.000000
A1 (Gain):	0.006466	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999612	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.003607		
Predicted MQL:	0.012024		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00007	.000	1
S1	.10000	.11177	.012	11.8	.00078	.000	1
S3	2.5000	2.3526	-.147	-5.89	.01514	.000	1
S4	5.0000	5.0844	.084	1.69	.03267	.000	1
S5	10.000	10.006	.006	.060	.06422	.000	1
S2	.80000	.84521	.045	5.65	.00549	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



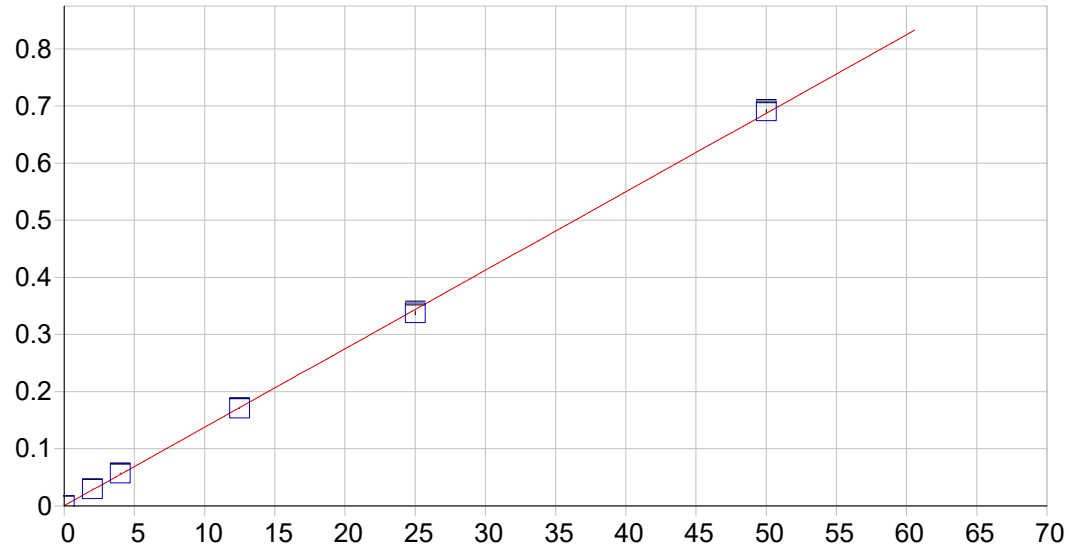
Mn 257.610 {131}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001446	Re-Slope:	1.000000
A1 (Gain):	0.548651	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999892	Status:	OK.
Std Error of Est:	0.000134		
Predicted MDL:	0.000276		
Predicted MQL:	0.000921		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00145	.000	1
S1	.02000	.02106	.001	5.31	.01301	.000	1
S3	1.2500	1.2523	.002	.181	.68864	.004	1
S4	2.5000	2.4734	-.027	-1.06	1.3587	.009	1
S5	5.0000	4.9977	-.002	-.046	2.7440	.017	1
S2	.40000	.42560	.026	6.40	.23500	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



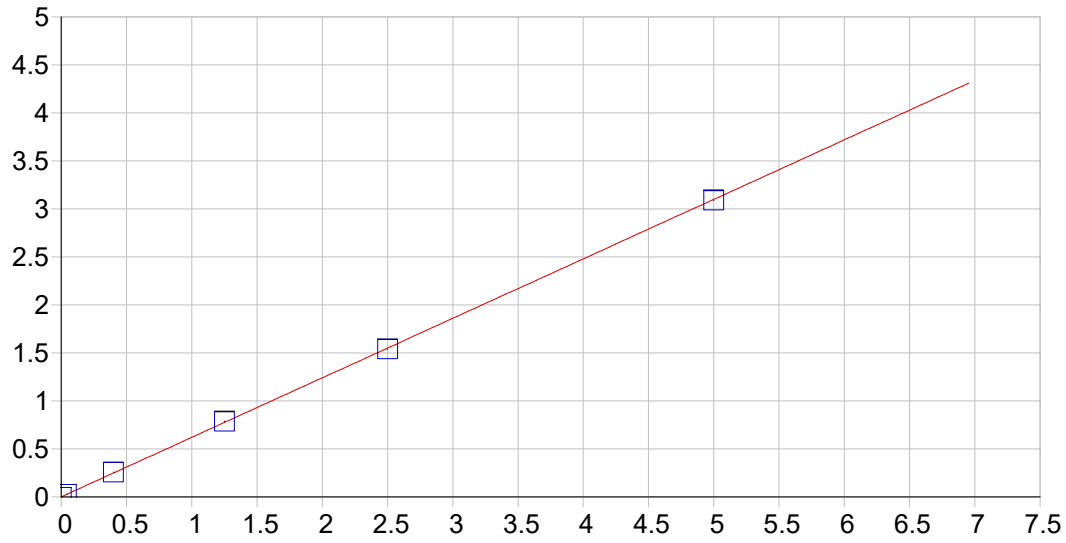
Mg 279.079 {121}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000359	Re-Slope:	1.000000
A1 (Gain):	0.013738	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999895	Status:	OK.
Std Error of Est:	0.000106		
Predicted MDL:	0.014511		
Predicted MQL:	0.048370		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00014	-.000	.000	.00036	.000	1
S2	4.0000	4.1152	.115	2.88	.05689	.001	1
S3	12.500	12.428	-.072	-.577	.17109	.001	1
S4	25.000	24.562	-.438	-1.75	.33778	.003	1
S5	50.000	50.279	.279	.558	.69108	.003	1
S1	2.0000	2.1160	.116	5.80	.02943	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



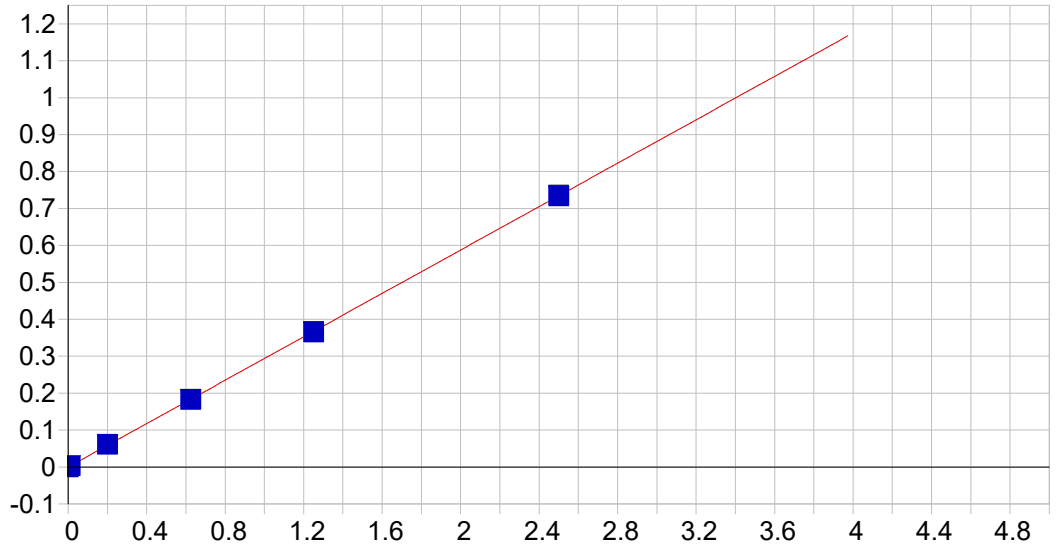
Ni 231.604 {446}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001071	Re-Slope:	1.000000
A1 (Gain):	0.619713	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000153		
Predicted MDL:	0.000404		
Predicted MQL:	0.001346		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00107	.000	1
S1	.04000	.04176	.002	4.40	.02695	.000	1
S3	1.2500	1.2669	.017	1.35	.78621	.002	1
S4	2.5000	2.4821	-.018	-.716	1.5393	.002	1
S5	5.0000	4.9846	-.015	-.308	3.0901	.004	1
S2	.40000	.41457	.015	3.64	.25798	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



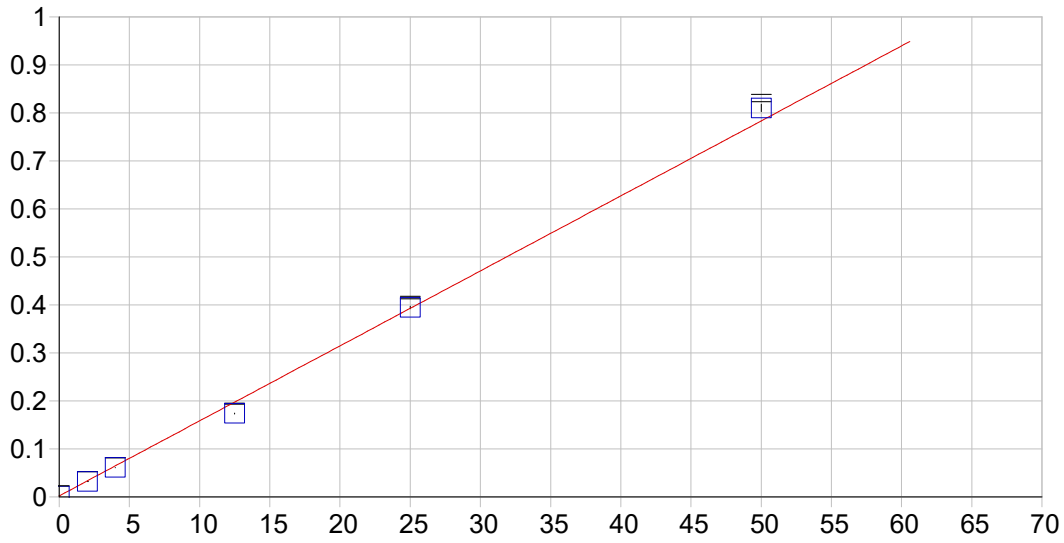
Ag 328.068 {103}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000073	Re-Slope:	1.000000
A1 (Gain):	0.293799	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999959	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.000368		
Predicted MQL:	0.001225		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.01000	.01052	.001	5.16	.00299	.000	1
S3	.62500	.62230	-.003	-.432	.18194	.001	1
S4	1.2500	1.2442	-.006	-.466	.36383	.001	1
S5	2.5000	2.5002	.000	.009	.73122	.002	1
S2	.20000	.20779	.008	3.89	.06071	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



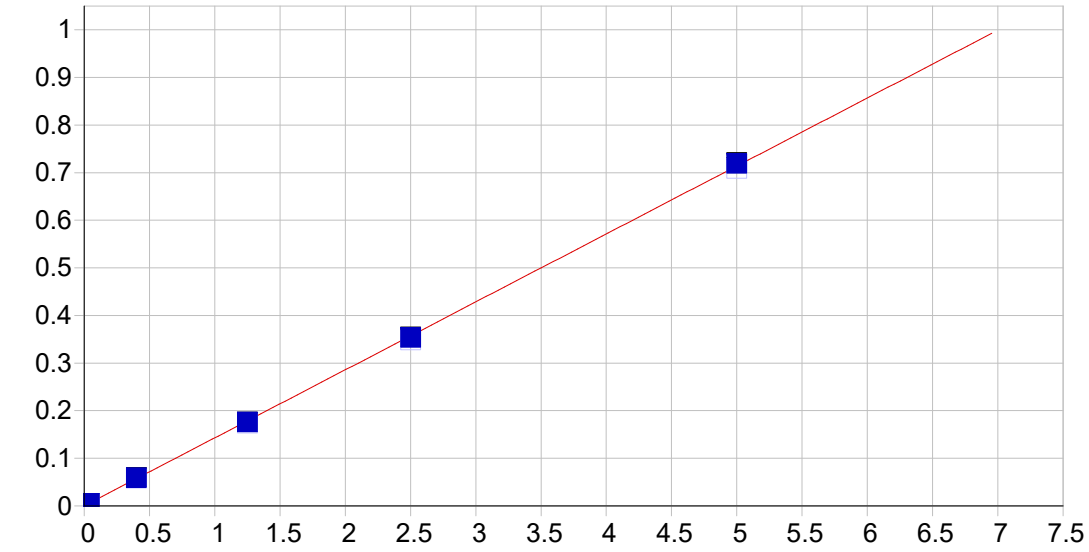
Na 589.592 { 57}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002225	Re-Slope:	1.000000
A1 (Gain):	0.015622	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998597	Status:	OK.
Std Error of Est:	0.000438		
Predicted MDL:	0.012348		
Predicted MQL:	0.041160		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00037	.000	.000	.00223	.000	1
S2	4.0000	3.7734	-.227	-5.66	.06117	.000	1
S3	12.500	10.978	-1.52	-12.2	.17372	.001	1
S4	25.000	25.114	.114	.458	.39455	.003	1
S5	50.000	51.728	1.73	3.46	.81030	.007	1
S1	2.0000	1.9065	-.093	-4.67	.03201	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



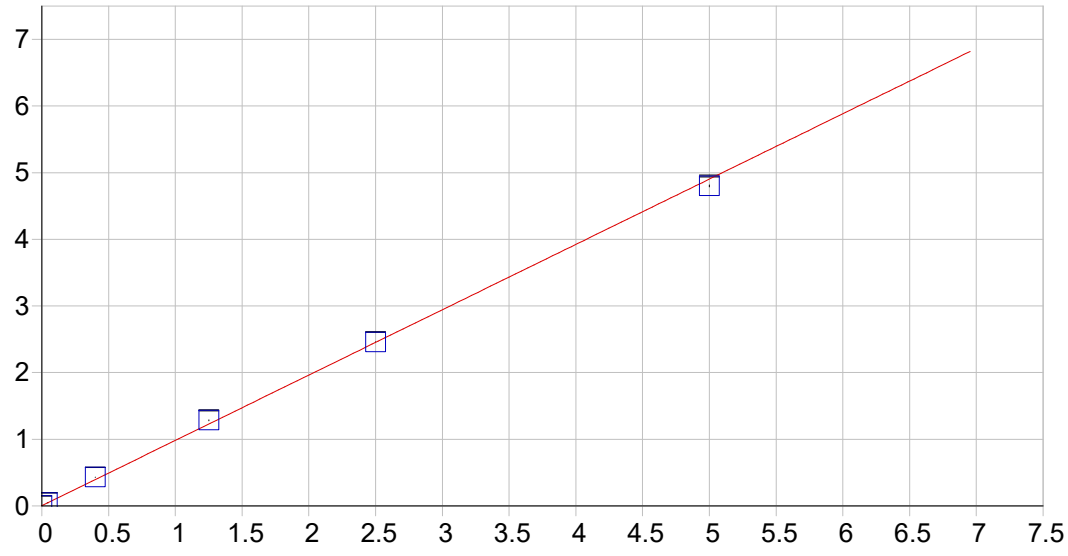
V 292.402 {115}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000293	Re-Slope:	1.000000
A1 (Gain):	0.142751	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.001532		
Predicted MQL:	0.005108		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00029	.000	1
S1	.04000	.03981	-.000	-.465	.00576	.000	1
S3	1.2500	1.2294	-.021	-1.65	.17319	.000	1
S4	2.5000	2.4758	-.024	-.967	.34852	.001	1
S5	5.0000	5.0346	.035	.693	.70859	.002	1
S2	.40000	.41031	.010	2.58	.05803	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



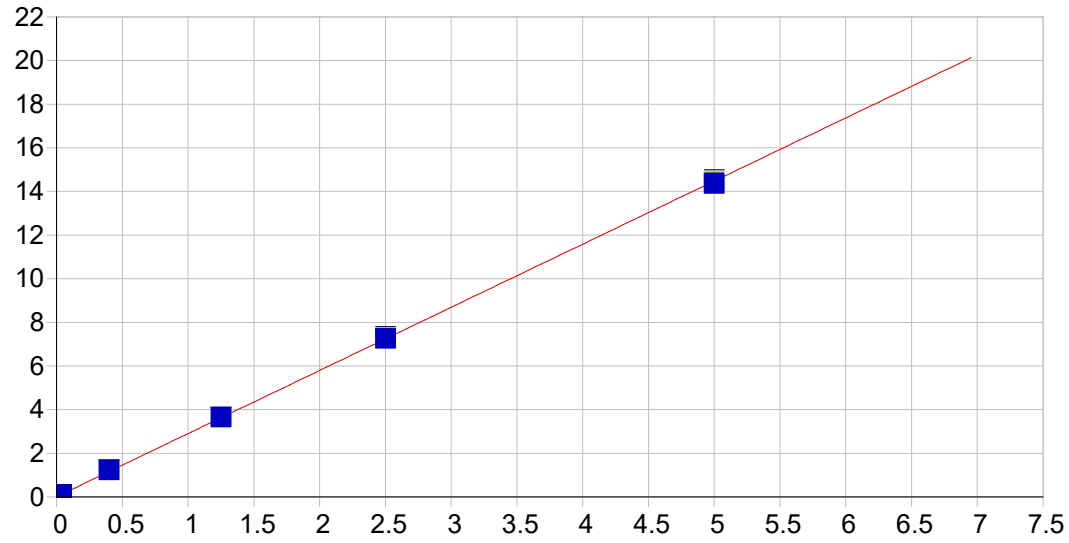
Zn 206.200 {464}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002552	Re-Slope:	1.000000
A1 (Gain):	0.980317	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999530	Status:	OK.
Std Error of Est:	0.000705		
Predicted MDL:	0.000231		
Predicted MQL:	0.000769		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00254	.000	1
S1	.04000	.04422	.004	10.5	.04590	.000	1
S3	1.2500	1.3080	.058	4.64	1.2848	.007	1
S4	2.5000	2.5072	.007	.289	2.4604	.004	1
S5	5.0000	4.8945	-.106	-2.11	4.8007	.016	1
S2	.40000	.43604	.036	9.01	.43001	.002	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



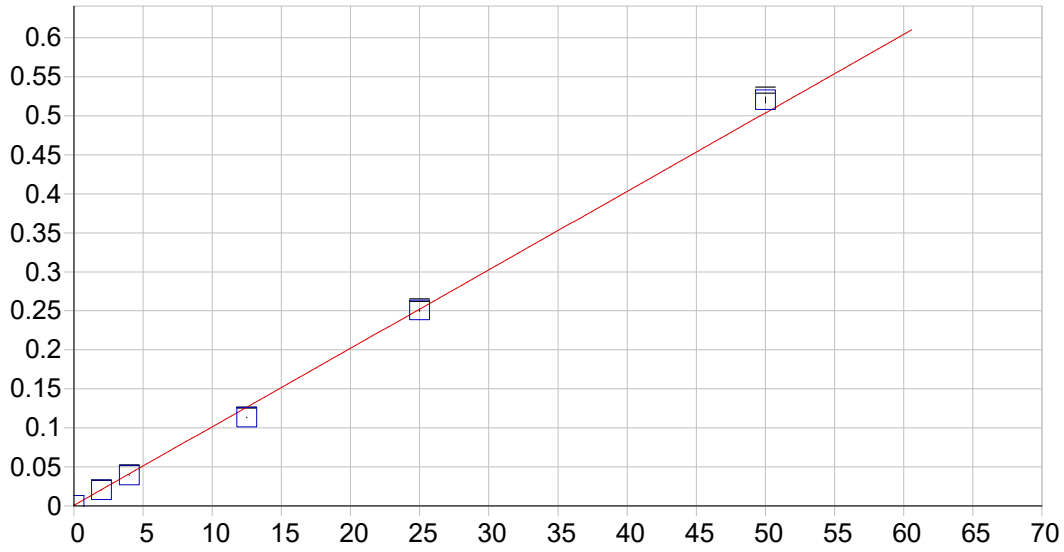
Zn 213.856 {158}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008769	Re-Slope:	1.000000
A1 (Gain):	2.893835	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000913		
Predicted MDL:	0.000285		
Predicted MQL:	0.000948		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00876	.001	1
S1	.04000	.04205	.002	5.13	.13127	.002	1
S3	1.2500	1.2594	.009	.754	3.6785	.005	1
S4	2.5000	2.5058	.006	.232	7.3105	.039	1
S5	5.0000	4.9611	-.039	-.778	14.466	.075	1
S2	.40000	.42160	.022	5.40	1.2369	.003	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



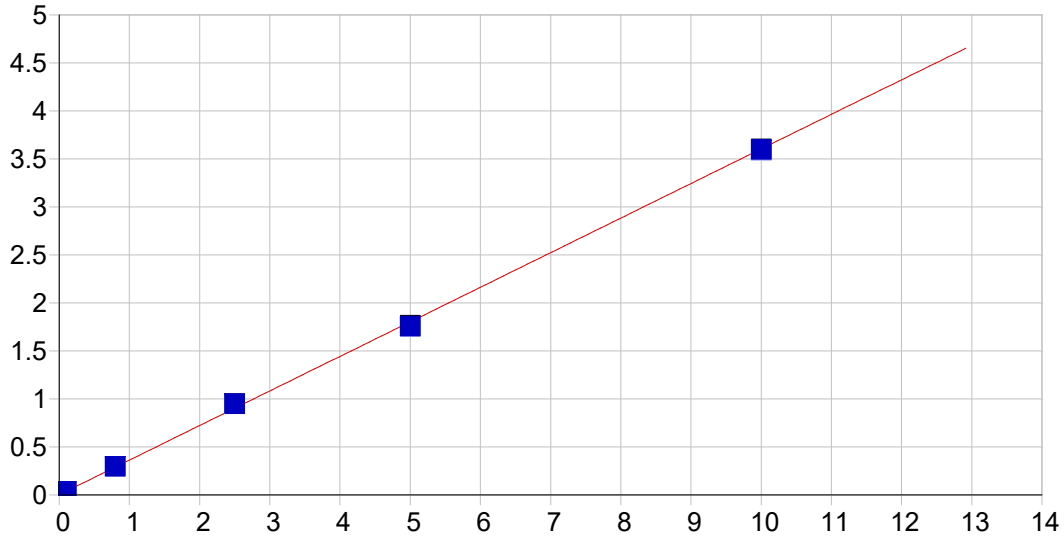
K 766.490 { 44}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000883	Re-Slope:	1.000000
A1 (Gain):	0.010055	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998932	Status:	OK.
Std Error of Est:	0.000246		
Predicted MDL:	0.024195		
Predicted MQL:	0.080651		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00030	.000	.000	.00089	.000	1
S2	4.0000	3.8395	-.161	-4.01	.03949	.000	1
S3	12.500	11.195	-1.30	-10.4	.11345	.000	1
S4	25.000	24.875	-.125	-.500	.25099	.002	1
S5	50.000	51.653	1.65	3.31	.52024	.004	1
S1	2.0000	1.9372	-.063	-3.14	.02036	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



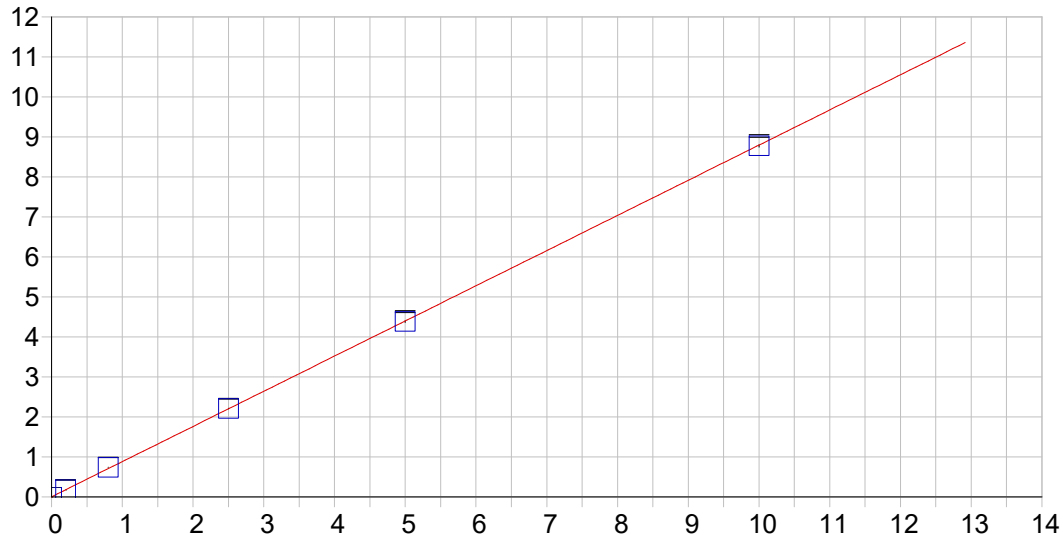
B 249.678 {135}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002194	Re-Slope:	1.000000
A1 (Gain):	0.360142	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999714	Status:	OK.
Std Error of Est:	0.000451		
Predicted MDL:	0.000690		
Predicted MQL:	0.002300		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00219	.000	1
S1	.10000	.09870	-.001	-1.30	.03753	.000	1
S3	2.5000	2.6320	.132	5.28	.94685	.003	1
S4	5.0000	4.8741	-.126	-2.52	1.7511	.010	1
S5	10.000	9.9808	-.019	-.192	3.5837	.006	1
S2	.80000	.81439	.014	1.80	.29445	.002	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



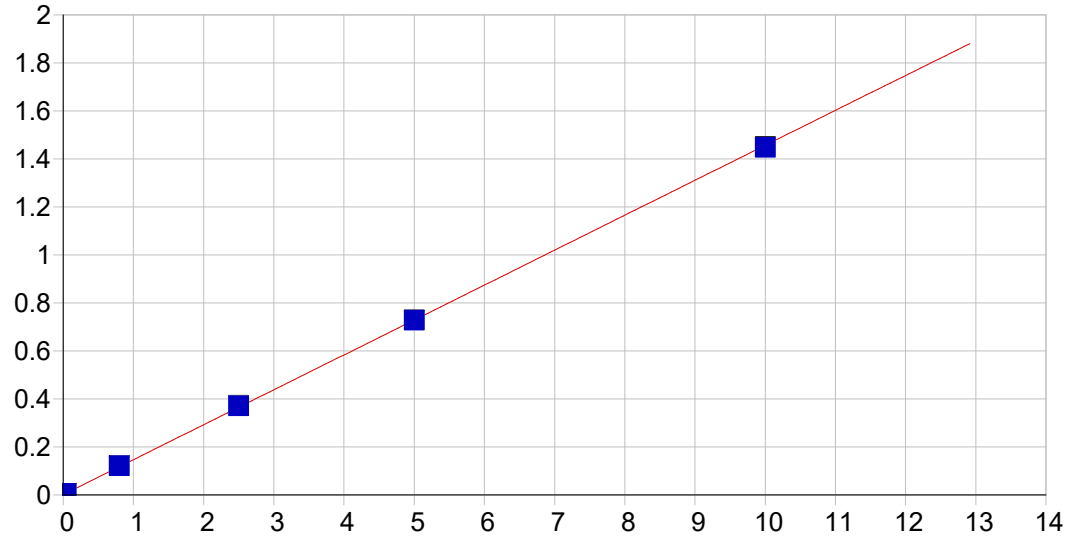
Mo 202.030 {467}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003439	Re-Slope:	1.000000
A1 (Gain):	0.879169	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000610		
Predicted MDL:	0.000228		
Predicted MQL:	0.000760		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00343	.000	1
S1	.20000	.19982	-.000	-.092	.17911	.000	1
S3	2.5000	2.5068	.007	.271	2.2073	.005	1
S4	5.0000	4.9832	-.017	-.336	4.3845	.022	1
S5	10.000	9.9759	-.024	-.241	8.7739	.030	1
S2	.80000	.83431	.034	4.29	.73694	.003	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



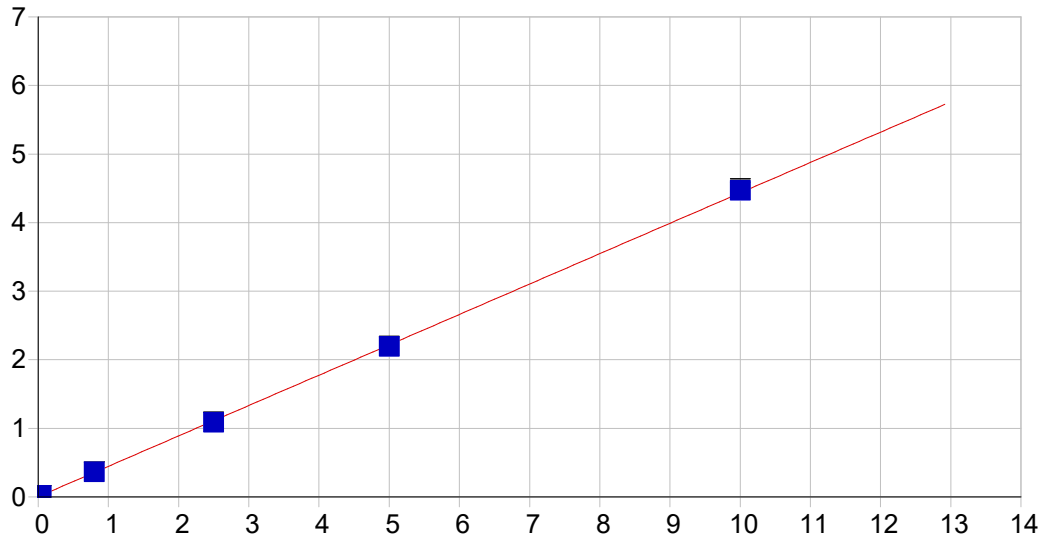
Sn 189.989 {478}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001129	Re-Slope:	1.000000
A1 (Gain):	0.145533	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.000848		
Predicted MQL:	0.002827		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00113	.000	1
S1	.04000	.04029	.000	.721	.00699	.000	1
S3	2.5000	2.5404	.040	1.62	.37047	.002	1
S4	5.0000	4.9926	-.007	-.147	.72698	.001	1
S5	10.000	9.9438	-.056	-.562	1.4468	.003	1
S2	.80000	.82284	.023	2.85	.12076	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



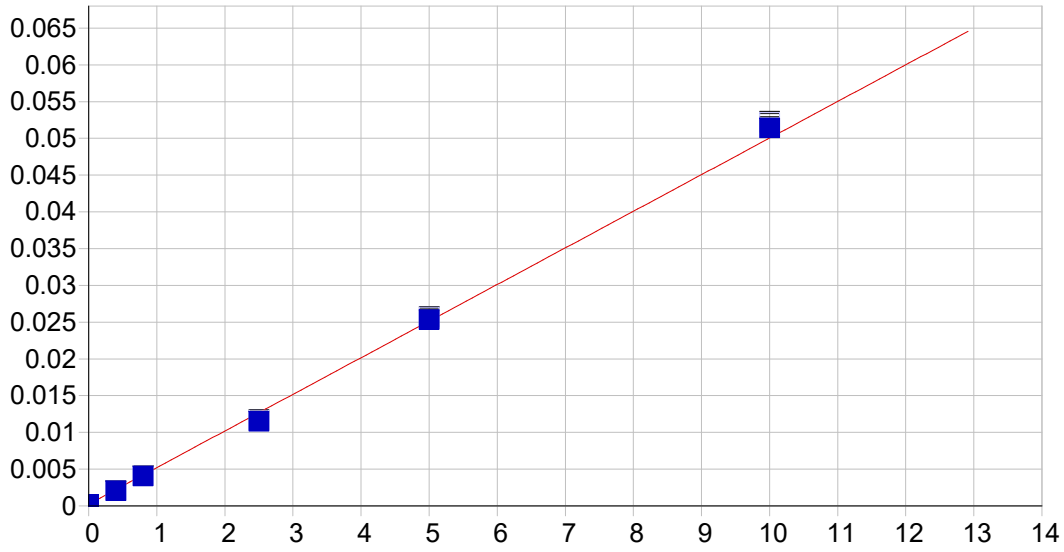
Ti 336.121 {100}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003164	Re-Slope:	1.000000
A1 (Gain):	0.443010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000174		
Predicted MDL:	0.000677		
Predicted MQL:	0.002257		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00316	.000	1
S1	.04000	.03926	-.001	-1.84	.02054	.000	1
S3	2.5000	2.4525	-.048	-1.90	1.0892	.004	1
S4	5.0000	4.9473	-.053	-1.05	2.1941	.004	1
S5	10.000	10.083	.083	.825	4.4682	.025	1
S2	.80000	.81845	.018	2.31	.36562	.001	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



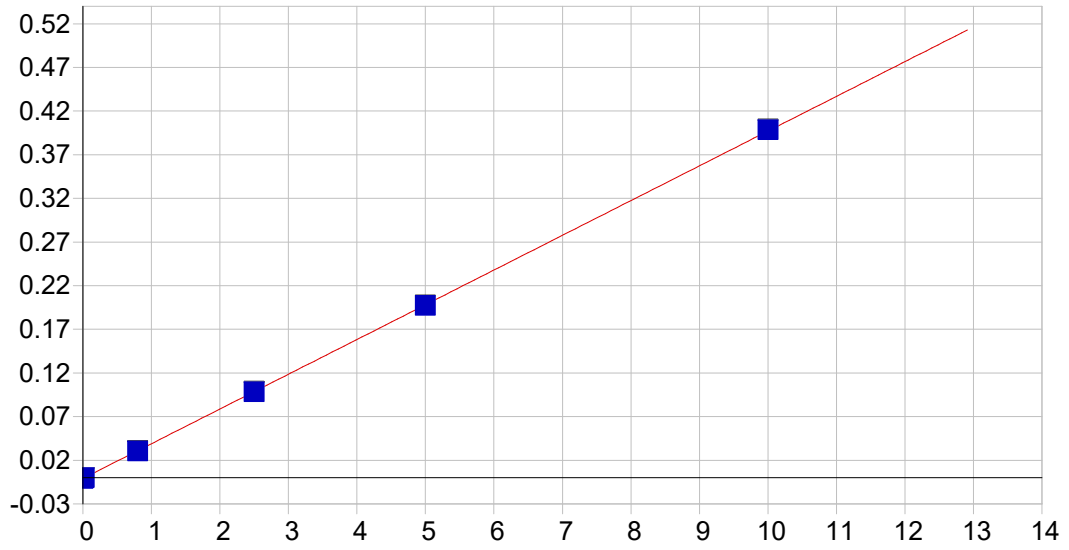
Si 288.158 {117}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000229	Re-Slope:	1.000000
A1 (Gain):	0.004982	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999063	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.009346		
Predicted MQL:	0.031153		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00023	.000	1
S1	.40000	.36071	-.039	-9.82	.00203	.000	1
S3	2.5000	2.2613	-.239	-9.55	.01168	.000	1
S4	5.0000	5.0368	.037	.735	.02569	.000	1
S5	10.000	10.276	.276	2.76	.05217	.000	1
S2	.80000	.76478	-.035	-4.40	.00410	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



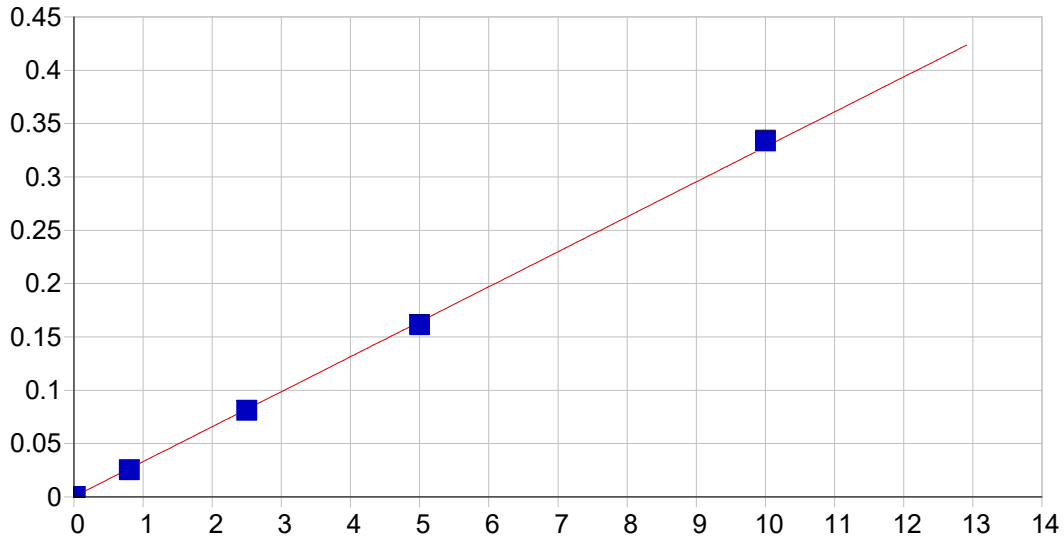
P 177.495 {490}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000862	Re-Slope:	1.000000
A1 (Gain):	0.039790	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.002596		
Predicted MQL:	0.008655		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00086	.000	1
S1	.02000	.01918	-.001	-4.11	-.00010	.000	1
S3	2.5000	2.4966	-.003	-.137	.09846	.001	1
S4	5.0000	4.9793	-.021	-.414	.19723	.000	1
S5	10.000	10.039	.039	.385	.39850	.001	1
S2	.80000	.78642	-.014	-1.70	.03042	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



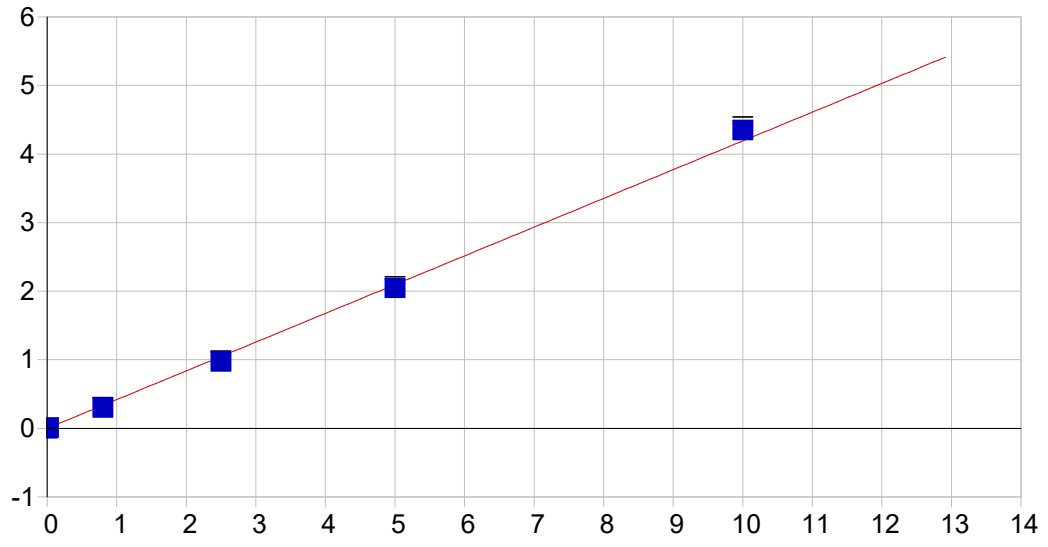
S 182.034 {485}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000281	Re-Slope:	1.000000
A1 (Gain):	0.032788	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999816	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.003500		
Predicted MQL:	0.011668		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00028	.000	1
S1	.02000	.02144	.001	7.21	.00096	.000	1
S3	2.5000	2.4628	-.037	-1.49	.08082	.000	1
S4	5.0000	4.9109	-.089	-1.78	.16087	.001	1
S5	10.000	10.163	.163	1.63	.33265	.001	1
S2	.80000	.76191	-.038	-4.76	.02519	.000	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



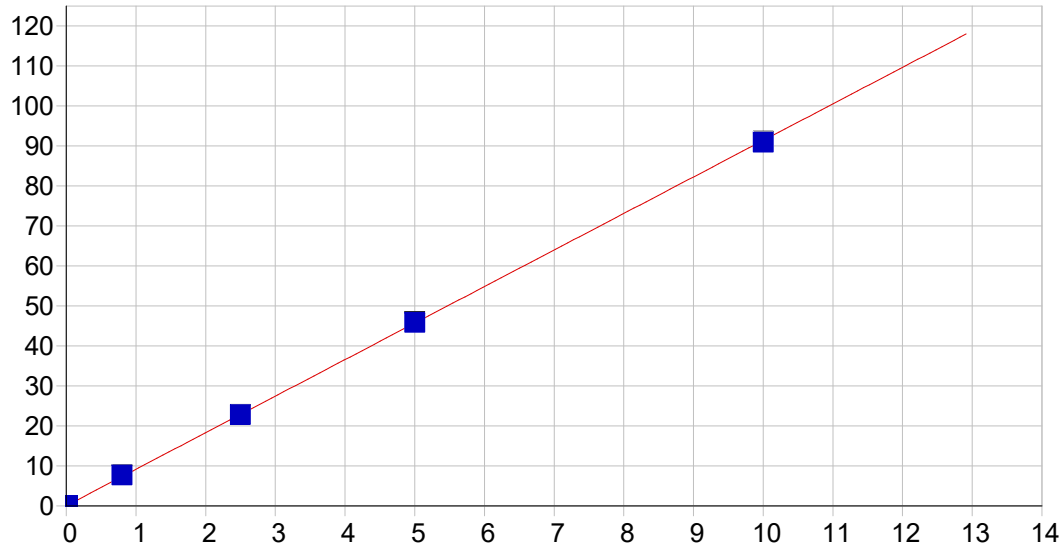
Li 670.784 { 50}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000440	Re-Slope:	1.000000
A1 (Gain):	0.419197	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998946	Status:	OK.
Std Error of Est:	0.000451		
Predicted MDL:	0.001999		
Predicted MQL:	0.006664		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00044	.000	1
S5	10.000	10.378	.378	3.78	4.3522	.046	1
S4	5.0000	4.8864	-.114	-2.27	2.0490	.019	1
S3	2.5000	2.3212	-.179	-7.15	.97313	.009	1
S1	.02000	.01791	-.002	-10.4	.00720	.000	1
S2	.80000	.71608	-.084	-10.5	.29991	.006	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119



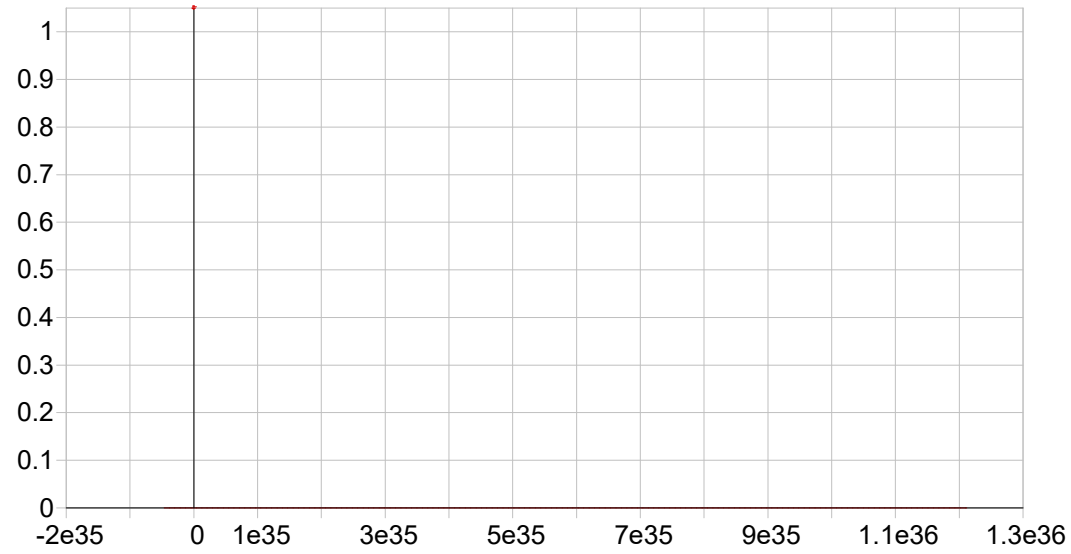
Sr 407.771 { 83}

Date of Fit:	6/11/2025 13:02:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.032665	Re-Slope:	1.000000
A1 (Gain):	9.136702	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.002524		
Predicted MDL:	0.000054		
Predicted MQL:	0.000181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.03265	.000	1
S1	.02000	.02127	.001	6.36	.22790	.001	1
S3	2.5000	2.4919	-.008	-.324	22.822	.066	1
S4	5.0000	5.0155	.015	.309	45.901	.202	1
S5	10.000	9.9500	-.050	-.500	91.030	.218	1
S2	.80000	.84139	.041	5.17	7.7272	.057	1

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

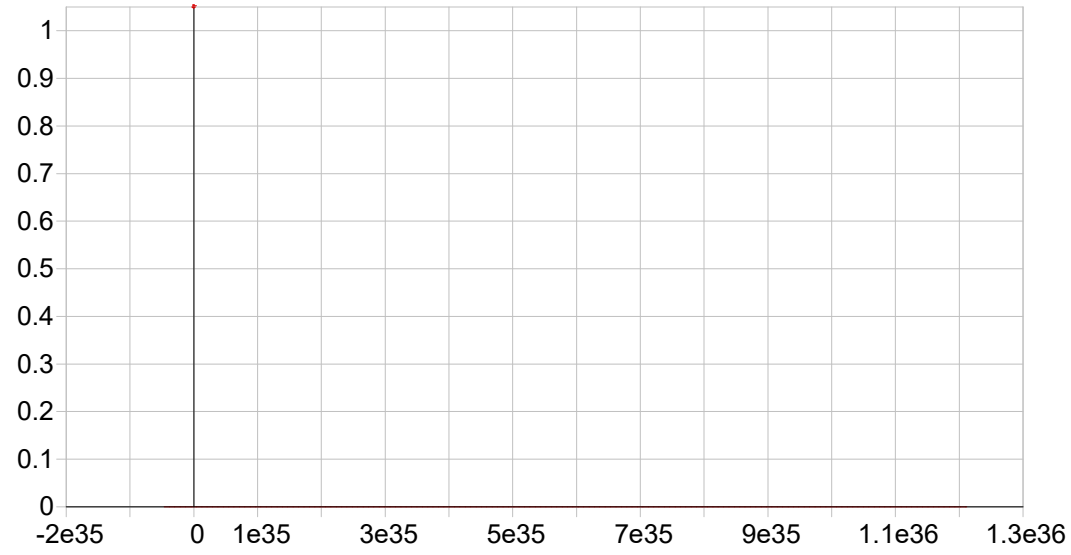


Y 224.306 {450}*

Date of Fit:	6/11/2025 12:21:11	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

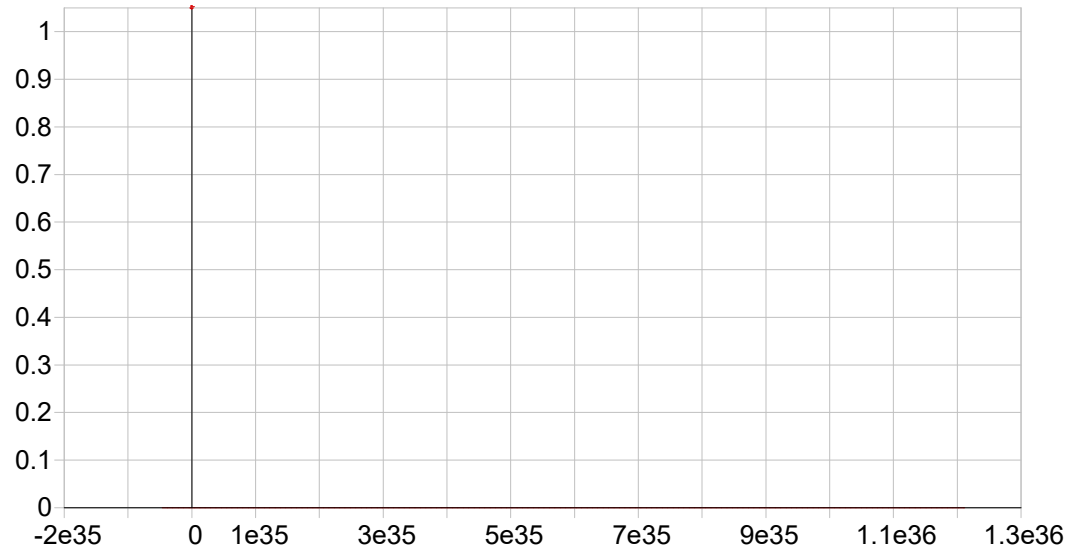
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

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

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



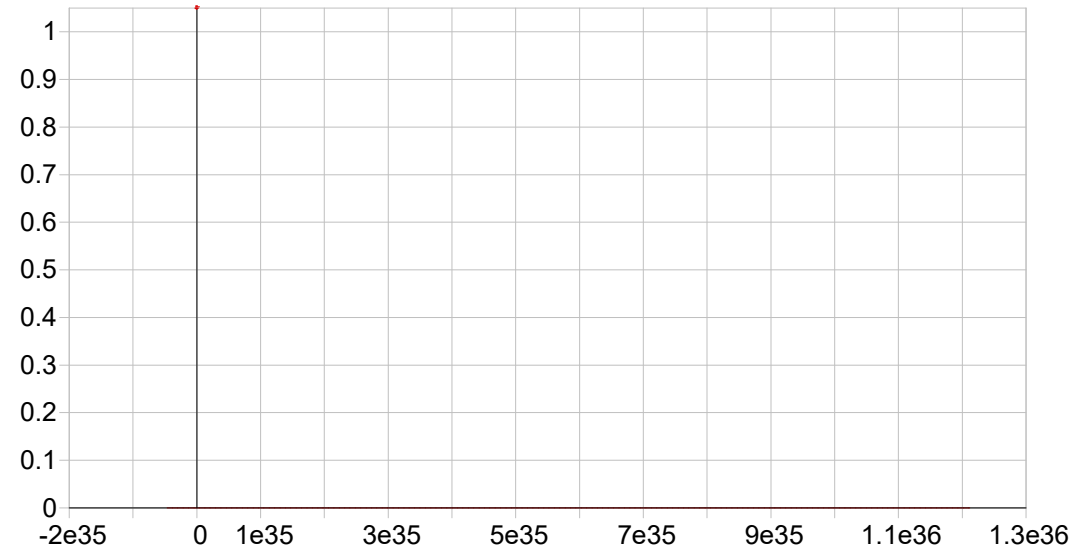
Y 371.030 { 91}*

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

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

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

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

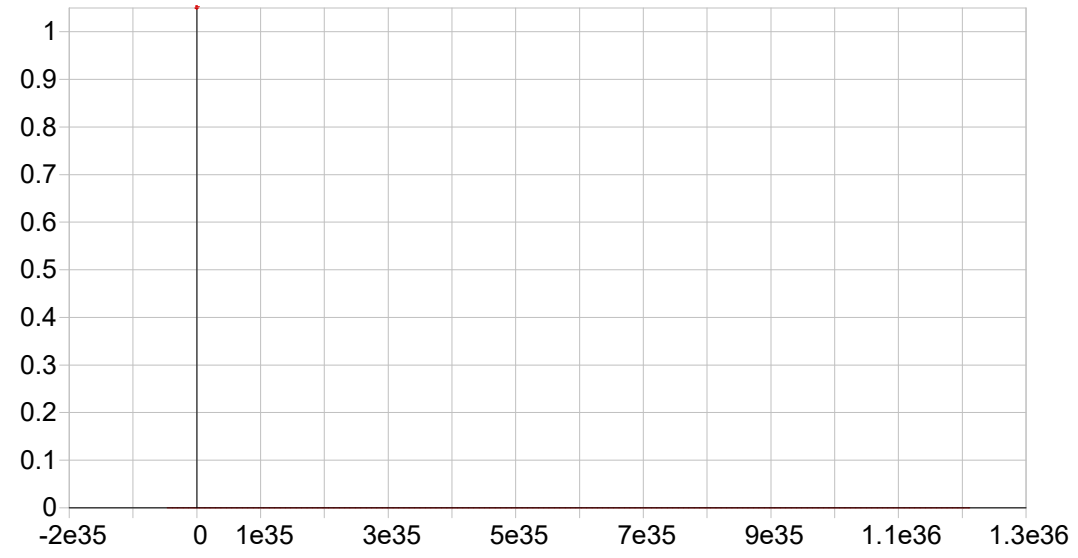


Y 224.306 {150}*

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

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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

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S0 Acquired: 6/11/2025 12:36:53 Type: Cal
Method: 6010-200.7 NEW(v5) 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	**.00005**	**-.00019**	**.00059**	**.00080**	**.00064**	**.00141**	**.02972**	**.00024**
Stddev	.00014	.00009	.00039	.00014	.00026	.00049	.00419	.00003
%RSD	269.99	48.559	66.393	17.849	40.939	34.885	14.111	12.380
#1	.00016	-.00025	.00036	.00065	.00056	.00182	.03316	.00023
#2	.00011	-.00024	.00036	.00081	.00093	.00086	.02505	.00027
#3	-.00011	-.00008	.00104	.00093	.00043	.00153	.03096	.00021

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	**.00468**	**.00209**	**.00019**	**.00154**	**-.00013**	**.00007**	**.00145**	**.00036**
Stddev	.00015	.00051	.00006	.00015	.00011	.00000	.00005	.00017
%RSD	3.2524	24.592	29.115	9.9805	81.684	4.9883	3.7878	46.307
#1	.00477	.00163	.00015	.00161	-.00007	.00007	.00146	.00028
#2	.00451	.00198	.00026	.00136	-.00026	.00007	.00149	.00055
#3	.00477	.00264	.00017	.00164	-.00007	.00007	.00138	.00024

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	**.00107**	**-.00007**	**.00223**	**.00029**	**.00876**	**.00089**	**.00219**	**.00343**
Stddev	.00006	.00003	.00014	.00007	.00082	.00025	.00010	.00009
%RSD	5.7217	44.286	6.4265	23.374	9.4073	27.851	4.5270	2.5521
#1	.00114	-.00007	.00218	.00030	.00843	.00063	.00230	.00353
#2	.00105	-.00011	.00212	.00022	.00969	.00091	.00211	.00336
#3	.00102	-.00005	.00239	.00036	.00815	.00112	.00217	.00340

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	**.00113**	**.00316**	**.00023**	**-.00086**	**.00028**	**-.00044**	**.03265**
Stddev	.00013	.00020	.00001	.00006	.00013	.00025	.00031
%RSD	11.192	6.2701	5.9174	7.0237	47.658	57.400	.94682
#1	.00116	.00299	.00024	-.00091	.00042	-.00049	.03300
#2	.00124	.00312	.00023	-.00088	.00015	-.00066	.03247
#3	.00099	.00338	.00022	-.00080	.00028	-.00016	.03246

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Inst Id :P4
LB :LB136119

Sample Name: S0 Acquired: 6/11/2025 12:36:53 Type: Cal
Method: 6010-200.7 NEW(v5) 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	3054.0	69665.	14903.	2242.9	4312.7
Stddev	5.7	167.	45.	12.3	8.7
%RSD	.18560	.23952	.30380	.54660	.20184
#1	3049.7	69565.	14857.	2235.4	4303.7
#2	3060.4	69572.	14947.	2236.4	4321.1
#3	3051.9	69857.	14906.	2257.1	4313.3

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S1 Acquired: 6/11/2025 12:41:15 Type: Cal
Method: 6010-200.7 NEW(v5) 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	**.00146**	**.00436**	**.00366**	**.00242**	**.00719**	**.01424**	**.30650**	**.02079**
Stddev	.00002	.00013	.00010	.00009	.00007	.00027	.00171	.00006
%RSD	1.2988	2.9101	2.6777	3.5406	.93647	1.9216	.55725	.30153
#1	.00147	.00444	.00376	.00249	.00716	.01407	.30522	.02080
#2	.00144	.00421	.00365	.00244	.00713	.01410	.30583	.02086
#3	.00147	.00443	.00357	.00232	.00726	.01456	.30844	.02073

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	**.02144**	**.09844**	**.00139**	**.02810**	**.01781**	**.00078**	**.01301**	**.02943**
Stddev	.00019	.00068	.00003	.00008	.00004	.00002	.00008	.00034
%RSD	.88530	.69434	2.0777	.28023	.21549	2.0631	.64650	1.1412
#1	.02123	.09790	.00142	.02817	.01780	.00077	.01295	.02908
#2	.02150	.09921	.00136	.02801	.01785	.00078	.01310	.02975
#3	.02159	.09823	.00138	.02812	.01777	.00080	.01296	.02945

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	**.02695**	**.00299**	**.03201**	**.00576**	**.13127**	**.02036**	**.03753**	**.17911**
Stddev	.00016	.00012	.00024	.00007	.00152	.00008	.00004	.00019
%RSD	.60085	4.0708	.73628	1.2493	1.1583	.37044	.10211	.10512
#1	.02681	.00289	.03223	.00575	.12952	.02029	.03757	.17894
#2	.02713	.00313	.03176	.00584	.13218	.02044	.03752	.17908
#3	.02692	.00296	.03204	.00570	.13212	.02036	.03749	.17931

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	**.00699**	**.02054**	**.00203**	**-.00010**	**.00096**	**.00720**	**.22790**
Stddev	.00004	.00008	.00002	.00007	.00006	.00039	.00132
%RSD	.59474	.40877	1.2046	70.756	6.7549	5.3987	.58107
#1	.00696	.02046	.00202	-.00005	.00103	.00719	.22942
#2	.00703	.02054	.00201	-.00018	.00091	.00760	.22701
#3	.00696	.02063	.00206	-.00006	.00093	.00682	.22727

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S1 Acquired: 6/11/2025 12:41:15 Type: Cal
Method: 6010-200.7 NEW(v5) 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	**3046.4**	**70195.**	**15367.**	**2259.2**	**4239.0**
Stddev	7.2	148.	37.	14.2	6.6
%RSD	.23704	.21120	.23907	.62888	.15674
#1	3041.9	70135.	15389.	2250.3	4243.1
#2	3054.7	70086.	15325.	2251.7	4242.6
#3	3042.6	70364.	15387.	2275.6	4231.3

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S2 Acquired: 6/11/2025 12:45:37 Type: Cal
Method: 6010-200.7 NEW(v5) 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	.05267	.09362	.19867	.06579	.10463	.18917	4.4988	.13849	1.1267
Stddev	.00036	.00057	.00066	.00049	.00066	.00109	.0386	.00112	.0024
%RSD	.68975	.60610	.33002	.73778	.63396	.57468	.85760	.80567	.21742
#1	.05244	.09366	.19851	.06563	.10420	.19041	4.5430	.13975	1.1295
#2	.05249	.09303	.19811	.06540	.10430	.18838	4.4718	.13812	1.1252
#3	.05309	.09416	.19939	.06633	.10540	.18872	4.4816	.13761	1.1254

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	.19495	.01971	.35809	.16855	.00549	.23500	.05689	.25798	.06071
Stddev	.00180	.00016	.00024	.00068	.00006	.00126	.00099	.00031	.00011
%RSD	.92224	.82416	.06636	.40641	1.1105	.53752	1.7464	.12047	.18790
#1	.19322	.01984	.35806	.16780	.00542	.23457	.05604	.25798	.06084
#2	.19681	.01975	.35787	.16868	.00554	.23642	.05798	.25830	.06069
#3	.19481	.01953	.35834	.16915	.00551	.23400	.05665	.25767	.06061

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	.06117	.05803	1.2369	.03949	.29445	.73694	.12076	.36562	.00410
Stddev	.00034	.00028	.0030	.00038	.00182	.00336	.00035	.00090	.00002
%RSD	.55259	.47656	.23981	.96412	.61678	.45537	.28968	.24679	.53840
#1	.06156	.05777	1.2403	.03979	.29625	.73446	.12106	.36550	.00409
#2	.06093	.05832	1.2348	.03906	.29448	.73559	.12038	.36657	.00412
#3	.06103	.05801	1.2356	.03961	.29262	.74076	.12084	.36478	.00408

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03042	.02519	.29991	7.7272
Stddev	.00026	.00013	.00604	.0568
%RSD	.84533	.53324	2.0153	.73437
#1	.03039	.02532	.30683	7.7921
#2	.03019	.02521	.29570	7.6869
#3	.03070	.02505	.29718	7.7027

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S2 Acquired: 6/11/2025 12:45:37 Type: Cal
Method: 6010-200.7 NEW(v5) 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	3038.4	69923.	14991.	2269.5	4182.5
Stddev	30.5	138.	16.	22.9	26.0
%RSD	1.0033	.19788	.10803	1.0072	.62075
#1	3070.4	70062.	14974.	2294.8	4209.5
#2	3034.9	69920.	14993.	2263.5	4180.3
#3	3009.8	69786.	15006.	2250.3	4157.7

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S3 Acquired: 6/11/2025 12:49:40 Type: Cal
Method: 6010-200.7 NEW(v5) 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	**.16372**	**.28379**	**.60753**	**.20365**	**.32240**	**.57524**	**13.200**	**.43961**	**3.4521**
Stddev	.00078	.00134	.00291	.00018	.00038	.00288	.146	.00252	.0152
%RSD	.47868	.47225	.47935	.09032	.11749	.50062	1.1029	.57341	.44034
#1	.16281	.28395	.60623	.20373	.32207	.57197	13.100	.43762	3.4484
#2	.16417	.28237	.60550	.20343	.32231	.57635	13.367	.43877	3.4391
#3	.16416	.28504	.61087	.20377	.32281	.57740	13.134	.44244	3.4688

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	**.57374**	**.05810**	**1.0956**	**.50960**	**.01514**	**.68864**	**.17109**	**.78621**	**.18194**
Stddev	.00091	.00023	.0038	.00155	.00014	.00401	.00061	.00222	.00068
%RSD	.15866	.40226	.35011	.30402	.94458	.58198	.35522	.28241	.37491
#1	.57464	.05784	1.0951	.50793	.01527	.68403	.17125	.78549	.18148
#2	.57282	.05828	1.0921	.50990	.01517	.69132	.17160	.78443	.18161
#3	.57377	.05819	1.0997	.51098	.01499	.69055	.17042	.78870	.18272

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	**.17372**	**.17319**	**3.6785**	**.11345**	**.94685**	**2.2073**	**.37047**	**1.0892**	**.01168**
Stddev	.00080	.00024	.0050	.00048	.00294	.0050	.00190	.0043	.00005
%RSD	.46073	.13935	.13537	.42059	.31062	.22468	.51268	.39825	.45778
#1	.17295	.17324	3.6780	.11303	.94511	2.2029	.36991	1.0846	.01162
#2	.17366	.17293	3.6738	.11334	.94520	2.2063	.36892	1.0898	.01170
#3	.17455	.17341	3.6837	.11397	.95025	2.2127	.37259	1.0933	.01172

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.09846**	**.08082**	**.97313**	**22.822**
Stddev	.00050	.00021	.00942	.066
%RSD	.50807	.25391	.96827	.28715
#1	.09887	.08094	.96449	22.896
#2	.09790	.08058	.97174	22.800
#3	.09861	.08094	.98317	22.771

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S3 Acquired: 6/11/2025 12:49:40 Type: Cal
Method: 6010-200.7 NEW(v5) 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	2902.0	67968.	13838.	2177.0	3903.6
Stddev	14.4	40.	15.	9.3	13.7
%RSD	.49706	.05934	.10614	.42854	.35107
#1	2910.5	67927.	13844.	2166.6	3913.2
#2	2885.3	67968.	13848.	2180.0	3887.9
#3	2910.1	68008.	13821.	2184.5	3909.8

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S4 Acquired: 6/11/2025 12:53:54 Type: Cal
Method: 6010-200.7 NEW(v5) 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	**.32613**	**.55687**	**1.1870**	**.40421**	**.64697**	**1.1460**	**27.209**	**.80772**	**6.7903**
Stddev	.00216	.00149	.0003	.00210	.00504	.0023	.102	.00596	.0047
%RSD	.66313	.26713	.02742	.52048	.77848	.19791	.37614	.73788	.06895
#1	.32442	.55600	1.1869	.40330	.64410	1.1434	27.307	.80780	6.7912
#2	.32541	.55859	1.1874	.40271	.64402	1.1475	27.103	.80172	6.7945
#3	.32856	.55603	1.1867	.40661	.65278	1.1471	27.217	.81364	6.7852

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	**1.1328**	**.11335**	**2.1591**	**1.0001**	**.03267**	**1.3587**	**.33778**	**1.5393**	**.36383**
Stddev	.0107	.00081	.0030	.0051	.00037	.0088	.00322	.0022	.00106
%RSD	.94282	.71589	.14099	.51008	1.1178	.64958	.95339	.14506	.29071
#1	1.1421	.11413	2.1559	.99623	.03309	1.3670	.34120	1.5371	.36474
#2	1.1211	.11341	2.1595	.99817	.03253	1.3495	.33480	1.5392	.36408
#3	1.1352	.11251	2.1620	1.0059	.03240	1.3598	.33734	1.5415	.36267

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	**.39455**	**.34852**	**7.3105**	**.25099**	**1.7511**	**4.3845**	**.72698**	**2.1941**	**.02569**
Stddev	.00269	.00128	.0391	.00155	.0095	.0221	.00065	.0039	.00009
%RSD	.68116	.36764	.53411	.61859	.54493	.50313	.09006	.17724	.35731
#1	.39434	.34918	7.3383	.25115	1.7487	4.3692	.72769	2.1927	.02580
#2	.39734	.34704	7.3274	.25246	1.7429	4.3746	.72685	2.1910	.02562
#3	.39198	.34933	7.2658	.24937	1.7616	4.4098	.72640	2.1984	.02567

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.19723**	**.16087**	**2.0490**	**45.901**
Stddev	.00028	.00051	.0186	.202
%RSD	.14119	.31423	.90859	.43950
#1	.19697	.16049	2.0281	45.774
#2	.19719	.16068	2.0639	46.134
#3	.19753	.16144	2.0549	45.796

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S4 Acquired: 6/11/2025 12:53:54 Type: Cal
Method: 6010-200.7 NEW(v5) 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	2851.2	66226.	14747.	2095.7	3814.1
Stddev	26.1	314.	49.	11.7	23.2
%RSD	.91422	.47457	.33261	.55722	.60835
#1	2867.0	66019.	14775.	2095.9	3827.0
#2	2865.4	66072.	14775.	2083.9	3828.0
#3	2821.1	66588.	14690.	2107.3	3787.3

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S5 Acquired: 6/11/2025 12:58:05 Type: Cal
Method: 6010-200.7 NEW(v5) 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	.66418	1.0809	2.3669	.82228	1.3249	2.3920	54.798	1.6418	13.631
Stddev	.00356	.0065	.0039	.00558	.0069	.0079	.219	.0059	.021
%RSD	.53664	.60383	.16335	.67874	.51795	.33136	.39931	.35702	.15539
#1	.66057	1.0806	2.3660	.81713	1.3177	2.4010	54.808	1.6451	13.629
#2	.66427	1.0745	2.3636	.82151	1.3256	2.3889	54.575	1.6453	13.611
#3	.66769	1.0876	2.3712	.82821	1.3313	2.3861	55.012	1.6350	13.653

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	2.2891	.22391	4.3654	2.0046	.06422	2.7440	.69108	3.0901	.73122
Stddev	.0126	.00079	.0050	.0059	.00047	.0175	.00279	.0042	.00157
%RSD	.54973	.35477	.11354	.29320	.72731	.63701	.40315	.13473	.21429
#1	2.3032	.22385	4.3604	1.9981	.06476	2.7640	.69415	3.0864	.73300
#2	2.2848	.22473	4.3653	2.0060	.06392	2.7366	.69039	3.0893	.73065
#3	2.2791	.22315	4.3704	2.0096	.06398	2.7314	.68870	3.0946	.73003

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	.81030	.70859	14.466	.52024	3.5837	8.7739	1.4468	4.4682	.05217
Stddev	.00745	.00236	.075	.00408	.0061	.0305	.0029	.0249	.00015
%RSD	.92000	.33357	.51692	.78397	.16995	.34735	.20370	.55630	.28674
#1	.81890	.71117	14.540	.52491	3.5883	8.7456	1.4479	4.4960	.05226
#2	.80569	.70807	14.390	.51741	3.5861	8.7700	1.4434	4.4608	.05200
#3	.80631	.70653	14.469	.51839	3.5768	8.8062	1.4490	4.4479	.05225

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.39850	.33265	4.3522	91.030
Stddev	.00077	.00103	.0459	.218
%RSD	.19218	.31095	1.0557	.23893
#1	.39774	.33206	4.4037	90.928
#2	.39851	.33204	4.3378	91.280
#3	.39927	.33384	4.3152	90.883

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: S5 Acquired: 6/11/2025 12:58:05 Type: Cal
Method: 6010-200.7 NEW(v5) 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	2709.7	64665.	14062.	1996.5	3582.4
Stddev	12.1	280.	35.	22.2	13.4
%RSD	.44618	.43365	.25119	1.1100	.37536
#1	2722.4	64357.	14021.	1979.9	3593.9
#2	2698.2	64905.	14079.	2021.6	3567.6
#3	2708.6	64733.	14085.	1987.8	3585.8

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICV01 Acquired: 6/11/2025 13:53:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**3.733906**	**3.841446**	**3.714121**	**3.774762**	**3.947533**	**7.534116**
Stddev	.007092	.048246	.011639	.023837	.020759	.028690
%RSD	.1899414	1.255938	.3133653	.6314795	.5258764	.3807995
#1	3.727326	3.797802	3.721436	3.749086	3.924748	7.564266
#2	3.741418	3.893253	3.700700	3.779012	3.952479	7.507152
#3	3.732974	3.833283	3.720227	3.796188	3.965373	7.530932

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.692235**	**.1894603**	**1.846649**	**18.29275**	**.7653309**	**1.901656**
Stddev	.063111	.0009720	.005889	.14178	.0025629	.005143
%RSD	.8204547	.5130184	.3188905	.7750483	.3348746	.2704451
#1	7.754209	.1905272	1.851746	18.20662	.7654577	1.904996
#2	7.628045	.1892287	1.840202	18.21525	.7678281	1.895733
#3	7.694453	.1886251	1.847998	18.45639	.7627070	1.904237

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9719131**	**3.761641**	**1.858656**	**18.21896**	**1.893485**	**.9404018**
Stddev	.0027550	.042267	.010402	.14122	.006135	.0034021
%RSD	.2834630	1.123623	.5596362	.7751178	.3240099	.3617666
#1	.9695052	3.720481	1.852518	18.15571	1.895381	.9364937
#2	.9713166	3.759507	1.852785	18.12042	1.886626	.9427008
#3	.9749175	3.804934	1.870666	18.38075	1.898449	.9420109

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.38963**	**1.872311**	**1.909487**	**18.89052**	F **.0043696**	F **-.002455**
Stddev	.09093	.002056	.017103	.10403	.0004001	.000070
%RSD	.4689610	.1098072	.8956938	.5506959	9.155598	2.862682
#1	19.28730	1.874028	1.891093	18.77081	.0039111	-.002444
#2	19.46114	1.870033	1.912458	18.94174	.0046480	-.002530
#3	19.42046	1.872873	1.924910	18.95901	.0045496	-.002391

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICV01 Acquired: 6/11/2025 13:53:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	F -.002078	F -.004578	F -.044950	F .0001791	F .0046711	F .0018107
Stddev	.000573	.000320	.002472	.0013775	.0018855	.0018609
%RSD	27.57862	6.996859	5.499473	768.8890	40.36588	102.7693
#1	-.001594	-.004816	-.043184	.0017500	.0039196	.0039591
#2	-.001928	-.004214	-.043892	-.000822	.0032772	.0007028
#3	-.002711	-.004705	-.047775	-.000390	.0068165	.0007703

Elem	Sr4077
Units	ppm
Avg	F -.005831
Stddev	.000048
%RSD	.8240023
#1	-.005789
#2	-.005884
#3	-.005821

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.200	69361.82	15339.34	2164.893	4008.681
Stddev	15.361	293.98	40.49	28.180	10.678
%RSD	.5271233	.4238348	.2639305	1.301672	.2663632
#1	2929.432	69674.93	15314.14	2188.611	4014.793
#2	2914.456	69318.84	15386.04	2172.327	4014.898
#3	2898.713	69091.70	15317.85	2133.742	3996.351

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: LLICV01 Acquired: 6/11/2025 13:57:56 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0200786**	**.0361503**	**.0108264**	**.0208400**	**.0509437**	**.1006076**	**.0927701**
Stddev	.0000631	.0007267	.0012605	.0043730	.0008168	.0008833	.0002539
%RSD	.3140960	2.010269	11.64296	20.98396	1.603296	.8779683	.2737120
#1	.0200994	.0360601	.0095687	.0243039	.0502438	.1015590	.0926544
#2	.0201286	.0354730	.0120897	.0222899	.0518411	.0998135	.0925946
#3	.0200078	.0369180	.0108210	.0159261	.0507462	.1004502	.0930612

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058118**	**.0048396**	**1.999008**	**.0097323**	**.0287987**	**.0217180**	**.1026268**
Stddev	.0000908	.0000198	.015526	.0000492	.0003333	.0000452	.0033252
%RSD	1.563101	.4081931	.7766834	.5058163	1.157195	.2080698	3.240091
#1	.0058389	.0048358	1.983589	.0097659	.0291829	.0216730	.1016342
#2	.0058861	.0048221	1.998797	.0096758	.0285880	.0217178	.1063353
#3	.0057105	.0048610	2.014638	.0097552	.0286252	.0217634	.0999109

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0193972**	**1.986937**	**.0394062**	**.0098171**	**1.913376**	**.0371729**	**.0410955**
Stddev	.0000681	.009316	.0002133	.0002622	.015000	.0009455	.0000807
%RSD	.3510999	.4688377	.5413668	2.670401	.7839730	2.543489	.1963318
#1	.0193997	1.983274	.0396522	.0100710	1.930334	.0371811	.0411395
#2	.0193279	1.980010	.0392730	.0098329	1.907952	.0362233	.0410024
#3	.0194640	1.997527	.0392933	.0095474	1.901842	.0381142	.0411446

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.888030**	**.0950871**	**.1957221**	**.0362415**	**.0363922**	**.3542023**	**.0196645**
Stddev	.016962	.0009966	.0006024	.0005487	.0001090	.0042140	.0029312
%RSD	.8984157	1.048077	.3077829	1.513984	.2994412	1.189726	14.90634
#1	1.868909	.0948423	.1950323	.0368519	.0362789	.3590511	.0171272
#2	1.901267	.0942357	.1959889	.0357892	.0364015	.3514248	.0228732
#3	1.893915	.0961833	.1961449	.0360835	.0364962	.3521309	.0189930

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: LLICV01 Acquired: 6/11/2025 13:57:56 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0198930	.0169108	.0191138
Stddev	.0028449	.0010371	.0000553
%RSD	14.30091	6.132502	.2894034
#1	.0195054	.0178276	.0191223
#2	.0172618	.0157853	.0190546
#3	.0229119	.0171195	.0191643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2948.485	71326.41	15619.07	2212.589	4203.015
Stddev	11.686	367.60	58.21	6.718	18.429
%RSD	.3963507	.5153831	.3726902	.3036327	.4384826
#1	2957.071	71026.27	15648.41	2207.410	4210.701
#2	2953.208	71216.53	15656.77	2210.177	4216.357
#3	2935.177	71736.42	15552.03	2220.180	4181.986

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICB01 Acquired: 6/11/2025 14:03:12 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.002255**	**-.004445**	**-.002386**	**.0000724**	**-.001516**	**-.004002**	**-.009927**
Stddev	.001317	.000603	.000880	.0005809	.001310	.002586	.000355
%RSD	58.40634	13.57078	36.89646	802.0933	86.41108	64.63087	3.580227
#1	-.003270	-.004450	-.001511	.0005225	-.001680	-.002806	-.009680
#2	-.000767	-.003839	-.002375	-.000583	-.000132	-.006969	-.009767
#3	-.002728	-.005046	-.003272	.000278	-.002736	-.002230	-.010334

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000217**	**-.001258**	**-.010787**	**-.000430**	**-.001262**	**-.000454**	**.0010941**
Stddev	.000052	.000024	.004514	.000118	.000056	.000168	.0010967
%RSD	24.09575	1.913446	41.84407	27.40124	4.400283	36.91886	100.2456
#1	-.000233	-.001275	-.015064	-.000303	-.001268	-.000315	.0022283
#2	-.000159	-.001269	-.006069	-.000452	-.001314	-.000641	.0000391
#3	-.000260	-.001231	-.011228	-.000535	-.001204	-.000407	.0010148

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001681**	**-.019975**	**-.001479**	**-.000408**	**-.066891**	**-.001304**	**-.001097**
Stddev	.000194	.005066	.000247	.000126	.001767	.000652	.000301
%RSD	11.53062	25.36192	16.70339	30.83145	2.640973	49.94944	27.46315
#1	-.001508	-.024702	-.001761	-.000485	-.064866	-.002053	-.001429
#2	-.001890	-.020596	-.001303	-.000476	-.067693	-.000996	-.001023
#3	-.001646	-.014627	-.001372	-.000263	-.068114	-.000865	-.000840

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.030629**	**-.003121**	**-.002462**	**-.002366**	**-.002427**	**-.010353**	**-.000864**
Stddev	.003579	.000735	.000091	.000094	.000655	.006167	.001104
%RSD	11.68516	23.55487	3.711210	3.971845	26.97536	59.56555	127.7546
#1	-.031700	-.003867	-.002540	-.002462	-.002968	-.003293	-.000025
#2	-.033550	-.003098	-.002361	-.002274	-.001699	-.013080	-.002114
#3	-.026637	-.002398	-.002484	-.002363	-.002613	-.014685	-.000452

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICB01 Acquired: 6/11/2025 14:03:12 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.003580	-.003515	-.002507
Stddev	.001388	.000736	.000041
%RSD	38.76147	20.92976	1.635821
#1	-.002347	-.003604	-.002533
#2	-.005083	-.004201	-.002528
#3	-.003310	-.002738	-.002460

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3032.299	71682.85	15160.91	2231.390	4409.767
Stddev	28.645	52.27	23.34	7.322	31.933
%RSD	.9446668	.0729197	.1539527	.3281443	.7241330
#1	3022.787	71727.27	15148.56	2237.144	4401.868
#2	3064.491	71696.02	15146.35	2223.148	4444.907
#3	3009.621	71625.25	15187.83	2233.878	4382.524

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CRI01 Acquired: 6/11/2025 14:07:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0187463**	**.0340263**	**.0099244**	**.0201207**	**.0479831**	**.1004083**	**.0899300**
Stddev	.0011325	.0012882	.0009796	.0017471	.0012924	.0028527	.0007423
%RSD	6.041192	3.785844	9.870663	8.682952	2.693438	2.841142	.8254377
#1	.0180358	.0326062	.0101345	.0207527	.0494537	.0976180	.0892041
#2	.0181509	.0351196	.0107820	.0181455	.0474676	.1033197	.0898981
#3	.0200524	.0343530	.0088568	.0214638	.0470280	.1002873	.0906877

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061023**	**.0046319**	**1.989418**	**.0094239**	**.0282568**	**.0212791**	**.0995984**
Stddev	.0000539	.0000556	.010120	.0002161	.0001271	.0002191	.0048166
%RSD	.8824500	1.200279	.5086795	2.293008	.4497021	1.029584	4.835992
#1	.0060461	.0045749	1.979935	.0091763	.0282142	.0211950	.1047306
#2	.0061074	.0046349	1.988246	.0095740	.0281564	.0215278	.0988886
#3	.0061535	.0046860	2.000072	.0095215	.0283997	.0211146	.0951762

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0193411**	**2.014795**	**.0387496**	**.0099327**	**1.779696**	**.0359583**	**.0412533**
Stddev	.0004276	.002372	.0002145	.0001053	.014266	.0005145	.0004841
%RSD	2.210779	.1177408	.5536547	1.060043	.8016051	1.430829	1.173482
#1	.0190123	2.016350	.0389529	.0098192	1.768872	.0357486	.0408784
#2	.0198244	2.015970	.0385254	.0100272	1.774355	.0365445	.0410816
#3	.0191865	2.012064	.0387706	.0099518	1.795862	.0355817	.0417998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.795280**	**.0994590**	**.1936813**	**.0357909**	**.0358899**	**.3295914**	**.0199843**
Stddev	.022189	.0011803	.0005880	.0005023	.0003604	.0022635	.0014839
%RSD	1.235982	1.186686	.3035902	1.403457	1.004238	.6867439	7.425327
#1	1.769659	.1006313	.1934274	.0358452	.0362310	.3272155	.0209379
#2	1.807894	.0982709	.1943536	.0362639	.0355129	.3317226	.0182746
#3	1.808288	.0994748	.1932630	.0352636	.0359257	.3298360	.0207403

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CRI01 Acquired: 6/11/2025 14:07:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0212305	.0162041	.0186157
Stddev	.0016218	.0016842	.0000989
%RSD	7.639179	10.39375	.5311682
#1	.0230692	.0181266	.0187008
#2	.0206189	.0154969	.0186390
#3	.0200034	.0149888	.0185072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3040.218	70903.72	14885.75	2223.067	4363.197
Stddev	8.182	93.37	3.80	7.591	7.983
%RSD	.2691385	.1316787	.0255344	.3414816	.1829551
#1	3046.384	70931.47	14887.72	2231.676	4363.131
#2	3030.936	70799.63	14881.37	2220.193	4355.247
#3	3043.335	70980.07	14888.16	2217.332	4371.212

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSA01 Acquired: 6/11/2025 14:14:19 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053426**	**-.007007**	**-.002247**	**.0136721**	**-.006512**	**253.0677**
Stddev	.0031933	.003344	.000897	.0018628	.003835	.7741
%RSD	59.77029	47.71827	39.90881	13.62499	58.88253	.3058912
#1	.0017474	-.006530	-.002412	.0135483	-.007041	252.1950
#2	.0064308	-.003927	-.003049	.0155938	-.002441	253.3363
#3	.0078495	-.010563	-.001279	.0118743	-.010055	253.6717

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005254**	**.0008682**	**.0035744**	**235.3428**	**.0443198**	**-.000130**
Stddev	.000111	.0000810	.0000569	.8797	.0003910	.000143
%RSD	2.121632	9.326483	1.592478	.3737984	.8822334	109.4117
#1	-.005256	.0007785	.0035907	234.3517	.0443863	-.000115
#2	-.005141	.0009359	.0035110	235.6453	.0438998	-.000280
#3	-.005364	.0008902	.0036213	236.0313	.0446733	.000004

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006251**	**94.46986**	**.0020064**	**256.1226**	**.0011920**	**-.001497**
Stddev	.000198	.53131	.0002737	1.2175	.0004102	.000458
%RSD	3.171105	.5624115	13.64034	.4753513	34.41030	30.60240
#1	-.006070	93.86560	.0020255	254.7206	.0007215	-.001976
#2	-.006221	94.86388	.0017236	256.7334	.0013801	-.001063
#3	-.006463	94.68011	.0022699	256.9137	.0014744	-.001452

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011355**	**.0018585**	**.0053352**	**-.013796**	F **.1971975**	**-.002419**
Stddev	.005042	.0007623	.0002029	.020198	.0008534	.000071
%RSD	44.40589	41.02087	3.802443	146.4069	.4327366	2.944103
#1	-.014032	.0021626	.0055541	.001645	.1962406	-.002454
#2	-.005539	.0024218	.0051534	-.036654	.1974722	-.002466
#3	-.014494	.0009910	.0052982	-.006378	.1978796	-.002337

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSA01 Acquired: 6/11/2025 14:14:19 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008478**	**-.004904**	**.0077983**	**.0017400**	**-.006378**	F **.0847191**
Stddev	.000768	.000610	.0055602	.0051424	.004942	.0008768
%RSD	9.054466	12.44787	71.29944	295.5304	77.49065	1.034894
#1	-.009144	-.004655	.0129124	-.000827	-.002233	.0846453
#2	-.007638	-.004457	.0018797	-.001613	-.005054	.0856304
#3	-.008653	-.005599	.0086029	.007661	-.011848	.0838815

Elem	Sr4077
Units	ppm
Avg	**.0067802**
Stddev	.0005881
%RSD	8.673576
#1	.0074563
#2	.0063871
#3	.0064973

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2656.775**	**63358.27**	**14196.21**	**1955.403**	**3455.220**
Stddev	11.880	95.36	28.58	14.717	10.622
%RSD	.4471409	.1505025	.2013097	.7526180	.3074201
#1	2649.876	63428.92	14208.98	1959.693	3447.836
#2	2670.492	63396.09	14216.18	1939.018	3467.393
#3	2649.957	63249.81	14163.48	1967.498	3450.430

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSAB01 Acquired: 6/11/2025 14:27:55 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0967141**	**.0742466**	**.0425451**	**.0590706**	**.5738983**	**241.8421**
Stddev	.0007154	.0019252	.0025836	.0049350	.0004596	3.4191
%RSD	.7396772	2.593006	6.072553	8.354462	.0800840	1.413773
#1	.0975223	.0758495	.0443095	.0556072	.5740014	238.0003
#2	.0961622	.0721112	.0395797	.0647213	.5742975	244.5507
#3	.0964578	.0747791	.0437462	.0568834	.5733959	242.9753

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4771850**	**.4454609**	**.9226435**	**226.9601**	**.5055025**	**.4675150**
Stddev	.0037535	.0061593	.0004392	3.5254	.0022086	.0002515
%RSD	.7865978	1.382689	.0475971	1.553304	.4369011	.0537956
#1	.4729650	.4390052	.9231268	222.9119	.5029936	.4672584
#2	.4801510	.4461043	.9222690	228.6135	.5063609	.4677611
#3	.4784389	.4512733	.9225346	229.3549	.5071529	.4675256

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4439342**	**96.53902**	**.4616284**	**244.5858**	**.9196629**	**.2010775**
Stddev	.0011562	.47865	.0067496	4.1995	.0006017	.0005273
%RSD	.2604422	.4958050	1.462118	1.717002	.0654245	.2622583
#1	.4441976	96.09454	.4538557	239.7677	.9202490	.2006342
#2	.4426691	97.04574	.4660097	246.5195	.9196932	.2009376
#3	.4449361	96.47678	.4650198	247.4701	.9190467	.2016607

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0148980**	**.4534211**	**.9916849**	**-.024549**	F **.2080172**	F **-.002530**
Stddev	.0151091	.0062514	.0041332	.008176	.0014283	.000269
%RSD	101.4172	1.378721	.4167804	33.30600	.6866261	10.63940
#1	.0030135	.4466187	.9881169	-.016093	.2074169	-.002823
#2	.0097789	.4589141	.9962139	-.025140	.2096477	-.002294
#3	.0319016	.4547306	.9907240	-.032414	.2069871	-.002472

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSAB01 Acquired: 6/11/2025 14:27:55 Type: Unk
Method: 6010-200.7 NEW(v5) 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 -.005275	F -.006383	F -.004880	F .0003799	F -.012354	F .0815250
Stddev	.000852	.000179	.001826	.0014419	.003942	.0011175
%RSD	16.15122	2.807231	37.41886	379.5410	31.90700	1.370745
#1	-.005303	-.006569	-.004130	.0003139	-.010384	.0815280
#2	-.004409	-.006369	-.003548	-.001028	-.016892	.0826410
#3	-.006112	-.006211	-.006962	.001854	-.009785	.0804060

Elem	Sr4077
Units	ppm
Avg	F .0012311
Stddev	.0006051
%RSD	49.15301
#1	.0006151
#2	.0012534
#3	.0018247

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2652.083	62357.48	14847.45	1935.109	3458.973
Stddev	6.245	285.83	161.13	15.658	2.829
%RSD	.2354899	.4583723	1.085264	.8091556	.0817983
#1	2652.123	62323.91	15033.46	1938.371	3458.045
#2	2658.308	62089.92	14758.09	1918.077	3462.150
#3	2645.817	62658.62	14750.79	1948.879	3456.725

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSADLX20 Acquired: 6/11/2025 14:32:51 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003204	-.003997	-.002536	.0004606	-.002651	11.45435	-.008984
Stddev	.002182	.001695	.000468	.0022869	.000991	.06166	.000234
%RSD	68.09634	42.39847	18.43958	496.5557	37.36087	.5382996	2.601130
#1	-.004017	-.004096	-.002814	.0007976	-.003626	11.48929	-.009138
#2	-.004862	-.005640	-.001996	-.001976	-.002682	11.49061	-.009100
#3	-.000732	-.002255	-.002798	.002560	-.001646	11.38316	-.008715

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000081	-.001141	11.33206	.0022629	-.001283	-.000834	4.601484
Stddev	.000036	.000087	.02681	.0002105	.000179	.000271	.025484
%RSD	44.15371	7.602812	.2365582	9.304038	13.93869	32.49152	.5538142
#1	-.000109	-.001236	11.33798	.0022330	-.001248	-.001107	4.626659
#2	-.000092	-.001121	11.35542	.0020689	-.001124	-.000829	4.602090
#3	-.000041	-.001066	11.30279	.0024868	-.001477	-.000565	4.575703

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000819	11.64847	-.000856	-.000684	-.045604	-.001705	-.000758
Stddev	.000019	.00740	.000433	.000227	.008738	.000652	.000223
%RSD	2.275094	.0635153	50.50503	33.19393	19.16042	38.24343	29.36740
#1	-.000826	11.64219	-.000834	-.000809	-.043509	-.002438	-.000809
#2	-.000833	11.64661	-.000436	-.000422	-.038104	-.001491	-.000951
#3	-.000798	11.65663	-.001300	-.000821	-.055199	-.001187	-.000514

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.045441	.0067369	-.002443	-.002996	-.002652	-.001976	.0001499
Stddev	.008159	.0004858	.000098	.000727	.000165	.007649	.0017884
%RSD	17.95504	7.210634	4.017299	24.25294	6.205097	387.1387	1193.408
#1	-.049462	.0064256	-.002372	-.003158	-.002832	.004562	.0013817
#2	-.050808	.0064885	-.002401	-.002202	-.002509	-.000101	-.001901
#3	-.036052	.0072967	-.002555	-.003628	-.002615	-.010388	.000969

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSADLX20 Acquired: 6/11/2025 14:32:51 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005062	-.000852	-.002390
Stddev	.002931	.000285	.000065
%RSD	57.90354	33.39012	2.726470
#1	-.001989	-.000756	-.002329
#2	-.007827	-.001172	-.002383
#3	-.005370	-.000628	-.002459

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3054.872	70123.90	15250.99	2221.938	4272.400
Stddev	16.369	57.06	13.39	9.628	8.914
%RSD	.5358207	.0813676	.0878132	.4333268	.2086328
#1	3036.068	70142.84	15253.46	2213.120	4262.303
#2	3065.932	70169.07	15236.53	2232.211	4275.724
#3	3062.616	70059.78	15262.97	2220.483	4279.175

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSABDLX20 Acquired: 6/11/2025 14:37:41 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013752**	**.0014635**	**-.000680**	**-.001143**	**.0270553**	**12.47895**	**.0169944**
Stddev	.0024462	.0012889	.000428	.003130	.0011369	.01728	.0004609
%RSD	177.8754	88.06976	62.84175	273.8023	4.202065	.1384981	2.712232
#1	.0018493	.0006660	-.000397	-.003777	.0269710	12.49889	.0169694
#2	-.001273	.0007740	-.001172	-.001970	.0282320	12.46818	.0165465
#3	.003550	.0029506	-.000472	.002317	.0259629	12.46980	.0174673

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0270480**	**.0493841**	**12.34687**	**.0284917**	**.0241065**	**.0255897**	**4.773784**
Stddev	.0001362	.0001576	.08547	.0001625	.0003216	.0003536	.045179
%RSD	.5035896	.3192090	.6922317	.5704963	1.334066	1.381657	.9463916
#1	.0271834	.0492492	12.30444	.0284918	.0238102	.0258788	4.752210
#2	.0270495	.0493458	12.29092	.0283291	.0244485	.0256949	4.743437
#3	.0269110	.0495574	12.44525	.0286542	.0240608	.0251955	4.825706

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0247916**	**12.72263**	**.0498484**	**.0122652**	**-.073259**	**.0230644**	**.0533894**
Stddev	.0003344	.13410	.0000931	.0001212	.013953	.0002514	.0005584
%RSD	1.348943	1.053988	.1867332	.9879083	19.04634	1.089959	1.045984
#1	.0245975	12.63833	.0498737	.0122646	-.057239	.0227798	.0539383
#2	.0245995	12.65230	.0497453	.0121443	-.082756	.0231572	.0528219
#3	.0251777	12.87726	.0499262	.0123866	-.079783	.0232562	.0534079

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.032591**	**.0564227**	**.0468937**	**.0439928**	**.0466713**	**.0336246**	**-.002444**
Stddev	.012348	.0003329	.0001481	.0001171	.0007421	.0034070	.001613
%RSD	37.88832	.5899485	.3158568	.2662213	1.590056	10.13233	66.01883
#1	-.032638	.0568059	.0467578	.0438699	.0468778	.0369729	-.002000
#2	-.044916	.0562566	.0468716	.0441031	.0458478	.0337390	-.001099
#3	-.020220	.0562055	.0470516	.0440053	.0472883	.0301619	-.004233

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: ICSABDLX20 Acquired: 6/11/2025 14:37:41 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003928	.0005991	-.002211
Stddev	.002233	.0018893	.000065
%RSD	56.85677	315.3689	2.957293
#1	-.006437	-.001570	-.002137
#2	-.002161	.001888	-.002233
#3	-.003184	.001479	-.002262

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3041.306	70368.35	14673.51	2213.738	4260.789
Stddev	13.633	156.61	16.75	15.536	17.331
%RSD	.4482516	.2225545	.1141734	.7017906	.4067579
#1	3037.575	70307.23	14664.13	2202.553	4262.266
#2	3056.416	70546.30	14692.85	2231.477	4277.334
#3	3029.927	70251.51	14663.55	2207.184	4242.766

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV01 Acquired: 6/11/2025 14:42:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.968883**	**4.506879**	**4.911013**	**4.967088**	**4.961463**	**9.870506**	**10.01605**
Stddev	.027257	.047033	.019463	.023541	.036460	.022833	.14784
%RSD	.5485495	1.043593	.3963122	.4739485	.7348698	.2313218	1.476039
#1	4.957463	4.490157	4.890346	4.958319	4.954393	9.894386	9.88490
#2	4.949194	4.470491	4.913702	4.949189	4.929055	9.848889	10.17626
#3	4.999992	4.559988	4.928992	4.993755	5.000940	9.868243	9.98698

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2413425**	**2.424226**	**24.62713**	**.9908398**	**2.446905**	**1.236433**	**5.122766**
Stddev	.0005282	.007179	.15437	.0015589	.007031	.003768	.023381
%RSD	.2188779	.2961247	.6268129	.1573265	.2873293	.3047113	.4564102
#1	.2419525	2.416128	24.79324	.9918888	2.439604	1.234197	5.141021
#2	.2410418	2.426741	24.60006	.9915821	2.447479	1.234318	5.130865
#3	.2410333	2.429809	24.48809	.9890485	2.453630	1.240782	5.096413

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.471418**	**24.27802**	**2.453783**	**1.236371**	**25.61757**	**2.474634**	**2.492230**
Stddev	.010485	.18148	.007804	.002328	.01869	.005352	.005573
%RSD	.4242467	.7474876	.3180291	.1883150	.0729724	.2162859	.2236217
#1	2.481934	24.43391	2.445881	1.237331	25.59706	2.480772	2.492453
#2	2.471355	24.32135	2.453982	1.238066	25.63365	2.470940	2.486549
#3	2.460965	24.07880	2.461485	1.233717	25.62199	2.472189	2.497688

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.87732**	**4.734861**	**4.936083**	**4.909693**	**5.026186**	**4.832692**	**5.101895**
Stddev	.04622	.017568	.024205	.019575	.014803	.017468	.029193
%RSD	.1858047	.3710300	.4903626	.3986969	.2945083	.3614557	.5721964
#1	24.86062	4.754666	4.923955	4.893230	5.042956	4.828491	5.073968
#2	24.92957	4.728761	4.920339	4.904511	5.014937	4.851877	5.099508
#3	24.84176	4.721157	4.963954	4.931337	5.020666	4.817707	5.132207

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV01 Acquired: 6/11/2025 14:42:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.776218**	**4.996354**	**5.019185**
Stddev	.017661	.004208	.013694
%RSD	.3697762	.0842297	.2728422
#1	4.757954	4.992571	5.003442
#2	4.777492	4.995603	5.025776
#3	4.793207	5.000887	5.028338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2870.798**	**67792.55**	**15004.70**	**2119.612**	**3873.014**
Stddev	15.101	124.07	38.94	5.080	15.050
%RSD	.5260208	.1830080	.2595213	.2396474	.3885797
#1	2872.661	67758.19	14959.74	2124.509	3880.505
#2	2884.881	67689.28	15027.04	2119.958	3882.849
#3	2854.852	67930.17	15027.33	2114.368	3855.689

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB01 Acquired: 6/11/2025 14:46:45 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003895**	**-.002550**	**-.002357**	**-.000776**	**-.001273**	**-.006345**	**-.008568**
Stddev	.001264	.000313	.000413	.001498	.000454	.004255	.000525
%RSD	32.46082	12.26074	17.51061	193.0314	35.65324	67.07005	6.132868
#1	-.002442	-.002816	-.002174	.000921	-.001123	-.011066	-.009169
#2	-.004494	-.002629	-.002067	-.001336	-.000913	-.005164	-.008338
#3	-.004748	-.002206	-.002829	-.001913	-.001783	-.002804	-.008197

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000165**	**-.001168**	**-.011308**	**-.000418**	**-.001287**	**-.000496**	**-.001873**
Stddev	.000023	.000041	.005706	.000083	.000172	.000143	.001704
%RSD	14.19289	3.494382	50.45473	19.82606	13.36690	28.88546	90.95136
#1	-.000191	-.001215	-.007788	-.000369	-.001096	-.000660	-.001991
#2	-.000158	-.001150	-.008245	-.000371	-.001431	-.000432	-.000114
#3	-.000146	-.001139	-.017891	-.000514	-.001333	-.000396	-.003515

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001621**	**-.010347**	**-.001348**	**-.000111**	**-.079705**	**-.002006**	**-.001314**
Stddev	.000134	.007890	.000246	.000165	.010527	.001683	.000158
%RSD	8.281326	76.25845	18.21188	149.0470	13.20719	83.88942	12.02253
#1	-.001726	-.016368	-.001165	-.000259	-.083313	-.003881	-.001495
#2	-.001668	-.013258	-.001627	-.000141	-.067849	-.001515	-.001238
#3	-.001470	-.001415	-.001253	.000068	-.087954	-.000624	-.001208

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.035810**	**.0042884**	**-.002203**	**-.003043**	**-.002053**	**.0001079**	**-.003076**
Stddev	.012625	.0010007	.000220	.000122	.000230	.0076109	.001674
%RSD	35.25695	23.33431	9.974565	4.007772	11.20143	7054.904	54.43441
#1	-.030269	.0031352	-.002167	-.002982	-.001813	-.008656	-.002532
#2	-.050258	.0049270	-.002438	-.002964	-.002073	.003922	-.004955
#3	-.026902	.0048030	-.002003	-.003183	-.002272	.005058	-.001741

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB01 Acquired: 6/11/2025 14:46:45 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.001964	-.003944	-.002597
Stddev	.002362	.001084	.000015
%RSD	120.2323	27.47521	.5743464
#1	-.000002	-.004131	-.002595
#2	-.004585	-.004923	-.002613
#3	-.001306	-.002780	-.002583

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3109.852	73675.52	14989.75	2280.489	4510.289
Stddev	32.171	214.04	80.88	11.175	23.668
%RSD	1.034487	.2905206	.5395744	.4900186	.5247581
#1	3080.477	73649.71	15059.15	2288.763	4492.100
#2	3144.232	73475.56	14900.93	2267.777	4537.048
#3	3104.846	73901.30	15009.18	2284.927	4501.718

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01 Acquired: 6/11/2025 14:51:04 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0427770**	**-.030146**	**.4463600**	**.0353253**	**.0076535**	**134.1796**	**1.240004**
Stddev	.0027339	.000347	.0037973	.0026100	.0026601	.2269	.000036
%RSD	6.390990	1.149817	.8507161	7.388499	34.75672	.1691282	.0029045
#1	.0402378	-.029824	.4465253	.0345472	.0103371	133.9990	1.240035
#2	.0456709	-.030102	.4500719	.0382358	.0076058	134.1056	1.240011
#3	.0424225	-.030513	.4424827	.0331928	.0050176	134.4344	1.239964

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067542**	**.0958515**	**350.7051**	**.2441740**	**.1745154**	**1.802695**	**313.5155**
Stddev	.0001350	.0004830	2.9955	.0010235	.0004634	.001399	2.7709
%RSD	1.998991	.5038650	.8541249	.4191714	.2655432	.0776233	.8838283
#1	.0065985	.0963961	347.3999	.2439071	.1749769	1.802642	310.6241
#2	.0068396	.0954751	351.4748	.2433103	.1745192	1.801322	316.1478
#3	.0068244	.0956835	353.2407	.2453044	.1740501	1.804119	313.7745

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.583217**	**126.0883**	**.3965834**	**-.003617**	**7.332285**	**.5732061**	**7.031484**
Stddev	.043907	1.2838	.0008360	.001416	.009257	.0040016	.008008
%RSD	.7864118	1.018203	.2107958	39.16324	.1262539	.6981098	.1138879
#1	5.542979	124.7970	.3957341	-.005158	7.333541	.5689935	7.039545
#2	5.630048	127.3645	.3966108	-.002373	7.322464	.5769566	7.031376
#3	5.576625	126.1034	.3974054	-.003319	7.340850	.5736681	7.023530

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.42782**	**1.068514**	**.0080002**	**.0352126**	**9.670703**	**12.09870**	**8.159635**
Stddev	.01030	.007388	.0004941	.0015860	.036597	.11880	.029662
%RSD	.0714046	.6914606	6.176202	4.503965	.3784331	.9819576	.3635182
#1	14.43716	1.062029	.0085664	.0338915	9.630198	11.96901	8.192300
#2	14.41677	1.076557	.0077782	.0347749	9.701390	12.12483	8.134383
#3	14.42953	1.066956	.0076560	.0369715	9.680521	12.20227	8.152223

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01 Acquired: 6/11/2025 14:51:04 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**10.65673**	**.3399811**	**.8353163**
Stddev	.03306	.0020210	.0047961
%RSD	.3101848	.5944332	.5741624
#1	10.68395	.3384416	.8404258
#2	10.61995	.3422696	.8346115
#3	10.66628	.3392320	.8309116

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2964.185**	**72761.99**	**15943.25**	**2188.713**	**3398.907**
Stddev	4.458	112.75	7.66	4.389	1.570
%RSD	.1503834	.1549509	.0480421	.2005299	.0461830
#1	2964.793	72732.94	15952.08	2185.368	3397.150
#2	2968.307	72886.42	15939.24	2187.089	3399.401
#3	2959.454	72666.62	15938.43	2193.683	3400.170

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01DUP Acquired: 6/11/2025 14:55:24 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0428184	-.028193	.4442147	.0430707	.0091308	135.5714
Stddev	.0003160	.004110	.0029806	.0042862	.0013231	.6424
%RSD	.7379298	14.57998	.6709884	9.951528	14.49020	.4738239
#1	.0428383	-.029463	.4411615	.0417350	.0101828	136.2777
#2	.0424929	-.023597	.4443655	.0396115	.0095642	135.0221
#3	.0431239	-.031518	.4471171	.0478658	.0076454	135.4143

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.285599	.0064510	.0929556	351.4986	.2447587	.1758710
Stddev	.010399	.0000711	.0002440	2.4066	.0012197	.0001447
%RSD	.8089157	1.101463	.2624921	.6846584	.4983106	.0822860
#1	1.297573	.0065312	.0932364	354.2772	.2435772	.1757414
#2	1.280404	.0064257	.0928353	350.1415	.2460132	.1760272
#3	1.278821	.0063960	.0927951	350.0771	.2446856	.1758444

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.796842	335.8693	5.597148	124.4503	.4002351	.0029147
Stddev	.004019	.5890	.029157	.2129	.0001963	.0005627
%RSD	.2236895	.1753532	.5209350	.1710472	.0490544	19.30527
#1	1.795684	335.3568	5.629881	124.6016	.4002762	.0025496
#2	1.793529	335.7384	5.587607	124.5425	.4000214	.0026318
#3	1.801313	336.5127	5.573957	124.2069	.4004076	.0035627

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.319777	.5770269	7.049603	15.44621	1.128157	.0079524
Stddev	.058211	.0005799	.020058	.06150	.002088	.0003216
%RSD	.6996745	.1005021	.2845214	.3981875	.1850476	4.043551
#1	8.375803	.5776963	7.062048	15.49819	1.125797	.0076016
#2	8.259602	.5767083	7.026465	15.37831	1.128914	.0082332
#3	8.323925	.5766762	7.060296	15.46215	1.129760	.0080225

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01DUP Acquired: 6/11/2025 14:55:24 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0354786	9.979463	F 14.17407	8.135058	10.67868	.3451920
Stddev	.0007769	.045560	.14099	.009361	.04595	.0023349
%RSD	2.189872	.4565413	.9947104	.1150708	.4302616	.6764077
#1	.0351528	10.03194	14.03535	8.124260	10.64506	.3473127
#2	.0349176	9.95004	14.16963	8.140889	10.65994	.3426899
#3	.0363654	9.95640	14.31723	8.140024	10.73103	.3455733

Elem	Sr4077
Units	ppm
Avg	.8306058
Stddev	.0077245
%RSD	.9299792
#1	.8378231
#2	.8315361
#3	.8224584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2968.841	72271.11	16973.01	2193.452	3397.686
Stddev	6.485	239.99	94.13	13.173	11.208
%RSD	.2184403	.3320659	.5545756	.6005749	.3298757
#1	2961.466	72200.53	16865.66	2189.903	3386.431
#2	2973.652	72538.48	17041.42	2208.037	3397.778
#3	2971.405	72074.34	17011.96	2182.418	3408.847

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01LX5 Acquired: 6/11/2025 14:59:43 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0062268**	**-.008047**	**.0886549**	**.0093730**	**-.000670**	**27.68600**	**.2604230**
Stddev	.0005143	.001728	.0002315	.0025201	.000493	.02967	.0014293
%RSD	8.259421	21.47230	.2611749	26.88662	73.57617	.1071739	.5488338
#1	.0067752	-.006975	.0885163	.0065614	-.001227	27.69550	.2608303
#2	.0061500	-.010040	.0889222	.0101292	-.000494	27.70975	.2616045
#3	.0057553	-.007126	.0885261	.0114284	-.000289	27.65274	.2588343

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013684**	**.0146324**	**77.22093**	**.0537987**	**.0328195**	**.4173841**	**74.39811**
Stddev	.0000748	.0000893	.09517	.0004587	.0002976	.0025465	.76631
%RSD	5.462567	.6101692	.1232473	.8526037	.9067491	.6101023	1.030012
#1	.0014431	.0145836	77.23469	.0534661	.0331025	.4159265	75.01817
#2	.0012936	.0145781	77.30847	.0536081	.0328468	.4203245	74.63478
#3	.0013687	.0147354	77.11962	.0543220	.0325092	.4159013	73.54139

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.243112**	**26.42769**	**.0782200**	**.0004347**	**1.508327**	**.1226444**	**1.659139**
Stddev	.006332	.04283	.0003780	.0001120	.030041	.0006020	.003206
%RSD	.5093782	.1620543	.4832286	25.75665	1.991657	.4908251	.1932452
#1	1.246243	26.38098	.0782374	.0005456	1.533067	.1231526	1.659224
#2	1.247269	26.43696	.0785890	.0003217	1.517014	.1228009	1.662302
#3	1.235824	26.46512	.0778336	.0004368	1.474900	.1219796	1.655891

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.915611**	**.2533863**	**-.000276**	**-.000966**	**2.104760**	**2.567928**	**1.548589**
Stddev	.025210	.0031024	.000114	.000310	.002431	.025789	.009319
%RSD	.8646716	1.224390	41.32806	32.02777	.1154927	1.004269	.6017866
#1	2.918671	.2564589	-.000407	-.001094	2.104445	2.580957	1.555143
#2	2.939151	.2534452	-.000221	-.001192	2.107333	2.584603	1.552704
#3	2.889010	.2502549	-.000199	-.000614	2.102502	2.538224	1.537921

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01LX5 Acquired: 6/11/2025 14:59:43 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.045015**	**.0698597**	**.1740964**
Stddev	.011240	.0008826	.0005584
%RSD	.5496091	1.263414	.3207282
#1	2.057943	.0699076	.1736783
#2	2.039548	.0707174	.1747305
#3	2.037555	.0689541	.1738803

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2979.867**	**70711.91**	**16192.65**	**2209.724**	**3949.687**
Stddev	13.107	792.99	37.33	39.075	16.502
%RSD	.4398358	1.121433	.2305639	1.768312	.4177954
#1	2983.600	70038.48	16165.96	2184.098	3947.326
#2	2965.298	70511.32	16176.68	2190.376	3934.493
#3	2990.702	71585.93	16235.32	2254.698	3967.242

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01MS Acquired: 6/11/2025 15:04:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7445698	1.716275	1.249750	1.739946	.3121254	118.4281
Stddev	.0018721	.020632	.004904	.007330	.0035665	.3599
%RSD	.2514279	1.202158	.3923709	.4212708	1.142634	.3038869
#1	.7424106	1.735619	1.250440	1.733195	.3117985	118.2650
#2	.7455597	1.718646	1.244537	1.747743	.3158440	118.8406
#3	.7457392	1.694560	1.254271	1.738901	.3087336	118.1786

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.200777	.1761964	.2561909	398.3454	.6069033	.3286034
Stddev	.004328	.0007820	.0012325	1.1111	.0019696	.0015830
%RSD	.3604578	.4438220	.4810997	.2789213	.3245329	.4817207
#1	1.203106	.1770678	.2560891	399.0477	.6073460	.3283327
#2	1.203442	.1759658	.2550125	397.0645	.6086139	.3271732
#3	1.195783	.1755557	.2574712	398.9241	.6047500	.3303042

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9974553	237.8618	4.884669	129.5721	.7859399	.0673722
Stddev	.0029990	.7711	.014561	.1172	.0031506	.0007694
%RSD	.3006636	.3241686	.2980984	.0904202	.4008711	1.141997
#1	.9942214	238.7464	4.900901	129.6040	.7860835	.0675619
#2	.9979999	237.3315	4.880348	129.4423	.7827200	.0665257
#3	1.000145	237.5076	4.872757	129.6700	.7890163	.0680290

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.00625	.7361391	4.159447	21.96544	1.148628	.3548166
Stddev	.06177	.0041644	.014221	.06324	.003985	.0008462
%RSD	.6172665	.5657058	.3418933	.2879111	.3469526	.2384903
#1	10.06621	.7402188	4.169785	22.03067	1.153121	.3538626
#2	10.00974	.7363036	4.165327	21.96127	1.147243	.3551108
#3	9.94282	.7318949	4.143229	21.90439	1.145520	.3554765

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01MS Acquired: 6/11/2025 15:04:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.6573229	8.392102	F 17.13286	12.28200	8.328772	.4647656
Stddev	.0046636	.020940	.01794	.06280	.017658	.0020540
%RSD	.7094773	.2495178	.1047074	.5113198	.2120159	.4419456
#1	.6596555	8.406916	17.12148	12.35413	8.341155	.4653055
#2	.6519533	8.401246	17.15354	12.25243	8.308551	.4664957
#3	.6603599	8.368146	17.12357	12.23944	8.336609	.4624955

Elem	Sr4077
Units	ppm
Avg	1.046543
Stddev	.004739
%RSD	.4528062
#1	1.046104
#2	1.042039
#3	1.051486

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2929.289	71822.09	16087.36	2168.014	3425.773
Stddev	12.694	46.05	16.56	4.109	13.323
%RSD	.4333555	.0641107	.1029633	.1895513	.3889103
#1	2943.933	71800.52	16091.90	2171.371	3435.083
#2	2921.420	71874.96	16101.17	2163.431	3431.724
#3	2922.513	71790.79	16068.99	2169.240	3410.511

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01MSD Acquired: 6/11/2025 15:08:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7371949**	**1.728177**	**1.178059**	**1.728457**	**.3464054**	**95.96129**
Stddev	.0031622	.002637	.002694	.005952	.0030414	.20621
%RSD	.4289514	.1525986	.2286771	.3443468	.8780000	.2148837
#1	.7347690	1.729849	1.180851	1.730406	.3461746	95.95592
#2	.7360444	1.729545	1.177850	1.721775	.3434859	96.17013
#3	.7407713	1.725137	1.175476	1.733189	.3495556	95.75782

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9999967**	**.1892450**	**.2410718**	**318.4669**	**.5645211**	**.2978357**
Stddev	.0048149	.0013016	.0008943	.5121	.0043048	.0003428
%RSD	.4814926	.6878035	.3709787	.1608100	.7625540	.1151043
#1	.9979842	.1904442	.2414368	317.8755	.5676699	.2978729
#2	1.005491	.1894301	.2417259	318.7567	.5662776	.2981584
#3	.996515	.1878607	.2400527	318.7683	.5596158	.2974758

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8786719**	**189.6907**	**4.037199**	**108.8029**	**.7165954**	**.0664365**
Stddev	.0030781	.3885	.006391	.1777	.0010065	.0002103
%RSD	.3503074	.2048263	.1583152	.1633116	.1404572	.3165316
#1	.8777750	189.4415	4.034343	108.9708	.7161791	.0661945
#2	.8761419	189.4922	4.044520	108.6168	.7177432	.0665743
#3	.8820988	190.1384	4.032733	108.8212	.7158637	.0665409

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.042182**	**.6529580**	**3.480495**	**18.58451**	**.9974782**	**.3598332**
Stddev	.028983	.0008591	.011738	.05380	.0015530	.0011189
%RSD	.3603890	.1315772	.3372438	.2894895	.1556909	.3109385
#1	8.016722	.6528956	3.478656	18.52433	.9981575	.3593192
#2	8.073723	.6538466	3.469786	18.62796	.9985759	.3590637
#3	8.036101	.6521318	3.493044	18.60123	.9957014	.3611167

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01MSD Acquired: 6/11/2025 15:08:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.6510756	6.881944	F 15.16097	10.72860	6.400426	.4023913
Stddev	.0013860	.016936	.05149	.02977	.007037	.0020964
%RSD	.2128838	.2460933	.3396123	.2775197	.1099401	.5209869
#1	.6504470	6.871537	15.15111	10.74839	6.408414	.4018352
#2	.6526646	6.901487	15.11513	10.74306	6.395142	.4047097
#3	.6501153	6.872809	15.21668	10.69436	6.397724	.4006290

Elem	Sr4077
Units	ppm
Avg	.8541584
Stddev	.0010738
%RSD	.1257178
#1	.8546968
#2	.8529219
#3	.8548566

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2934.353	71088.56	15167.92	2177.508	3531.639
Stddev	23.457	75.54	33.02	16.296	18.503
%RSD	.7993977	.1062677	.2177265	.7483758	.5239190
#1	2944.999	71052.69	15142.28	2185.298	3546.121
#2	2950.600	71175.36	15156.31	2188.448	3538.001
#3	2907.461	71037.64	15205.19	2158.780	3510.794

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01A Acquired: 6/11/2025 15:13:01 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7256739	1.705076	1.329005	1.698283	.7101895	132.8856	1.354915
Stddev	.0016073	.010029	.003770	.004386	.0027644	.9254	.004894
%RSD	.2214921	.5881827	.2836475	.2582764	.3892413	.6963746	.3612298
#1	.7247179	1.710481	1.324889	1.703342	.7133172	131.8170	1.349425
#2	.7275296	1.711243	1.329838	1.695974	.7080738	133.4251	1.358819
#3	.7247742	1.693504	1.332289	1.695534	.7091774	133.4146	1.356503

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1794199	.2802558	348.5915	.5571435	.3617503	2.012027	305.1932
Stddev	.0007631	.0013190	2.2129	.0026007	.0013431	.002028	.9714
%RSD	.4253132	.4706324	.6348254	.4667883	.3712752	.1008140	.3182766
#1	.1793853	.2787387	346.6528	.5587072	.3603869	2.014092	305.5879
#2	.1801997	.2811309	351.0024	.5585818	.3617917	2.011954	305.9051
#3	.1786747	.2808977	348.1192	.5541413	.3630721	2.010037	304.0866

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.601570	126.3366	.8571818	.0590910	9.448410	.8118253	7.114300
Stddev	.025419	.5857	.0035867	.0004447	.019223	.0066557	.012290
%RSD	.4537914	.4636067	.4184345	.7526188	.2034572	.8198430	.1727460
#1	5.596412	125.8229	.8530487	.0588460	9.470312	.8057904	7.120566
#2	5.629173	126.9744	.8590185	.0596044	9.440590	.8189638	7.122193
#3	5.579125	126.2125	.8594782	.0588228	9.434330	.8107215	7.100140

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.59428	1.292113	.3560983	.6958344	9.576140	12.54608	13.69305
Stddev	.07555	.004483	.0006521	.0016095	.034652	.05829	.01583
%RSD	.3343648	.3469649	.1831346	.2313056	.3618553	.4645970	.1156001
#1	22.51088	1.293171	.3568504	.6940059	9.544410	12.48988	13.67588
#2	22.61379	1.295972	.3556896	.6970369	9.613115	12.60625	13.70707
#3	22.65815	1.287195	.3557549	.6964603	9.570894	12.54209	13.69621

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2238-01A Acquired: 6/11/2025 15:13:01 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**10.71808**	**.4934455**	**.9735418**
Stddev	.02902	.0017855	.0079255
%RSD	.2707227	.3618326	.8140909
#1	10.68545	.4913845	.9682909
#2	10.74098	.4944315	.9696761
#3	10.72782	.4945206	.9826584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3014.867**	**71787.57**	**15484.53**	**2167.665**	**3434.833**
Stddev	19.447	110.99	54.46	13.171	15.795
%RSD	.6450217	.1546047	.3517277	.6076278	.4598468
#1	2992.934	71895.12	15545.88	2181.824	3419.520
#2	3030.000	71794.16	15441.89	2165.395	3451.069
#3	3021.668	71673.44	15465.82	2155.777	3433.909

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01 Acquired: 6/11/2025 15:57:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0134394**	**-.015670**	**.2093604**	**.0131372**	**-.003361**	**64.82694**
Stddev	.0008244	.001839	.0028178	.0051820	.002526	.29331
%RSD	6.134389	11.73798	1.345905	39.44568	75.15148	.4524491
#1	.0125662	-.017793	.2066777	.0176236	-.006216	65.16473
#2	.0135476	-.014554	.2091075	.0143230	-.002451	64.67937
#3	.0142043	-.014664	.2122962	.0074650	-.001417	64.63671

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.355607**	**.0042686**	**.0039103**	**216.4988**	**.1000845**	**.0479474**
Stddev	.011502	.0001099	.0000146	.8469	.0012945	.0000484
%RSD	.8484905	2.574726	.3724482	.3911799	1.293441	.1009121
#1	1.368817	.0041525	.0038940	217.3338	.0991264	.0479542
#2	1.347805	.0043710	.0039153	215.6405	.0995699	.0478959
#3	1.350200	.0042824	.0039218	216.5220	.1015572	.0479919

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2346677**	**75.23735**	**1.299733**	**35.30846**	**.0973700**	**-.000616**
Stddev	.0004701	.53296	.007525	.06714	.0001649	.000388
%RSD	.2003048	.7083744	.5789890	.1901618	.1693131	63.08986
#1	.2345323	75.82244	1.308181	35.30249	.0972487	-.000604
#2	.2351906	75.11006	1.293749	35.24450	.0973035	-.000233
#3	.2342802	74.77956	1.297268	35.37838	.0975577	-.001010

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**113.0242**	**.1537197**	**.3320509**	**15.08501**	**.2660907**	**.0116326**
Stddev	1.8419	.0001613	.0003536	.20161	.0016967	.0001055
%RSD	1.629663	.1049246	.1064907	1.336499	.6376353	.9071250
#1	115.0909	.1535405	.3317908	15.29116	.2680069	.0116772
#2	112.4260	.1537656	.3319084	15.07560	.2654860	.0115121
#3	111.5557	.1538531	.3324535	14.88826	.2647792	.0117084

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01 Acquired: 6/11/2025 15:57:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.004045	2.015057	F 100.2948	3.581366	19.59243	.1465492
Stddev	.000609	.009241	.9151	.030644	.07121	.0007111
%RSD	15.06094	.4586039	.9124549	.8556529	.3634406	.4852247
#1	-.003701	2.025030	101.1499	3.571478	19.60469	.1466263
#2	-.003685	2.006784	100.4048	3.556886	19.51589	.1458027
#3	-.004748	2.013358	99.3296	3.615733	19.65671	.1472186

Elem	Sr4077
Units	ppm
Avg	.4438361
Stddev	.0033557
%RSD	.7560620
#1	.4475749
#2	.4410855
#3	.4428479

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2997.460	70716.07	15675.53	2171.412	3613.166
Stddev	13.108	617.20	83.11	41.120	9.436
%RSD	.4373139	.8727910	.5301781	1.893685	.2611501
#1	2991.287	70110.65	15581.16	2143.231	3605.871
#2	2988.578	70693.16	15737.79	2152.409	3609.806
#3	3012.515	71344.42	15707.65	2218.596	3623.822

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01DUP Acquired: 6/11/2025 16:07:20 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0167879	-.016286	.2237052	.0149519	-.002693	64.37931
Stddev	.0017358	.001245	.0053554	.0037737	.002032	.20887
%RSD	10.33959	7.646724	2.393934	25.23909	75.47380	.3244391
#1	.0153530	-.015096	.2197720	.0157045	-.001078	64.35122
#2	.0162935	-.016181	.2215393	.0108586	-.004974	64.60080
#3	.0187173	-.017580	.2298042	.0182926	-.002025	64.18590

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.344248	.0039383	.0031197	205.3664	.0999879	.0471619
Stddev	.004360	.0002802	.0004893	.4392	.0043469	.0012515
%RSD	.3243441	7.115353	15.68479	.2138680	4.347392	2.653695
#1	1.341385	.0042565	.0036258	205.3599	.1050040	.0464956
#2	1.349266	.0038302	.0030842	205.8088	.0973229	.0463844
#3	1.342093	.0037282	.0026491	204.9305	.0976370	.0486056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2291921	79.16348	1.203537	33.25137	.0959850	.0008142
Stddev	.0015787	1.90737	.003318	.07086	.0026591	.0008875
%RSD	.6887948	2.409405	.2756668	.2131096	2.770384	108.9994
#1	.2309626	76.98316	1.200813	33.32056	.0938898	-.000156
#2	.2279312	79.98399	1.207231	33.25461	.0950887	.001015
#3	.2286824	80.52329	1.202566	33.17895	.0989765	.001584

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.1289	.1518847	.3348497	15.68139	.2726412	.0112376
Stddev	2.1538	.0020122	.0012787	.35775	.0037906	.0001369
%RSD	1.870770	1.324848	.3818779	2.281342	1.390316	1.218174
#1	112.6726	.1533586	.3336474	15.26897	.2684782	.0111053
#2	116.0196	.1495922	.3347084	15.86725	.2735522	.0113787
#3	116.6944	.1527034	.3361931	15.90796	.2758933	.0112287

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01DUP Acquired: 6/11/2025 16:07:20 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003050**	**2.116891**	F **108.7445**	**3.295328**	**19.03729**	**.1416362**
Stddev	.001296	.016341	2.8281	.063339	.39895	.0013192
%RSD	42.50575	.7719384	2.600715	1.922092	2.095617	.9314297
#1	-.004145	2.103122	105.4872	3.269712	18.80217	.1401485
#2	-.003386	2.134949	110.1710	3.248808	18.81177	.1426637
#3	-.001618	2.112603	110.5753	3.367463	19.49792	.1420964

Elem	Sr4077
Units	ppm
Avg	**.4237490**
Stddev	.0021962
%RSD	.5182809
#1	.4258071
#2	.4240030
#3	.4214368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2995.644**	**72040.71**	**17122.63**	**2222.491**	**3609.310**
Stddev	108.222	1671.60	78.84	151.644	78.669
%RSD	3.612632	2.320354	.4604420	6.823150	2.179607
#1	2922.056	73970.76	17115.60	2397.388	3555.245
#2	2944.971	71096.61	17047.55	2127.680	3573.124
#3	3119.905	71054.76	17204.76	2142.405	3699.560

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01LX5 Acquired: 6/11/2025 16:11:36 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0005334**	**-.006366**	**.0402212**	**.0033978**	**-.003503**	**12.67216**
Stddev	.0009442	.001944	.0008090	.0007102	.000694	.03705
%RSD	177.0382	30.53392	2.011492	20.90291	19.81869	.2923395
#1	.0007877	-.008527	.0406247	.0027222	-.004213	12.68014
#2	-.000512	-.005809	.0392898	.0041383	-.003470	12.70456
#3	.001324	-.004761	.0407492	.0033330	-.002826	12.63177

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2594206**	**.0007715**	**-.000837**	**44.37596**	**.0203131**	**.0078914**
Stddev	.0006283	.0000547	.000020	.24727	.0006889	.0000580
%RSD	.2421776	7.094577	2.401750	.5572085	3.391498	.7353667
#1	.2587379	.0007331	-.000856	44.21783	.0210403	.0079110
#2	.2599745	.0007472	-.000840	44.24914	.0196703	.0078261
#3	.2595494	.0008342	-.000816	44.66090	.0202287	.0079371

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0499147**	**15.63460**	**.2690817**	**7.207479**	**.0179720**	**-.000703**
Stddev	.0005620	.26269	.0006057	.046022	.0001910	.000397
%RSD	1.125847	1.680165	.2251086	.6385334	1.062547	56.46877
#1	.0501305	15.35776	.2686712	7.166642	.0179275	-.001149
#2	.0503369	15.66565	.2687965	7.198448	.0178072	-.000572
#3	.0492769	15.88038	.2697773	7.257348	.0181813	-.000388

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.34143**	**.0294040**	**.0642409**	**2.701731**	**.0533722**	**.0001436**
Stddev	.26820	.0012523	.0006544	.036719	.0008062	.0001792
%RSD	1.256712	4.258896	1.018731	1.359101	1.510424	124.8386
#1	21.03483	.0307250	.0643898	2.660617	.0528485	.0001960
#2	21.53252	.0282342	.0648080	2.731262	.0529677	.0002908
#3	21.45695	.0292529	.0635248	2.713314	.0543005	-.000056

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01LX5 Acquired: 6/11/2025 16:11:36 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.003335	.4012554	F 19.60458	.6724058	3.757242	.0256555
Stddev	.000279	.0125323	.25386	.0029469	.004585	.0022127
%RSD	8.369622	3.123283	1.294893	.4382700	.1220358	8.624689
#1	-.003603	.4080781	19.31318	.6710657	3.756429	.0233661
#2	-.003356	.4088960	19.77781	.6703670	3.753117	.0258177
#3	-.003046	.3867920	19.72275	.6757846	3.762179	.0277826

Elem	Sr4077
Units	ppm
Avg	.0847812
Stddev	.0001677
%RSD	.1978530
#1	.0847989
#2	.0849393
#3	.0846052

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3018.625	70448.58	15482.78	2217.796	4008.060
Stddev	18.548	942.39	27.70	84.708	9.169
%RSD	.6144664	1.337697	.1789015	3.819449	.2287672
#1	3000.400	71536.43	15514.75	2315.532	4000.407
#2	3017.994	69881.53	15465.99	2165.597	4005.550
#3	3037.480	69927.78	15467.60	2172.259	4018.222

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV02 Acquired: 6/11/2025 16:33:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.768266**	**4.827102**	**4.866626**	**4.775848**	**4.777649**	**9.579434**	**9.767639**
Stddev	.017813	.042045	.035739	.005313	.021402	.025589	.050395
%RSD	.3735679	.8710109	.7343611	.1112451	.4479671	.2671263	.5159402
#1	4.752051	4.807089	4.828258	4.774821	4.777575	9.608702	9.824413
#2	4.765414	4.875414	4.898968	4.771123	4.756283	9.568313	9.728197
#3	4.787332	4.798802	4.872652	4.781599	4.799088	9.561287	9.750308

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2373220**	**2.432246**	**24.05691**	**.9630243**	**2.431307**	**1.207006**	**4.911914**
Stddev	.0033719	.021088	.08338	.0073287	.014916	.002894	.053852
%RSD	1.420797	.8670106	.3465975	.7610114	.6135023	.2397885	1.096364
#1	.2410974	2.411236	24.11697	.9714865	2.414727	1.207139	4.856758
#2	.2346102	2.453410	23.96171	.9587262	2.443636	1.204048	4.964361
#3	.2362582	2.432093	24.09205	.9588603	2.435558	1.209831	4.914622

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.394901**	**23.92494**	**2.431459**	**1.206631**	**24.29726**	**2.414206**	**2.428578**
Stddev	.005033	.17242	.016341	.000437	.16126	.000566	.005528
%RSD	.2101591	.7206577	.6720548	.0362083	.6636839	.0234367	.2276040
#1	2.400419	23.84506	2.414281	1.206494	24.24216	2.414668	2.422521
#2	2.393722	23.80694	2.446809	1.207120	24.47885	2.413575	2.433349
#3	2.390562	24.12281	2.433287	1.206279	24.17078	2.414375	2.429866

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.12615**	**4.685714**	**4.883662**	**4.850522**	**4.815333**	**4.963688**	**4.805052**
Stddev	.15673	.052589	.010682	.034202	.012127	.068311	.044012
%RSD	.6496263	1.122333	.2187375	.7051213	.2518324	1.376208	.9159503
#1	23.99298	4.745851	4.881062	4.815991	4.828617	4.884946	4.770205
#2	24.29886	4.648348	4.874520	4.884385	4.812527	5.007084	4.854511
#3	24.08660	4.662942	4.895405	4.851190	4.804855	4.999033	4.790438

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV02 Acquired: 6/11/2025 16:33:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.714383**	**4.678322**	**4.896223**
Stddev	.031964	.055273	.019727
%RSD	.6780030	1.181463	.4029124
#1	4.681646	4.728488	4.918550
#2	4.745513	4.687409	4.881146
#3	4.715991	4.619069	4.888975

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2950.491**	**68296.19**	**15215.08**	**2139.333**	**3949.322**
Stddev	36.425	557.21	31.11	36.044	28.655
%RSD	1.234535	.8158786	.2044862	1.684837	.7255624
#1	2924.194	68892.68	15182.93	2179.512	3930.249
#2	2992.067	67789.05	15217.25	2109.840	3982.273
#3	2935.212	68206.85	15245.04	2128.646	3935.443

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB02 Acquired: 6/11/2025 16:44:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.002558**	**-.001841**	**-.001930**	**-.004665**	**-.003933**	**.0035106**	**-.010790**
Stddev	.001815	.000481	.001257	.001219	.001923	.0019324	.000054
%RSD	70.94504	26.12945	65.11761	26.12459	48.87941	55.04386	.5050244
#1	-.003327	-.001625	-.001889	-.003279	-.001714	.0044782	-.010844
#2	-.003863	-.001505	-.000695	-.005147	-.004993	.0047680	-.010790
#3	-.000486	-.002392	-.003208	-.005570	-.005094	.0012856	-.010735

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000122**	**-.001345**	**-.019691**	**-.000672**	**-.001531**	**-.001033**	**-.006199**
Stddev	.000081	.000062	.003135	.000062	.000056	.000110	.003953
%RSD	65.88604	4.629371	15.92226	9.277331	3.681089	10.67678	63.76662
#1	-.000215	-.001399	-.017574	-.000744	-.001582	-.000937	-.010273
#2	-.000065	-.001277	-.023293	-.000629	-.001540	-.001009	-.002379
#3	-.000088	-.001358	-.018207	-.000644	-.001470	-.001154	-.005946

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001998**	**-.039485**	**-.001666**	**-.000486**	**-.090057**	**-.002499**	**-.001468**
Stddev	.000220	.004021	.000388	.000215	.007373	.000614	.000042
%RSD	10.99572	10.18363	23.29524	44.28193	8.187368	24.56654	2.847250
#1	-.001831	-.035364	-.001414	-.000633	-.083939	-.001999	-.001462
#2	-.002247	-.039693	-.001471	-.000585	-.098244	-.003184	-.001512
#3	-.001916	-.043398	-.002113	-.000239	-.087987	-.002312	-.001429

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.033736**	**.0003744**	**-.002917**	**-.004551**	**-.002514**	**-.007017**	**-.001825**
Stddev	.035008	.0001879	.000037	.000504	.000113	.003355	.000560
%RSD	103.7698	50.18807	1.263106	11.08125	4.495817	47.80832	30.69570
#1	-.041962	.0002006	-.002898	-.005133	-.002389	-.010409	-.002000
#2	-.063899	.0003488	-.002893	-.004241	-.002546	-.003701	-.001198
#3	.004652	.0005738	-.002959	-.004280	-.002608	-.006940	-.002277

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB02 Acquired: 6/11/2025 16:44:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.002828	-.003803	-.003034
Stddev	.000892	.000882	.000057
%RSD	31.54026	23.20230	1.883643
#1	-.002529	-.003107	-.003056
#2	-.003830	-.004795	-.003076
#3	-.002123	-.003506	-.002969

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3103.545	71687.95	14530.42	2226.534	4495.320
Stddev	12.514	74.14	8.28	2.741	13.167
%RSD	.4032178	.1034208	.0569959	.1231221	.2928956
#1	3105.283	71676.06	14534.15	2223.369	4502.103
#2	3115.100	71620.48	14520.93	2228.108	4503.712
#3	3090.253	71767.32	14536.18	2228.125	4480.145

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01MS Acquired: 6/11/2025 16:49:00 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7614259	1.788353	1.151371	1.799049	.4759306	72.77494
Stddev	.0006808	.036543	.021572	.007435	.0044748	.07726
%RSD	.0894075	2.043378	1.873601	.4132782	.9402169	.1061642
#1	.7614306	1.760814	1.140223	1.802553	.4780633	72.69077
#2	.7621042	1.774437	1.137654	1.804086	.4789401	72.84263
#3	.7607427	1.829810	1.176236	1.790510	.4707884	72.79143

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.617290	.1801908	.2047783	220.3284	.4651501	.2553875
Stddev	.000385	.0016094	.0041309	1.1128	.0008932	.0034246
%RSD	.0237936	.8931896	2.017228	.5050813	.1920270	1.340930
#1	1.616920	.1815495	.2024605	219.1445	.4655021	.2533910
#2	1.617688	.1806094	.2023268	220.4877	.4658138	.2534296
#3	1.617262	.1784134	.2095476	221.3530	.4641346	.2593417

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5082418	85.74013	1.456459	37.82315	.6058963	.0713427
Stddev	.0027509	.51520	.006025	.32329	.0081313	.0005077
%RSD	.5412585	.6008847	.4136488	.8547425	1.342032	.7116036
#1	.5093794	85.31072	1.450177	37.48500	.6011109	.0709497
#2	.5102415	85.59828	1.457011	37.85527	.6012932	.0719159
#3	.5051046	86.31140	1.462188	38.12918	.6152850	.0711625

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	128.1698	.4365525	.5403773	26.11435	.5261295	.3846593
Stddev	.1928	.0017519	.0017021	.03126	.0005966	.0021456
%RSD	.1504458	.4013114	.3149868	.1196962	.1133893	.5577948
#1	128.2578	.4385398	.5417068	26.12485	.5254715	.3864526
#2	127.9487	.4352312	.5409660	26.07920	.5262821	.3852430
#3	128.3030	.4358867	.5384589	26.13901	.5266350	.3822822

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01MS Acquired: 6/11/2025 16:49:00 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.3619477	2.239398	F 111.3138	9.467336	20.04242	.3351109
Stddev	.0082715	.023392	.4584	.153038	.27355	.0011768
%RSD	2.285287	1.044578	.4118291	1.616483	1.364845	.3511555
#1	.3576998	2.217864	110.9709	9.396479	19.87409	.3339662
#2	.3566632	2.236045	111.1360	9.362568	19.89513	.3363173
#3	.3714801	2.264286	111.8345	9.642961	20.35805	.3350492

Elem	Sr4077
Units	ppm
Avg	.6444722
Stddev	.0002618
%RSD	.0406213
#1	.6447120
#2	.6445118
#3	.6441929

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2966.647	69429.32	16500.24	2103.369	3562.012
Stddev	105.397	204.55	32.58	16.226	85.465
%RSD	3.552745	.2946199	.1974618	.7714241	2.399347
#1	2906.897	69613.33	16536.21	2115.963	3512.807
#2	2904.701	69465.56	16472.70	2109.086	3512.530
#3	3088.343	69209.07	16491.81	2085.059	3660.698

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01MSD Acquired: 6/11/2025 16:53:09 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7477156	1.761972	1.123944	1.780971	.4674279	68.72165
Stddev	.0049108	.016805	.003614	.005679	.0023393	.16019
%RSD	.6567669	.9537459	.3215704	.3188748	.5004513	.2330956
#1	.7481144	1.744691	1.121062	1.784473	.4666277	68.87574
#2	.7524148	1.778256	1.122771	1.784022	.4700623	68.73322
#3	.7426176	1.762970	1.127999	1.774419	.4655938	68.55599

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.556617	.1784642	.1993130	213.6694	.4562535	.2482466
Stddev	.003272	.0061754	.0007445	.3813	.0100507	.0001294
%RSD	.2102193	3.460286	.3735393	.1784333	2.202881	.0521277
#1	1.560279	.1754828	.1987368	213.4487	.4526603	.2481149
#2	1.553981	.1855646	.1990484	213.4499	.4676069	.2482515
#3	1.555589	.1743453	.2001536	214.1097	.4484931	.2483735

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5011358	80.43880	1.409208	36.52526	.5892930	.0686326
Stddev	.0037565	1.52751	.001185	.07841	.0016095	.0007273
%RSD	.7495984	1.898969	.0841038	.2146678	.2731184	1.059662
#1	.5024388	81.08588	1.408194	36.44210	.5874800	.0691186
#2	.5040673	78.69426	1.408919	36.59784	.5898455	.0677964
#3	.4969013	81.53626	1.410511	36.53583	.5905534	.0689827

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	120.0423	.4228922	.5178530	24.25093	.5058354	.3787711
Stddev	1.4471	.0011373	.0045249	.43117	.0027072	.0023234
%RSD	1.205458	.2689440	.8737746	1.777966	.5351989	.6134102
#1	121.2834	.4242019	.5206135	24.54190	.5040337	.3799040
#2	118.4529	.4223203	.5126310	23.75557	.5089486	.3803106
#3	120.3906	.4221542	.5203145	24.45532	.5045240	.3760985

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01MSD Acquired: 6/11/2025 16:53:09 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.3424427	2.062365	F 102.0057	9.249117	19.57815	.3222599
Stddev	.0032077	.015651	1.7763	.032023	.06373	.0020866
%RSD	.9367148	.7588822	1.741373	.3462320	.3255223	.6474916
#1	.3389448	2.073805	103.2112	9.221751	19.50591	.3237608
#2	.3431366	2.068762	99.9658	9.284336	19.60214	.3198772
#3	.3452466	2.044529	102.8401	9.241264	19.62641	.3231418

Elem	Sr4077
Units	ppm
Avg	.6260638
Stddev	.0007932
%RSD	.1266949
#1	.6263785
#2	.6266513
#3	.6251615

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.749	70512.49	16403.88	2158.436	3518.402
Stddev	57.158	1235.00	19.32	104.227	51.263
%RSD	1.963016	1.751467	.1178026	4.828808	1.456990
#1	2876.403	70003.77	16421.66	2113.817	3487.343
#2	2881.151	71920.60	16406.66	2277.545	3490.291
#3	2977.692	69613.10	16383.32	2083.948	3577.570

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01A Acquired: 6/11/2025 16:57:15 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.6993014	1.614380	1.049757	1.673502	.6822865	61.96171
Stddev	.0031062	.007471	.001838	.010796	.0033081	.14547
%RSD	.4441811	.4628063	.1750738	.6451026	.4848550	.2347756
#1	.7028654	1.614337	1.049367	1.674031	.6860464	61.80480
#2	.6978682	1.621873	1.048146	1.684024	.6809906	61.98822
#3	.6971707	1.606930	1.051759	1.662451	.6798226	62.09210

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.493844	.1584329	.1820427	212.1088	.4180999	.2300233
Stddev	.005251	.0020037	.0005864	3.9829	.0029548	.0006913
%RSD	.3514898	1.264671	.3221023	1.877785	.7067155	.3005448
#1	1.488254	.1606356	.1813820	216.4768	.4215029	.2292643
#2	1.494607	.1567186	.1825013	208.6780	.4161850	.2306168
#3	1.498671	.1579446	.1822448	211.1716	.4166118	.2301888

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4760565	82.07962	1.402517	35.70271	.5469092	.0627946
Stddev	.0004834	1.40803	.024478	.87023	.0009234	.0008780
%RSD	.1015360	1.715441	1.745282	2.437425	.1688327	1.398271
#1	.4756748	83.68415	1.428854	36.67668	.5458505	.0635837
#2	.4766000	81.05007	1.380464	35.00165	.5475477	.0618487
#3	.4758947	81.50464	1.398233	35.42979	.5473295	.0629513

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.6347	.3945211	.4932892	23.98378	.4861619	.3659512
Stddev	1.2350	.0029307	.0017525	.16824	.0057378	.0011322
%RSD	1.015323	.7428431	.3552701	.7014855	1.180216	.3093895
#1	120.6298	.3975074	.4928234	23.81227	.4926151	.3655825
#2	123.0134	.3916494	.4952276	24.14855	.4816357	.3672218
#3	121.2609	.3944065	.4918167	23.99052	.4842350	.3650493

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2279-01A Acquired: 6/11/2025 16:57:15 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.6208061	1.924141	F 98.18009	8.846604	19.07682	.2940689
Stddev	.0005166	.023086	.67421	.029684	.02643	.0038248
%RSD	.0832092	1.199802	.6867049	.3355445	.1385218	1.300637
#1	.6202456	1.949318	98.93051	8.861346	19.04634	.2896913
#2	.6212630	1.903966	97.98433	8.812435	19.09067	.2967641
#3	.6209097	1.919139	97.62542	8.866032	19.09343	.2957512

Elem	Sr4077
Units	ppm
Avg	.5898553
Stddev	.0031296
%RSD	.5305706
#1	.5866175
#2	.5900844
#3	.5928641

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2903.314	69672.71	16784.05	2113.540	3537.505
Stddev	14.655	252.47	68.21	17.243	11.883
%RSD	.5047757	.3623632	.4064210	.8158551	.3359017
#1	2891.509	69894.68	16727.86	2133.246	3526.314
#2	2898.715	69398.06	16859.95	2101.218	3536.224
#3	2919.717	69725.40	16764.34	2106.157	3549.976

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168369TB Acquired: 6/11/2025 17:01:20 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.006964**	**-.006956**	**-.002264**	**.0020650**	**-.004303**	**.0125001**	**-.010650**
Stddev	.000999	.000342	.000930	.0017188	.000792	.0022687	.000369
%RSD	14.35059	4.920666	41.06459	83.23355	18.40464	18.14901	3.464416
#1	-.007073	-.006745	-.002919	.0037342	-.004397	.0123226	-.010372
#2	-.005914	-.006772	-.002673	.0003006	-.005043	.0103255	-.010510
#3	-.007904	-.007351	-.001200	.0021604	-.003468	.0148523	-.011069

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000291**	**-.001520**	**.1285862**	**.0064213**	**-.001851**	**-.000472**	**.2120523**
Stddev	.000019	.000093	.0131496	.0004110	.000193	.000109	.0006039
%RSD	6.614133	6.134598	10.22632	6.401407	10.41753	23.18975	.2847724
#1	-.000312	-.001556	.1437198	.0068926	-.002066	-.000347	.2125590
#2	-.000285	-.001590	.1220894	.0062341	-.001794	-.000518	.2122138
#3	-.000275	-.001414	.1199495	.0061371	-.001693	-.000551	.2113841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044194**	**-.011613**	**.0036192**	**-.000621**	**338.2689**	**-.001558**	**.0024626**
Stddev	.0001749	.007771	.0001336	.000194	9.7978	.000898	.0002088
%RSD	3.957180	66.91662	3.692294	31.25683	2.896459	57.67793	8.477274
#1	.0044020	-.003432	.0034708	-.000398	345.9436	-.001116	.0025691
#2	.0042538	-.018896	.0037301	-.000713	327.2328	-.002592	.0022221
#3	.0046023	-.012509	.0036566	-.000752	341.6302	-.000966	.0025966

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0638894**	**-.001907**	**-.002531**	**-.004109**	**-.002149**	**.0136556**	**.0356663**
Stddev	.0082699	.000480	.000071	.000266	.000450	.0068363	.0023654
%RSD	12.94415	25.14896	2.808186	6.469397	20.93766	50.06192	6.632028
#1	.0684896	-.001605	-.002573	-.003806	-.002588	.0058394	.0380523
#2	.0543422	-.001657	-.002449	-.004220	-.001688	.0166078	.0356246
#3	.0688365	-.002460	-.002570	-.004302	-.002172	.0185198	.0333221

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168369TB Acquired: 6/11/2025 17:01:20 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0876073	-.002455	-.002293
Stddev	.0035656	.000577	.000044
%RSD	4.070023	23.49585	1.925721
#1	.0854091	-.001854	-.002247
#2	.0917213	-.002509	-.002336
#3	.0856915	-.003004	-.002295

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.509	64186.16	15234.50	1987.692	3731.459
Stddev	45.750	345.77	30.96	30.726	40.979
%RSD	1.648937	.5386939	.2032125	1.545801	1.098208
#1	2753.627	63909.83	15223.66	1958.075	3714.654
#2	2826.975	64573.90	15269.41	2019.418	3778.169
#3	2742.927	64074.76	15210.41	1985.583	3701.554

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2214-04 Acquired: 6/11/2025 17:05:49 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.006966	-.009010	.0587032	.0028311	-.005064	1.559037	.5711132
Stddev	.001792	.000676	.0009652	.0018334	.001431	.008741	.0032676
%RSD	25.72692	7.499558	1.644170	64.76029	28.25848	.5606755	.5721477
#1	-.005535	-.008274	.0595873	.0044211	-.003708	1.565262	.5685086
#2	-.008976	-.009155	.0588486	.0032465	-.006560	1.549044	.5747797
#3	-.006386	-.009602	.0576735	.0008256	-.004924	1.562804	.5700514

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000185	-.000910	11.95448	.0006724	-.001331	.0104826	1.906780
Stddev	.000037	.000109	.01503	.0000565	.000164	.0002642	.010133
%RSD	20.03549	11.98454	.1257189	8.399444	12.35786	2.520398	.5314383
#1	-.000203	-.000901	11.94439	.0006907	-.001473	.0101875	1.915047
#2	-.000209	-.000805	11.94730	.0007174	-.001151	.0106972	1.895475
#3	-.000142	-.001023	11.97175	.0006090	-.001370	.0105630	1.909818

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2381711	2.389051	.0002630	-.000641	270.4882	-.000834	.9113669
Stddev	.0009158	.014730	.0003463	.000165	1.4823	.000569	.0084172
%RSD	.3845097	.6165458	131.6683	25.73065	.5480276	68.24633	.9235750
#1	.2381394	2.392074	.0000196	-.000545	269.7887	-.000179	.9183085
#2	.2372716	2.373044	.0001100	-.000546	269.4850	-.001112	.9020046
#3	.2391024	2.402033	.0006594	-.000831	272.1909	-.001212	.9137874

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.661058	.4731922	-.002837	-.005962	.0093268	1.109135	.4353432
Stddev	.017796	.0021889	.000254	.000775	.0006044	.009539	.0017890
%RSD	.6687472	.4625829	8.952019	12.99563	6.480331	.8600695	.4109363
#1	2.680905	.4731785	-.002682	-.006700	.0099021	1.100127	.4357495
#2	2.646523	.4753880	-.002698	-.005155	.0086970	1.119129	.4333860
#3	2.655746	.4710103	-.003130	-.006031	.0093814	1.108149	.4368941

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2214-04 Acquired: 6/11/2025 17:05:49 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.341471**	**.0006037**	**.0467339**
Stddev	.002119	.0006979	.0000770
%RSD	.0905012	115.6053	.1647945
#1	2.342504	.0013895	.0467455
#2	2.339034	.0000557	.0468044
#3	2.342877	.0003660	.0466517

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2797.889**	**64847.25**	**15033.89**	**2012.775**	**3754.797**
Stddev	28.651	255.27	10.51	24.776	26.438
%RSD	1.024013	.3936540	.0699273	1.230958	.7041116
#1	2829.845	64650.57	15028.65	1996.288	3783.961
#2	2789.326	65135.73	15046.00	2041.267	3748.027
#3	2774.497	64755.45	15027.03	2000.771	3732.402

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2271-04 Acquired: 6/11/2025 17:10:12 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.006689**	**-.007611**	**-.003625**	**.0031244**	**-.003209**	**.0798620**	**.2481509**
Stddev	.001420	.001290	.001308	.0031969	.001125	.0032616	.0001884
%RSD	21.22864	16.95274	36.08616	102.3202	35.06120	4.084075	.0759126
#1	-.006405	-.008670	-.002114	.0067488	-.001986	.0767639	.2479505
#2	-.005432	-.007988	-.004370	.0007058	-.003441	.0832656	.2481777
#3	-.008229	-.006174	-.004390	.0019185	-.004200	.0795563	.2483244

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000220**	**-.001344**	**10.57762**	**.0011983**	**-.001817**	**.0030335**	**.0601547**
Stddev	.000057	.000047	.03278	.0001891	.000134	.0001067	.0036346
%RSD	25.81761	3.504346	.3098769	15.78377	7.363341	3.516136	6.042030
#1	-.000158	-.001291	10.54891	.0010753	-.001807	.0030956	.0577544
#2	-.000270	-.001380	10.57063	.0011036	-.001689	.0030946	.0583733
#3	-.000233	-.001361	10.61333	.0014161	-.001956	.0029104	.0643363

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0735176**	**1.354650**	**.0000369**	**-.000737**	**381.7101**	**-.000895**	**.0755818**
Stddev	.0002179	.015319	.0003947	.000329	1.3498	.000462	.0003442
%RSD	.2963514	1.130878	1069.572	44.56599	.3536269	51.60577	.4553481
#1	.0732689	1.341112	.0000295	-.000828	381.7705	-.000465	.0757381
#2	.0736091	1.351559	.0004353	-.000373	383.0286	-.001383	.0751872
#3	.0736749	1.371279	-.000354	-.001011	380.3310	-.000838	.0758200

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.844714**	**.0545520**	**-.002835**	**-.005308**	**-.001903**	**1.119712**	**.0408083**
Stddev	.011575	.0002140	.000016	.001001	.000420	.008995	.0010867
%RSD	.6274824	.3922191	.5779071	18.86418	22.04267	.8033406	2.662921
#1	1.851114	.0543630	-.002838	-.004153	-.002289	1.109462	.0407820
#2	1.851676	.0545087	-.002817	-.005932	-.001965	1.126292	.0397350
#3	1.831352	.0547843	-.002850	-.005838	-.001456	1.123383	.0419079

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2271-04 Acquired: 6/11/2025 17:10:12 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.5168117	.0001711	.0709870
Stddev	.0097142	.0024656	.0001451
%RSD	1.879637	1441.162	.2044508
#1	.5158621	.0021907	.0709837
#2	.5269658	.0008991	.0708436
#3	.5076072	-.002577	.0711338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2758.024	62645.95	15322.67	1928.728	3685.534
Stddev	102.865	80.88	62.54	2.946	90.058
%RSD	3.729678	.1291009	.4081854	.1527300	2.443546
#1	2694.243	62731.47	15366.72	1929.033	3627.238
#2	2876.692	62635.67	15350.22	1931.509	3789.258
#3	2703.137	62570.70	15251.08	1925.642	3640.106

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2272-04 Acquired: 6/11/2025 17:14:40 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.009369	-.008353	-.002766	.0021607	-.002921	.0443982	.1280951
Stddev	.002164	.001526	.001778	.0011214	.001525	.0028906	.0006702
%RSD	23.09405	18.26465	64.28858	51.89858	52.18550	6.510679	.5232056
#1	-.007505	-.007485	-.001314	.0013112	-.004440	.0447605	.1287066
#2	-.011742	-.007460	-.002235	.0034318	-.001391	.0470907	.1273786
#3	-.008861	-.010115	-.004749	.0017392	-.002932	.0413436	.1282002

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000185	-.001389	15.25133	-.001412	-.001875	.0132250	-.000499
Stddev	.000038	.000069	.16176	.000289	.000072	.0005778	.003943
%RSD	20.67257	4.951910	1.060615	20.46056	3.846813	4.369395	790.3349
#1	-.000227	-.001389	15.43078	-.001639	-.001927	.0125776	-.001335
#2	-.000153	-.001321	15.11674	-.001087	-.001905	.0134088	.003795
#3	-.000175	-.001458	15.20647	-.001509	-.001793	.0136886	-.003957

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2932925	1.475743	-.000825	-.000624	295.0951	-.001397	.0269835
Stddev	.0032292	.016780	.000504	.000132	1.8837	.000790	.0004281
%RSD	1.101023	1.137068	61.10214	21.18655	.6383290	56.59055	1.586448
#1	.2964022	1.494046	-.001260	-.000503	296.3646	-.002292	.0271427
#2	.2899557	1.461085	-.000272	-.000765	295.9898	-.001106	.0273091
#3	.2935196	1.472096	-.000943	-.000605	292.9308	-.000793	.0264986

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8306602	.0086100	-.002969	-.006192	-.002931	.8379711	.0168773
Stddev	.0165964	.0003432	.000043	.000145	.000481	.0082335	.0016328
%RSD	1.997978	3.985515	1.454427	2.341031	16.41974	.9825583	9.674712
#1	.8125010	.0088735	-.003019	-.006098	-.002707	.8368269	.0169795
#2	.8450430	.0082220	-.002945	-.006359	-.003483	.8467169	.0184566
#3	.8344366	.0087346	-.002943	-.006119	-.002603	.8303695	.0151957

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2272-04 Acquired: 6/11/2025 17:14:40 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.3617877**	**-.000089**	**.1065514**
Stddev	.0010179	.001164	.0006755
%RSD	.2813521	1306.994	.6339708
#1	.3610095	.000080	.1057917
#2	.3629397	.000981	.1067781
#3	.3614140	-.001328	.1070843

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2764.848**	**65218.31**	**15338.65**	**1984.210**	**3740.446**
Stddev	12.984	294.85	40.04	14.949	17.142
%RSD	.4695960	.4521023	.2610191	.7533844	.4582838
#1	2773.847	65003.77	15374.01	1976.422	3752.377
#2	2770.733	65096.63	15346.76	1974.763	3748.159
#3	2749.964	65554.53	15295.18	2001.444	3720.803

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-04 Acquired: 6/11/2025 17:19:06 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.008646**	**-.009804**	**-.002977**	**.0054523**	**-.002867**	**.0689864**	**.8470305**
Stddev	.001306	.001559	.000373	.0020673	.002784	.0017579	.0013050
%RSD	15.09934	15.90010	12.51992	37.91733	97.10249	2.548122	.1540710
#1	-.009812	-.010615	-.003369	.0037249	-.004039	.0695804	.8471348
#2	-.007235	-.008006	-.002627	.0048891	.000311	.0670085	.8482803
#3	-.008891	-.010789	-.002935	.0077428	-.004874	.0703703	.8456765

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000015**	**-.001200**	**62.68042**	**-.000626**	**.0007815**	**.0060304**	**.0117056**
Stddev	.000078	.000037	.10091	.000556	.0000522	.0003841	.0024067
%RSD	527.6779	3.059457	.1609971	88.90139	6.681106	6.369324	20.55993
#1	-.000083	-.001209	62.65138	-.000001	.0007580	.0060794	.0089291
#2	.000070	-.001231	62.59720	-.000808	.0007452	.0056241	.0129925
#3	-.000031	-.001160	62.79266	-.001069	.0008414	.0063876	.0131952

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.239098**	**5.199441**	**.0080834**	**-.000930**	**410.7299**	**-.001440**	**.0787524**
Stddev	.002460	.025096	.0003298	.000218	1.7533	.000879	.0003559
%RSD	.1985108	.4826624	4.079402	23.43226	.4268842	61.07379	.4519752
#1	1.240070	5.217536	.0082795	-.000709	411.1473	-.000443	.0788367
#2	1.236301	5.170792	.0082680	-.001145	412.2368	-.001768	.0790587
#3	1.240923	5.209995	.0077027	-.000936	408.8055	-.002107	.0783619

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7933615**	**.0355265**	**-.002719**	**-.007833**	**-.004670**	**1.087010**	**.0225449**
Stddev	.0004874	.0001578	.000279	.001050	.000790	.010167	.0030750
%RSD	.0614304	.4441412	10.27215	13.40544	16.92005	.9353307	13.63959
#1	.7937896	.0353450	-.003021	-.006936	-.005560	1.088882	.0256766
#2	.7928311	.0356304	-.002666	-.007575	-.004398	1.096111	.0224281
#3	.7934638	.0356042	-.002470	-.008988	-.004052	1.076037	.0195299

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-04 Acquired: 6/11/2025 17:19:06 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.2941091	.0131905	.2857535
Stddev	.0023844	.0012647	.0002184
%RSD	.8107337	9.587861	.0764300
#1	.2965065	.0142768	.2855863
#2	.2940830	.0134926	.2860006
#3	.2917379	.0118021	.2856735

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2687.776	62333.70	15398.72	1918.541	3550.107
Stddev	11.936	95.50	4.98	10.437	15.427
%RSD	.4440957	.1532067	.0323688	.5440146	.4345446
#1	2680.498	62244.76	15401.81	1906.893	3539.641
#2	2701.552	62434.63	15401.38	1921.687	3567.823
#3	2681.278	62321.71	15392.97	1927.043	3542.856

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-08 Acquired: 6/11/2025 17:23:32 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.006311**	**-.010339**	**-.003402**	**.0034564**	**-.001500**	**.0681911**	**.4327493**
Stddev	.001265	.000445	.000860	.0033129	.001534	.0050315	.0002367
%RSD	20.04790	4.305690	25.26780	95.84904	102.2888	7.378565	.0546935
#1	-.004862	-.010384	-.002553	.0072179	-.002724	.0662896	.4325100
#2	-.006873	-.009872	-.003381	.0021790	-.001996	.0738962	.4327547
#3	-.007197	-.010759	-.004271	.0009723	.000221	.0643874	.4329833

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000301**	**-.000882**	**145.0937**	**-.001378**	**-.001626**	**.0019927**	**.0099973**
Stddev	.000036	.000035	2.4751	.000309	.000278	.0003878	.0003746
%RSD	11.89284	3.948483	1.705872	22.42216	17.12495	19.46015	3.747136
#1	-.000285	-.000853	144.2074	-.001600	-.001930	.0019884	.0101521
#2	-.000275	-.000920	147.8899	-.001510	-.001564	.0016072	.0102698
#3	-.000342	-.000871	143.1837	-.001025	-.001383	.0023827	.0095701

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.601661**	**3.884319**	**.0021712**	**-.001027**	**323.0926**	**-.001454**	**.0254125**
Stddev	.021210	.079050	.0001783	.000280	2.1050	.000188	.0000362
%RSD	1.324240	2.035106	8.209642	27.29405	.6515143	12.90336	.1425891
#1	1.594859	3.851995	.0019969	-.001270	325.5233	-.001637	.0253707
#2	1.625437	3.974409	.0021635	-.001092	321.8708	-.001463	.0254308
#3	1.584686	3.826554	.0023532	-.000720	321.8839	-.001262	.0254359

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8165460**	**.0062654**	**-.002251**	**-.008543**	**-.006404**	**.5244593**	**.0109496**
Stddev	.0181278	.0003304	.000287	.000755	.000313	.0115524	.0018001
%RSD	2.220064	5.273962	12.73919	8.837933	4.880126	2.202724	16.44041
#1	.7956138	.0060933	-.001998	-.007836	-.006661	.5121143	.0123860
#2	.8269928	.0066464	-.002562	-.009339	-.006056	.5350088	.0089302
#3	.8270313	.0060565	-.002192	-.008454	-.006494	.5262546	.0115325

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-08 Acquired: 6/11/2025 17:23:32 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.3485842	.0312071	.2435226
Stddev	.0027895	.0010657	.0005009
%RSD	.8002467	3.415017	.2056768
#1	.3474053	.0324376	.2440966
#2	.3465776	.0305855	.2431747
#3	.3517696	.0305980	.2432963

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2663.905	64607.86	15094.51	1942.711	3515.734
Stddev	5.526	113.95	98.95	11.543	3.657
%RSD	.2074508	.1763791	.6555271	.5941521	.1040212
#1	2659.210	64660.83	15104.97	1947.424	3514.367
#2	2669.995	64477.07	14990.75	1929.558	3519.878
#3	2662.509	64685.70	15187.81	1951.152	3512.958

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV03 Acquired: 6/11/2025 17:27:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.822493**	**4.880186**	**4.887735**	**4.847253**	**4.831159**	**9.663413**	**9.761232**
Stddev	.016163	.023610	.045871	.019128	.011712	.035780	.028898
%RSD	.3351586	.4838007	.9384845	.3946110	.2424327	.3702651	.2960471
#1	4.824173	4.859774	4.854704	4.845188	4.840829	9.701906	9.727907
#2	4.805556	4.874742	4.868391	4.829242	4.834513	9.657165	9.779370
#3	4.837750	4.906044	4.940109	4.867330	4.818136	9.631168	9.776418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2321105**	**2.444412**	**24.05829**	**.9464840**	**2.445082**	**1.222759**	**4.824595**
Stddev	.0040684	.030124	.08387	.0085941	.021442	.002765	.039174
%RSD	1.752773	1.232360	.3486010	.9080006	.8769570	.2261032	.8119747
#1	.2366183	2.422928	24.03078	.9557078	2.428155	1.225948	4.781119
#2	.2310018	2.431463	24.15246	.9387020	2.437898	1.221282	4.835515
#3	.2287114	2.478845	23.99164	.9450423	2.469194	1.221046	4.857151

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.395099**	**23.95645**	**2.446316**	**1.188984**	**23.66800**	**2.432953**	**2.399642**
Stddev	.013887	.12994	.023346	.003365	.12108	.004305	.006617
%RSD	.5798180	.5423808	.9543306	.2829829	.5115733	.1769369	.2757677
#1	2.390660	23.86519	2.428166	1.192784	23.53381	2.433867	2.406974
#2	2.410663	24.10522	2.438131	1.186386	23.70109	2.436728	2.397841
#3	2.383973	23.89895	2.472653	1.187781	23.76909	2.428265	2.394112

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.79062**	**4.627031**	**4.921801**	**4.863231**	**4.834462**	**4.921688**	**4.817000**
Stddev	.18848	.068522	.011707	.054154	.012275	.062018	.043965
%RSD	.7922370	1.480914	.2378629	1.113547	.2539091	1.260091	.9127149
#1	23.58528	4.701902	4.922092	4.823531	4.828704	4.853421	4.786865
#2	23.83083	4.611756	4.909951	4.841239	4.848558	4.937090	4.796686
#3	23.95574	4.567435	4.933360	4.924921	4.826124	4.974554	4.867449

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV03 Acquired: 6/11/2025 17:27:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.752289**	**4.641308**	**4.901992**
Stddev	.035511	.020987	.025372
%RSD	.7472314	.4521813	.5175802
#1	4.728198	4.652826	4.888251
#2	4.735600	4.654015	4.931270
#3	4.793070	4.617084	4.886454

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2891.635**	**69550.00**	**15285.52**	**2105.953**	**3883.821**
Stddev	32.991	537.25	71.09	36.449	26.036
%RSD	1.140928	.7724704	.4650970	1.730770	.6703758
#1	2867.371	70158.67	15281.19	2147.810	3871.607
#2	2878.332	69349.51	15216.70	2081.213	3866.137
#3	2929.201	69141.82	15358.68	2088.835	3913.719

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB03 Acquired: 6/11/2025 17:34:17 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.002837**	**-.000591**	**-.004032**	**-.001844**	**-.002248**	**.0370230**	**-.010062**
Stddev	.001458	.001884	.000444	.002460	.000641	.0037601	.001247
%RSD	51.38251	318.7934	11.00329	133.3814	28.52642	10.15609	12.39047
#1	-.002958	-.000286	-.003704	.000253	-.002536	.0410572	-.010462
#2	-.004231	-.002609	-.004537	-.001235	-.002696	.0336160	-.008664
#3	-.001323	.001122	-.003856	-.004551	-.001514	.0363957	-.011060

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000132**	**-.001377**	**-.021494**	**-.000825**	**-.001573**	**.0003692**	**-.001864**
Stddev	.000060	.000105	.005801	.000051	.000126	.0001777	.001529
%RSD	45.69448	7.654122	26.98751	6.160598	8.018102	48.13004	82.04202
#1	-.000067	-.001498	-.028181	-.000770	-.001715	.0002303	-.000628
#2	-.000186	-.001323	-.018483	-.000835	-.001475	.0005694	-.001390
#3	-.000142	-.001309	-.017818	-.000870	-.001529	.0003078	-.003574

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001636**	**-.036792**	**-.001028**	**-.000422**	**.0559166**	**-.001042**	**.0021920**
Stddev	.000191	.005010	.000286	.000309	.0145552	.000258	.0001894
%RSD	11.70264	13.61827	27.83417	73.23451	26.03011	24.77824	8.642003
#1	-.001847	-.038376	-.000737	-.000394	.0484974	-.001265	.0021282
#2	-.001586	-.031181	-.001308	-.000745	.0465660	-.001102	.0024051
#3	-.001475	-.040820	-.001038	-.000128	.0726864	-.000759	.0020427

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0265278**	**.0012619**	**-.002537**	**-.004269**	**-.002264**	**-.004509**	**-.000562**
Stddev	.0221991	.0005782	.000115	.000539	.000253	.002077	.001456
%RSD	83.68245	45.81921	4.539564	12.62352	11.19416	46.07269	259.2311
#1	.0320151	.0018603	-.002640	-.003664	-.002348	-.003782	.000669
#2	.0454686	.0007063	-.002558	-.004449	-.001979	-.006852	-.002168
#3	.0020996	.0012190	-.002413	-.004696	-.002465	-.002893	-.000186

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB03 Acquired: 6/11/2025 17:34:17 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0006464	.0000362	-.002855
Stddev	.0004101	.0017292	.000050
%RSD	63.44074	4778.992	1.751113
#1	.0002317	-.001397	-.002798
#2	.0006559	.001957	-.002891
#3	.0010517	-.000452	-.002875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3065.552	72225.44	14859.09	2201.466	4500.125
Stddev	4.922	410.78	93.95	8.778	4.579
%RSD	.1605499	.5687528	.6322570	.3987359	.1017447
#1	3070.990	72686.32	14964.25	2202.052	4505.351
#2	3064.265	71897.86	14783.42	2192.410	4496.818
#3	3061.402	72092.13	14829.62	2209.936	4498.205

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2274-04 Acquired: 6/11/2025 17:38:37 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.008775**	**-.009295**	**-.000554**	**.0039371**	**-.002363**	**.4698553**	**.5617941**
Stddev	.003996	.001014	.001707	.0022716	.000611	.0045949	.0016115
%RSD	45.54209	10.91369	307.8834	57.69674	25.85964	.9779400	.2868505
#1	-.005963	-.008246	.001208	.0013240	-.001703	.4716956	.5635486
#2	-.007011	-.009368	-.000672	.0054407	-.002908	.4646255	.5603800
#3	-.013349	-.010271	-.002199	.0050466	-.002479	.4732448	.5614538

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000072**	**-.001264**	**3.648522**	**-.001215**	**.0244484**	**.0122903**	**.0142775**
Stddev	.000035	.000075	.007782	.000136	.0001089	.0005045	.0023868
%RSD	47.82450	5.923133	.2132855	11.21078	.4454356	4.105263	16.71717
#1	-.000097	-.001350	3.639549	-.001067	.0243919	.0121866	.0170206
#2	-.000033	-.001230	3.652610	-.001245	.0243794	.0118456	.0131364
#3	-.000087	-.001212	3.653408	-.001334	.0245740	.0128386	.0126754

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6806934**	**3.456376**	**.0028700**	**-.000956**	**468.9695**	**-.001877**	**.1650850**
Stddev	.0030736	.011257	.0007506	.000073	1.9707	.000725	.0030869
%RSD	.4515388	.3256843	26.15423	7.645789	.4202096	38.59720	1.869876
#1	.6826995	3.459046	.0020467	-.000941	470.4805	-.001375	.1629708
#2	.6771549	3.444024	.0035164	-.000892	469.6874	-.002708	.1686274
#3	.6822258	3.466057	.0030467	-.001036	466.7405	-.001549	.1636569

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.915754**	**.0777070**	**-.002677**	**-.005214**	**-.002467**	**.8335913**	**.0184005**
Stddev	.011073	.0012008	.000070	.000660	.000271	.0071598	.0010894
%RSD	.5780108	1.545296	2.612419	12.66781	10.97758	.8589140	5.920438
#1	1.911247	.0769105	-.002666	-.005090	-.002287	.8301719	.0186143
#2	1.928370	.0790882	-.002613	-.004624	-.002779	.8287823	.0172200
#3	1.907645	.0771224	-.002752	-.005928	-.002336	.8418197	.0193671

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2274-04 Acquired: 6/11/2025 17:38:37 Type: Unk
Method: 6010-200.7 NEW(v5) 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	1.422596	.0003698	.0282026
Stddev	.007165	.0008565	.0001053
%RSD	.5036602	231.6431	.3733135
#1	1.415271	-.000095	.0283210
#2	1.422929	.001358	.0281193
#3	1.429589	-.000154	.0281676

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.865	66078.70	15546.94	2015.390	3555.367
Stddev	35.002	140.79	71.74	11.926	32.444
%RSD	1.266417	.2130604	.4614470	.5917537	.9125439
#1	2752.726	65917.63	15474.23	2001.619	3548.842
#2	2803.081	66178.31	15617.67	2022.337	3590.578
#3	2735.789	66140.15	15548.90	2022.213	3526.681

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2278-04 Acquired: 6/11/2025 17:43:01 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.007597	-.009283	.0864219	.0016997	-.003291	.2199632	.2177153
Stddev	.002383	.002640	.0010414	.0018896	.000330	.0057156	.0018241
%RSD	31.37025	28.43922	1.205053	111.1709	10.03713	2.598424	.8378135
#1	-.005205	-.008041	.0871149	-.000218	-.003672	.2171085	.2189139
#2	-.009971	-.012315	.0852243	.001758	-.003085	.2265438	.2186160
#3	-.007614	-.007493	.0869265	.003560	-.003116	.2162374	.2156161

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000268	.0001855	37.27297	.0054539	.0033927	.0177271	.0753632
Stddev	.000033	.0001133	.57958	.0003048	.0002958	.0004781	.0053890
%RSD	12.25974	61.07042	1.554957	5.588666	8.718551	2.697277	7.150696
#1	-.000300	.0003104	36.82778	.0051023	.0030733	.0174685	.0739354
#2	-.000268	.0001568	37.06282	.0056151	.0036572	.0182789	.0708318
#3	-.000234	.0000893	37.92831	.0056442	.0034476	.0174339	.0813222

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9719289	1.719309	.0178483	-.000780	464.1082	-.001574	.3646216
Stddev	.0100798	.047874	.0002733	.000172	1.1975	.000747	.0011851
%RSD	1.037095	2.784519	1.531049	22.01333	.2580199	47.48365	.3250307
#1	.9633536	1.686714	.0181636	-.000965	465.4065	-.000995	.3648118
#2	.9694010	1.696940	.0177017	-.000625	463.8711	-.001308	.3657002
#3	.9830321	1.774274	.0176796	-.000749	463.0470	-.002417	.3633529

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451762	.0477621	-.002654	-.006053	-.003252	2.407413	.0244836
Stddev	.052484	.0007565	.000210	.000599	.000228	.015871	.0013371
%RSD	2.140665	1.583909	7.903133	9.894515	6.998085	.6592544	5.461154
#1	2.501834	.0470030	-.002891	-.006320	-.003126	2.389642	.0235070
#2	2.456291	.0477674	-.002579	-.006472	-.003514	2.412418	.0239362
#3	2.397160	.0485160	-.002492	-.005367	-.003115	2.420177	.0260075

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2278-04 Acquired: 6/11/2025 17:43:01 Type: Unk
Method: 6010-200.7 NEW(v5) 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	1.114547	.0085315	.1278518
Stddev	.007027	.0015807	.0013732
%RSD	.6304793	18.52837	1.074032
#1	1.116458	.0075382	.1280063
#2	1.106762	.0103543	.1291411
#3	1.120420	.0077019	.1264079

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2657.199	61669.52	14958.93	1887.177	3535.940
Stddev	42.875	137.39	46.42	2.465	37.821
%RSD	1.613536	.2227873	.3103205	.1306061	1.069621
#1	2706.538	61531.85	14954.97	1888.391	3578.920
#2	2628.991	61670.07	14914.62	1884.341	3521.155
#3	2636.069	61806.63	15007.21	1888.799	3507.744

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-02 Acquired: 6/11/2025 17:47:25 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.009509**	**-.012076**	**.0003487**	**.0043150**	**-.000081**	**.0684992**	**.5866904**
Stddev	.001931	.001928	.0023090	.0040878	.000921	.0018395	.0012740
%RSD	20.30831	15.96534	662.2078	94.73427	1143.066	2.685444	.2171434
#1	-.007356	-.009854	.0008372	.0016384	-.000993	.0682057	.5880563
#2	-.011089	-.013064	-.002165	.0090203	.000849	.0704679	.5864807
#3	-.010080	-.013310	.002374	.0022862	-.000097	.0668242	.5855344

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000380**	**.0011818**	**226.1635**	**.0001849**	**-.002185**	**.0353418**	**.0017257**
Stddev	.000058	.0000759	.7860	.0003235	.000088	.0004290	.0001609
%RSD	15.29529	6.420280	.3475188	174.9637	4.011829	1.213814	9.325424
#1	-.000330	.0011183	226.4680	-.000160	-.002279	.0352839	.0017907
#2	-.000444	.0012658	225.2708	.000482	-.002105	.0349447	.0015424
#3	-.000367	.0011613	226.7516	.000232	-.002172	.0357968	.0018439

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.197503**	**6.958209**	**.0039322**	**-.001090**	**446.2592**	**-.001353**	**.0923383**
Stddev	.006712	.022432	.0003430	.000242	3.4209	.000636	.0003082
%RSD	.3054298	.3223753	8.723109	22.21553	.7665683	47.03847	.3338267
#1	2.203173	6.934273	.0036824	-.001158	450.1288	-.001692	.0922764
#2	2.190092	6.961603	.0037909	-.001291	445.0114	-.000619	.0920658
#3	2.199245	6.978749	.0043233	-.000821	443.6373	-.001747	.0926729

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.392402**	**.0336897**	**-.002614**	**-.004684**	**-.009306**	**1.597325**	**.0190463**
Stddev	.032907	.0000562	.000239	.000471	.000911	.011830	.0020151
%RSD	.7491907	.1666982	9.124040	10.05972	9.792627	.7406067	10.58003
#1	4.411664	.0337461	-.002842	-.004277	-.009548	1.610936	.0204349
#2	4.411138	.0336338	-.002366	-.005200	-.010072	1.591525	.0167351
#3	4.354405	.0336891	-.002634	-.004576	-.008298	1.589515	.0199689

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-02 Acquired: 6/11/2025 17:47:25 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7735026	.0545813	.4639359
Stddev	.0067835	.0021100	.0006827
%RSD	.8769898	3.865865	.1471494
#1	.7813292	.0529041	.4646890
#2	.7698605	.0569505	.4637610
#3	.7693179	.0538894	.4633577

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2536.343	60221.27	14032.83	1809.611	3363.372
Stddev	11.163	34.92	38.37	3.065	12.953
%RSD	.4401215	.0579853	.2734422	.1693939	.3851330
#1	2548.352	60212.26	14018.39	1807.844	3372.720
#2	2534.393	60191.74	14076.33	1813.151	3368.810
#3	2526.283	60259.81	14003.78	1807.838	3348.586

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-04 Acquired: 6/11/2025 17:51:50 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.008665**	**-.012133**	**.0062737**	**.0058273**	**-.002267**	**.1125379**	**.9257139**
Stddev	.002399	.001929	.0006151	.0034140	.002428	.0087984	.0032929
%RSD	27.68565	15.89619	9.805084	58.58632	107.1332	7.818169	.3557142
#1	-.007725	-.014314	.0069507	.0021317	-.005055	.1028029	.9223229
#2	-.006878	-.010653	.0057491	.0088635	-.001132	.1199221	.9259198
#3	-.011391	-.011432	.0061212	.0064867	-.000614	.1148887	.9288990

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000111**	**.0009350**	**103.9834**	**-.000347**	**-.001468**	**.0191900**	**.0079015**
Stddev	.000072	.0000332	.3308	.000365	.000134	.0004991	.0013879
%RSD	65.24236	3.546625	.3180956	105.2514	9.145142	2.601004	17.56500
#1	-.000133	.0009733	103.6048	-.000062	-.001567	.0186158	.0084005
#2	-.000030	.0009162	104.1287	-.000759	-.001522	.0194337	.0089710
#3	-.000169	.0009155	104.2166	-.000220	-.001315	.0195205	.0063331

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.477698**	**6.730367**	**.0043130**	**-.001086**	**519.5956**	**-.001735**	**.4499365**
Stddev	.008244	.017272	.0001452	.000147	2.0525	.001137	.0014424
%RSD	.5578661	.2566302	3.366326	13.58140	.3950157	65.53801	.3205683
#1	1.468391	6.728106	.0041534	-.000983	518.1757	-.002584	.4488117
#2	1.480621	6.714337	.0044372	-.001255	518.6621	-.000443	.4494352
#3	1.484081	6.748659	.0043484	-.001019	521.9489	-.002179	.4515627

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.502409**	**.0975357**	**-.002644**	**-.007511**	**-.005686**	**1.716732**	**.0332448**
Stddev	.025190	.0006978	.000349	.000201	.000330	.005756	.0017464
%RSD	.7192241	.7153957	13.21692	2.672038	5.805467	.3352875	5.253210
#1	3.473763	.0974122	-.002870	-.007735	-.005702	1.711822	.0352524
#2	3.512362	.0969079	-.002822	-.007348	-.006007	1.715306	.0320765
#3	3.521102	.0982870	-.002242	-.007450	-.005348	1.723066	.0324054

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-04 Acquired: 6/11/2025 17:51:50 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7517671	.0235205	.3376555
Stddev	.0052706	.0006816	.0010631
%RSD	.7010956	2.897869	.3148591
#1	.7490446	.0233131	.3368751
#2	.7484144	.0229667	.3372251
#3	.7578421	.0242817	.3388664

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.474	60843.42	14963.21	1840.245	3420.452
Stddev	15.043	33.77	11.54	5.147	21.713
%RSD	.5829651	.0554971	.0771237	.2797048	.6348032
#1	2574.126	60823.63	14975.93	1838.785	3416.289
#2	2597.651	60824.22	14953.42	1845.964	3443.945
#3	2569.646	60882.41	14960.28	1835.985	3401.122

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2285-05 Acquired: 6/11/2025 17:56:13 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.007898**	**-.008852**	**-.001551**	**.0040328**	**-.002800**	**.4527653**	**.0763239**
Stddev	.001769	.002228	.001560	.0026212	.001547	.0038641	.0027845
%RSD	22.39183	25.17385	100.6091	64.99803	55.27033	.8534506	3.648307
#1	-.005993	-.009634	.000222	.0027226	-.004586	.4545019	.0744082
#2	-.009488	-.010584	-.002161	.0023249	-.001948	.4554565	.0795181
#3	-.008213	-.006338	-.002713	.0070508	-.001866	.4483376	.0750455

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000263**	**-.001327**	**68.18768**	**.0003575**	**-.001517**	**.0069879**	**.1662940**
Stddev	.000047	.000109	2.00369	.0000440	.000163	.0003339	.0019353
%RSD	17.89373	8.195186	2.938493	12.30756	10.71908	4.778009	1.163779
#1	-.000215	-.001262	66.90519	.0003402	-.001619	.0070765	.1685161
#2	-.000309	-.001266	70.49661	.0004076	-.001602	.0066187	.1653878
#3	-.000264	-.001452	67.16123	.0003248	-.001329	.0072686	.1649780

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0683651**	**.8004881**	**.0002311**	**-.000781**	**436.3079**	**-.000668**	**.2646651**
Stddev	.0015590	.0439005	.0001129	.000280	1.0889	.001269	.0008240
%RSD	2.280362	5.484217	48.86181	35.88313	.2495655	190.0556	.3113507
#1	.0674348	.7776444	.0002785	-.000945	435.9016	-.001968	.2651590
#2	.0701649	.8511003	.0003127	-.000457	435.4806	-.000602	.2651225
#3	.0674956	.7727197	.0001022	-.000940	437.5415	.000567	.2637138

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3969336**	**.0184989**	**-.002464**	**-.006924**	**-.000579**	**4.390280**	**.0244836**
Stddev	.0149788	.0002597	.000298	.000696	.000483	.023915	.0009769
%RSD	3.773621	1.403716	12.10255	10.04563	83.50077	.5447188	3.990070
#1	.4117987	.0185689	-.002217	-.007728	-.000223	4.387368	.0248891
#2	.3971583	.0187164	-.002795	-.006528	-.001129	4.415517	.0233692
#3	.3818437	.0182114	-.002379	-.006518	-.000384	4.367954	.0251924

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2285-05 Acquired: 6/11/2025 17:56:13 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.157064**	**.0108167**	**.4552086**
Stddev	.017758	.0027674	.0037522
%RSD	.8232689	25.58437	.8242790
#1	2.176368	.0138971	.4560685
#2	2.141422	.0085405	.4511011
#3	2.153403	.0100126	.4584562

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2643.124**	**61663.10**	**14751.14**	**1875.580**	**3524.147**
Stddev	59.446	65.87	216.74	9.024	47.912
%RSD	2.249090	.1068153	1.469307	.4811348	1.359546
#1	2710.935	61665.07	14910.98	1883.105	3578.357
#2	2618.439	61596.27	14504.44	1865.575	3506.613
#3	2599.996	61727.95	14838.00	1878.059	3487.472

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01 Acquired: 6/11/2025 18:00:37 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.007532**	**-.008722**	**-.002693**	**.0023821**	**-.003700**	**.0137650**	**-.001373**
Stddev	.001719	.000640	.000536	.0014055	.000312	.0021984	.000649
%RSD	22.81718	7.335042	19.90343	59.00348	8.431620	15.97116	47.24677
#1	-.005752	-.008622	-.003305	.0036731	-.004011	.0162719	-.000690
#2	-.007662	-.009406	-.002465	.0025884	-.003387	.0128577	-.001448
#3	-.009182	-.008138	-.002308	.0008848	-.003702	.0121655	-.001981

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000388**	**-.001455**	**8.148749**	**-.000902**	**-.001700**	**.0024909**	**.6986086**
Stddev	.000006	.000067	.058303	.000581	.000108	.0001337	.0035186
%RSD	1.603506	4.592030	.7154799	64.44676	6.349473	5.367073	.5036619
#1	-.000381	-.001512	8.211114	-.000560	-.001640	.0026198	.6999164
#2	-.000393	-.001471	8.095608	-.001573	-.001825	.0025001	.7012860
#3	-.000391	-.001381	8.139525	-.000573	-.001636	.0023529	.6946233

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1264861**	**1.104472**	**.0003158**	**-.000621**	**63.96023**	**-.001245**	**.0262184**
Stddev	.0012126	.014802	.0004328	.000089	.44084	.001242	.0001038
%RSD	.9586719	1.340186	137.0303	14.29902	.6892371	99.75025	.3958576
#1	.1277911	1.118096	.0001183	-.000546	63.64852	-.002475	.0263009
#2	.1253942	1.106597	.0000170	-.000597	64.46461	-.001268	.0261019
#3	.1262731	1.088722	.0008121	-.000719	63.76758	.000008	.0262526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.390382**	**.0253914**	**-.002516**	**-.006385**	**-.002189**	**1.343185**	**2.348211**
Stddev	.011261	.0004897	.000183	.000729	.000098	.002064	.027859
%RSD	.8098926	1.928690	7.267428	11.42546	4.471917	.1536772	1.186391
#1	1.392140	.0254636	-.002482	-.006028	-.002122	1.342842	2.353628
#2	1.400660	.0258409	-.002714	-.005902	-.002301	1.345399	2.318041
#3	1.378346	.0248695	-.002353	-.007224	-.002143	1.341314	2.372964

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01 Acquired: 6/11/2025 18:00:37 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.633390**	**-.000850**	**.0641121**
Stddev	.028417	.000108	.0000805
%RSD	1.079103	12.72463	.1254885
#1	2.617954	-.000763	.0640975
#2	2.616033	-.000971	.0640399
#3	2.666185	-.000815	.0641988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2798.973**	**67198.85**	**15675.97**	**2007.664**	**3993.022**
Stddev	31.287	125.42	70.02	4.105	26.716
%RSD	1.117808	.1866436	.4466717	.2044547	.6690586
#1	2778.345	67199.66	15608.75	2003.852	3974.184
#2	2783.601	67073.03	15748.49	2007.132	3981.285
#3	2834.972	67323.87	15670.65	2012.009	4023.597

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01DUP Acquired: 6/11/2025 18:04:53 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.007297	-.008335	-.001478	.0009518	-.003118	.0709321	.0030709
Stddev	.001054	.000186	.000267	.0003517	.000679	.0016660	.0012643
%RSD	14.43964	2.234447	18.05380	36.94353	21.78463	2.348724	41.17140
#1	-.006417	-.008152	-.001549	.0006358	-.002898	.0728346	.0016110
#2	-.008465	-.008328	-.001183	.0008891	-.003881	.0697340	.0038111
#3	-.007008	-.008525	-.001703	.0013306	-.002577	.0702278	.0037904

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000374	-.001368	10.36600	-.000755	-.001503	.0038463	.9460290
Stddev	.000013	.000020	.05721	.000361	.000215	.0002580	.0066775
%RSD	3.361721	1.449490	.5519373	47.82928	14.32891	6.706681	.7058483
#1	-.000378	-.001378	10.32734	-.001154	-.001449	.0041223	.9383242
#2	-.000360	-.001381	10.33892	-.000663	-.001741	.0038055	.9501399
#3	-.000384	-.001345	10.43172	-.000449	-.001320	.0036112	.9496228

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1653639	1.421686	.0006462	-.000529	79.76892	-.001099	.0330646
Stddev	.0004186	.032572	.0004668	.000017	.23222	.000818	.0003973
%RSD	.2531255	2.291115	72.24064	3.254386	.2911102	74.43792	1.201635
#1	.1649432	1.396288	.0007768	-.000514	79.55592	-.000380	.0326893
#2	.1653683	1.410360	.0001280	-.000526	80.01648	-.000929	.0330237
#3	.1657803	1.458409	.0010338	-.000548	79.73438	-.001989	.0334808

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.761402	.0338567	-.002561	-.006068	-.001331	1.668460	2.941526
Stddev	.016756	.0006511	.000250	.000232	.000491	.012765	.021613
%RSD	.9512881	1.923071	9.773659	3.819227	36.87984	.7650639	.7347594
#1	1.744351	.0337992	-.002841	-.006201	-.001896	1.658932	2.919094
#2	1.762009	.0332363	-.002359	-.005800	-.001017	1.663484	2.943271
#3	1.777846	.0345347	-.002484	-.006203	-.001079	1.682963	2.962215

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01DUP Acquired: 6/11/2025 18:04:53 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**3.299978**	**.0004982**	**.0819095**
Stddev	.028060	.0005755	.0001363
%RSD	.8502966	115.5269	.1664208
#1	3.275584	.0007503	.0820517
#2	3.293708	-.000160	.0817800
#3	3.330642	.000905	.0818969

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2804.900**	**66675.19**	**15333.90**	**1999.889**	**3985.470**
Stddev	19.589	172.37	34.89	3.864	12.186
%RSD	.6983868	.2585159	.2275605	.1931900	.3057628
#1	2783.007	66848.44	15319.63	1996.265	3972.139
#2	2810.923	66673.42	15373.67	2003.954	3988.234
#3	2820.770	66503.72	15308.41	1999.449	3996.037

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01LX5 Acquired: 6/11/2025 18:09:09 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003990**	**-.005638**	**-.003815**	**.0008336**	**-.002868**	**-.001938**	**-.010189**
Stddev	.001915	.001814	.000267	.0028778	.000419	.003606	.000167
%RSD	48.00080	32.17925	6.991133	345.2133	14.60718	186.0679	1.643246
#1	-.002183	-.003813	-.003674	.0039957	-.002404	-.005644	-.010245
#2	-.003790	-.005658	-.003648	-.001632	-.003217	.001560	-.010000
#3	-.005998	-.007442	-.004123	.000137	-.002984	-.001730	-.010320

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000234**	**-.001519**	**1.696856**	**-.000215**	**-.001800**	**-.000053**	**.1461402**
Stddev	.000056	.000048	.002991	.000169	.000249	.000382	.0018363
%RSD	23.98713	3.188514	.1762642	78.29194	13.84606	718.7651	1.256543
#1	-.000185	-.001547	1.693405	-.000284	-.001826	.000377	.1445285
#2	-.000223	-.001463	1.698459	-.000339	-.001538	-.000353	.1457528
#3	-.000295	-.001547	1.698704	-.000023	-.002035	-.000184	.1481393

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0254809**	**.2326937**	**-.001065**	**-.000503**	**12.39616**	**-.001202**	**.0039464**
Stddev	.0000322	.0069432	.000107	.000425	.06081	.001184	.0000690
%RSD	.1261881	2.983831	10.08932	84.52944	.4905659	98.42355	1.747429
#1	.0254544	.2281290	-.000973	-.000574	12.46383	-.000079	.0038709
#2	.0255166	.2292681	-.001183	-.000887	12.37856	-.001090	.0039621
#3	.0254716	.2406840	-.001039	-.000047	12.34609	-.002438	.0040060

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4049864**	**.0024215**	**-.003069**	**-.003100**	**-.002459**	**.2738592**	**.4921249**
Stddev	.0150717	.0006106	.000152	.001270	.000235	.0024678	.0017697
%RSD	3.721536	25.21558	4.969673	40.98470	9.553233	.9011090	.3596119
#1	.3914957	.0020240	-.002944	-.004247	-.002429	.2731655	.4941280
#2	.4212532	.0021160	-.003239	-.003318	-.002707	.2765996	.4907733
#3	.4022104	.0031246	-.003022	-.001734	-.002240	.2718125	.4914732

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01LX5 Acquired: 6/11/2025 18:09:09 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.5394438	.0070692	.0108285
Stddev	.0030067	.0012957	.0000795
%RSD	.5573694	18.32875	.7336718
#1	.5392358	.0055731	.0108645
#2	.5425491	.0078055	.0107374
#3	.5365465	.0078290	.0108835

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2890.637	69659.09	15715.33	2110.235	4104.722
Stddev	41.913	70.04	36.38	6.114	32.748
%RSD	1.449970	.1005436	.2315205	.2897511	.7978108
#1	2869.070	69626.57	15749.67	2115.138	4085.080
#2	2863.899	69611.22	15719.14	2112.183	4086.561
#3	2938.942	69739.47	15677.20	2103.384	4142.527

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01MS Acquired: 6/11/2025 18:13:28 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7706226**	**1.731948**	**.8983753**	**1.875586**	**.7961713**	**1.998114**	**.1926161**
Stddev	.0032171	.005309	.0048773	.007866	.0016945	.006802	.0003600
%RSD	.4174719	.3065077	.5429055	.4194003	.2128352	.3404263	.1868983
#1	.7685218	1.737924	.8958749	1.884566	.7943947	2.000486	.1925108
#2	.7690197	1.730142	.8952553	1.872280	.7963494	2.003413	.1930170
#3	.7743262	1.727779	.9039958	1.869912	.7977697	1.990444	.1923205

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1786638**	**.1853911**	**10.47525**	**.3818009**	**.1923490**	**.2999080**	**3.841020**
Stddev	.0008777	.0009706	.03929	.0006378	.0011523	.0003784	.025473
%RSD	.4912882	.5235156	.3750467	.1670388	.5990833	.1261690	.6631943
#1	.1790612	.1848849	10.43367	.3813710	.1916860	.3003447	3.813333
#2	.1792726	.1847783	10.48034	.3814981	.1916815	.2996792	3.846264
#3	.1776576	.1865101	10.51175	.3825337	.1936796	.2997000	3.863464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3894316**	**3.122970**	**.4810078**	**.0705554**	**77.22901**	**.2907747**	**.2347032**
Stddev	.0028819	.016869	.0020889	.0004876	.08661	.0006590	.0009520
%RSD	.7400225	.5401622	.4342649	.6910447	.1121475	.2266423	.4056271
#1	.3863538	3.104758	.4795574	.0705421	77.26600	.2901159	.2336457
#2	.3920661	3.138060	.4800641	.0710494	77.13005	.2914339	.2349719
#3	.3898751	3.126092	.4834020	.0700745	77.29099	.2907744	.2354919

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.74844**	**.2855159**	**.4237558**	**.6506156**	**.1938083**	**2.465219**	**8.167473**
Stddev	.05053	.0013315	.0009191	.0040520	.0004577	.013106	.030560
%RSD	.4300891	.4663543	.2169029	.6227926	.2361510	.5316478	.3741718
#1	11.69814	.2867263	.4248137	.6477294	.1934593	2.452024	8.176199
#2	11.74798	.2857317	.4233004	.6488696	.1936391	2.465397	8.133499
#3	11.79919	.2840897	.4231532	.6552479	.1943265	2.478235	8.192722

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01MS Acquired: 6/11/2025 18:13:28 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**3.175848**	**.1708158**	**.2706675**
Stddev	.008018	.0013453	.0011238
%RSD	.2524819	.7875643	.4151800
#1	3.171032	.1721782	.2709524
#2	3.171406	.1707809	.2716213
#3	3.185104	.1694883	.2694287

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2772.482**	**66919.57**	**15359.60**	**1976.666**	**3909.089**
Stddev	13.576	167.39	57.03	15.103	8.523
%RSD	.4896705	.2501307	.3713085	.7640880	.2180265
#1	2759.144	67106.38	15372.64	1993.794	3899.844
#2	2772.017	66869.11	15297.17	1970.945	3916.633
#3	2786.285	66783.21	15408.97	1965.259	3910.789

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01MSD Acquired: 6/11/2025 18:17:27 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.8192564**	**1.864326**	**.9598300**	**1.993901**	**.8428966**	**2.166078**	**.1981822**
Stddev	.0030384	.017289	.0037880	.001355	.0034853	.024342	.0014022
%RSD	.3708767	.9273457	.3946589	.0679460	.4134881	1.123771	.7075076
#1	.8159609	1.852849	.9569706	1.992516	.8424850	2.179046	.1987743
#2	.8198618	1.884211	.9583932	1.993965	.8396354	2.181190	.1991912
#3	.8219466	1.855918	.9641263	1.995223	.8465694	2.137998	.1965812

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2077283**	**.1975019**	**8.834531**	**.4126493**	**.2051790**	**.3191833**	**3.615588**
Stddev	.0005948	.0012093	.061189	.0006126	.0007605	.0004149	.016703
%RSD	.2863285	.6122972	.6926089	.1484605	.3706478	.1299997	.4619754
#1	.2081006	.1962503	8.865516	.4132876	.2044601	.3192190	3.624275
#2	.2080420	.1975914	8.874030	.4125943	.2051017	.3187516	3.596332
#3	.2070424	.1986639	8.764048	.4120660	.2059752	.3195792	3.626158

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3297270**	**3.074420**	**.5120872**	**.0757843**	**57.40773**	**.3101618**	**.2430134**
Stddev	.0016208	.025659	.0023604	.0004615	.24394	.0026750	.0013971
%RSD	.4915675	.8345944	.4609375	.6089982	.4249203	.8624560	.5749004
#1	.3309589	3.087628	.5096894	.0763030	57.68178	.3122943	.2442195
#2	.3303312	3.090784	.5121640	.0754189	57.32711	.3110308	.2433382
#3	.3278908	3.044848	.5144083	.0756311	57.21431	.3071603	.2414825

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.07187**	**.3215462**	**.4532714**	**.6902373**	**.2050939**	**2.062984**	**7.926575**
Stddev	.08792	.0028391	.0004540	.0035879	.0018365	.008690	.039550
%RSD	.7941208	.8829544	.1001520	.5198120	.8954647	.4212197	.4989552
#1	11.17074	.3239318	.4527584	.6873850	.2060610	2.061999	7.881772
#2	11.04239	.3223008	.4534345	.6890612	.2062449	2.054829	7.941312
#3	11.00247	.3184060	.4536213	.6942657	.2029759	2.072124	7.956641

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01MSD Acquired: 6/11/2025 18:17:27 Type: Unk
Method: 6010-200.7 NEW(v5) 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	2.456052	.1816409	.2655998
Stddev	.005739	.0031317	.0022878
%RSD	.2336655	1.724092	.8613626
#1	2.450177	.1810596	.2672663
#2	2.456334	.1850225	.2665416
#3	2.461644	.1788406	.2629914

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2813.762	67358.98	14227.52	2008.764	4000.691
Stddev	13.078	200.65	93.20	10.601	10.590
%RSD	.4647743	.2978791	.6550751	.5277354	.2646993
#1	2802.994	67138.94	14158.96	1996.529	3994.966
#2	2809.978	67531.83	14189.96	2015.206	3994.196
#3	2828.315	67406.16	14333.64	2014.557	4012.911

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV04 Acquired: 6/11/2025 18:21:26 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.857272**	**4.742881**	**4.918951**	**4.898757**	**4.913170**	**9.841703**	**9.951450**
Stddev	.009772	.053042	.024494	.012863	.019427	.027015	.052774
%RSD	.2011743	1.118353	.4979604	.2625704	.3954159	.2744912	.5303122
#1	4.857345	4.803792	4.900207	4.908990	4.933037	9.832848	9.891449
#2	4.867008	4.706873	4.909978	4.902962	4.912260	9.820228	9.972234
#3	4.847465	4.717977	4.946666	4.884317	4.894214	9.872034	9.990668

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2303031**	**2.440819**	**24.43019**	**.9585309**	**2.459509**	**1.231569**	**5.092760**
Stddev	.0003227	.013857	.08823	.0006816	.009537	.003506	.019378
%RSD	.1401020	.5677117	.3611315	.0711044	.3877680	.2846989	.3805080
#1	.2305569	2.432414	24.32971	.9583968	2.453041	1.234166	5.070392
#2	.2304125	2.433230	24.46592	.9579264	2.455024	1.232959	5.104466
#3	.2299400	2.456812	24.49495	.9592696	2.470462	1.227581	5.103422

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.421192**	**24.22278**	**2.456239**	**1.222315**	**24.77558**	**2.466842**	**2.475307**
Stddev	.012254	.15189	.009320	.000398	.03365	.011912	.017112
%RSD	.5061306	.6270709	.3794492	.0325728	.1358334	.4828903	.6912901
#1	2.407899	24.05236	2.450733	1.221857	24.81413	2.453221	2.469558
#2	2.432039	24.27205	2.450985	1.222507	24.76055	2.475309	2.461811
#3	2.423638	24.34392	2.467001	1.222581	24.75206	2.471996	2.494553

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.00148**	**4.606276**	**4.989616**	**4.847080**	**4.925952**	**5.227956**	**4.888336**
Stddev	.04109	.004336	.014860	.025479	.012317	.029822	.019087
%RSD	.1643676	.0941335	.2978122	.5256641	.2500512	.5704414	.3904527
#1	24.96290	4.611260	5.002600	4.830585	4.911740	5.196356	4.886631
#2	24.99685	4.604200	4.992838	4.834230	4.933538	5.231905	4.870159
#3	25.04469	4.603369	4.973410	4.876426	4.932578	5.255607	4.908218

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV04 Acquired: 6/11/2025 18:21:26 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.729277**	**4.682190**	**4.992988**
Stddev	.020353	.007098	.022378
%RSD	.4303520	.1515974	.4481852
#1	4.734342	4.687800	4.970892
#2	4.706869	4.684559	4.992434
#3	4.746618	4.674210	5.015638

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2846.627**	**66741.41**	**15300.33**	**2020.384**	**3854.665**
Stddev	31.834	96.29	23.89	14.690	28.453
%RSD	1.118316	.1442740	.1561567	.7271137	.7381423
#1	2823.948	66820.92	15327.90	2028.174	3833.717
#2	2832.912	66768.97	15285.56	2029.540	3843.219
#3	2883.019	66634.35	15287.54	2003.440	3887.058

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB04 Acquired: 6/11/2025 18:25:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.004307**	**-.001826**	**-.001659**	**-.001329**	**-.003159**	**-.001649**	**-.011050**
Stddev	.001335	.000488	.000378	.001158	.001058	.002642	.000577
%RSD	31.00244	26.70185	22.75716	87.16123	33.49772	160.2068	5.224931
#1	-.005849	-.001333	-.001673	-.002194	-.002805	.000939	-.011404
#2	-.003547	-.002308	-.001275	-.001781	-.002324	-.001545	-.011361
#3	-.003525	-.001837	-.002030	-.000013	-.004349	-.004342	-.010384

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000152**	**-.001345**	**-.024729**	**-.000697**	**-.001557**	**-.000702**	**.0051929**
Stddev	.000016	.000092	.005832	.000141	.000116	.000127	.0017995
%RSD	10.56383	6.811431	23.58342	20.19394	7.452762	18.11317	34.65361
#1	-.000144	-.001447	-.030690	-.000774	-.001639	-.000757	.0031998
#2	-.000142	-.001318	-.024461	-.000783	-.001607	-.000557	.0066983
#3	-.000171	-.001269	-.019035	-.000535	-.001424	-.000793	.0056806

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001707**	**-.037472**	**-.001602**	**-.000359**	**.0977543**	**-.001300**	**.0029978**
Stddev	.000157	.012005	.000274	.000042	.0138864	.001187	.0001808
%RSD	9.193538	32.03848	17.08090	11.81750	14.20542	91.32693	6.031907
#1	-.001546	-.050021	-.001395	-.000393	.0827486	-.002670	.0029382
#2	-.001715	-.036298	-.001912	-.000373	.1003627	-.000672	.0032008
#3	-.001859	-.026097	-.001498	-.000312	.1101515	-.000559	.0028542

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0420045**	**.0032623**	**-.002265**	**-.004718**	**-.002237**	**.0008459**	**-.004703**
Stddev	.0102412	.0004792	.000166	.000622	.000371	.0025485	.001312
%RSD	24.38123	14.68812	7.319018	13.19013	16.57075	301.2634	27.89566
#1	.0476158	.0028502	-.002450	-.005292	-.001817	.0020502	-.006082
#2	.0301840	.0037881	-.002130	-.004806	-.002373	.0025692	-.003470
#3	.0482138	.0031487	-.002215	-.004057	-.002520	-.002082	-.004558

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB04 Acquired: 6/11/2025 18:25:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0028144	-.001881	-.002873
Stddev	.0016496	.001039	.000031
%RSD	58.61163	55.24306	1.080363
#1	.0040026	-.002698	-.002871
#2	.0009310	-.000712	-.002843
#3	.0035096	-.002232	-.002905

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3037.107	72375.68	15379.93	2213.777	4436.465
Stddev	40.900	721.34	14.17	48.135	35.893
%RSD	1.346684	.9966673	.0921079	2.174329	.8090365
#1	3012.563	72071.51	15372.55	2186.272	4415.729
#2	3084.322	73199.29	15370.97	2269.357	4477.910
#3	3014.436	71856.24	15396.26	2185.701	4415.755

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01A Acquired: 6/11/2025 18:29:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7578835**	**1.716298**	**.8861108**	**1.831478**	**.7601141**	**1.967379**	**.1880560**
Stddev	.0027319	.023571	.0141219	.002994	.0050014	.003997	.0001372
%RSD	.3604633	1.373334	1.593694	.1634552	.6579793	.2031828	.0729735
#1	.7547390	1.692536	.8777030	1.830860	.7604418	1.971769	.1879123
#2	.7592380	1.716684	.8782147	1.828842	.7649436	1.966420	.1881857
#3	.7596735	1.739672	.9024147	1.834733	.7549570	1.963949	.1880699

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1806828**	**.1829890**	**10.76408**	**.3772068**	**.1898032**	**.2933374**	**3.691555**
Stddev	.0000480	.0028765	.01993	.0016094	.0025063	.0003014	.015318
%RSD	.0265479	1.571940	.1851280	.4266528	1.320456	.1027464	.4149361
#1	.1806811	.1815387	10.74385	.3788129	.1886650	.2934890	3.674733
#2	.1807316	.1811265	10.78369	.3755942	.1880680	.2929903	3.704698
#3	.1806358	.1863020	10.76469	.3772135	.1926766	.2935329	3.695234

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3451021**	**3.171011**	**.4743712**	**.0676227**	**75.84727**	**.2870009**	**.2336711**
Stddev	.0011803	.022433	.0063826	.0001140	.38553	.0014254	.0016430
%RSD	.3420092	.7074487	1.345481	.1685522	.5082925	.4966481	.7031085
#1	.3446147	3.167735	.4703877	.0677111	75.74433	.2876233	.2353071
#2	.3464480	3.150396	.4709930	.0674941	76.27382	.2853702	.2320213
#3	.3442436	3.194903	.4817329	.0676630	75.52366	.2880093	.2336851

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.25888**	**.2922460**	**.4067912**	**.6281302**	**.1867455**	**2.417447**	**8.191843**
Stddev	.02391	.0008141	.0004484	.0099508	.0004703	.007873	.108586
%RSD	.2123288	.2785625	.1102257	1.584199	.2518599	.3256906	1.325543
#1	11.24669	.2929031	.4068519	.6225146	.1868967	2.423815	8.105111
#2	11.28642	.2913353	.4063155	.6222566	.1871216	2.408644	8.156793
#3	11.24353	.2924997	.4072061	.6396195	.1862182	2.419881	8.313626

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2267-01A Acquired: 6/11/2025 18:29:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**3.130824**	**.1687690**	**.2691418**
Stddev	.043024	.0009745	.0015046
%RSD	1.374195	.5774390	.5590338
#1	3.104924	.1677173	.2692046
#2	3.107060	.1696415	.2706140
#3	3.180488	.1689481	.2676068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2803.416**	**66921.27**	**14868.89**	**1996.347**	**3946.374**
Stddev	47.350	65.97	16.88	4.748	32.749
%RSD	1.689010	.0985816	.1135349	.2378293	.8298427
#1	2771.812	66862.87	14852.61	2001.474	3923.187
#2	2780.580	66992.83	14867.76	1995.464	3932.098
#3	2857.856	66908.10	14886.32	1992.102	3983.837

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168423BL Acquired: 6/11/2025 18:33:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003004**	**-.004156**	**-.003711**	**-.002850**	**-.003913**	**-.003655**	**-.012062**
Stddev	.002495	.001033	.000195	.001360	.001575	.004021	.000533
%RSD	83.07481	24.85361	5.259317	47.71820	40.25053	110.0179	4.422043
#1	-.005754	-.005331	-.003783	-.002110	-.004808	-.004443	-.012174
#2	-.000885	-.003741	-.003860	-.004419	-.004836	.000702	-.011482
#3	-.002372	-.003394	-.003490	-.002020	-.002094	-.007224	-.012531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000196**	**-.001526**	**.0065797**	**-.000313**	**-.001445**	**-.000703**	**.0000906**
Stddev	.000083	.000027	.0044831	.000106	.000193	.000139	.0038980
%RSD	42.33198	1.771005	68.13496	33.98130	13.33545	19.82837	4301.038
#1	-.000226	-.001552	.0070671	-.000281	-.001225	-.000576	.0041596
#2	-.000260	-.001529	.0018729	-.000431	-.001529	-.000681	-.000277
#3	-.000102	-.001498	.0107992	-.000226	-.001582	-.000852	-.003610

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000525**	**-.001088**	**-.001210**	**-.000450**	**.1406754**	**-.002690**	**-.001479**
Stddev	.0000546	.004571	.000080	.000256	.0006232	.000530	.000170
%RSD	103.8697	420.0902	6.623112	56.94573	.4429862	19.68962	11.49199
#1	-.000003	.003617	-.001298	-.000366	.1410658	-.003206	-.001624
#2	.000107	-.005512	-.001191	-.000737	.1410037	-.002717	-.001292
#3	.000054	-.001369	-.001141	-.000246	.1399567	-.002148	-.001519

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0700858**	**-.000910**	**-.003037**	**-.001444**	**-.002667**	**-.005116**	**-.002674**
Stddev	.0176257	.000570	.000393	.000468	.000515	.002600	.001818
%RSD	25.14870	62.67951	12.94873	32.38847	19.32657	50.82175	68.00531
#1	.0842461	-.000363	-.002872	-.001915	-.002273	-.007184	-.001340
#2	.0503455	-.000866	-.002754	-.001438	-.003250	-.005965	-.004745
#3	.0756659	-.001501	-.003486	-.000980	-.002477	-.002197	-.001937

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168423BL Acquired: 6/11/2025 18:33:58 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0078611	.0005179	-.003245
Stddev	.0027740	.0010359	.000050
%RSD	35.28823	200.0127	1.538286
#1	.0092812	.0016062	-.003296
#2	.0096375	.0004036	-.003197
#3	.0046645	-.000456	-.003242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.793	70988.05	15608.66	2196.224	4244.854
Stddev	2.404	439.76	21.20	30.840	11.030
%RSD	.0814230	.6194876	.1357907	1.404210	.2598475
#1	2951.521	70861.33	15588.08	2176.856	4243.663
#2	2955.567	70625.57	15607.50	2180.029	4256.432
#3	2951.293	71477.26	15630.42	2231.787	4234.468

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168423BS Acquired: 6/11/2025 18:38:18 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7574395**	**1.868026**	**.9560870**	**1.920332**	**.7714361**	**1.904914**
Stddev	.0086063	.023389	.0052557	.017668	.0082893	.005832
%RSD	1.136232	1.252067	.5497126	.9200732	1.074532	.3061326
#1	.7522369	1.853576	.9501704	1.917571	.7678329	1.909192
#2	.7527080	1.855491	.9578754	1.904207	.7655581	1.907278
#3	.7673734	1.895011	.9602150	1.939219	.7809172	1.898271

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1741016**	**.1939455**	**.1908239**	**.9890309**	**.3819609**	**.1940572**
Stddev	.0004468	.0006630	.0014401	.0115134	.0011338	.0019379
%RSD	.2566613	.3418346	.7546955	1.164108	.2968399	.9986122
#1	.1742211	.1947101	.1891852	.9789346	.3828126	.1919568
#2	.1736071	.1935292	.1913982	.9865885	.3823962	.1944391
#3	.1744766	.1935973	.1918882	1.001570	.3806740	.1957757

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3038437**	**2.850650**	**.1923841**	**1.891385**	**.4892756**	**.0717062**
Stddev	.0035111	.026961	.0012850	.012155	.0030108	.0001265
%RSD	1.155563	.9457702	.6679233	.6426724	.6153572	.1764725
#1	.3024622	2.824929	.1915063	1.893899	.4859804	.0715677
#2	.3012335	2.848323	.1917871	1.878169	.4899634	.0717353
#3	.3078355	2.878699	.1938590	1.902087	.4918830	.0718157

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.646808**	**.2855220**	**.2004076**	**8.861851**	**.2910028**	**.3955907**
Stddev	.014725	.0011183	.0011475	.034158	.0013255	.0038542
%RSD	.5563171	.3916687	.5725936	.3854462	.4554967	.9742881
#1	2.651806	.2849637	.2012888	8.845819	.2921679	.3942889
#2	2.630234	.2868096	.2008240	8.838658	.2912799	.3925559
#3	2.658382	.2847928	.1991100	8.901075	.2895607	.3999272

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168423BS Acquired: 6/11/2025 18:38:18 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.6629474	.1860383	.8174723	5.561126	F .0003945	.1626208
Stddev	.0058351	.0010125	.0029468	.044156	.0026130	.0010580
%RSD	.8801794	.5442173	.3604822	.7940029	662.2861	.6505696
#1	.6563619	.1857278	.8161462	5.514412	.0033979	.1638408
#2	.6650063	.1852175	.8154216	5.566789	-.001358	.1619558
#3	.6674740	.1871696	.8208492	5.602177	-.000856	.1620658

Elem	Sr4077
Units	ppm
Avg	.1871532
Stddev	.0006674
%RSD	.3565854
#1	.1879231
#2	.1867403
#3	.1867961

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2947.638	69105.31	14896.99	2135.198	4160.990
Stddev	47.810	140.41	45.04	9.521	46.147
%RSD	1.621965	.2031872	.3023482	.4459084	1.109031
#1	2935.279	69254.58	14847.74	2125.590	4162.537
#2	3000.413	68975.86	14907.15	2135.376	4206.343
#3	2907.220	69085.50	14936.08	2144.630	4114.088

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168390TB Acquired: 6/11/2025 18:42:18 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.010025**	**-.009009**	**-.003360**	**.0071810**	**-.002785**	**.0022317**	**-.011312**
Stddev	.000924	.001180	.001160	.0007800	.001865	.0023469	.005873
%RSD	9.212636	13.09519	34.51964	10.86131	66.98334	105.1606	51.91564
#1	-.009744	-.008678	-.002729	.0074126	-.004816	.0007512	-.004532
#2	-.011056	-.008030	-.002653	.0063116	-.001149	.0049377	-.014584
#3	-.009274	-.010319	-.004699	.0078190	-.002389	.0010063	-.014821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000389**	**-.001484**	**-.002348**	**-.000370**	**-.001938**	**-.000651**	**.0064924**
Stddev	.000011	.000047	.003808	.000030	.000318	.000437	.0003038
%RSD	2.735451	3.161472	162.2267	7.985485	16.39029	67.21706	4.680086
#1	-.000386	-.001529	-.000723	-.000405	-.002292	-.000975	.0065705
#2	-.000401	-.001435	.000379	-.000352	-.001678	-.000153	.0061571
#3	-.000381	-.001488	-.006699	-.000354	-.001844	-.000823	.0067495

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041619**	**-.044259**	**.0002896**	**-.000594**	**729.1136**	**-.001400**	**.0037054**
Stddev	.0002424	.002744	.0002103	.000115	3.1762	.000679	.0003361
%RSD	5.824168	6.201041	72.63435	19.34984	.4356206	48.53856	9.069919
#1	.0043965	-.044788	.0002439	-.000517	732.6349	-.000635	.0038772
#2	.0041769	-.041288	.0001058	-.000726	726.4649	-.001933	.0033181
#3	.0039124	-.046700	.0005190	-.000540	728.2412	-.001632	.0039208

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1531222**	**-.002566**	**-.002668**	**-.003312**	**-.002699**	**.0030951**	**.0080102**
Stddev	.0103668	.000122	.000052	.001163	.000236	.0041408	.0017631
%RSD	6.770261	4.772750	1.966161	35.10675	8.732207	133.7858	22.01055
#1	.1466548	-.002670	-.002729	-.004538	-.002588	.0030761	.0097896
#2	.1476324	-.002431	-.002639	-.002225	-.002970	.0072453	.0062639
#3	.1650794	-.002597	-.002637	-.003174	-.002540	-.001036	.0079770

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168390TB Acquired: 6/11/2025 18:42:18 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0493167	-.004868	-.003130
Stddev	.0022035	.001374	.000022
%RSD	4.468119	28.22991	.6962109
#1	.0477970	-.006256	-.003155
#2	.0518438	-.003508	-.003119
#3	.0483091	-.004839	-.003115

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2564.102	60853.67	14638.45	1828.190	3418.873
Stddev	61.730	125.44	268.20	.555	53.240
%RSD	2.407474	.2061364	1.832192	.0303332	1.557240
#1	2635.380	60709.43	14329.43	1828.063	3480.093
#2	2528.145	60914.39	14775.28	1828.798	3393.128
#3	2528.779	60937.21	14810.65	1827.711	3383.400

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168415BL Acquired: 6/11/2025 18:46:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003988**	**-.003714**	**-.003621**	**-.006435**	**-.003293**	**.0060608**	**-.011114**
Stddev	.001517	.000540	.000779	.003108	.001072	.0016282	.002360
%RSD	38.04133	14.55106	21.49981	48.30456	32.54700	26.86490	21.23552
#1	-.005740	-.004267	-.003112	-.003143	-.002069	.0072425	-.012405
#2	-.003148	-.003690	-.004518	-.009319	-.003744	.0042036	-.008390
#3	-.003077	-.003186	-.003234	-.006841	-.004065	.0067364	-.012547

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000171**	**-.001585**	**-.005001**	**-.000695**	**-.001695**	**-.000533**	**.0264030**
Stddev	.000063	.000088	.002038	.000304	.000086	.000304	.0034079
%RSD	36.69747	5.559138	40.73983	43.81902	5.077599	57.04771	12.90739
#1	-.000101	-.001683	-.006280	-.000563	-.001604	-.000672	.0279462
#2	-.000222	-.001512	-.002652	-.000478	-.001705	-.000743	.0287663
#3	-.000190	-.001560	-.006073	-.001043	-.001775	-.000184	.0224964

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001376**	**-.005781**	**-.001458**	**-.000532**	**.2623501**	**-.000544**	**-.001501**
Stddev	.000199	.006934	.000035	.000150	.0085651	.000408	.000369
%RSD	14.47492	119.9462	2.369702	28.18984	3.264746	74.92620	24.56932
#1	-.001594	-.003247	-.001432	-.000475	.2707068	-.000580	-.001424
#2	-.001204	-.013626	-.001497	-.000702	.2535908	-.000933	-.001903
#3	-.001329	-.000470	-.001444	-.000419	.2627526	-.000120	-.001177

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0991592**	**-.002963**	**-.003098**	**-.003189**	**-.001258**	**-.005461**	**-.002095**
Stddev	.0032779	.000481	.000262	.000832	.000094	.004867	.001217
%RSD	3.305738	16.24626	8.469819	26.08301	7.471239	89.11455	58.09747
#1	.1028215	-.002444	-.002796	-.004145	-.001318	-.004220	-.000704
#2	.0964999	-.003396	-.003232	-.002626	-.001306	-.010829	-.002617
#3	.0981562	-.003049	-.003266	-.002797	-.001150	-.001336	-.002965

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168415BL Acquired: 6/11/2025 18:46:47 Type: Unk
Method: 6010-200.7 NEW(v5) 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	-.003285	.0003354	-.003256
Stddev	.000294	.0014264	.000023
%RSD	8.964658	425.2909	.7086029
#1	-.003518	.0014864	-.003272
#2	-.003383	-.001260	-.003268
#3	-.002954	.000780	-.003230

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3009.938	70131.37	15263.24	2156.676	4375.144
Stddev	47.079	193.34	194.26	21.454	39.331
%RSD	1.564122	.2756847	1.272711	.9947907	.8989715
#1	2991.736	69944.84	15383.97	2134.883	4360.979
#2	3063.400	70118.39	15039.15	2157.371	4419.595
#3	2974.676	70330.87	15366.58	2177.775	4344.856

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168415BS Acquired: 6/11/2025 18:52:28 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7650892**	**1.911926**	**.9574990**	**1.947279**	**.7790081**	**1.960145**	**.1805779**
Stddev	.0024868	.016349	.0055232	.008599	.0047449	.011604	.0023946
%RSD	.3250304	.8551018	.5768330	.4415691	.6090900	.5919984	1.326049
#1	.7676029	1.927360	.9546914	1.951859	.7844869	1.973327	.1801002
#2	.7626303	1.894795	.9539436	1.937360	.7762975	1.955638	.1831753
#3	.7650343	1.913624	.9638620	1.952619	.7762399	1.951472	.1784582

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2023780**	**.1899353**	**1.002611**	**.3880557**	**.1938437**	**.3059652**	**2.881882**
Stddev	.0042985	.0011873	.025726	.0012555	.0006786	.0010749	.015214
%RSD	2.124009	.6250932	2.565944	.3235287	.3500779	.3513261	.5279114
#1	.2018406	.1893623	.993272	.3870084	.1933765	.3068862	2.874719
#2	.2069199	.1891432	1.031702	.3877113	.1935324	.3047840	2.899355
#3	.1983734	.1913004	.982858	.3894474	.1946221	.3062253	2.871571

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1986200**	**1.970493**	**.4886816**	**.0725355**	**2.663553**	**.2943429**	**.2053131**
Stddev	.0039558	.101388	.0024374	.0001845	.058214	.0040296	.0016501
%RSD	1.991623	5.145291	.4987630	.2543200	2.185573	1.369018	.8036956
#1	.1974362	1.935291	.4866350	.0724884	2.687578	.2952262	.2049070
#2	.2030326	2.084790	.4880318	.0727390	2.597172	.2978575	.2039040
#3	.1953914	1.891399	.4913780	.0723792	2.705909	.2899449	.2071283

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.941677**	**.3022713**	**.3989127**	**.6590781**	**.1900906**	**.8288715**	**5.548380**
Stddev	.124580	.0075152	.0007238	.0047704	.0013055	.0061751	.036123
%RSD	1.393249	2.486230	.1814369	.7238035	.6867904	.7450069	.6510579
#1	8.998441	.2997983	.3995088	.6557802	.1909752	.8217411	5.546665
#2	8.798825	.3107114	.3981073	.6569062	.1907055	.8324653	5.513145
#3	9.027766	.2963043	.3991219	.6645481	.1885912	.8324080	5.585330

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: PB168415BS Acquired: 6/11/2025 18:52:28 Type: Unk
Method: 6010-200.7 NEW(v5) 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 -.004891	.1669547	.1918904
Stddev	.001663	.0018712	.0022145
%RSD	33.99263	1.120780	1.154021
#1	-.004079	.1673173	.1942154
#2	-.003791	.1649287	.1898061
#3	-.006804	.1686180	.1916497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2990.271	69811.07	14661.68	2145.042	4266.198
Stddev	22.849	79.39	304.53	3.669	22.354
%RSD	.7640978	.1137276	2.077053	.1710630	.5239813
#1	2971.546	69899.86	14714.49	2148.869	4248.563
#2	2983.538	69746.89	14334.20	2141.554	4258.692
#3	3015.730	69786.47	14936.35	2144.704	4291.340

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-01 Acquired: 6/11/2025 18:56:27 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0900271**	**-.027215**	**3.457283**	**.0520253**	**.0563985**	**170.6651**	**2.605335**
Stddev	.0057063	.002907	.098548	.0041204	.0022336	.4715	.013902
%RSD	6.338425	10.68131	2.850433	7.919925	3.960436	.2762812	.5335978
#1	.0860929	-.027345	3.402451	.0520484	.0584796	170.2294	2.604839
#2	.0965717	-.030055	3.571052	.0561341	.0566774	170.6001	2.591687
#3	.0874168	-.024246	3.398347	.0478935	.0540385	171.1657	2.619477

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135695**	**.0352084**	**191.3352**	**.2649209**	**.0987092**	**1.080738**	**397.6737**
Stddev	.0003000	.0005856	4.0231	.0002060	.0020964	.009735	1.3208
%RSD	2.210808	1.663259	2.102621	.0777733	2.123779	.9007854	.3321304
#1	.0133085	.0348723	189.3704	.2651044	.0973789	1.072134	397.9753
#2	.0138972	.0358846	195.9631	.2646980	.1011258	1.091305	398.8176
#3	.0135027	.0348683	188.6721	.2649604	.0976229	1.078774	396.2282

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.48784**	**13.29399**	**.4839934**	**-.005624**	**19.52100**	**.3433553**	**2.482265**
Stddev	.23567	.35951	.0109350	.000743	.16854	.0042807	.019564
%RSD	1.747279	2.704289	2.259319	13.21181	.8633951	1.246740	.7881378
#1	13.38007	13.13717	.4775225	-.005485	19.59066	.3416582	2.504736
#2	13.75813	13.70526	.4966187	-.004960	19.32880	.3482244	2.469019
#3	13.32533	13.03952	.4778390	-.006427	19.64355	.3401833	2.473040

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.28884**	**1.024734**	**.0349497**	**.3662149**	**8.489267**	**6.474092**	**3.380452**
Stddev	.06793	.003016	.0002604	.0117734	.049809	.063424	.087419
%RSD	.6602029	.2943021	.7451200	3.214880	.5867257	.9796577	2.586003
#1	10.35231	1.023831	.0346873	.3600893	8.453856	6.500744	3.335486
#2	10.21719	1.028099	.0352081	.3797882	8.546221	6.519840	3.481201
#3	10.29703	1.022274	.0349538	.3587672	8.467723	6.401691	3.324669

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2273-01 Acquired: 6/11/2025 18:56:27 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**6.500518**	**.3065233**	**.1286241**
Stddev	.180012	.0006512	.0031797
%RSD	2.769190	.2124455	2.472064
#1	6.402231	.3061221	.1272605
#2	6.708278	.3061732	.1263536
#3	6.391046	.3072747	.1322581

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2830.095**	**70397.96**	**15420.36**	**2061.296**	**3454.634**
Stddev	37.504	56.57	74.99	16.011	9.083
%RSD	1.325180	.0803589	.4862788	.7767613	.2629340
#1	2810.560	70332.64	15475.30	2044.340	3450.247
#2	2873.334	70431.12	15334.93	2076.157	3465.078
#3	2806.391	70430.12	15450.85	2063.389	3448.575

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-01 Acquired: 6/11/2025 19:00:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0972213	-.025497	1.225235	.0441727	.0048161	191.4476	2.691695
Stddev	.0042352	.004364	.003382	.0042567	.0028386	2.1186	.027357
%RSD	4.356288	17.11710	.2760560	9.636590	58.94092	1.106596	1.016360
#1	.0982074	-.020457	1.223055	.0406467	.0074873	190.8859	2.705525
#2	.0925800	-.027991	1.223519	.0489014	.0051256	189.6665	2.709377
#3	.1008766	-.028042	1.229131	.0429700	.0018354	193.7904	2.660184

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205449	.0764054	217.9116	.3517116	.3324966	1.823718	474.6318
Stddev	.0002278	.0004999	6.4569	.0017645	.0008420	.001291	.1560
%RSD	1.108968	.6542317	2.963093	.5016765	.2532437	.0708165	.0328766
#1	.0203305	.0759127	214.1405	.3499932	.3316560	1.825144	474.5251
#2	.0205199	.0769121	214.2270	.3516228	.3333400	1.823385	474.5594
#3	.0207842	.0763913	225.3672	.3535188	.3324938	1.822626	474.8109

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.37475	120.7226	.6948612	-.013826	5.235651	.5336164	1.776270
Stddev	.25427	5.3719	.0022649	.001010	.094926	.0083782	.002461
%RSD	1.383805	4.449751	.3259565	7.308845	1.813075	1.570086	.1385256
#1	18.20230	117.5032	.6926765	-.012715	5.284662	.5290212	1.775937
#2	18.25519	117.7406	.6971987	-.014070	5.296054	.5285412	1.773992
#3	18.66677	126.9240	.6947084	-.014692	5.126237	.5432868	1.778879

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.55093	1.095923	.0052048	.6179154	5.560008	8.688523	14.94890
Stddev	.45499	.003530	.0001985	.0041269	.014615	.087285	.08813
%RSD	1.211672	.3221038	3.814424	.6678821	.2628555	1.004596	.5895453
#1	37.77557	1.096752	.0054164	.6131677	5.553032	8.719141	14.88056
#2	37.84991	1.098966	.0051755	.6199344	5.550189	8.590054	15.04837
#3	37.02730	1.092053	.0050226	.6206442	5.576804	8.756373	14.91776

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-01 Acquired: 6/11/2025 19:00:38 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.494489**	**1.094642**	**.1345413**
Stddev	.022385	.018057	.0043005
%RSD	.8973743	1.649607	3.196423
#1	2.486467	1.102747	.1362096
#2	2.519780	1.107226	.1377578
#3	2.477221	1.073952	.1296566

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3345.786**	**84789.56**	**19387.19**	**2434.439**	**3275.097**
Stddev	8.293	83.22	232.84	6.160	8.952
%RSD	.2478750	.0981482	1.200979	.2530463	.2733342
#1	3341.693	84843.03	19526.11	2427.388	3278.571
#2	3355.330	84693.68	19517.06	2437.152	3281.791
#3	3340.335	84831.97	19118.38	2438.778	3264.929

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2283-01 Acquired: 6/11/2025 19:05:06 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.1173502	-.002720	1.172454	.0378709	-.003244	91.29806	.4723647
Stddev	.0033062	.002138	.002143	.0020244	.003639	.13216	.0019872
%RSD	2.817356	78.61436	.1827703	5.345633	112.1837	.1447602	.4206992
#1	.1201743	-.000273	1.169992	.0398894	.000958	91.36987	.4718100
#2	.1181629	-.003660	1.173897	.0378827	-.005342	91.14553	.4707137
#3	.1137135	-.004227	1.173473	.0358405	-.005347	91.37877	.4745703

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079493	.0187933	120.9181	.1803462	.0805690	.4251288	265.8299
Stddev	.0001419	.0005735	.3062	.0030194	.0002297	.0007317	2.8321
%RSD	1.784870	3.051794	.2532667	1.674205	.2851401	.1721021	1.065399
#1	.0078225	.0189602	120.9232	.1785184	.0804219	.4250134	266.8598
#2	.0081026	.0192649	120.6093	.1838313	.0804514	.4259113	262.6269
#3	.0079230	.0181548	121.2217	.1786890	.0808337	.4244617	268.0030

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.851741	21.90375	.1418400	-.006049	9.281622	.3022796	1.219446
Stddev	.005486	.02515	.0005210	.000893	.120450	.0011787	.005598
%RSD	.1923713	.1148199	.3673241	14.75558	1.297727	.3899279	.4590950
#1	2.851780	21.88870	.1418783	-.005611	9.300222	.3036352	1.225859
#2	2.846236	21.93278	.1423407	-.007076	9.152953	.3017064	1.216939
#3	2.857208	21.88977	.1413008	-.005460	9.391690	.3014971	1.215539

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.038733	.5785742	.0042588	.0426049	1.338567	7.429601	5.727354
Stddev	.079333	.0104661	.0001822	.0003122	.006273	.058532	.015141
%RSD	1.127091	1.808950	4.279159	.7327008	.4686338	.7878157	.2643706
#1	7.085862	.5832824	.0043400	.0422540	1.331367	7.373525	5.731459
#2	6.947140	.5665808	.0040501	.0427091	1.341478	7.424965	5.710583
#3	7.083196	.5858592	.0043863	.0428517	1.342854	7.490312	5.740019

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2283-01 Acquired: 6/11/2025 19:05:06 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.291394**	**.2187957**	**.2041505**
Stddev	.002935	.0019545	.0012465
%RSD	.0684006	.8933076	.6105919
#1	4.288814	.2170974	.2035233
#2	4.290780	.2183574	.2055861
#3	4.294588	.2209321	.2033422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2999.923**	**73495.95**	**16301.69**	**2209.076**	**3703.369**
Stddev	10.158	731.13	30.74	50.233	9.773
%RSD	.3385979	.9947914	.1885728	2.273927	.2638929
#1	2990.796	73116.96	16295.81	2175.136	3697.468
#2	2998.107	74338.77	16334.94	2266.782	3697.990
#3	3010.866	73032.13	16274.31	2185.311	3714.650

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV05 Acquired: 6/11/2025 19:09:10 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.814911**	**4.648768**	**4.838770**	**4.842522**	**4.856827**	**9.747449**	**9.924403**
Stddev	.015815	.027394	.043672	.017125	.036672	.009275	.107781
%RSD	.3284505	.5892638	.9025417	.3536350	.7550590	.0951561	1.086021
#1	4.798479	4.646099	4.889126	4.822756	4.814732	9.756756	10.04440
#2	4.830025	4.677399	4.811255	4.851917	4.873894	9.747386	9.89298
#3	4.816229	4.622807	4.815931	4.852893	4.881854	9.738206	9.83583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2356850**	**2.397612**	**24.44075**	**.9497640**	**2.421991**	**1.217972**	**5.001065**
Stddev	.0033665	.026101	.83197	.0052898	.017698	.005886	.095812
%RSD	1.428393	1.088620	3.404035	.5569578	.7307109	.4832845	1.915824
#1	.2394585	2.427728	25.40137	.9544507	2.442409	1.211289	5.111688
#2	.2329897	2.381559	23.95084	.9440283	2.411056	1.220245	4.947119
#3	.2346068	2.383547	23.97005	.9508129	2.412508	1.222383	4.944389

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.435905**	**24.55704**	**2.418813**	**1.212037**	**23.96400**	**2.443015**	**2.462241**
Stddev	.060021	1.30461	.018329	.001667	.46112	.037765	.006132
%RSD	2.464016	5.312570	.7577864	.1375624	1.924236	1.545832	.2490379
#1	2.505209	26.06297	2.439923	1.213454	23.43284	2.486597	2.459137
#2	2.400770	23.77052	2.406933	1.210200	24.26186	2.419937	2.458282
#3	2.401735	23.83763	2.409583	1.212458	24.19728	2.422511	2.469304

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.13198**	**4.712948**	**4.916506**	**4.777460**	**4.869959**	**5.095000**	**4.826908**
Stddev	.25748	.068119	.020863	.046663	.028109	.017175	.028171
%RSD	1.066947	1.445353	.4243561	.9767410	.5772019	.3370944	.5836220
#1	23.83558	4.790504	4.892427	4.830981	4.902408	5.113643	4.851221
#2	24.30032	4.662815	4.927889	4.756090	4.853074	5.079822	4.833467
#3	24.26004	4.685525	4.929201	4.745308	4.854396	5.091533	4.796036

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV05 Acquired: 6/11/2025 19:09:10 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.651487**	**4.640697**	**4.971937**
Stddev	.036149	.105314	.066887
%RSD	.7771530	2.269354	1.345291
#1	4.690410	4.519109	5.049171
#2	4.645085	4.703274	4.933073
#3	4.618967	4.699710	4.933567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2866.150**	**67122.41**	**14933.71**	**2039.479**	**3896.771**
Stddev	51.669	69.75	222.03	7.689	38.093
%RSD	1.802724	.1039118	1.486767	.3770162	.9775566
#1	2925.804	67041.93	14677.49	2048.256	3940.755
#2	2837.146	67165.47	15069.57	2033.930	3874.409
#3	2835.499	67159.81	15054.08	2036.251	3875.148

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB05 Acquired: 6/11/2025 19:14:47 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003949**	**-.002890**	**-.002776**	**-.003236**	**-.003769**	**-.003084**	**-.011477**
Stddev	.000997	.000944	.000719	.001012	.001965	.002291	.004011
%RSD	25.24488	32.66128	25.88838	31.28643	52.14342	74.30301	34.94774
#1	-.004274	-.003084	-.003467	-.002081	-.003842	-.001437	-.013671
#2	-.002830	-.003723	-.002829	-.003660	-.005697	-.005701	-.006848
#3	-.004743	-.001865	-.002032	-.003968	-.001768	-.002114	-.013912

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000197**	**-.001537**	**-.030885**	**-.000805**	**-.001623**	**-.000860**	**-.001339**
Stddev	.000039	.000116	.004025	.000383	.000084	.000077	.001300
%RSD	19.59803	7.568267	13.03274	47.64394	5.175096	8.993665	97.07529
#1	-.000189	-.001446	-.034243	-.000374	-.001530	-.000771	.000162
#2	-.000239	-.001498	-.031990	-.001109	-.001694	-.000907	-.002104
#3	-.000163	-.001668	-.026423	-.000931	-.001644	-.000902	-.002076

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001886**	**-.040769**	**-.001997**	**-.000304**	**-.025258**	**-.002186**	**-.000958**
Stddev	.000144	.020034	.000441	.000256	.012682	.000405	.000194
%RSD	7.625405	49.14011	22.07248	84.10256	50.21138	18.51025	20.27007
#1	-.001876	-.058225	-.001493	-.000469	-.019910	-.001973	-.000759
#2	-.001747	-.045187	-.002311	-.000009	-.039739	-.002653	-.000968
#3	-.002034	-.018895	-.002188	-.000435	-.016126	-.001933	-.001147

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0160085**	**.0012538**	**-.002926**	**-.005613**	**-.002720**	**-.006127**	**-.004325**
Stddev	.0291866	.0002008	.000047	.001114	.000188	.005027	.001125
%RSD	182.3195	16.01721	1.620677	19.85320	6.908104	82.05540	26.01866
#1	.0391805	.0014856	-.002964	-.005566	-.002598	-.000712	-.004730
#2	-.016771	.0011446	-.002941	-.004523	-.002627	-.010646	-.003053
#3	.025616	.0011313	-.002873	-.006750	-.002937	-.007022	-.005191

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB05 Acquired: 6/11/2025 19:14:47 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003860	-.003618	-.003182
Stddev	.000604	.001983	.000021
%RSD	15.65294	54.81374	.6716880
#1	-.004513	-.002119	-.003159
#2	-.003320	-.005866	-.003202
#3	-.003749	-.002868	-.003185

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2955.958	71058.62	15423.76	2156.589	4284.849
Stddev	19.144	128.76	239.42	4.472	17.403
%RSD	.6476533	.1812090	1.552278	.2073448	.4061501
#1	2976.985	70914.19	15580.54	2154.679	4304.851
#2	2951.355	71100.23	15148.17	2153.389	4276.520
#3	2939.535	71161.43	15542.58	2161.698	4273.175

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03 Acquired: 6/11/2025 19:19:07 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0981888**	**-.016736**	**.6125003**	**.0631850**	**-.004174**	**194.8106**
Stddev	.0013870	.001439	.0060639	.0045832	.002429	.3194
%RSD	1.412560	8.597186	.9900276	7.253597	58.20906	.1639657
#1	.0965882	-.016087	.6085662	.0586494	-.005319	194.8899
#2	.0989412	-.015736	.6194837	.0678144	-.005818	194.4590
#3	.0990370	-.018385	.6094511	.0630913	-.001383	195.0829

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.973220**	**.0193853**	**.0488445**	**85.18850**	**.3034674**	**.2973184**
Stddev	.006017	.0002049	.0010082	.10565	.0005108	.0012413
%RSD	.3049096	1.056913	2.064097	.1240219	.1683281	.4175099
#1	1.979529	.0195625	.0490892	85.09002	.3039982	.2960792
#2	1.967547	.0194325	.0477365	85.17537	.3034249	.2985618
#3	1.972584	.0191610	.0497079	85.30010	.3029792	.2973142

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2669732**	**460.0190**	**15.77880**	**105.7610**	**.5639726**	**-.003949**
Stddev	.0032127	2.6930	.20949	.2365	.0038485	.000651
%RSD	1.203399	.5854185	1.327666	.2236297	.6823849	16.48608
#1	.2687658	458.1376	15.60770	105.5064	.5606163	-.004483
#2	.2632641	463.1039	16.01244	105.9740	.5681730	-.003224
#3	.2688897	458.8155	15.71625	105.8025	.5631283	-.004140

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.024614**	**.4406181**	**2.554687**	**34.31824**	**1.082467**	**.0030792**
Stddev	.010618	.0021235	.008609	.02671	.007663	.0000789
%RSD	.2113126	.4819424	.3369786	.0778164	.7078944	2.560818
#1	5.024464	.4381774	2.547381	34.33578	1.077264	.0029909
#2	5.014072	.4420427	2.564177	34.28750	1.091267	.0031424
#3	5.035306	.4416342	2.552503	34.33142	1.078872	.0031044

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03 Acquired: 6/11/2025 19:19:07 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0294824	4.577485	F 14.20083	11.42730	1.774277	.9761356
Stddev	.0012640	.016392	.08862	.04864	.009353	.0037231
%RSD	4.287132	.3581063	.6240643	.4256143	.5271683	.3814087
#1	.0307852	4.582489	14.23322	11.38192	1.767711	.9804003
#2	.0294009	4.559174	14.10057	11.47865	1.784987	.9735338
#3	.0282612	4.590792	14.26870	11.42134	1.770133	.9744727

Elem	Sr4077
Units	ppm
Avg	-.066609
Stddev	.003588
%RSD	5.386305
#1	-.063980
#2	-.070696
#3	-.065150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3240.802	78966.30	19024.08	2312.213	3454.743
Stddev	63.418	132.87	35.81	11.355	45.379
%RSD	1.956857	.1682560	.1882202	.4910939	1.313538
#1	3208.647	79116.43	19062.71	2321.173	3433.793
#2	3313.857	78918.58	19017.52	2299.443	3506.813
#3	3199.903	78863.88	18992.00	2316.023	3423.624

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03DUP Acquired: 6/11/2025 19:23:36 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.1002819	-.016584	.7559863	.0627736	-.005464	213.9309	1.833647
Stddev	.0007324	.001097	.0088378	.0008640	.003295	4.4378	.046158
%RSD	.7303635	6.614662	1.169046	1.376431	60.30570	2.074387	2.517269
#1	.1000764	-.017330	.7507445	.0625997	-.001660	211.6351	1.805325
#2	.0996742	-.015324	.7661901	.0637114	-.007415	219.0462	1.886910
#3	.1010951	-.017098	.7510243	.0620098	-.007317	211.1113	1.808706

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201354	.0563604	123.3672	.3234878	.3124412	.2469641	475.8555
Stddev	.0004468	.0008269	3.9954	.0017879	.0022158	.0013089	1.3731
%RSD	2.218841	1.467234	3.238648	.5526884	.7091838	.5300096	.2885594
#1	.0200045	.0565891	120.7418	.3214258	.3113702	.2484755	474.4518
#2	.0206330	.0554432	127.9653	.3246064	.3149890	.2462048	477.1959
#3	.0197687	.0570490	121.3945	.3244313	.3109644	.2462120	475.9187

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.53728	117.4209	.6019717	-.006552	5.127228	.4709903	2.686366
Stddev	.48747	3.8365	.0059386	.000895	.010595	.0120752	.008118
%RSD	3.353207	3.267288	.9865203	13.65779	.2066448	2.563792	.3021752
#1	14.31392	115.0721	.5985752	-.007190	5.139238	.4619180	2.692782
#2	15.09640	121.8481	.6088289	-.005529	5.123242	.4846960	2.677240
#3	14.20152	115.3423	.5985111	-.006937	5.119204	.4663569	2.689077

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.68882	1.111212	.0034975	.0290307	4.845019	12.33928	12.23961
Stddev	.08394	.005150	.0001897	.0008868	.130443	.36980	.11152
%RSD	.2287945	.4634445	5.424184	3.054801	2.692316	2.996954	.9111112
#1	36.69517	1.109265	.0036576	.0280238	4.770342	12.66148	12.14118
#2	36.76941	1.107319	.0035470	.0293726	4.995640	12.42086	12.36073
#3	36.60189	1.117051	.0032880	.0296957	4.769075	11.93550	12.21693

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03DUP Acquired: 6/11/2025 19:23:36 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**1.979506**	**1.074440**	**-.058139**
Stddev	.020120	.020477	.008904
%RSD	1.016434	1.905798	15.31530
#1	1.963921	1.060588	-.063458
#2	2.002220	1.097960	-.047859
#3	1.972377	1.064770	-.063100

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3274.649**	**80574.61**	**19025.38**	**2344.050**	**3421.595**
Stddev	65.043	148.51	405.03	14.083	42.454
%RSD	1.986247	.1843159	2.128917	.6007844	1.240757
#1	3231.703	80403.84	19279.63	2328.288	3395.003
#2	3349.482	80673.51	18558.29	2355.393	3470.556
#3	3242.761	80646.50	19238.20	2348.470	3399.227

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03LX5 Acquired: 6/11/2025 19:28:00 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0171747**	**-.006679**	**.1204519**	**.0142565**	**-.003937**	**42.97696**	**.4229384**
Stddev	.0002241	.001089	.0019745	.0012858	.001064	.05398	.0008664
%RSD	1.304798	16.30216	1.639235	9.018826	27.01153	.1255992	.2048465
#1	.0173635	-.006010	.1196201	.0155817	-.002711	43.02916	.4237652
#2	.0169270	-.006091	.1190294	.0141735	-.004611	42.98035	.4230126
#3	.0172335	-.007935	.1227062	.0130142	-.004490	42.92136	.4220372

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047828**	**.0031032**	**19.60069**	**.0724805**	**.0559011**	**.0660889**	**104.0637**
Stddev	.0000916	.0000380	.05373	.0007091	.0003792	.0009313	.1432
%RSD	1.914431	1.224747	.2741337	.9783060	.6783630	1.409080	.1376049
#1	.0046818	.0031406	19.65337	.0732798	.0557848	.0671438	104.0975
#2	.0048604	.0030646	19.60274	.0722345	.0563249	.0653809	103.9066
#3	.0048063	.0031043	19.54597	.0719271	.0555937	.0657420	104.1869

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.807338**	**24.35309**	**.1095714**	**-.001863**	**.9581687**	**.1016602**	**.5857903**
Stddev	.004787	.06096	.0007598	.000289	.0061330	.0012969	.0015491
%RSD	.1257280	.2503034	.6934103	15.49034	.6400790	1.275699	.2644400
#1	3.803832	24.42164	.1089278	-.001958	.9605227	.1004596	.5875094
#2	3.812792	24.33264	.1104096	-.001539	.9627760	.1030356	.5845029
#3	3.805391	24.30498	.1093769	-.002093	.9512074	.1014854	.5853584

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.458082**	**.2406832**	**-.002045**	**.0022643**	**1.036580**	**2.517606**	**2.186403**
Stddev	.013459	.0012604	.000363	.0003254	.005619	.013927	.005465
%RSD	.2084091	.5236818	17.75367	14.37256	.5420737	.5531730	.2499675
#1	6.471601	.2397382	-.002461	.0024393	1.035278	2.502544	2.188914
#2	6.444683	.2401971	-.001883	.0024648	1.031726	2.520259	2.180133
#3	6.457962	.2421143	-.001791	.0018888	1.042736	2.530015	2.190161

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03LX5 Acquired: 6/11/2025 19:28:00 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.3217909	.2014585	-.018784
Stddev	.0036437	.0019582	.000165
%RSD	1.132313	.9719874	.8767419
#1	.3256885	.1999785	-.018665
#2	.3212146	.2007182	-.018716
#3	.3184698	.2036789	-.018972

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3044.094	72366.67	15687.34	2200.256	3988.275
Stddev	8.298	302.68	23.34	18.236	4.347
%RSD	.2725918	.4182585	.1488092	.8288102	.1089884
#1	3041.904	72056.17	15661.51	2180.371	3986.726
#2	3053.267	72660.86	15693.59	2216.198	3993.184
#3	3037.110	72382.99	15706.93	2204.198	3984.916

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03MS Acquired: 6/11/2025 19:32:11 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.7071210**	**1.624252**	**1.584317**	**1.427734**	**.3360354**	**241.1095**	**2.163165**
Stddev	.0046945	.021411	.032047	.005431	.0092289	1.0277	.015731
%RSD	.6638885	1.318188	2.022785	.3803803	2.746423	.4262475	.7272025
#1	.7029016	1.603423	1.566038	1.423260	.3448660	240.1270	2.181083
#2	.7121779	1.623134	1.565592	1.426165	.3367861	242.1772	2.151624
#3	.7062836	1.646201	1.621321	1.433776	.3264540	241.0244	2.156788

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1756819**	**.2474181**	**72.55071**	**.6229690**	**.5367008**	**.5004450**	**452.5335**
Stddev	.0014735	.0035592	.18064	.0024606	.0073668	.0018448	1.6869
%RSD	.8387102	1.438515	.2489910	.3949773	1.372601	.3686396	.3727707
#1	.1773546	.2453620	72.72873	.6244494	.5325141	.4983444	450.7215
#2	.1751152	.2453644	72.36755	.6243289	.5323815	.5011889	452.8207
#3	.1745760	.2515278	72.55586	.6201286	.5452069	.5018018	454.0584

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.62149**	**120.6134**	**1.093208**	**.0420973**	**7.005577**	**.7100226**	**2.802844**
Stddev	.06287	.1351	.018832	.0008259	.035509	.0010447	.005873
%RSD	.3376172	.1120224	1.722672	1.961904	.5068700	.1471366	.2095435
#1	18.65093	120.5438	1.083188	.0411851	7.039543	.7088934	2.804290
#2	18.54930	120.5273	1.081504	.0423126	6.968704	.7109547	2.807859
#3	18.66423	120.7691	1.114932	.0427943	7.008485	.7102197	2.796383

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.39743**	**1.175424**	**.3051973**	**.6232760**	**5.095560**	**12.01125**	**17.43695**
Stddev	.07422	.004087	.0010799	.0113063	.020861	.29386	.31597
%RSD	.1750683	.3477155	.3538265	1.814017	.4093881	2.446549	1.812063
#1	42.44347	1.171597	.3052236	.6160372	5.107525	11.78942	17.27334
#2	42.31181	1.174945	.3062637	.6174861	5.071472	11.89980	17.23634
#3	42.43702	1.179729	.3041045	.6363045	5.107682	12.34454	17.80117

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03MS Acquired: 6/11/2025 19:32:11 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**1.888057**	**1.192971**	**.0555613**
Stddev	.038157	.010628	.0044334
%RSD	2.020977	.8908967	7.979262
#1	1.863409	1.205060	.0606806
#2	1.868754	1.185097	.0530118
#3	1.932009	1.188756	.0529917

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3284.403**	**80192.27**	**17355.26**	**2349.255**	**3437.693**
Stddev	79.269	229.22	14.77	14.384	45.697
%RSD	2.413502	.2858347	.0851012	.6122675	1.329287
#1	3239.344	80456.91	17338.22	2365.825	3407.699
#2	3237.933	80063.75	17363.26	2341.954	3415.095
#3	3375.931	80056.15	17364.31	2339.986	3490.287

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03MSD Acquired: 6/11/2025 19:36:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.6830540**	**1.593214**	**1.566291**	**1.377931**	**.3407785**	**233.3383**	**2.037999**
Stddev	.0032298	.000945	.022675	.002582	.0046212	1.5616	.021568
%RSD	.4728428	.0592985	1.447698	.1873706	1.356076	.6692309	1.058299
#1	.6825883	1.593947	1.592343	1.376162	.3355663	235.1319	2.062614
#2	.6864913	1.593546	1.551002	1.376737	.3423947	232.2807	2.022409
#3	.6800823	1.592148	1.555527	1.380894	.3443747	232.6024	2.028975

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1706455**	**.2418131**	**74.74741**	**.6142852**	**.5293603**	**.4758878**	**449.0094**
Stddev	.0015316	.0022564	.81078	.0012077	.0051043	.0006395	.1936
%RSD	.8975162	.9331260	1.084691	.1965998	.9642447	.1343801	.0431221
#1	.1723451	.2443278	75.67567	.6140640	.5352341	.4766253	448.8816
#2	.1693724	.2399652	74.17785	.6132034	.5260018	.4754884	449.2322
#3	.1702191	.2411464	74.38871	.6155882	.5268448	.4755496	448.9146

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.54122**	**124.1658**	**1.092460**	**.0419839**	**7.049196**	**.6752721**	**2.866086**
Stddev	.17593	1.3218	.011447	.0003616	.043048	.0067220	.004955
%RSD	1.132012	1.064541	1.047788	.8613185	.6106742	.9954553	.1728718
#1	15.73935	125.6598	1.105577	.0415694	7.098869	.6827693	2.869692
#2	15.40331	123.1485	1.084492	.0422351	7.022780	.6697828	2.860436
#3	15.48100	123.6890	1.087311	.0421470	7.025938	.6732643	2.868128

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**43.45121**	**1.174782**	**.2985327**	**.6051587**	**5.044610**	**12.54818**	**16.86548**
Stddev	.11151	.002549	.0008446	.0073434	.046713	.18646	.16363
%RSD	.2566331	.2169554	.2829234	1.213473	.9259952	1.485931	.9702198
#1	43.57132	1.172195	.2975757	.6133402	5.098507	12.73531	17.04210
#2	43.35097	1.177290	.2988486	.5991384	5.019517	12.36240	16.71903
#3	43.43134	1.174862	.2991738	.6029975	5.015806	12.54684	16.83531

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03MSD Acquired: 6/11/2025 19:36:33 Type: Unk
Method: 6010-200.7 NEW(v5) 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	1.793455	1.207322	.0672570
Stddev	.019063	.013192	.0061054
%RSD	1.062941	1.092637	9.077748
#1	1.815459	1.222108	.0742031
#2	1.782979	1.196757	.0627400
#3	1.781926	1.203101	.0648278

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.305	80284.50	17507.39	2366.492	3413.162
Stddev	67.215	97.40	171.25	7.394	44.002
%RSD	2.045320	.1213212	.9781386	.3124535	1.289184
#1	3363.910	80177.70	17314.09	2357.954	3463.691
#2	3248.541	80368.44	17640.13	2370.747	3392.518
#3	3246.465	80307.36	17567.95	2370.776	3383.278

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03A Acquired: 6/11/2025 19:40:48 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.7045563	1.619472	1.444060	1.540195	.6215957	192.1078	2.075421
Stddev	.0044254	.023684	.013496	.006549	.0059657	2.0075	.020736
%RSD	.6281155	1.462454	.9346113	.4251776	.9597362	1.044978	.9991137
#1	.7052344	1.632195	1.433917	1.545709	.6284485	190.9428	2.089071
#2	.6998309	1.634075	1.459378	1.532957	.6175621	190.9549	2.085632
#3	.7086035	1.592146	1.438886	1.541919	.6187766	194.4259	2.051560

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1662879	.2293991	83.55632	.5782814	.4760815	.4878229	429.9362
Stddev	.0013237	.0018511	1.39741	.0023102	.0022029	.0001587	6.1728
%RSD	.7960407	.8069361	1.672420	.3994850	.4627206	.0325395	1.435738
#1	.1650582	.2293794	82.66682	.5786431	.4746317	.4879972	429.0496
#2	.1661166	.2312600	82.83515	.5803894	.4786165	.4876866	424.2546
#3	.1676889	.2275579	85.16698	.5758118	.4749963	.4877849	436.5043

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.13380	108.1436	1.002490	.0494270	6.767128	.6576351	2.618738
Stddev	.19840	2.9598	.007678	.0018280	.082034	.0056920	.002239
%RSD	1.229719	2.736924	.7658600	3.698467	1.212243	.8655308	.0854951
#1	16.00386	106.3090	.995675	.0489001	6.832603	.6538366	2.618511
#2	16.03538	106.5636	1.010808	.0479203	6.793673	.6548890	2.616621
#3	16.36217	111.5581	1.000987	.0514606	6.675109	.6641795	2.621082

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.39376	1.181587	.3161161	.6538247	4.568741	11.38869	16.62740
Stddev	.30514	.018285	.0005973	.0081293	.011162	.01546	.14203
%RSD	.7947670	1.547506	.1889474	1.243340	.2443026	.1357540	.8541920
#1	38.66516	1.180356	.3167333	.6490714	4.568659	11.37778	16.59807
#2	38.45266	1.163949	.3155409	.6632113	4.557621	11.40638	16.78180
#3	38.06346	1.200457	.3160741	.6491914	4.579944	11.38190	16.50232

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2280-03A Acquired: 6/11/2025 19:40:48 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**1.754242**	**1.075929**	**.1079804**
Stddev	.020507	.013178	.0095400
%RSD	1.169016	1.224773	8.834971
#1	1.753054	1.084685	.1112329
#2	1.775318	1.082327	.1154688
#3	1.734354	1.060773	.0972394

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3245.339**	**79700.59**	**17740.49**	**2342.603**	**3471.623**
Stddev	62.845	40.54	115.14	5.039	45.849
%RSD	1.936470	.0508619	.6490187	.2150899	1.320693
#1	3212.612	79668.56	17816.92	2339.051	3447.849
#2	3317.793	79746.17	17796.48	2348.370	3524.476
#3	3205.611	79687.04	17608.06	2340.388	3442.543

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2283-03 Acquired: 6/11/2025 19:45:02 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0446046**	**-.035485**	**.0844213**	**-.005964**	**.0096203**	**146.9642**
Stddev	.0027665	.004735	.0006196	.007049	.0019687	.3910
%RSD	6.202320	13.34264	.7338936	118.1970	20.46421	.2660826
#1	.0461155	-.031975	.0842178	-.008651	.0088935	147.1224
#2	.0414117	-.040870	.0839291	-.011274	.0118491	146.5189
#3	.0462867	-.033610	.0851170	.002034	.0081184	147.2514

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7414878**	**.0078260**	**.0128032**	F **2310.023**	**.4014963**	**.0479282**
Stddev	.0021615	.0003390	.0005074	8.980	.0137663	.0007090
%RSD	.2915132	4.332037	3.962806	.3887254	3.428753	1.479328
#1	.7433164	.0078149	.0129836	2320.084	.3940762	.0472077
#2	.7391023	.0081704	.0131957	2302.821	.4173809	.0479517
#3	.7420446	.0074926	.0122303	2307.163	.3930319	.0486251

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1612275**	**104.9050**	**3.699483**	**402.1927**	**.2286902**	**-.002585**
Stddev	.0013663	2.1441	.019750	.9563	.0003561	.001067
%RSD	.8474474	2.043887	.5338547	.2377708	.1556902	41.27185
#1	.1607138	106.2528	3.720491	403.2890	.2283634	-.001805
#2	.1627762	102.4325	3.681295	401.5298	.2286375	-.003801
#3	.1601924	106.0297	3.696664	401.7594	.2290697	-.002150

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.590597**	**.3880720**	**3.084308**	**13.18961**	**.5013401**	**.0184055**
Stddev	.144889	.0016739	.011037	.29730	.0024807	.0006572
%RSD	2.591662	.4313476	.3578339	2.254016	.4948147	3.570490
#1	5.676767	.3887860	3.094757	13.36186	.5011009	.0189159
#2	5.423318	.3861594	3.085403	12.84632	.5039318	.0186367
#3	5.671705	.3892704	3.072765	13.36064	.4989877	.0176640

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2283-03 Acquired: 6/11/2025 19:45:02 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0128317	5.639700	2.300246	6.647613	F 101.5132	1.079586
Stddev	.0011489	.022718	.060031	.020080	.3300	.010027
%RSD	8.953499	.4028189	2.609768	.3020567	.3250829	.9287600
#1	.0123049	5.662764	2.333637	6.636026	101.2512	1.069113
#2	.0141496	5.617345	2.230944	6.636015	101.4046	1.080548
#3	.0120407	5.638990	2.336158	6.670799	101.8838	1.089097

Elem	Sr4077
Units	ppm
Avg	10.24266
Stddev	.03909
%RSD	.3816194
#1	10.21083
#2	10.23086
#3	10.28629

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2356.909	58563.65	12921.07	1752.183	2657.177
Stddev	47.773	1238.80	25.09	96.039	39.891
%RSD	2.026943	2.115309	.1942154	5.481089	1.501245
#1	2326.768	57930.06	12898.96	1692.036	2631.811
#2	2331.967	59991.10	12948.35	1862.943	2636.563
#3	2411.991	57769.79	12915.92	1701.571	2703.157

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2286-01 Acquired: 6/11/2025 19:49:26 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**2.154335**	**.0054121**	**.3945267**	**.0317297**	**.4983156**	**112.6149**	**2.319941**
Stddev	.000372	.0020074	.0055625	.0014114	.0073183	.2420	.006058
%RSD	.0172479	37.09161	1.409913	4.448253	1.468609	.2149205	.2611379
#1	2.154322	.0071555	.4007173	.0333079	.4905911	112.8164	2.315450
#2	2.154713	.0058634	.3899486	.0312928	.5051455	112.6819	2.326831
#3	2.153970	.0032174	.3929142	.0305884	.4992102	112.3465	2.317541

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079250**	**.0143476**	**74.19789**	**.0810048**	**.1452147**	**.3349815**	**189.1626**
Stddev	.0000842	.0003402	.18492	.0010599	.0008695	.0021200	1.3191
%RSD	1.062670	2.370985	.2492201	1.308373	.5987557	.6328661	.6973214
#1	.0079872	.0141493	73.99749	.0811619	.1462027	.3326026	188.0840
#2	.0079586	.0141531	74.36191	.0819774	.1448749	.3356713	190.6333
#3	.0078292	.0147404	74.23427	.0798752	.1445664	.3366708	188.7705

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.354106**	**24.33000**	**.1528415**	**-.001991**	**30.01148**	**.6416866**	**.6637881**
Stddev	.030444	.08340	.0018047	.000225	.22784	.0021487	.0036572
%RSD	.4139727	.3427937	1.180760	11.30835	.7591782	.3348583	.5509609
#1	7.321479	24.24227	.1548641	-.002110	29.90711	.6440156	.6611208
#2	7.381753	24.40826	.1513959	-.002132	30.27281	.6412632	.6679571
#3	7.359087	24.33947	.1522646	-.001732	29.85452	.6397811	.6622864

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.97476**	**.4653092**	**.0799843**	**.0132916**	**1.556173**	**4.791533**	**6.503495**
Stddev	.17343	.0029127	.0005412	.0004762	.005520	.065758	.065962
%RSD	.7233657	.6259785	.6766029	3.582323	.3546851	1.372373	1.014253
#1	23.91051	.4642718	.0796716	.0138344	1.551390	4.863848	6.574076
#2	24.17114	.4685987	.0796722	.0129443	1.562212	4.775428	6.443411
#3	23.84263	.4630572	.0806092	.0130962	1.554916	4.735325	6.492999

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2286-01 Acquired: 6/11/2025 19:49:26 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**5.483402**	**.1283164**	**1.475107**
Stddev	.039744	.0017433	.003091
%RSD	.7248071	1.358611	.2095475
#1	5.527877	.1279705	1.478670
#2	5.451362	.1302067	1.473151
#3	5.470966	.1267719	1.473499

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3188.418**	**76768.79**	**17224.28**	**2306.448**	**3643.104**
Stddev	64.016	495.58	46.81	14.771	45.220
%RSD	2.007762	.6455537	.2717601	.6404397	1.241250
#1	3262.334	77064.48	17271.96	2321.121	3695.247
#2	3152.067	76196.65	17178.39	2291.580	3619.407
#3	3150.853	77045.25	17222.49	2306.643	3614.656

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2282-04 Acquired: 6/11/2025 19:55:32 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**.0878055**	**.0053802**	**1.053150**	**.0711068**	**-.013856**	**94.26690**
Stddev	.0029825	.0023883	.024687	.0020971	.002189	.23376
%RSD	3.396707	44.39073	2.344117	2.949297	15.79515	.2479810
#1	.0848599	.0080973	1.039453	.0689563	-.011334	94.53144
#2	.0877331	.0036124	1.081649	.0712178	-.014988	94.08814
#3	.0908236	.0044311	1.038348	.0731462	-.015248	94.18114

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8954709**	**.0139795**	**.1078739**	**216.8353**	**.4104600**	**.1099100**
Stddev	.0022818	.0000927	.0022001	.9478	.0022727	.0010946
%RSD	.2548121	.6633606	2.039532	.4370850	.5536882	.9959026
#1	.8980259	.0140367	.1086308	217.4450	.4112282	.1090784
#2	.8936363	.0138726	.1095957	217.3176	.4122490	.1111501
#3	.8947504	.0140294	.1053953	215.7434	.4079028	.1095014

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.804357**	**628.8444**	**5.595546**	**64.66758**	**.6778939**	**-.013191**
Stddev	.004437	14.2166	.006521	.22310	.0106342	.004404
%RSD	.2459114	2.260747	.1165446	.3449988	1.568710	33.38655
#1	1.801656	620.5957	5.600754	64.76041	.6731918	-.015542
#2	1.809478	620.6773	5.597652	64.82928	.6900686	-.015922
#3	1.801937	645.2603	5.588232	64.41305	.6704213	-.008111

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**401.9086**	**.6105485**	**2.414816**	**49.48054**	**1.599890**	**.0197694**
Stddev	2.2769	.0018103	.006759	.15450	.041877	.0001301
%RSD	.5665149	.2965080	.2799053	.3122405	2.617464	.6582484
#1	401.4050	.6111022	2.418989	49.36185	1.574810	.0198843
#2	404.3951	.6085261	2.418441	49.42454	1.576627	.0196281
#3	399.9257	.6120174	2.407018	49.65523	1.648234	.0197957

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2282-04 Acquired: 6/11/2025 19:55:32 Type: Unk
Method: 6010-200.7 NEW(v5) 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	.0166390	1.801895	F 122.3810	6.410087	F 38.34122	.3743852
Stddev	.0012989	.005539	.2524	.101733	.59122	.0080064
%RSD	7.806212	.3074178	.2062041	1.587078	1.542007	2.138544
#1	.0175066	1.808209	122.2270	6.393286	38.12927	.3701635
#2	.0172647	1.797853	122.6722	6.519175	39.00921	.3693732
#3	.0151457	1.799623	122.2438	6.317800	37.88519	.3836189

Elem	Sr4077
Units	ppm
Avg	.6048178
Stddev	.0227118
%RSD	3.755156
#1	.6212065
#2	.6143544
#3	.5788925

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2578.536	64988.68	15122.07	1845.582	3183.310
Stddev	62.007	104.11	45.03	2.211	44.214
%RSD	2.404747	.1601926	.2977463	.1197770	1.388936
#1	2553.856	65065.58	15077.82	1843.139	3163.979
#2	2649.083	64870.21	15120.56	1847.444	3233.898
#3	2532.669	65030.26	15167.84	1846.164	3152.054

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2276-01DLX5 Acquired: 6/11/2025 19:59:59 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**-.003692**	**-.003059**	**-.002377**	**.0002212**	**-.000740**	**.2598241**	**-.007407**
Stddev	.001747	.001284	.001287	.0011516	.002044	.0117155	.000700
%RSD	47.32235	41.97548	54.15516	520.6836	276.3748	4.509013	9.444083
#1	-.004238	-.002357	-.000891	.0015036	-.002335	.2471364	-.006645
#2	-.005101	-.002279	-.003080	-.000725	.001565	.2621035	-.008021
#3	-.001737	-.004541	-.003159	-.000115	-.001449	.2702324	-.007556

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000219**	**-.001518**	**1.073660**	**.0164798**	**-.001475**	**.0222736**	**.3624407**
Stddev	.000026	.000041	.047521	.0005458	.000097	.0006260	.0368756
%RSD	11.97465	2.691605	4.426103	3.311927	6.560134	2.810588	10.17424
#1	-.000225	-.001560	1.027136	.0160086	-.001585	.0217496	.3336115
#2	-.000190	-.001517	1.071725	.0170779	-.001405	.0221045	.3497174
#3	-.000241	-.001478	1.122120	.0163529	-.001435	.0229669	.4039933

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097233**	**.2426606**	**.0020065**	**-.000213**	**1.594000**	**-.002107**	**.0292319**
Stddev	.0009601	.0124419	.0003672	.000429	.088221	.001686	.0009336
%RSD	9.874432	5.127268	18.30213	201.3016	5.534563	80.00852	3.193901
#1	.0087845	.2289349	.0017867	-.000194	1.527605	-.001776	.0282313
#2	.0096821	.2458485	.0018023	-.000651	1.560289	-.000611	.0293844
#3	.0107034	.2531983	.0024305	.000206	1.694106	-.003934	.0300798

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6460934**	**.0003625**	**-.001040**	**-.001593**	**.0035395**	**.5254505**	**1.928055**
Stddev	.0462665	.0004681	.000071	.000273	.0002461	.0199059	.065572
%RSD	7.160965	129.1315	6.786859	17.17038	6.953906	3.788352	3.400953
#1	.6168472	-.000178	-.001021	-.001692	.0032673	.5126776	1.870803
#2	.6219985	.000646	-.000981	-.001803	.0036049	.5152876	1.913771
#3	.6994345	.000619	-.001118	-.001283	.0037464	.5483865	1.999592

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: Q2276-01DLX5 Acquired: 6/11/2025 19:59:59 Type: Unk
Method: 6010-200.7 NEW(v5) 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	**4.674888**	**-.000746**	**.0010043**
Stddev	.139445	.000685	.0002428
%RSD	2.982853	91.89448	24.17906
#1	4.544316	-.001433	.0007559
#2	4.658577	-.000062	.0010159
#3	4.821772	-.000742	.0012411

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2956.103**	**70798.47**	**14619.87**	**2188.842**	**4305.574**
Stddev	57.157	1201.35	43.40	125.987	55.488
%RSD	1.933525	1.696862	.2968823	5.755872	1.288744
#1	2947.554	70358.24	14569.84	2124.591	4283.548
#2	2903.702	72157.83	14647.39	2334.001	4264.481
#3	3017.053	69879.33	14642.39	2107.934	4368.693

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV06 Acquired: 6/11/2025 20:06:31 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.806997**	**4.705658**	**4.927502**	**4.813356**	**4.770179**	**9.668626**
Stddev	.017629	.042880	.014699	.011217	.028061	.014693
%RSD	.3667325	.9112392	.2983094	.2330476	.5882584	.1519683
#1	4.800765	4.738275	4.918089	4.810426	4.756060	9.684384
#2	4.793330	4.721611	4.944440	4.803895	4.751981	9.655301
#3	4.826895	4.657089	4.919976	4.825748	4.802495	9.666194

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.790340**	**.2416930**	**2.453181**	**24.99122**	**.9668111**	**2.458719**
Stddev	.023454	.0018828	.010222	.06344	.0036658	.005345
%RSD	.2395673	.7790164	.4166775	.2538306	.3791599	.2173814
#1	9.771416	.2416635	2.445170	25.05325	.9641036	2.453726
#2	9.783022	.2398251	2.464694	24.99395	.9653470	2.464357
#3	9.816581	.2435904	2.449680	24.92646	.9709826	2.458073

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.194702**	**5.054359**	**2.487135**	**24.92484**	**2.460395**	**1.211513**
Stddev	.006716	.036829	.012025	.02930	.004732	.001376
%RSD	.5621381	.7286635	.4834732	.1175439	.1923212	.1135407
#1	1.191791	5.075810	2.500132	24.95857	2.455613	1.210422
#2	1.189933	5.075435	2.484866	24.90571	2.465075	1.213058
#3	1.202382	5.011833	2.476406	24.91025	2.460498	1.211058

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.24553**	**2.479014**	**2.434031**	**23.39773**	**4.790255**	**4.849105**
Stddev	.16599	.009050	.007545	.15295	.025624	.020945
%RSD	.7140904	.3650845	.3099718	.6536760	.5349160	.4319370
#1	23.32976	2.488943	2.442232	23.45056	4.804106	4.841525
#2	23.35252	2.476874	2.432478	23.51727	4.760687	4.833005
#3	23.05431	2.471225	2.427384	23.22538	4.805972	4.872785

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCV06 Acquired: 6/11/2025 20:06:31 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.876661**	**4.919135**	**5.108580**	**4.956795**	**4.737026**	F **4.495773**
Stddev	.025527	.027839	.021942	.015174	.012746	.036637
%RSD	.5234432	.5659342	.4295073	.3061181	.2690738	.8149253
#1	4.866919	4.947744	5.094992	4.963440	4.736946	4.535982
#2	4.905624	4.917525	5.133893	4.967513	4.749813	4.487058
#3	4.857441	4.892136	5.096855	4.939433	4.724321	4.464280

Elem	Sr4077
Units	ppm
Avg	**4.942746**
Stddev	.043540
%RSD	.8808807
#1	4.993015
#2	4.918317
#3	4.916906

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3019.358**	**68739.18**	**15145.71**	**2150.738**	**4021.208**
Stddev	35.263	404.74	67.48	22.581	28.176
%RSD	1.167909	.5888070	.4455480	1.049929	.7006952
#1	3018.513	68637.07	15069.99	2139.878	4015.865
#2	3055.036	68395.28	15167.62	2135.638	4051.673
#3	2984.524	69185.20	15199.51	2176.697	3996.086

Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB06 Acquired: 6/11/2025 20:11:26 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002017**	**-.003268**	**-.002495**	**-.005448**	**-.003440**	**-.006296**	**-.011698**
Stddev	.000924	.000419	.000327	.001526	.001784	.003371	.000135
%RSD	45.82985	12.83260	13.11922	28.00883	51.87062	53.53299	1.152960
#1	-.001033	-.002945	-.002211	-.003860	-.005402	-.007258	-.011852
#2	-.002867	-.003116	-.002853	-.005581	-.001913	-.009082	-.011639
#3	-.002151	-.003742	-.002420	-.006903	-.003006	-.002549	-.011602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000180**	**-.001440**	**-.026599**	**-.000969**	**-.001731**	**-.000518**	**-.004563**
Stddev	.000020	.000040	.007744	.000258	.000125	.000332	.003066
%RSD	11.15436	2.763341	29.11455	26.64458	7.247026	64.02495	67.20279
#1	-.000157	-.001468	-.032005	-.000978	-.001744	-.000894	-.001645
#2	-.000189	-.001456	-.017727	-.001222	-.001600	-.000394	-.004284
#3	-.000194	-.001394	-.030065	-.000706	-.001850	-.000266	-.007759

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001876**	**-.038398**	**-.001723**	**-.000311**	**-.015830**	**-.001968**	**-.001088**
Stddev	.000104	.008544	.000322	.000121	.003024	.001257	.000122
%RSD	5.530963	22.25078	18.67058	38.80349	19.10116	63.88983	11.19308
#1	-.001814	-.048258	-.001807	-.000202	-.012339	-.000693	-.001021
#2	-.001996	-.033184	-.001994	-.000291	-.017638	-.002004	-.001015
#3	-.001819	-.033751	-.001367	-.000441	-.017513	-.003207	-.001229

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000005**	**.0011866**	**-.002754**	**-.005366**	**-.002671**	**-.008040**	**-.004234**
Stddev	.003763	.0004218	.000108	.000896	.000263	.002093	.002739
%RSD	68679.93	35.55203	3.912634	16.69158	9.828718	26.03514	64.68853
#1	.002510	.0008771	-.002782	-.004439	-.002932	-.007222	-.007378
#2	-.004331	.0010155	-.002635	-.006227	-.002407	-.010418	-.002958
#3	.001805	.0016671	-.002845	-.005431	-.002675	-.006479	-.002366

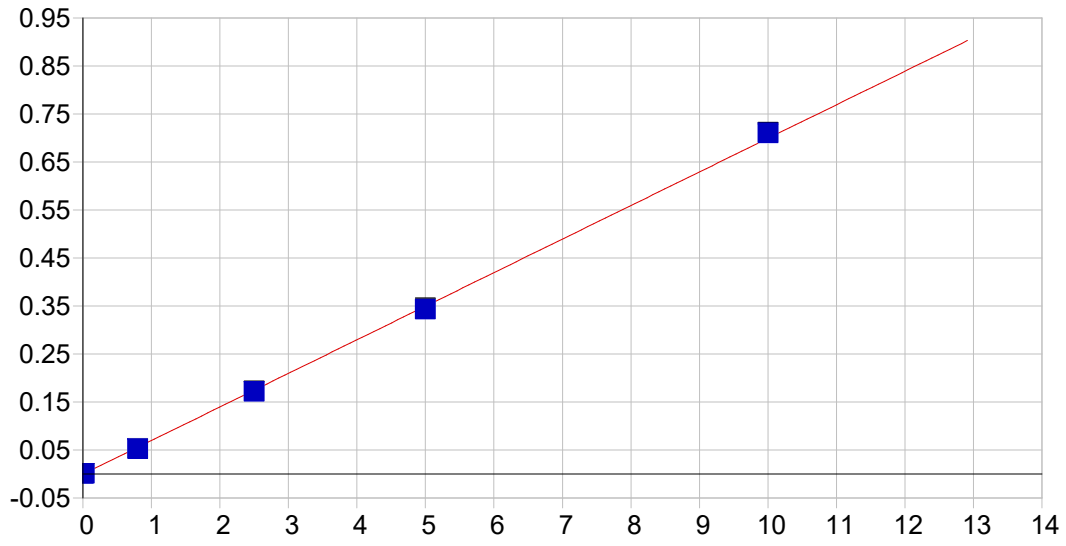
Reviewed By:jaswal
On:6/12/2025 5:41:36 PM
Inst Id :P4
LB :LB136119

Sample Name: CCB06 Acquired: 6/11/2025 20:11:26 Type: Unk
Method: 6010-200.7 NEW(v5) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002521	-.003375	-.003182
Stddev	.002035	.001259	.000036
%RSD	80.73199	37.31454	1.135096
#1	-.003689	-.001980	-.003143
#2	-.003703	-.004428	-.003189
#3	-.000171	-.003717	-.003214

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3216.835	73450.92	15440.00	2316.401	4585.607
Stddev	30.238	242.70	10.99	14.429	25.449
%RSD	.9399932	.3304309	.0711506	.6228978	.5549700
#1	3198.323	73183.67	15435.63	2304.151	4570.809
#2	3200.452	73657.61	15452.50	2312.746	4571.019
#3	3251.729	73511.48	15431.87	2332.306	4614.993

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



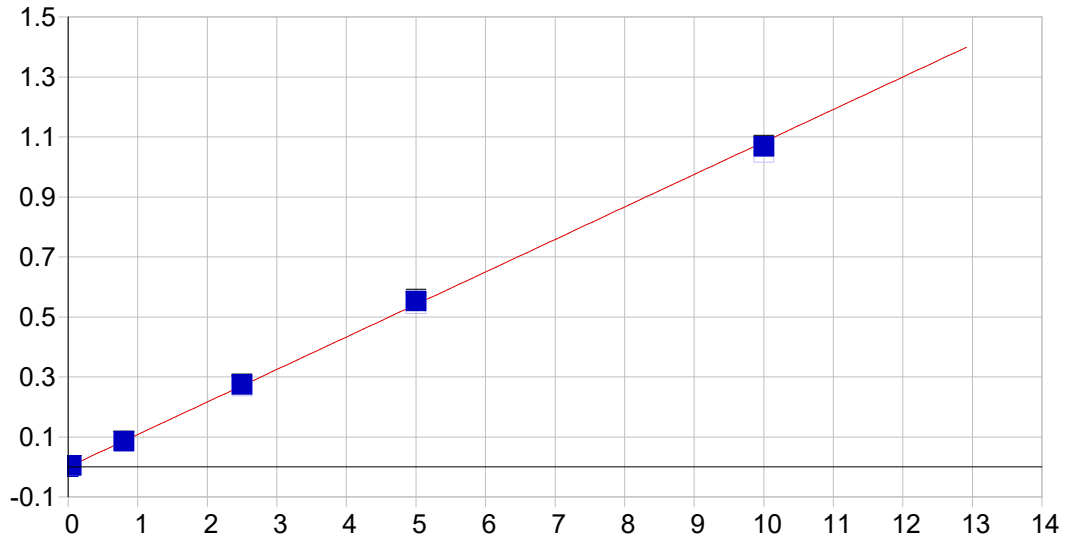
As 189.042 {479}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000263	Re-Slope:	1.000000
A1 (Gain):	0.069948	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999809	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.002009		
Predicted MQL:	0.006698		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00026	.000	1
S1	.02000	.02290	.003	14.5	.00133	.000	1
S3	2.5000	2.4628	-.037	-1.49	.17182	.001	1
S4	5.0000	4.9159	-.084	-1.68	.34322	.002	1
S5	10.000	10.159	.159	1.59	.70960	.002	1
S2	.80000	.75924	-.041	-5.09	.05278	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



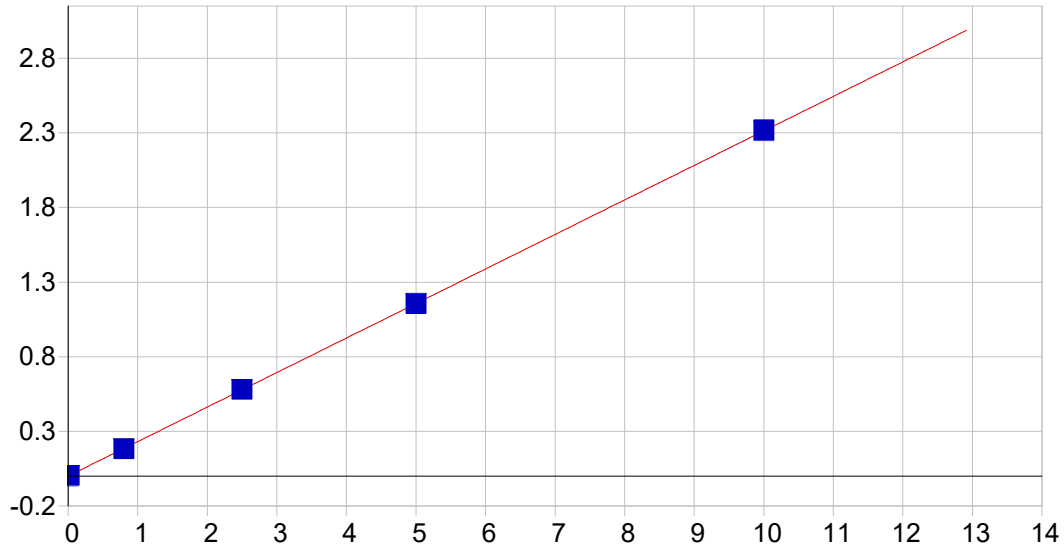
Tl 190.856 {477}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000253	Re-Slope:	1.000000
A1 (Gain):	0.108335	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000059		
Predicted MDL:	0.001574		
Predicted MQL:	0.005247		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00025	.000	1
S1	.04000	.04195	.002	4.87	.00401	.000	1
S3	2.5000	2.5353	.035	1.41	.26943	.002	1
S4	5.0000	5.1096	.110	2.19	.54334	.006	1
S5	10.000	9.8603	-.140	-1.40	1.0481	.004	1
S2	.80000	.79298	-.007	-.878	.08406	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



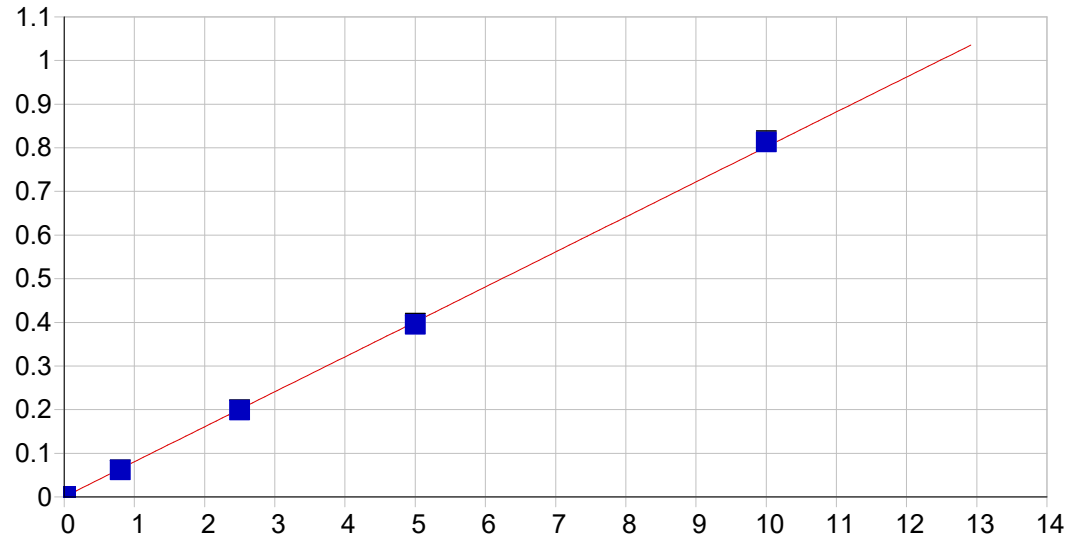
Pb 220.353 {453}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000236	Re-Slope:	1.000000
A1 (Gain):	0.231357	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.001299		
Predicted MQL:	0.004329		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00024	.000	1
S1	.01200	.01263	.001	5.28	.00263	.000	1
S3	2.5000	2.5070	.007	.282	.57919	.001	1
S4	5.0000	4.9984	-.002	-.032	1.1550	.002	1
S5	10.000	10.006	.006	.062	2.3124	.004	1
S2	.80000	.78772	-.012	-1.53	.18182	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



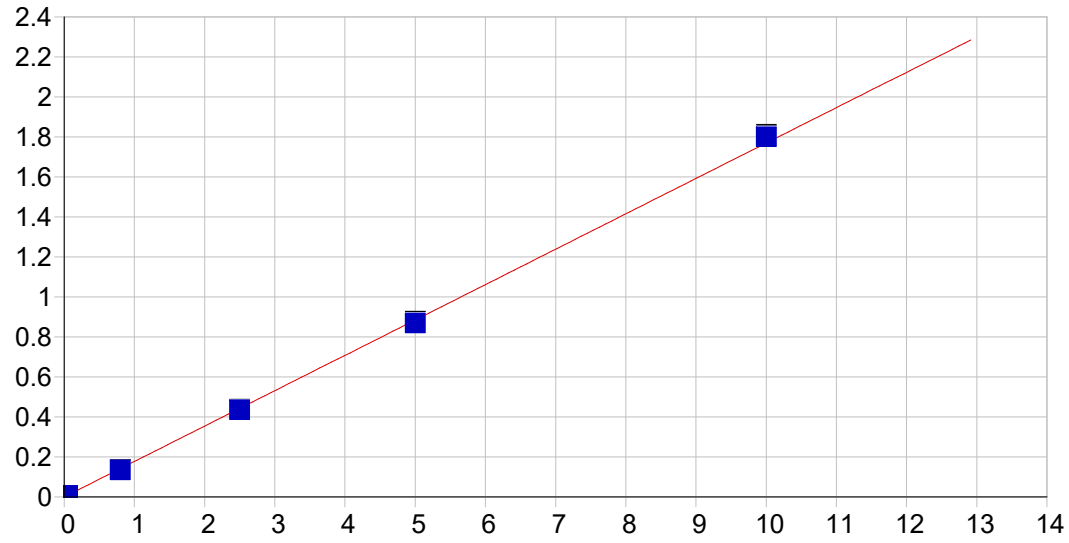
Se 196.090 {472}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000367	Re-Slope:	1.000000
A1 (Gain):	0.080152	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.003216		
Predicted MQL:	0.010720		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00037	.000	1
S1	.02000	.01977	-.000	-1.17	.00195	.000	1
S3	2.5000	2.4754	-.025	-.985	.19866	.001	1
S4	5.0000	4.9255	-.075	-1.49	.39492	.003	1
S5	10.000	10.139	.139	1.39	.81253	.003	1
S2	.80000	.76074	-.039	-4.91	.06130	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



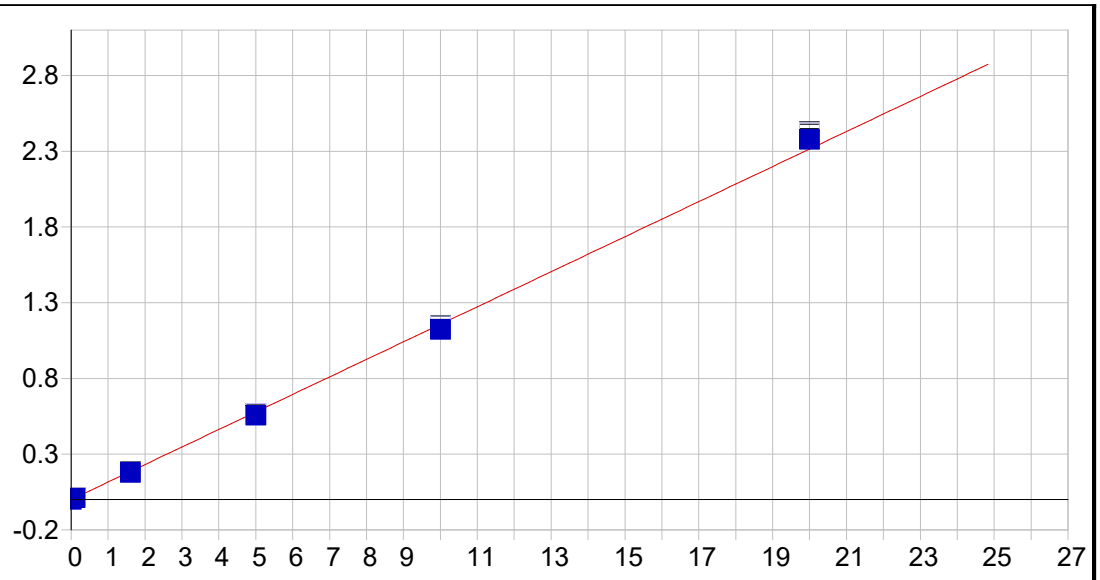
Sb 206.833 {463}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000166	Re-Slope:	1.000000
A1 (Gain):	0.176899	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000131		
Predicted MDL:	0.001414		
Predicted MQL:	0.004715		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00017	.000	1
S1	.05000	.04781	-.002	-4.37	.00864	.000	1
S3	2.5000	2.4582	-.042	-1.67	.43622	.002	1
S4	5.0000	4.9093	-.091	-1.81	.87103	.008	1
S5	10.000	10.174	.174	1.74	1.8047	.008	1
S2	.80000	.76095	-.039	-4.88	.13516	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



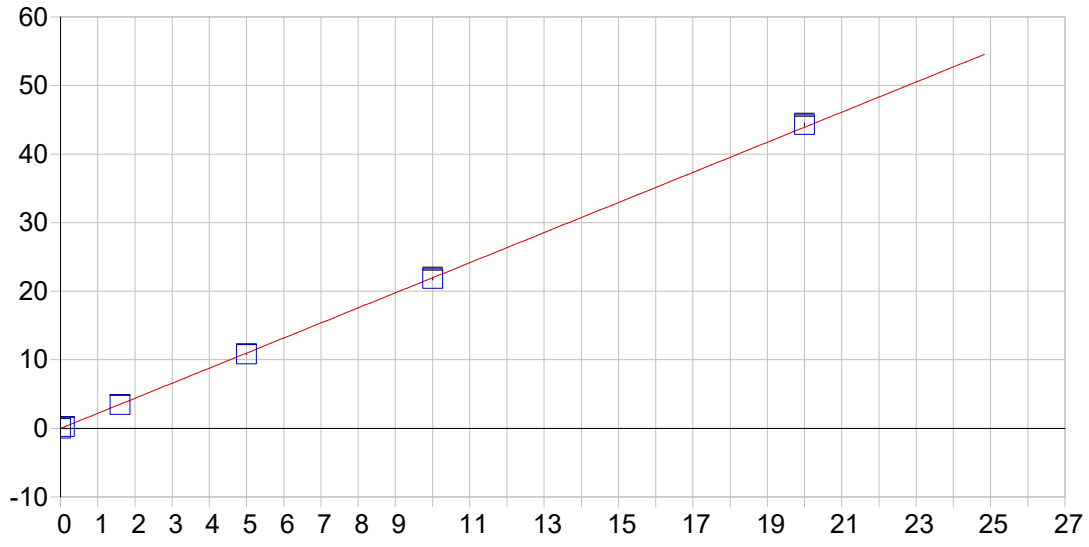
Al 396.152 { 85}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000219	Re-Slope:	1.000000
A1 (Gain):	0.115711	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999581	Status:	OK.
Std Error of Est:	0.000253		
Predicted MDL:	0.004005		
Predicted MQL:	0.013350		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00022	.000	1
S1	.10000	.09718	-.003	-2.82	.01236	.000	1
S3	5.0000	4.8148	-.185	-3.70	.56857	.001	1
S4	10.000	9.7043	-.296	-2.96	1.1456	.002	1
S5	20.000	20.538	.538	2.69	2.4216	.008	1
S2	1.6000	1.5458	-.054	-3.39	.18267	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



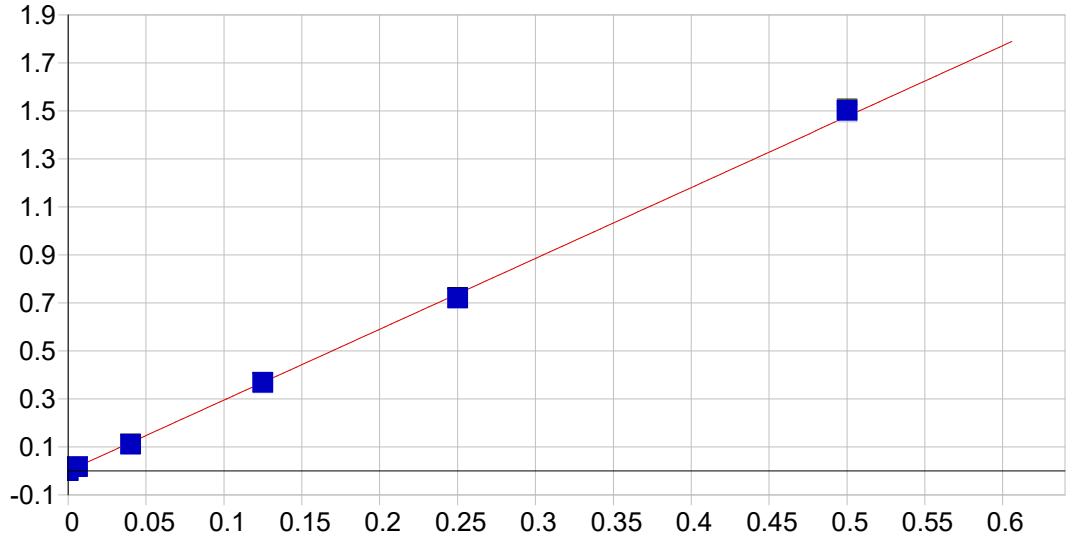
Ba 493.409 { 68}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.005409	Re-Slope:	1.000000
A1 (Gain):	2.196256	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.001699		
Predicted MDL:	0.000648		
Predicted MQL:	0.002161		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00540	.001	1
S1	.10000	.09925	-.001	-.754	.21256	.003	1
S3	5.0000	4.9228	-.077	-1.54	10.806	.055	1
S4	10.000	9.9483	-.052	-.517	21.844	.199	1
S5	20.000	20.171	.171	.855	44.295	.225	1
S2	1.6000	1.5587	-.041	-2.58	3.4180	.018	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



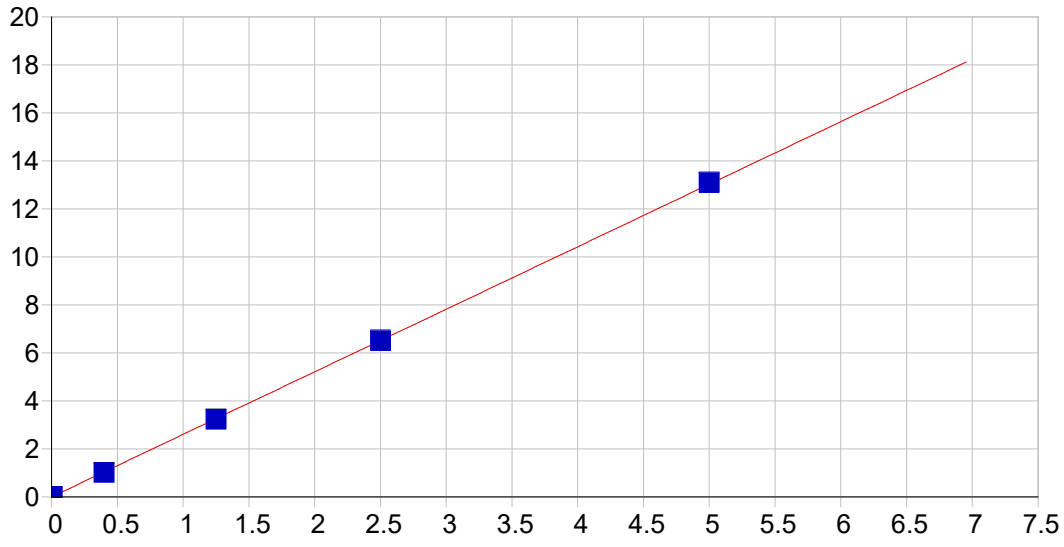
Be 234.861 {144}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000576	Re-Slope:	1.000000
A1 (Gain):	2.953412	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	0.000179		
Predicted MDL:	0.000073		
Predicted MQL:	0.000243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00058	.000	1
S1	.00600	.00614	.000	2.28	.01742	.000	1
S3	.12500	.12462	-.000	-.305	.36582	.002	1
S4	.25000	.24420	-.006	-2.32	.71735	.002	1
S5	.50000	.50832	.008	1.66	1.4941	.008	1
S2	.04000	.03772	-.002	-5.69	.11031	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



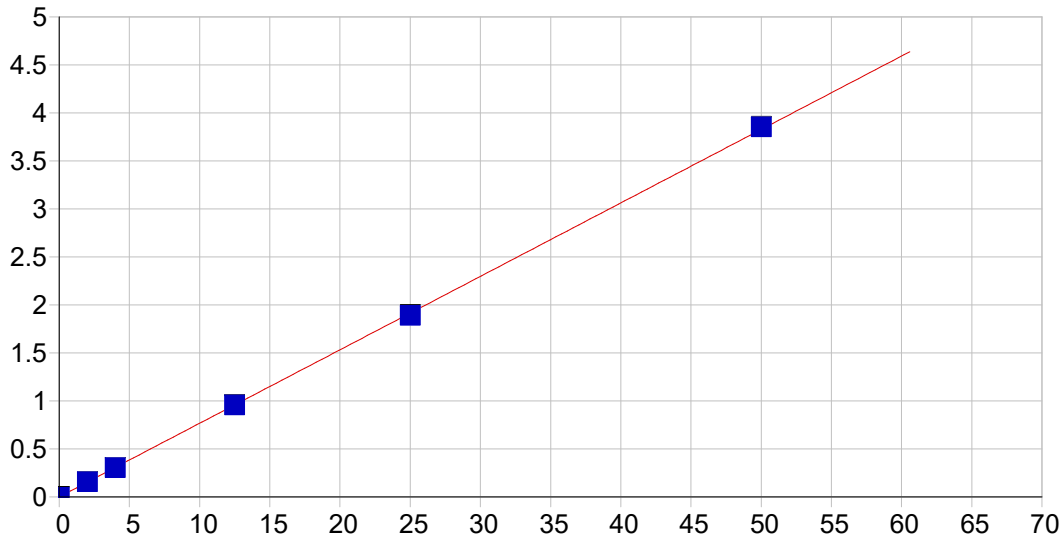
Cd 226.502 {449}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000192	Re-Slope:	1.000000
A1 (Gain):	2.605792	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.000204		
Predicted MDL:	0.000096		
Predicted MQL:	0.000319		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00019	.000	1
S1	.00600	.00577	-.000	-3.77	.01531	.000	1
S3	1.2500	1.2400	-.010	-.799	3.2339	.004	1
S4	2.5000	2.4982	-.002	-.072	6.5150	.024	1
S5	5.0000	5.0256	.026	.511	13.106	.016	1
S2	.40000	.38646	-.014	-3.38	1.0080	.003	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



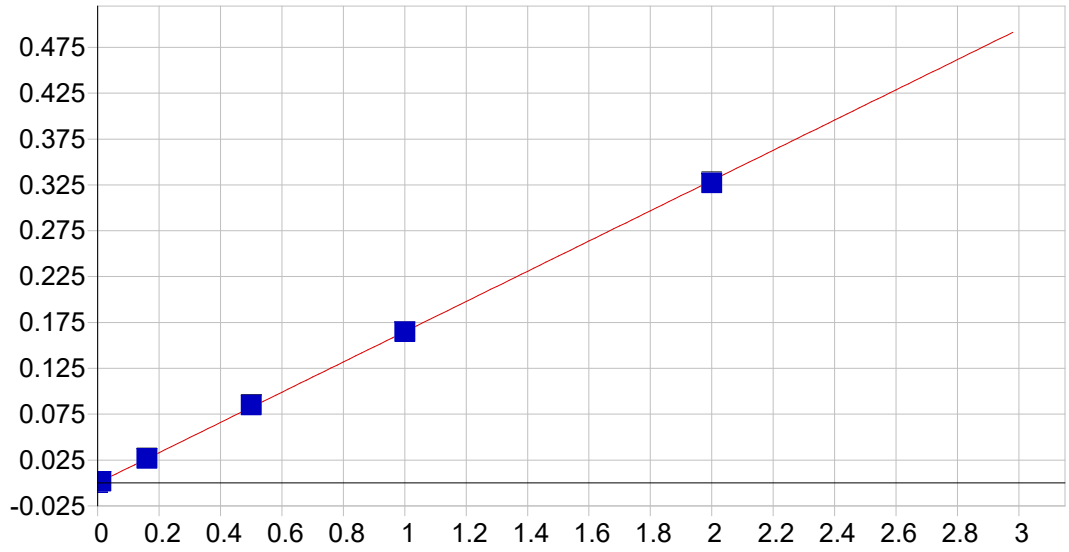
Ca 373.690 { 90}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001599	Re-Slope:	1.000000
A1 (Gain):	0.076519	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999959	Status:	OK.
Std Error of Est:	0.000368		
Predicted MDL:	0.004797		
Predicted MQL:	0.015991		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00160	.000	1
S2	4.0000	3.9614	-.039	-.965	.30472	.001	1
S3	12.500	12.468	-.032	-.259	.95561	.006	1
S4	25.000	24.684	-.316	-1.27	1.8904	.007	1
S5	50.000	50.346	.346	.691	3.8540	.005	1
S1	2.0000	2.0417	.042	2.09	.15783	.002	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



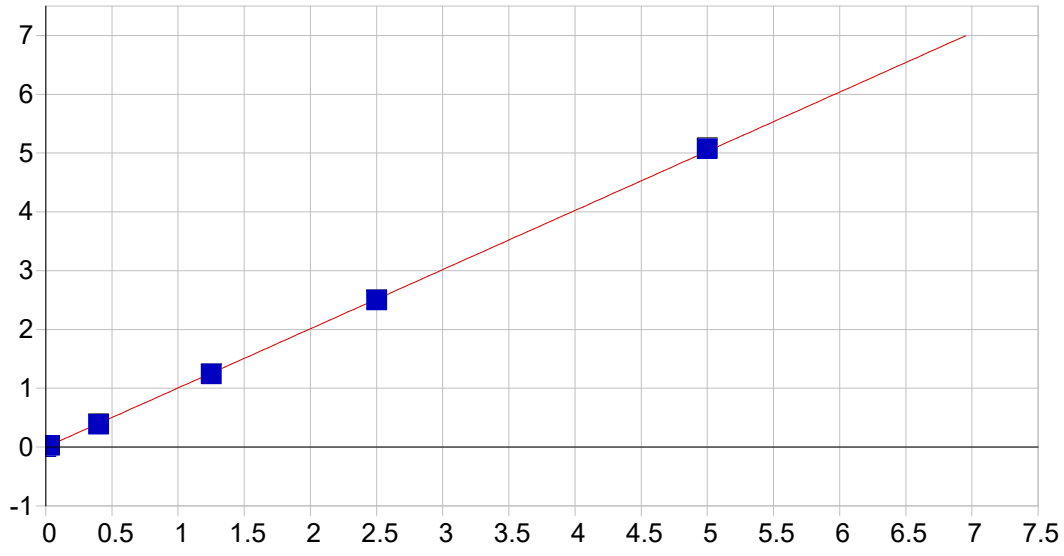
Cr 267.716 {126}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.164868	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.000388		
Predicted MQL:	0.001293		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00004	.000	1
S1	.01000	.01054	.001	5.45	.00178	.000	1
S3	.50000	.51508	.015	3.02	.08503	.001	1
S4	1.0000	.99918	-.001	-.082	.16490	.000	1
S5	2.0000	1.9832	-.017	-.839	.32727	.001	1
S2	.16000	.16198	.002	1.24	.02676	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



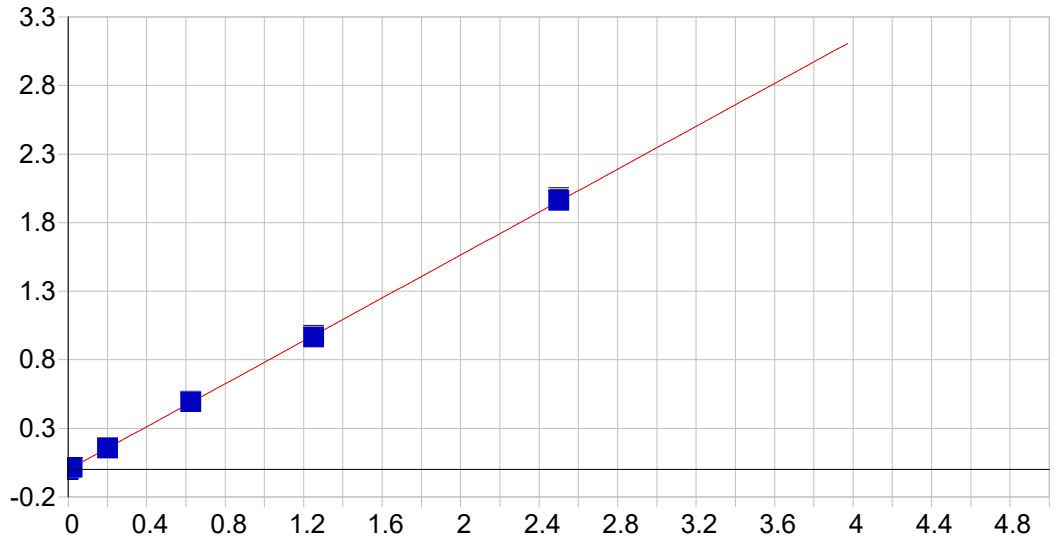
Co 228.616 {448}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000056	Re-Slope:	1.000000
A1 (Gain):	1.006173	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000221		
Predicted MDL:	0.000222		
Predicted MQL:	0.000740		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.03000	.02945	-.001	-1.82	.02945	.000	1
S3	1.2500	1.2358	-.014	-1.13	1.2455	.003	1
S4	2.5000	2.4857	-.014	-.572	2.5053	.006	1
S5	5.0000	5.0425	.043	.851	5.0822	.010	1
S2	.40000	.38646	-.014	-3.38	.38948	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



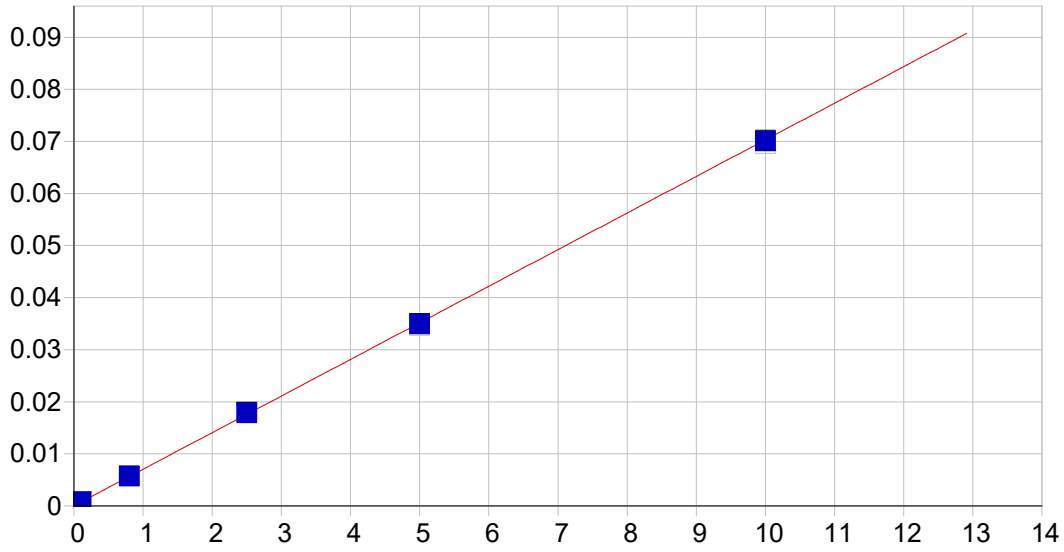
Cu 224.700 {450}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000892	Re-Slope:	1.000000
A1 (Gain):	0.782258	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000080		
Predicted MDL:	0.000373		
Predicted MQL:	0.001242		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00089	.000	1
S1	.02000	.02114	.001	5.70	.01580	.000	1
S3	.62500	.63157	.007	1.05	.49672	.002	1
S4	1.2500	1.2345	-.015	-1.24	.97195	.007	1
S5	2.5000	2.5078	.008	.314	1.9751	.008	1
S2	.20000	.19993	-.000	-.034	.15665	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



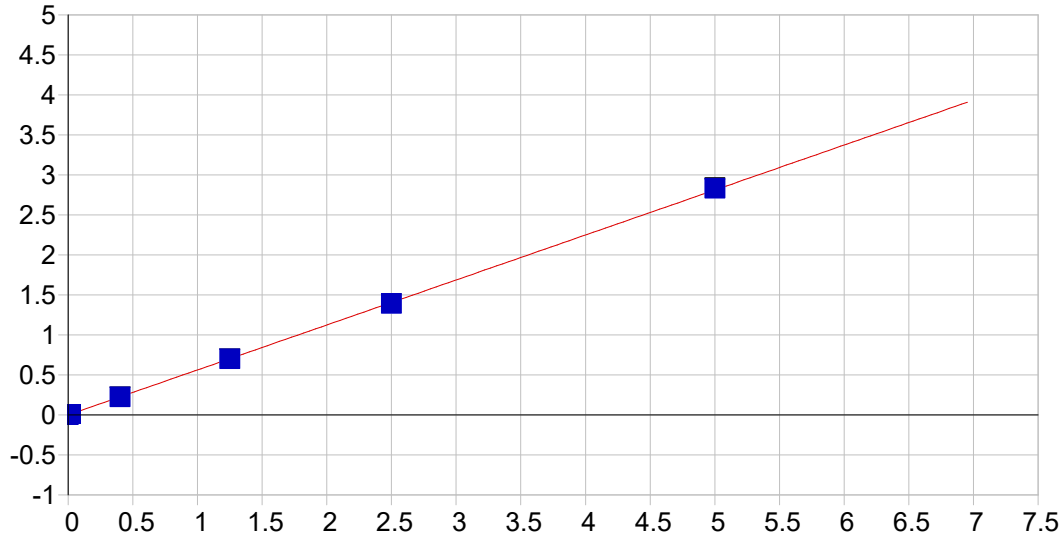
Fe 240.488 {140}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.007028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.003220		
Predicted MQL:	0.010732		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00002	.000	1
S1	.10000	.10916	.009	9.16	.00078	.000	1
S3	2.5000	2.5450	.045	1.80	.01776	.000	1
S4	5.0000	4.9671	-.033	-.658	.03463	.000	1
S5	10.000	9.9689	-.031	-.311	.06949	.000	1
S2	.80000	.80980	.010	1.23	.00566	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



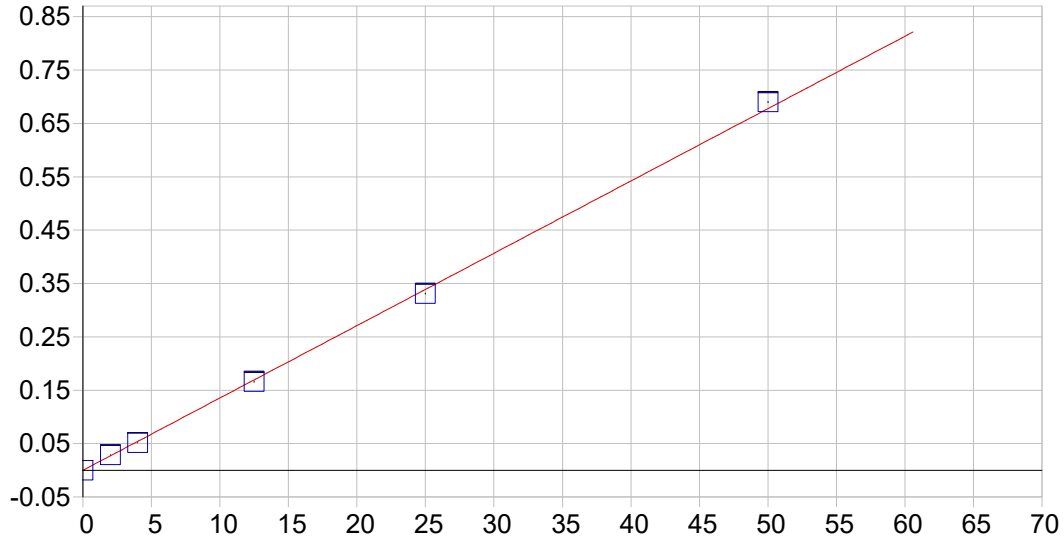
Mn 257.610 {131}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000065	Re-Slope:	1.000000
A1 (Gain):	0.562180	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.000246		
Predicted MQL:	0.000821		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.02000	.02156	.002	7.80	.01219	.000	1
S3	1.2500	1.2448	-.005	-.419	.69999	.002	1
S4	2.5000	2.4731	-.027	-1.08	1.3907	.002	1
S5	5.0000	5.0340	.034	.681	2.8307	.008	1
S2	.40000	.39651	-.003	-.872	.22302	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



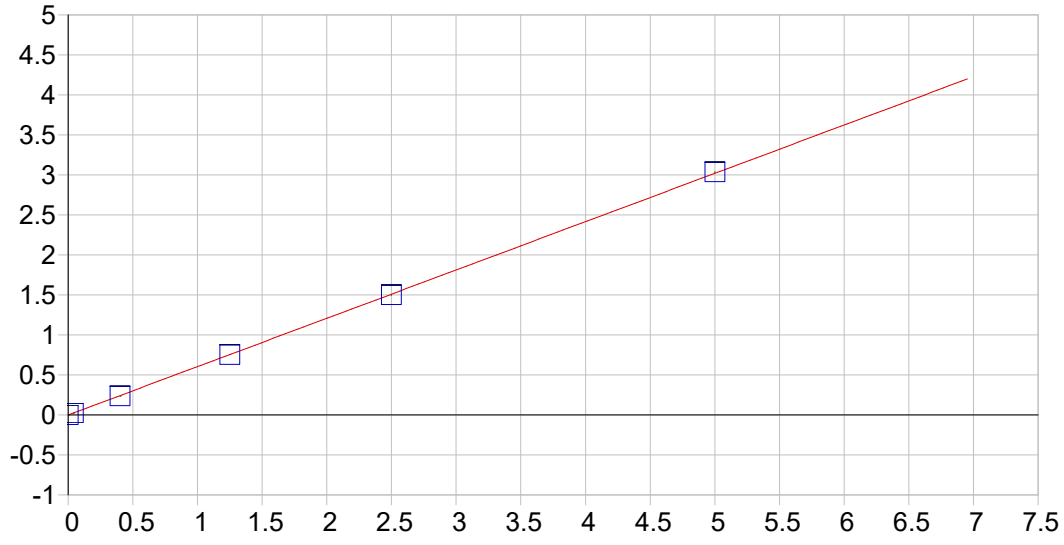
Mg 279.079 {121}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000135	Re-Slope:	1.000000
A1 (Gain):	0.013557	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999724	Status:	OK.
Std Error of Est:	0.000169		
Predicted MDL:	0.012947		
Predicted MQL:	0.043158		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	-.00014	.000	1
S2	4.0000	3.8151	-.185	-4.62	.05159	.000	1
S3	12.500	12.238	-.262	-2.10	.16577	.001	1
S4	25.000	24.415	-.585	-2.34	.33086	.001	1
S5	50.000	50.912	.912	1.82	.69009	.001	1
S1	2.0000	2.1200	.120	6.00	.02861	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



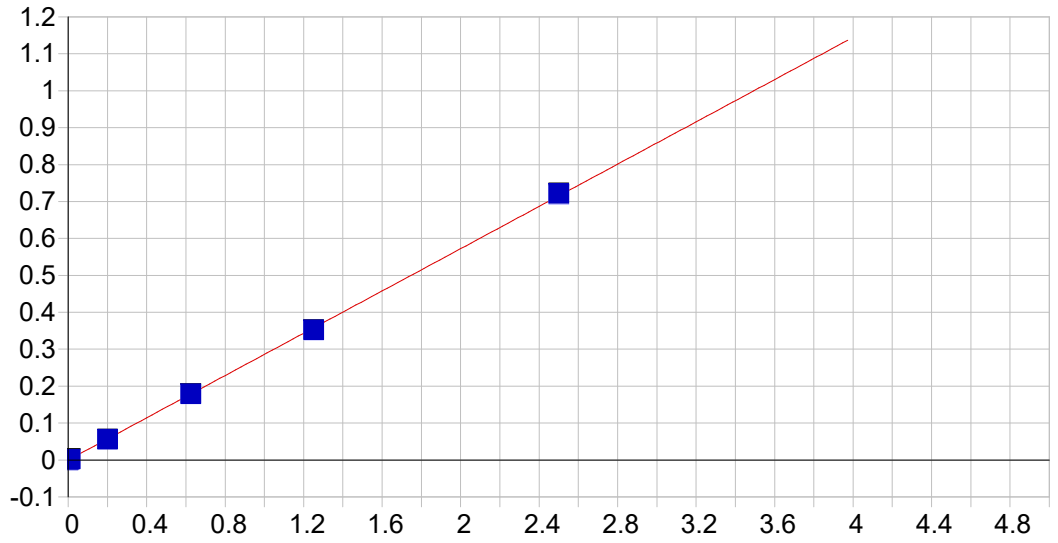
Ni 231.604 {446}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000223	Re-Slope:	1.000000
A1 (Gain):	0.603942	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000091		
Predicted MDL:	0.000394		
Predicted MQL:	0.001315		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00022	.000	1
S1	.04000	.03983	-.000	-.413	.02383	.000	1
S3	1.2500	1.2463	-.004	-.298	.75246	.002	1
S4	2.5000	2.4861	-.014	-.556	1.5012	.004	1
S5	5.0000	5.0257	.026	.513	3.0350	.005	1
S2	.40000	.39212	-.008	-1.97	.23659	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



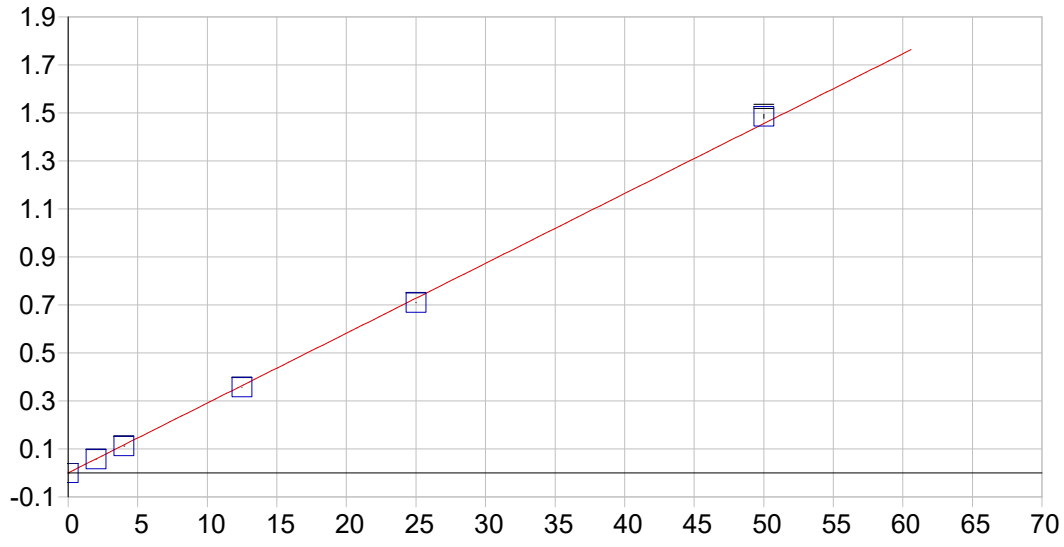
Ag 328.068 {103}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000173	Re-Slope:	1.000000
A1 (Gain):	0.286219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.000357		
Predicted MQL:	0.001190		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00017	.000	1
S1	.01000	.00997	-.000	-.336	.00266	.000	1
S3	.62500	.62738	.002	.381	.17860	.001	1
S4	1.2500	1.2303	-.020	-1.57	.35038	.000	1
S5	2.5000	2.5209	.021	.835	.71817	.002	1
S2	.20000	.19644	-.004	-1.78	.05580	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



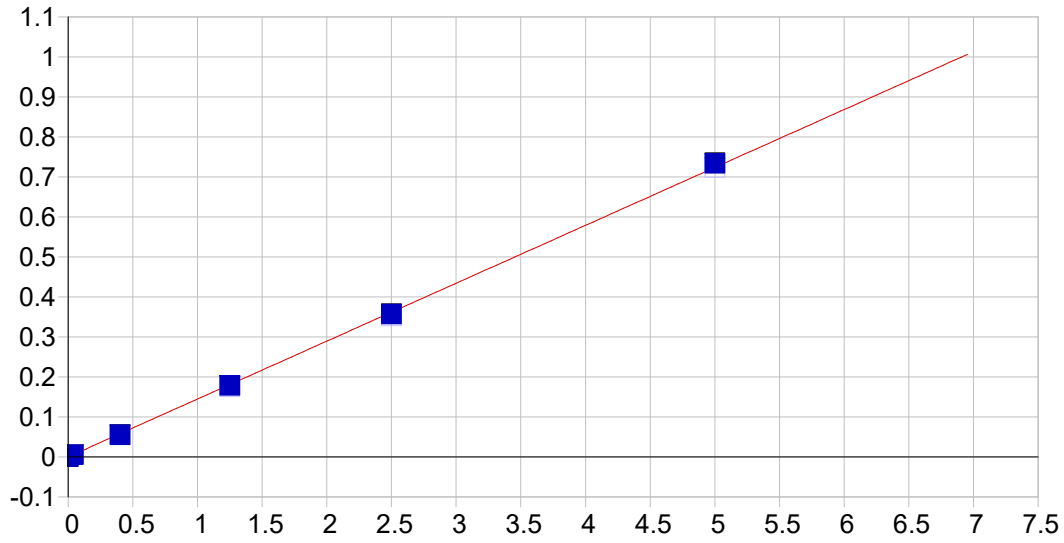
Na 589.592 { 57}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.029106	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999746	Status:	OK.
Std Error of Est:	0.000347		
Predicted MDL:	0.005461		
Predicted MQL:	0.018202		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	-.00000	.000	1
S2	4.0000	3.8548	-.145	-3.63	.11219	.000	1
S3	12.500	12.263	-.237	-1.90	.35693	.001	1
S4	25.000	24.389	-.611	-2.45	.70986	.001	1
S5	50.000	51.041	1.04	2.08	1.4856	.009	1
S1	2.0000	1.9524	-.048	-2.38	.05682	.001	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



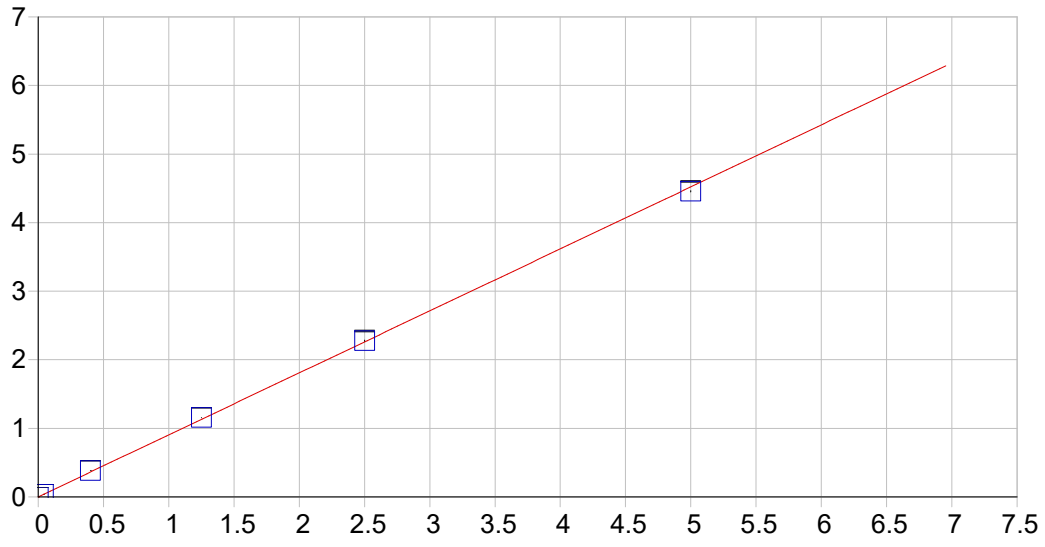
V 292.402 {115}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000030	Re-Slope:	1.000000
A1 (Gain):	0.144714	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000057		
Predicted MDL:	0.001340		
Predicted MQL:	0.004465		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00003	.000	1
S1	.04000	.03878	-.001	-3.06	.00543	.000	1
S3	1.2500	1.2307	-.019	-1.54	.17549	.000	1
S4	2.5000	2.4672	-.033	-1.31	.35180	.001	1
S5	5.0000	5.0710	.071	1.42	.72333	.002	1
S2	.40000	.38221	-.018	-4.45	.05450	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



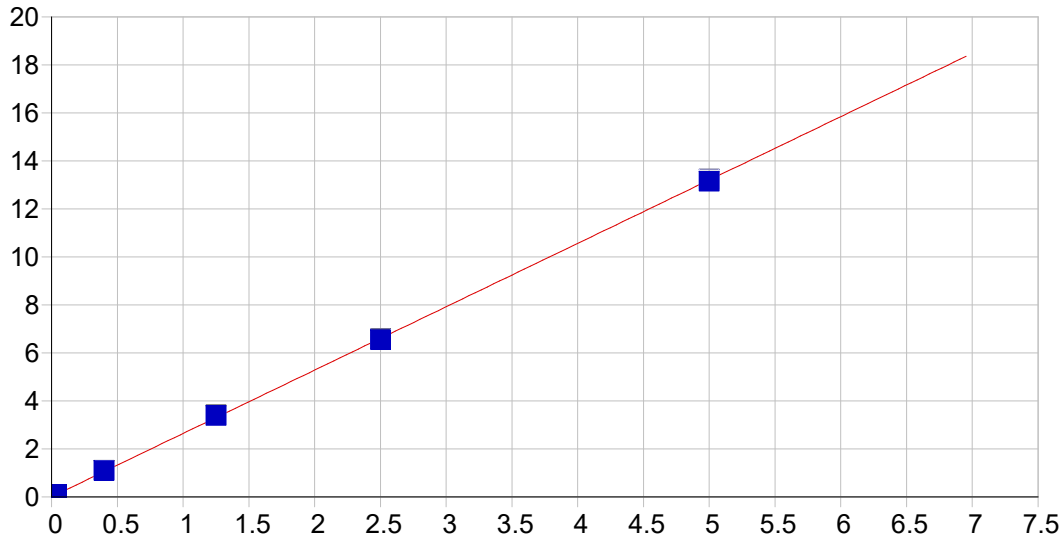
Zn 206.200 {464}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000678	Re-Slope:	1.000000
A1 (Gain):	0.904138	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999820	Status:	OK.
Std Error of Est:	0.000402		
Predicted MDL:	0.000238		
Predicted MQL:	0.000795		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00067	.000	1
S1	.04000	.04223	.002	5.57	.03886	.000	1
S3	1.2500	1.2774	.027	2.20	1.1557	.003	1
S4	2.5000	2.5163	.016	.652	2.2758	.010	1
S5	5.0000	4.9297	-.070	-1.41	4.4578	.010	1
S2	.40000	.42434	.024	6.09	.38434	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



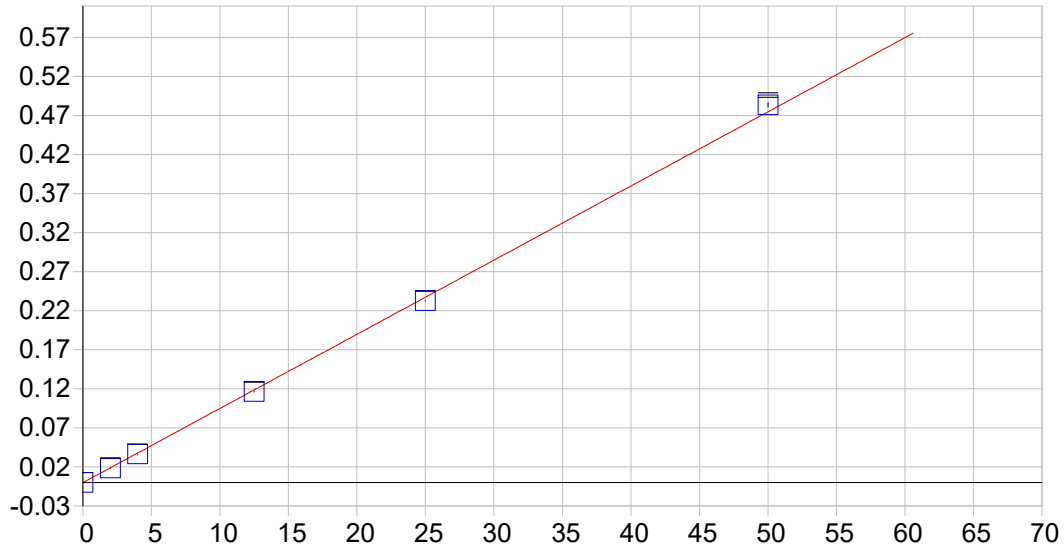
Zn 213.856 {158}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003054	Re-Slope:	1.000000
A1 (Gain):	2.640305	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999915	Status:	OK.
Std Error of Est:	0.000815		
Predicted MDL:	0.000267		
Predicted MQL:	0.000891		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00304	.000	1
S1	.04000	.04215	.002	5.39	.11510	.001	1
S3	1.2500	1.2797	.030	2.37	3.4047	.012	1
S4	2.5000	2.4779	-.022	-.883	6.5915	.009	1
S5	5.0000	4.9766	-.023	-.468	13.235	.010	1
S2	.40000	.41366	.014	3.42	1.1026	.005	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



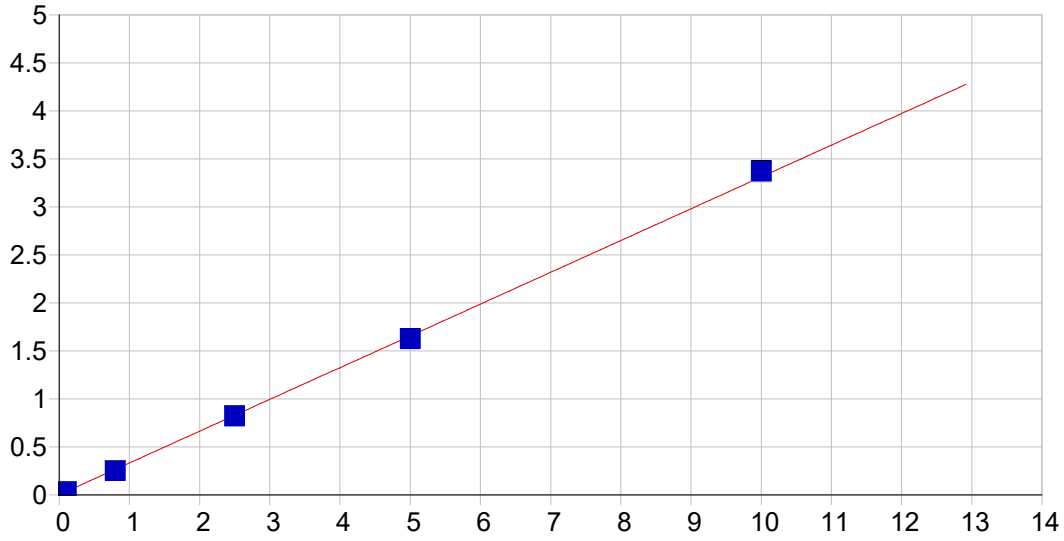
K 766.490 { 44}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000175	Re-Slope:	1.000000
A1 (Gain):	0.009496	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999793	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	0.020667		
Predicted MQL:	0.068891		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	-.00017	.000	1
S2	4.0000	3.8458	-.154	-3.85	.03634	.000	1
S3	12.500	12.261	-.239	-1.91	.11625	.000	1
S4	25.000	24.519	-.481	-1.93	.23264	.000	1
S5	50.000	50.930	.930	1.86	.48343	.003	1
S1	2.0000	1.9443	-.056	-2.79	.01829	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



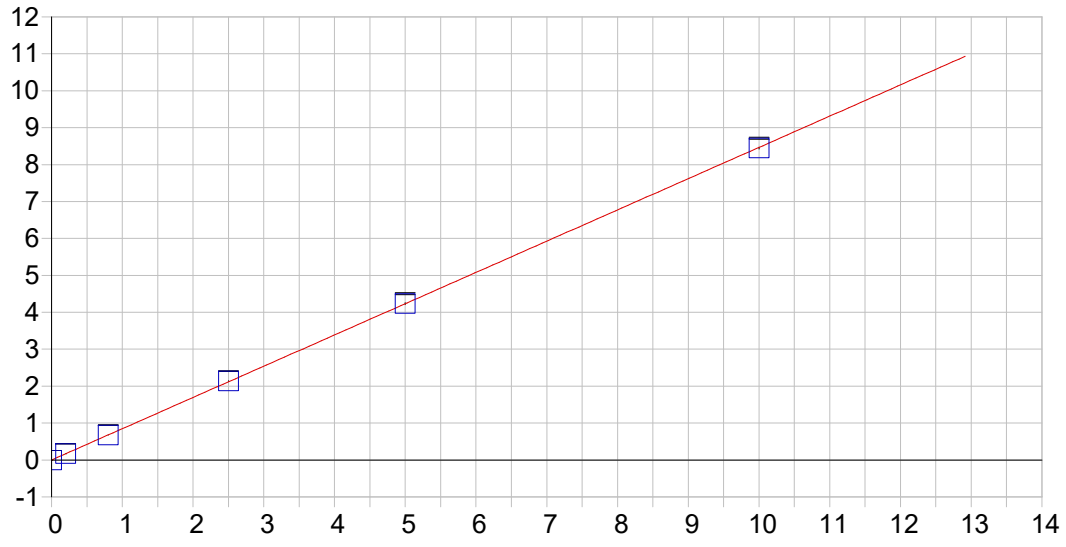
B 249.678 {135}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001927	Re-Slope:	1.000000
A1 (Gain):	0.330951	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999764	Status:	OK.
Std Error of Est:	0.000376		
Predicted MDL:	0.000679		
Predicted MQL:	0.002264		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00193	.000	1
S1	.10000	.09582	-.004	-4.18	.03344	.001	1
S3	2.5000	2.4670	-.033	-1.32	.81541	.005	1
S4	5.0000	4.9065	-.094	-1.87	1.6198	.004	1
S5	10.000	10.180	.180	1.80	3.3590	.008	1
S2	.80000	.75082	-.049	-6.15	.24946	.002	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



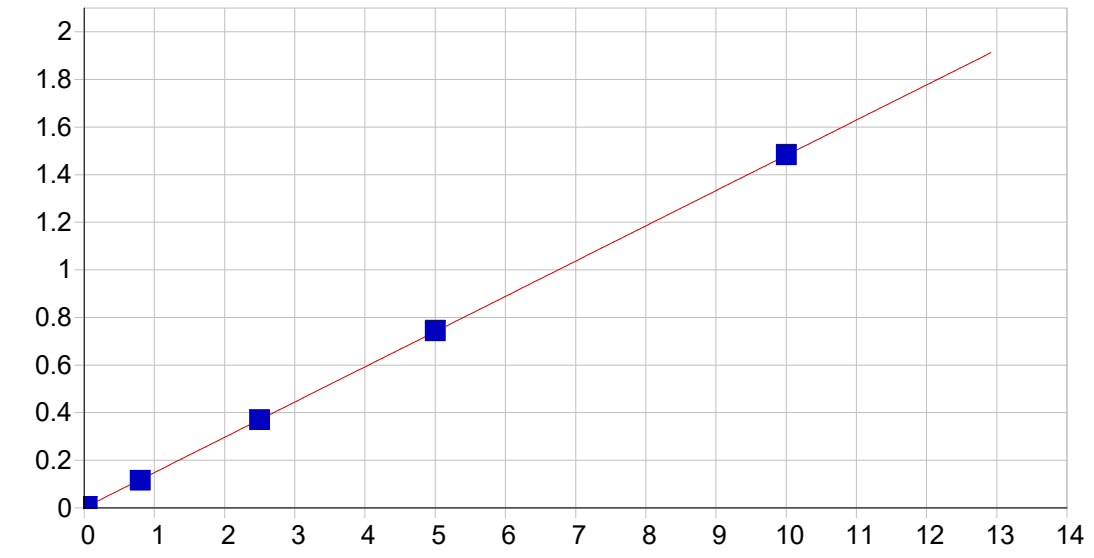
Mo 202.030 {467}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000088	Re-Slope:	1.000000
A1 (Gain):	0.846569	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000222		
Predicted MDL:	0.000226		
Predicted MQL:	0.000754		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.20000	.20194	.002	.970	.17104	.001	1
S3	2.5000	2.5205	.021	.820	2.1339	.008	1
S4	5.0000	4.9987	-.001	-.026	4.2318	.025	1
S5	10.000	9.9796	-.020	-.204	8.4485	.025	1
S2	.80000	.79924	-.001	-.095	.67670	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



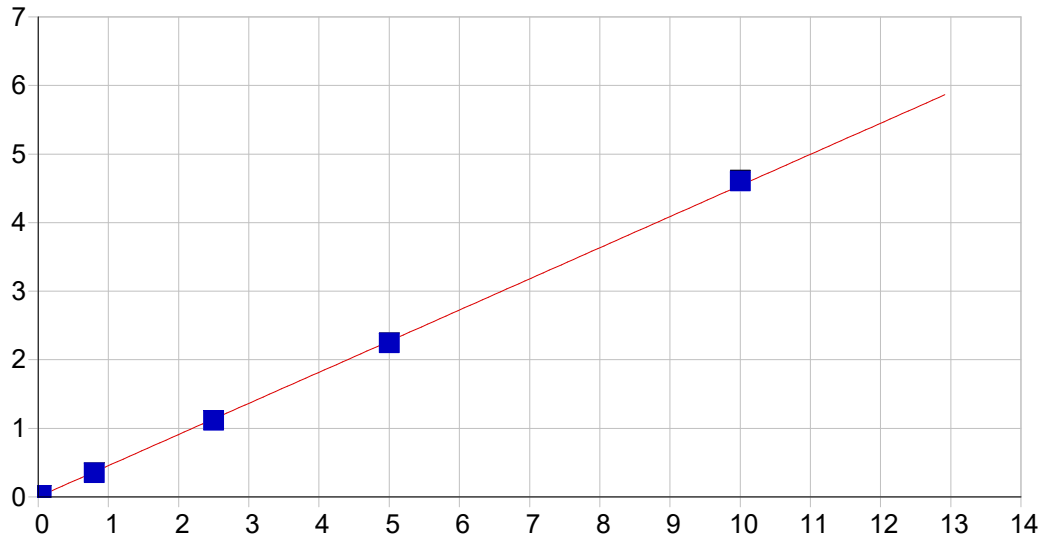
Sn 189.989 {478}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000456	Re-Slope:	1.000000
A1 (Gain):	0.148069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.000795		
Predicted MQL:	0.002650		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00046	.000	1
S1	.04000	.03826	-.002	-4.34	.00612	.000	1
S3	2.5000	2.4935	-.007	-.262	.36928	.001	1
S4	5.0000	5.0161	.016	.322	.74243	.003	1
S5	10.000	10.015	.015	.147	1.4818	.003	1
S2	.80000	.77746	-.023	-2.82	.11545	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



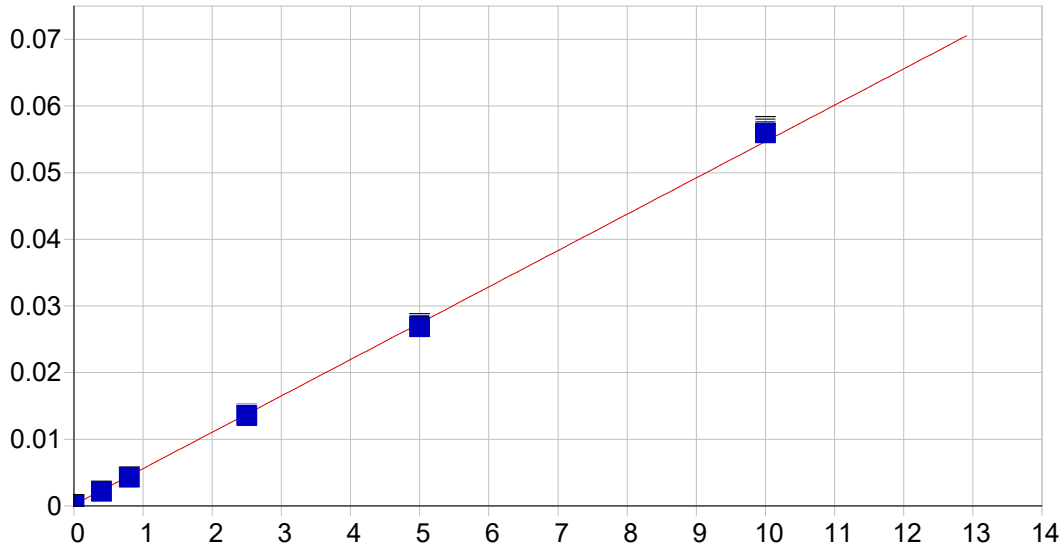
Ti 336.121 {100}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001694	Re-Slope:	1.000000
A1 (Gain):	0.453952	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.000240		
Predicted MDL:	0.000572		
Predicted MQL:	0.001907		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00170	.000	1
S1	.04000	.03807	-.002	-4.81	.01896	.000	1
S3	2.5000	2.4515	-.049	-1.94	1.1141	.001	1
S4	5.0000	4.9403	-.060	-1.19	2.2435	.003	1
S5	10.000	10.138	.138	1.38	4.6024	.014	1
S2	.80000	.77186	-.028	-3.52	.35195	.002	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



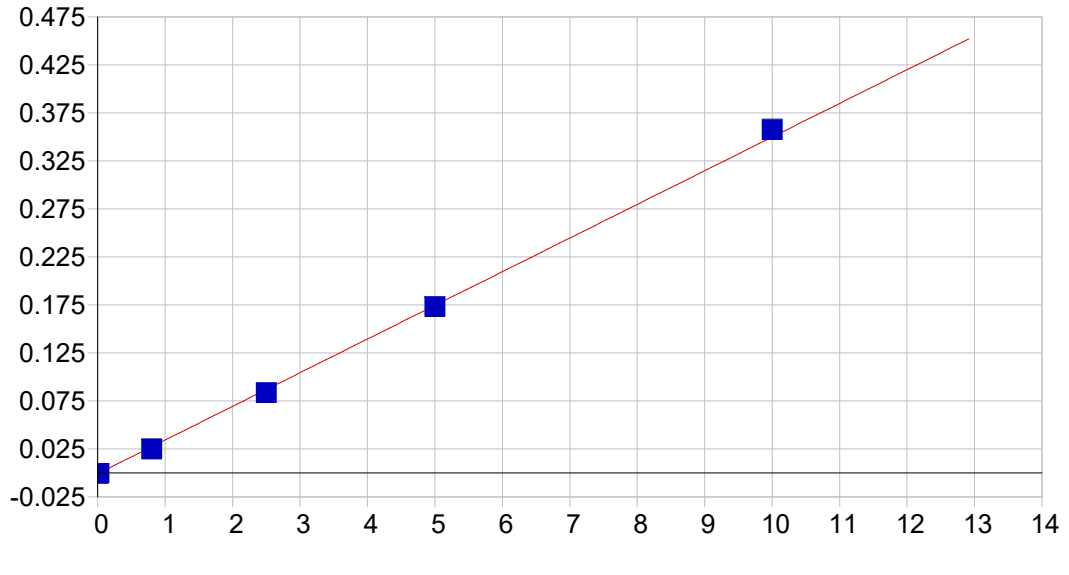
Si 288.158 {117}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000155	Re-Slope:	1.000000
A1 (Gain):	0.005452	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999631	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.008034		
Predicted MQL:	0.026779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00016	.000	1
S1	.40000	.36462	-.035	-8.85	.00215	.000	1
S3	2.5000	2.4535	-.046	-1.86	.01374	.000	1
S4	5.0000	4.8943	-.106	-2.11	.02725	.000	1
S5	10.000	10.233	.233	2.33	.05676	.000	1
S2	.80000	.75454	-.045	-5.68	.00433	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



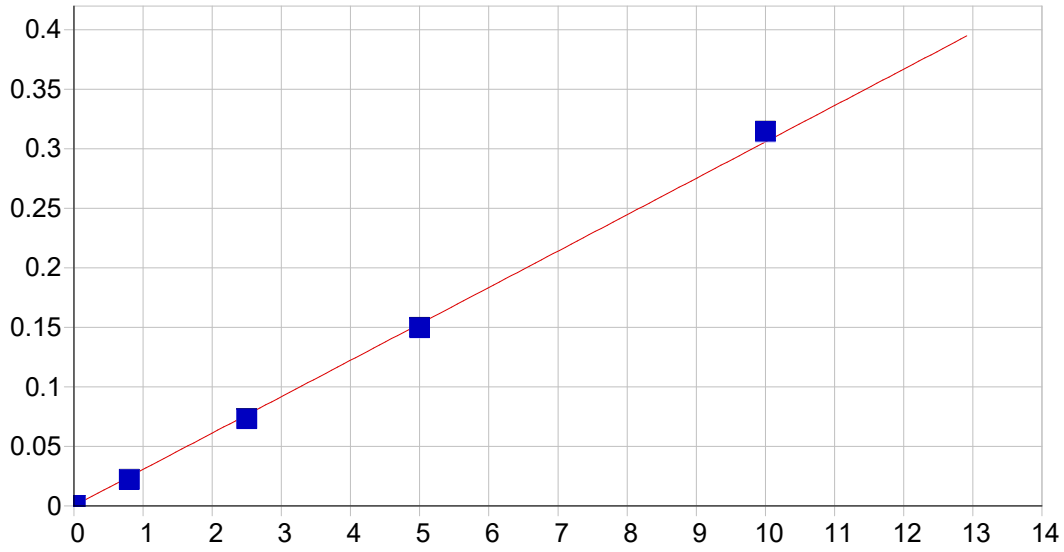
P 177.495 {490}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000854	Re-Slope:	1.000000
A1 (Gain):	0.035070	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999570	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.002766		
Predicted MQL:	0.009218		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00085	.000	1
S1	.02000	.01834	-.002	-8.32	-.00021	.000	1
S3	2.5000	2.4013	-.099	-3.95	.08335	.000	1
S4	5.0000	4.9556	-.044	-.887	.17291	.000	1
S5	10.000	10.217	.217	2.17	.35742	.001	1
S2	.80000	.72729	-.073	-9.09	.02465	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



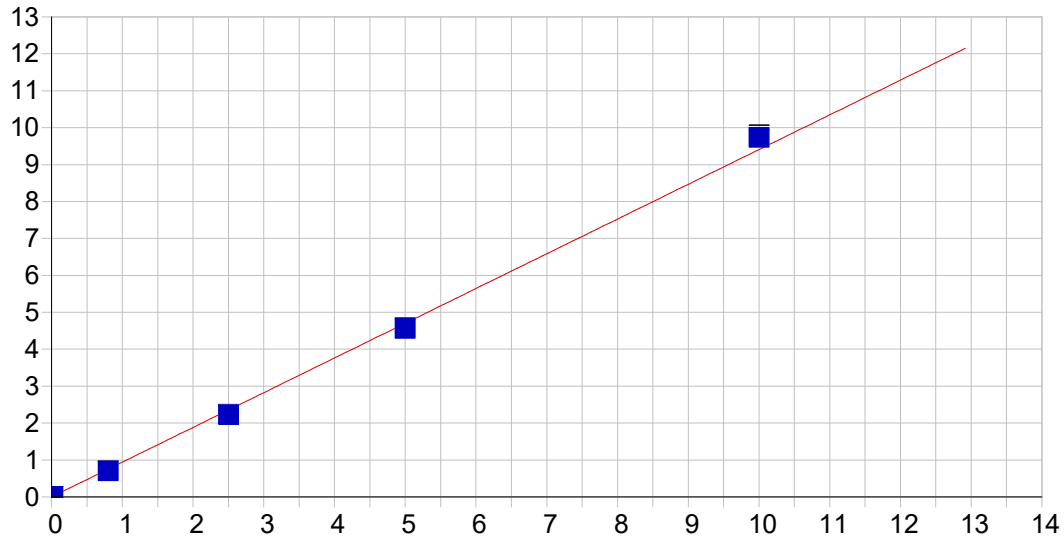
S 182.034 {485}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000073	Re-Slope:	1.000000
A1 (Gain):	0.030573	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999366	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.003545		
Predicted MQL:	0.011817		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00007	.000	1
S1	.02000	.02263	.003	13.1	.00074	.000	1
S3	2.5000	2.3911	-.109	-4.36	.07298	.000	1
S4	5.0000	4.8942	-.106	-2.12	.14931	.000	1
S5	10.000	10.289	.289	2.89	.31386	.000	1
S2	.80000	.72291	-.077	-9.64	.02211	.000	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



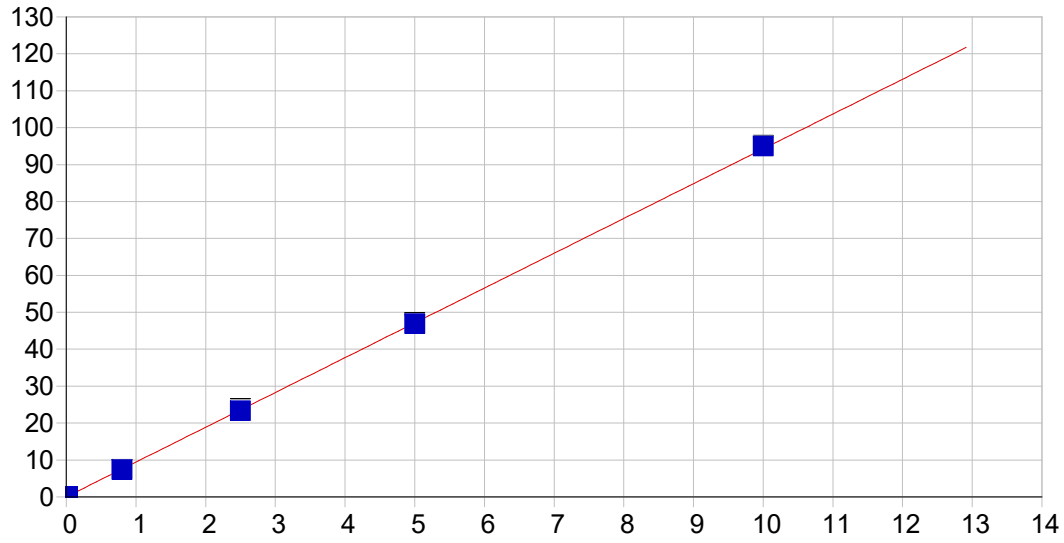
Li 670.784 { 50}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000505	Re-Slope:	1.000000
A1 (Gain):	0.940647	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999224	Status:	OK.
Std Error of Est:	0.000869		
Predicted MDL:	0.000617		
Predicted MQL:	0.002058		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00051	.000	1
S5	10.000	10.348	.348	3.48	9.7390	.064	1
S4	5.0000	4.8475	-.152	-3.05	4.5626	.016	1
S3	2.5000	2.3643	-.136	-5.43	2.2256	.012	1
S1	.02000	.01887	-.001	-5.67	.01855	.000	1
S2	.80000	.74140	-.059	-7.33	.69828	.004	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140



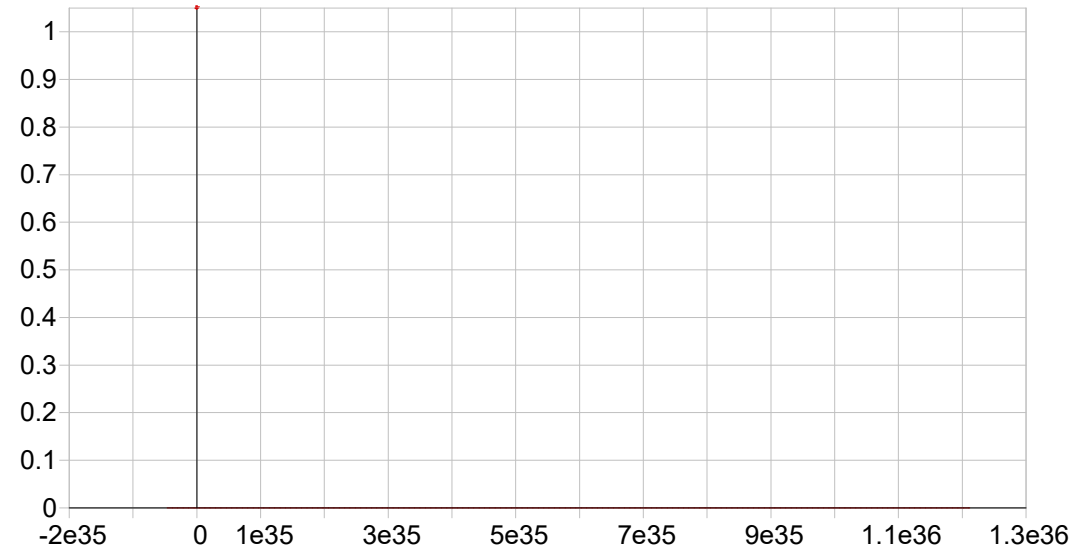
Sr 407.771 { 83}

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000654	Re-Slope:	1.000000
A1 (Gain):	9.426168	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.001944		
Predicted MDL:	0.000043		
Predicted MQL:	0.000144		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00067	.000	1
S1	.02000	.01941	-.001	-2.93	.18456	.001	1
S3	2.5000	2.4724	-.028	-1.10	23.329	.577	1
S4	5.0000	4.9723	-.028	-.555	46.915	.295	1
S5	10.000	10.074	.074	.738	95.048	.238	1
S2	.80000	.78212	-.018	-2.23	7.3803	.038	1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

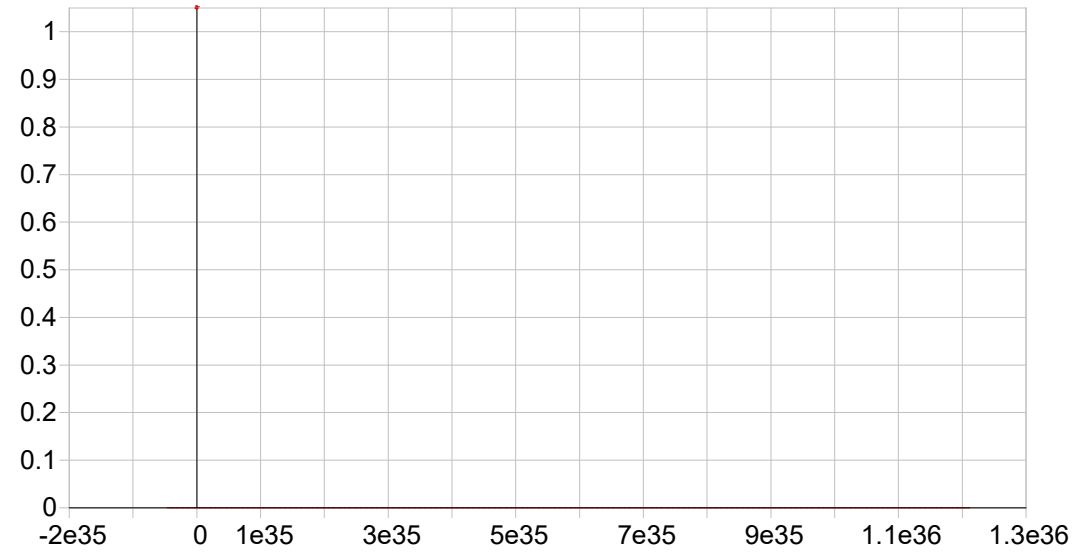


Y 224.306 {450}*

Date of Fit:	6/12/2025 18:56:29	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

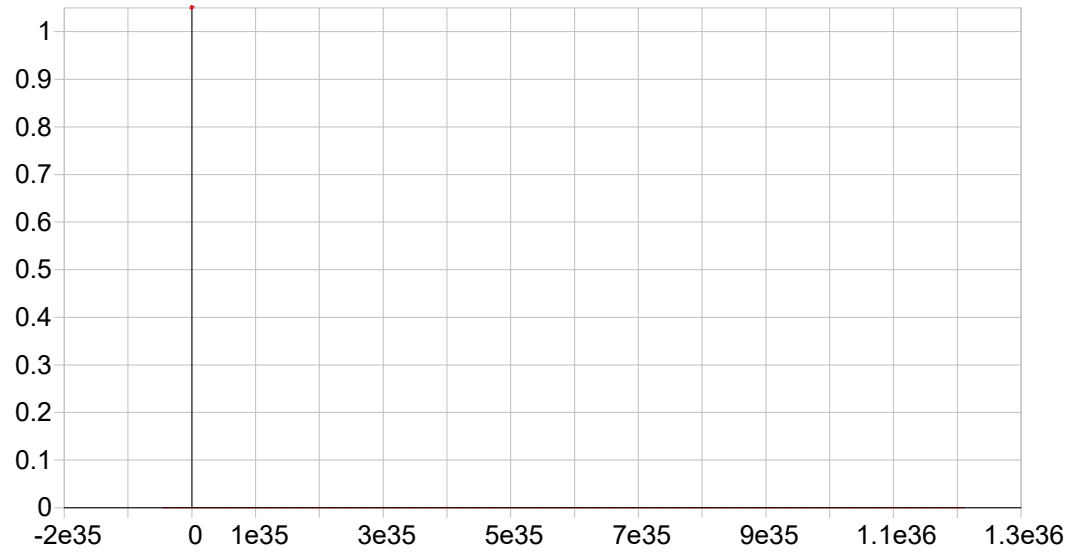
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

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

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



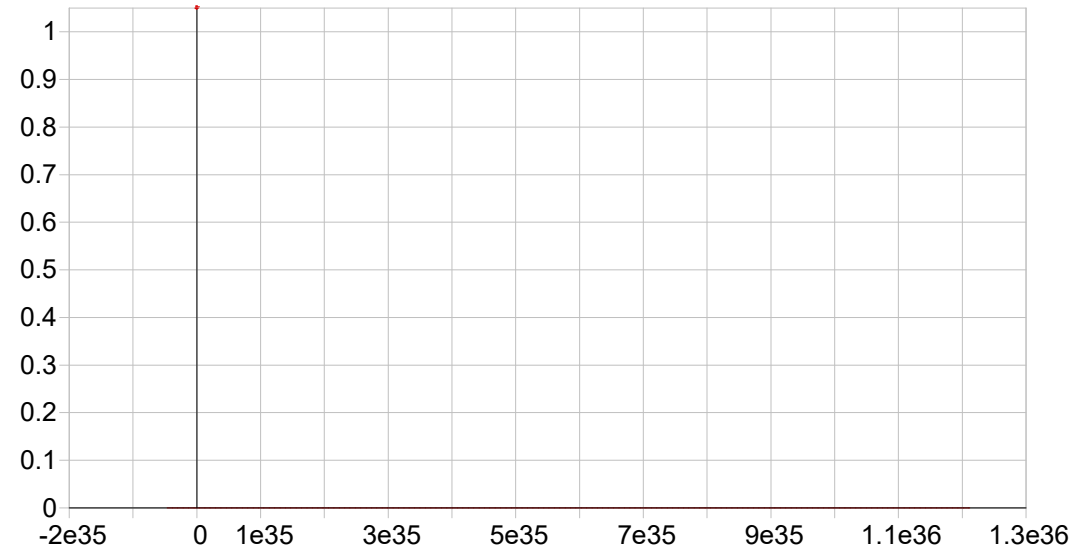
Y 371.030 { 91}*

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

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

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

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

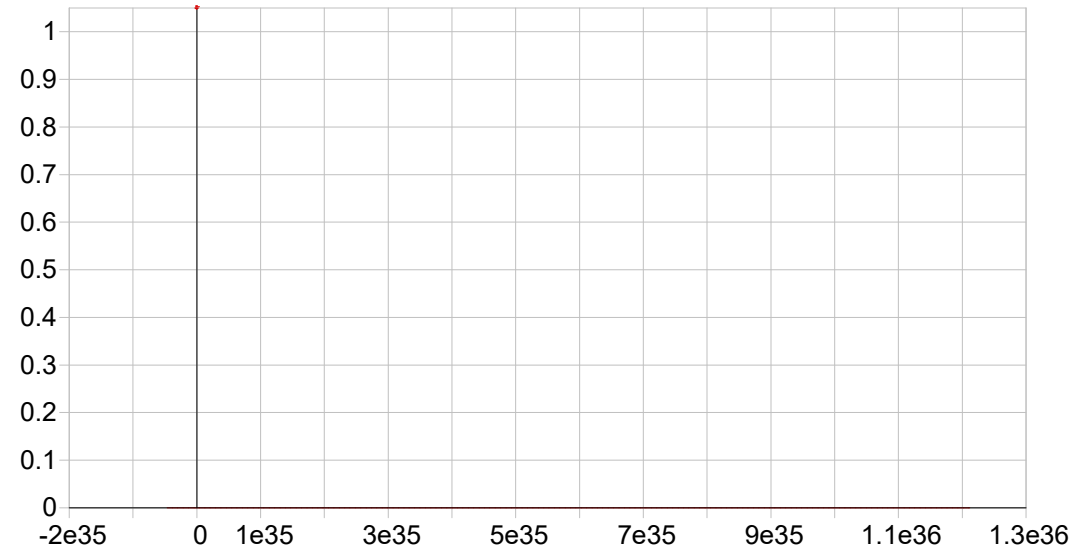


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

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

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

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

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

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

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S0 Acquired: 6/12/2025 17:12:37 Type: Cal
Method: 6010-200.7 NEW(v8) 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	**-.00026**	**-.00025**	**-.00024**	**.00037**	**.00017**	**.00022**	**-.00540**	**-.00058**
Stddev	.00001	.00004	.00022	.00011	.00001	.00035	.00127	.00017
%RSD	4.7448	15.719	94.850	30.736	8.3581	157.09	23.436	29.196
#1	-.00025	-.00029	.00001	.00034	.00016	.00062	-.00442	-.00076
#2	-.00028	-.00021	-.00030	.00049	.00018	.00005	-.00496	-.00053
#3	-.00026	-.00027	-.00042	.00027	.00016	-.00001	-.00683	-.00043

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	**.00019**	**.00160**	**.00004**	**-.00005**	**-.00089**	**.00002**	**.00006**	**-.00014**
Stddev	.00014	.00013	.00006	.00023	.00010	.00001	.00009	.00013
%RSD	72.670	7.8400	164.81	427.57	11.338	60.656	137.69	99.642
#1	.00003	.00173	-.00003	-.00006	-.00079	.00001	.00015	-.00001
#2	.00027	.00148	.00009	.00018	-.00089	.00002	-.00003	-.00011
#3	.00028	.00159	.00006	-.00028	-.00100	.00004	.00007	-.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	**-.00022**	**-.00017**	**-.00000**	**.00003**	**.00304**	**-.00017**	**.00193**	**.00009**
Stddev	.00017	.00006	.00010	.00007	.00040	.00003	.00005	.00018
%RSD	75.047	32.218	25215.	229.84	13.284	17.349	2.4812	208.16
#1	-.00025	-.00011	.00007	.00000	.00315	-.00019	.00188	.00012
#2	-.00004	-.00021	.00005	.00011	.00260	-.00014	.00194	-.00011
#3	-.00038	-.00020	-.00012	-.00002	.00338	-.00019	.00197	.00024

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	**.00046**	**.00170**	**.00016**	**-.00085**	**.00007**	**.00051**	**.00067**
Stddev	.00004	.00014	.00002	.00003	.00002	.00016	.00043
%RSD	8.1233	8.5080	12.406	3.9370	32.702	31.075	64.847
#1	.00050	.00173	.00015	-.00084	.00009	.00041	.00105
#2	.00045	.00182	.00018	-.00089	.00005	.00043	.00020
#3	.00042	.00154	.00014	-.00083	.00008	.00069	.00075

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S0 Acquired: 6/12/2025 17:12:37 Type: Cal
Method: 6010-200.7 NEW(v8) 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	3025.6	71263.	16405.	2581.4	4406.5
Stddev	75.8	39.	11.	15.5	67.8
%RSD	2.5057	.05512	.06681	.59894	1.5378
#1	3102.3	71270.	16404.	2580.9	4476.8
#2	3023.9	71221.	16415.	2597.1	4401.0
#3	2950.7	71299.	16394.	2566.2	4341.6

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S1 Acquired: 6/12/2025 17:17:01 Type: Cal
Method: 6010-200.7 NEW(v8) 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	.00133	.00401	.00263	.00195	.00864	.01236	.21256	.01742
Stddev	.00010	.00030	.00012	.00011	.00016	.00022	.00323	.00037
%RSD	7.5302	7.5009	4.3809	5.5186	1.8261	1.7557	1.5201	2.1504
#1	.00123	.00382	.00262	.00204	.00848	.01258	.21465	.01785
#2	.00143	.00436	.00253	.00183	.00867	.01235	.21420	.01723
#3	.00134	.00386	.00275	.00198	.00879	.01215	.20884	.01717

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	.01531	.15783	.00178	.02945	.01580	.00078	.01219	.02861
Stddev	.00030	.00172	.00009	.00010	.00010	.00001	.00011	.00068
%RSD	1.9848	1.0895	5.0003	.32329	.60734	.88193	.89269	2.3871
#1	.01546	.15884	.00172	.02936	.01569	.00078	.01225	.02876
#2	.01496	.15881	.00188	.02945	.01588	.00078	.01225	.02919
#3	.01550	.15584	.00174	.02955	.01583	.00077	.01206	.02786

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	.02383	.00266	.05682	.00543	.11510	.01829	.03344	.17104
Stddev	.00020	.00007	.00058	.00021	.00060	.00027	.00066	.00126
%RSD	.84021	2.7348	1.0255	3.9373	.52122	1.4774	1.9816	.73381
#1	.02372	.00273	.05627	.00554	.11442	.01808	.03406	.17152
#2	.02372	.00266	.05676	.00518	.11557	.01819	.03353	.17199
#3	.02407	.00258	.05743	.00556	.11530	.01859	.03274	.16962

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	.00612	.01896	.00215	-.00021	.00074	.01855	.18456
Stddev	.00009	.00018	.00006	.00007	.00005	.00014	.00104
%RSD	1.5333	.94227	2.5669	32.059	6.4504	.73368	.56401
#1	.00603	.01904	.00209	-.00015	.00079	.01860	.18400
#2	.00610	.01876	.00215	-.00028	.00070	.01840	.18392
#3	.00622	.01909	.00220	-.00020	.00073	.01866	.18576

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S1 Acquired: 6/12/2025 17:17:01 Type: Cal
Method: 6010-200.7 NEW(v8) 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	2995.6	70224.	16829.	2572.2	4273.4
Stddev	93.2	478.	48.	51.2	88.0
%RSD	3.1097	.68050	.28363	1.9886	2.0598
#1	2925.0	70690.	16775.	2627.0	4208.8
#2	2960.5	70247.	16845.	2563.9	4237.7
#3	3101.2	69735.	16866.	2525.7	4373.6

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S2 Acquired: 6/12/2025 17:21:21 Type: Cal
Method: 6010-200.7 NEW(v8) 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	.05278	.08406	.18182	.06130	.13516	.18267	3.4180	.11031
Stddev	.00019	.00018	.00050	.00011	.00069	.00106	.0182	.00064
%RSD	.36252	.20888	.27689	.17370	.51288	.57890	.53226	.58031
#1	.05290	.08424	.18136	.06137	.13538	.18156	3.4276	.11104
#2	.05256	.08389	.18173	.06118	.13439	.18281	3.3970	.10984
#3	.05289	.08405	.18236	.06136	.13572	.18366	3.4294	.11004

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0080	.30472	.02676	.38948	.15665	.00566	.22302	.05159
Stddev	.0031	.00114	.00015	.00100	.00076	.00001	.00087	.00029
%RSD	.30601	.37440	.54186	.25662	.48725	.16463	.39175	.56737
#1	1.0080	.30589	.02693	.38934	.15593	.00567	.22400	.05185
#2	1.0050	.30468	.02664	.38855	.15656	.00567	.22232	.05163
#3	1.0112	.30361	.02673	.39054	.15745	.00565	.22275	.05127

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	.23659	.05580	.11219	.05450	1.1026	.03634	.24946	.67670
Stddev	.00110	.00015	.00030	.00018	.0047	.00018	.00191	.00048
%RSD	.46295	.27461	.27050	.33549	.42500	.48817	.76622	.07031
#1	.23645	.05597	.11223	.05432	1.1080	.03639	.25165	.67665
#2	.23557	.05570	.11187	.05448	1.0995	.03615	.24814	.67625
#3	.23775	.05572	.11247	.05469	1.1003	.03650	.24859	.67720

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	.11545	.35195	.00433	.02465	.02211	.69828	7.3803
Stddev	.00022	.00237	.00003	.00008	.00008	.00402	.0378
%RSD	.18770	.67311	.64798	.30699	.34340	.57620	.51247
#1	.11524	.35229	.00432	.02471	.02219	.69874	7.4104
#2	.11545	.34943	.00432	.02457	.02204	.69404	7.3927
#3	.11567	.35413	.00437	.02466	.02210	.70205	7.3379

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S2 Acquired: 6/12/2025 17:21:21 Type: Cal
Method: 6010-200.7 NEW(v8) 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	**2958.8**	**70905.**	**16884.**	**2597.8**	**4147.1**
Stddev	3.0	121.	59.	9.9	8.5
%RSD	.10225	.17086	.34691	.38214	.20395
#1	2960.1	70768.	16818.	2586.3	4150.8
#2	2960.9	70949.	16928.	2603.8	4153.1
#3	2955.3	70998.	16906.	2603.3	4137.4

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S3 Acquired: 6/12/2025 17:25:28 Type: Cal
Method: 6010-200.7 NEW(v8) 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	.17182	.26943	.57919	.19866	.43622	.56857	10.806	.36582
Stddev	.00070	.00216	.00148	.00098	.00208	.00107	.055	.00228
%RSD	.40990	.80264	.25498	.49549	.47715	.18735	.50474	.62279
#1	.17114	.26701	.57807	.19754	.43504	.56821	10.746	.36757
#2	.17176	.27118	.57863	.19904	.43499	.56773	10.853	.36666
#3	.17255	.27009	.58086	.19939	.43862	.56977	10.819	.36324

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	3.2339	.95561	.08503	1.2455	.49672	.01776	.69999	.16577
Stddev	.0036	.00619	.00056	.0034	.00161	.00012	.00213	.00112
%RSD	.11080	.64820	.66334	.26934	.32376	.67742	.30444	.67468
#1	3.2320	.96242	.08552	1.2440	.49605	.01789	.70231	.16702
#2	3.2317	.95409	.08515	1.2432	.49555	.01774	.69954	.16542
#3	3.2381	.95032	.08441	1.2494	.49855	.01765	.69812	.16487

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	.75246	.17860	.35693	.17549	3.4047	.11625	.81541	2.1339
Stddev	.00205	.00071	.00100	.00011	.0123	.00030	.00490	.0080
%RSD	.27222	.39638	.27957	.06108	.36061	.25420	.60144	.37356
#1	.75200	.17896	.35580	.17538	3.4164	.11597	.81889	2.1273
#2	.75068	.17905	.35728	.17560	3.3919	.11623	.81754	2.1316
#3	.75470	.17778	.35770	.17550	3.4058	.11656	.80980	2.1427

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	.36928	1.1141	.01374	.08335	.07298	2.2256	23.329
Stddev	.00124	.0013	.00006	.00019	.00012	.0122	.577
%RSD	.33452	.12055	.41641	.23090	.16115	.54812	2.4749
#1	.36819	1.1153	.01373	.08330	.07289	2.2116	22.667
#2	.36904	1.1127	.01380	.08318	.07293	2.2339	23.592
#3	.37062	1.1144	.01368	.08356	.07311	2.2314	23.727

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S3 Acquired: 6/12/2025 17:25:28 Type: Cal
Method: 6010-200.7 NEW(v8) 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	**2884.3**	**68710.**	**16373.**	**2543.5**	**3954.4**
Stddev	15.1	120.	26.	12.4	17.7
%RSD	.52396	.17432	.15582	.48882	.44782
#1	2890.9	68575.	16346.	2542.7	3962.6
#2	2895.1	68804.	16377.	2556.3	3966.6
#3	2867.1	68751.	16397.	2531.5	3934.1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S4 Acquired: 6/12/2025 17:29:41 Type: Cal
Method: 6010-200.7 NEW(v8) 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	.34322	.54334	1.1550	.39492	.87103	1.1456	21.844	.71735
Stddev	.00228	.00583	.0025	.00280	.00816	.0023	.199	.00155
%RSD	.66500	1.0722	.21272	.70787	.93660	.19931	.91300	.21596
#1	.34269	.54924	1.1523	.39466	.87196	1.1448	21.697	.71607
#2	.34124	.54319	1.1570	.39226	.86244	1.1437	21.763	.71692
#3	.34572	.53759	1.1557	.39784	.87868	1.1481	22.071	.71907

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	6.5150	1.8904	.16490	2.5053	.97195	.03463	1.3907	.33086
Stddev	.0241	.0065	.00031	.0059	.00677	.00010	.0016	.00089
%RSD	.37051	.34520	.18958	.23693	.69692	.27558	.11252	.26796
#1	6.4917	1.8974	.16506	2.4986	.97214	.03474	1.3923	.33172
#2	6.5399	1.8845	.16454	2.5100	.96508	.03460	1.3905	.32995
#3	6.5134	1.8893	.16511	2.5072	.97862	.03456	1.3892	.33091

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5012	.35038	.70986	.35180	6.5915	.23264	1.6198	4.2318
Stddev	.0039	.00032	.00098	.00068	.0091	.00029	.0043	.0251
%RSD	.25709	.09166	.13789	.19325	.13748	.12386	.26232	.59310
#1	1.4969	.35045	.70874	.35105	6.5813	.23292	1.6159	4.2365
#2	1.5042	.35003	.71057	.35198	6.5987	.23266	1.6191	4.2047
#3	1.5026	.35066	.71026	.35237	6.5944	.23235	1.6243	4.2542

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	.74243	2.2435	.02725	.17291	.14931	4.5626	46.915
Stddev	.00331	.0028	.00011	.00031	.00034	.0163	.295
%RSD	.44521	.12490	.38683	.17647	.22677	.35660	.62893
#1	.73971	2.2449	.02716	.17258	.14948	4.5466	46.597
#2	.74611	2.2403	.02722	.17297	.14953	4.5621	46.971
#3	.74147	2.2453	.02736	.17319	.14892	4.5792	47.179

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S4 Acquired: 6/12/2025 17:29:41 Type: Cal
Method: 6010-200.7 NEW(v8) 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	2852.4	68161.	15969.	2465.1	3827.5
Stddev	38.5	135.	23.	10.0	32.5
%RSD	1.3507	.19747	.14453	.40403	.84866
#1	2835.9	68030.	15954.	2471.1	3809.3
#2	2896.4	68154.	15995.	2453.6	3865.0
#3	2824.8	68299.	15958.	2470.6	3808.2

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S5 Acquired: 6/12/2025 17:33:52 Type: Cal
Method: 6010-200.7 NEW(v8) 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	.70960	1.0481	2.3124	.81253	1.8047	2.4216	44.295	1.4941
Stddev	.00184	.0043	.0045	.00307	.0078	.0076	.225	.0078
%RSD	.25953	.40854	.19449	.37816	.42972	.31271	.50720	.51996
#1	.70913	1.0530	2.3171	.81192	1.8009	2.4145	44.182	1.4851
#2	.70804	1.0453	2.3081	.80981	1.7995	2.4207	44.149	1.4987
#3	.71163	1.0459	2.3120	.81586	1.8136	2.4296	44.554	1.4984

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	13.106	3.8540	.32727	5.0822	1.9751	.06949	2.8307	.69009
Stddev	.016	.0052	.00098	.0098	.0075	.00019	.0077	.00148
%RSD	.12116	.13513	.29900	.19231	.38013	.27717	.27302	.21477
#1	13.122	3.8489	.32718	5.0920	1.9734	.06963	2.8218	.69000
#2	13.090	3.8593	.32634	5.0725	1.9687	.06927	2.8343	.69162
#3	13.106	3.8537	.32829	5.0819	1.9834	.06955	2.8359	.68866

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.0350	.71817	1.4856	.72333	13.235	.48343	3.3590	8.4485
Stddev	.0047	.00186	.0088	.00154	.010	.00277	.0082	.0246
%RSD	.15614	.25946	.59074	.21276	.07450	.57256	.24356	.29114
#1	3.0402	.71763	1.4844	.72168	13.228	.48180	3.3501	8.4513
#2	3.0310	.71663	1.4775	.72358	13.229	.48188	3.3662	8.4227
#3	3.0337	.72024	1.4949	.72472	13.246	.48663	3.3608	8.4716

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4818	4.6024	.05676	.35742	.31386	9.7390	95.048
Stddev	.0025	.0139	.00021	.00056	.00026	.0643	.238
%RSD	.16917	.30127	.36516	.15612	.08258	.66007	.25069
#1	1.4846	4.5885	.05679	.35740	.31371	9.6827	94.784
#2	1.4798	4.6023	.05654	.35686	.31370	9.7253	95.247
#3	1.4811	4.6163	.05695	.35798	.31416	9.8090	95.113

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: S5 Acquired: 6/12/2025 17:33:52 Type: Cal
Method: 6010-200.7 NEW(v8) 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	**2638.6**	**64283.**	**14867.**	**2301.1**	**3498.2**
Stddev	12.2	194.	48.	.6	10.1
%RSD	.46183	.30213	.32277	.02609	.28834
#1	2639.5	64287.	14922.	2301.0	3494.9
#2	2650.2	64475.	14839.	2301.8	3509.5
#3	2625.9	64086.	14840.	2300.6	3490.1

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICV01 Acquired: 6/12/2025 17:58:15 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**3.860894**	**4.007298**	**3.984210**	**3.834372**	**3.911778**	**7.622595**
Stddev	.008915	.035989	.045675	.006993	.024904	.020685
%RSD	.2309096	.8980872	1.146390	.1823793	.6366491	.2713626
#1	3.857755	4.042854	3.942295	3.842183	3.938166	7.641329
#2	3.853973	4.008149	3.977446	3.832240	3.908480	7.626060
#3	3.870954	3.970891	4.032889	3.828693	3.888686	7.600396

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.691643**	**.2183577**	**2.021260**	**19.68381**	**.8397003**	**2.035569**
Stddev	.034551	.0062018	.030608	.11949	.0115451	.017808
%RSD	.4491981	2.840204	1.514287	.6070273	1.374903	.8748470
#1	7.724889	.2168757	1.993192	19.78876	.8358709	2.019876
#2	7.694117	.2251662	2.016696	19.55378	.8526735	2.031907
#3	7.655921	.2130311	2.053894	19.70890	.8305565	2.054923

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.000428**	**4.140277**	**1.957935**	**19.59609**	**2.059047**	**.9628676**
Stddev	.002874	.075896	.011861	.10153	.023443	.0040575
%RSD	.2872934	1.833113	.6057897	.5181235	1.138557	.4213934
#1	1.003457	4.163592	1.969883	19.66419	2.037813	.9590163
#2	1.000089	4.055459	1.946163	19.47939	2.055124	.9671038
#3	.997738	4.201781	1.957759	19.64468	2.084205	.9624828

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.76854**	**1.956363**	**2.037909**	**19.97698**	**3.865182**	**3.989754**
Stddev	.20564	.006266	.005832	.23171	.069962	.012008
%RSD	1.040256	.3202850	.2861551	1.159870	1.810061	.3009724
#1	19.77072	1.963587	2.039724	20.02017	3.847336	4.001479
#2	19.56181	1.952406	2.042618	19.72671	3.942339	3.990300
#3	19.97308	1.953096	2.031386	20.18405	3.805872	3.977481

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICV01 Acquired: 6/12/2025 17:58:15 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**4.134804**	**3.902232**	**3.688216**	F **-.002148**	F **.0273716**	F **-.000699**
Stddev	.047947	.016005	.069132	.002788	.0015880	.000380
%RSD	1.159604	.4101491	1.874412	129.8187	5.801533	54.28316
#1	4.093356	3.920644	3.691775	-.003749	.0255447	-.000855
#2	4.123741	3.894407	3.617372	-.003766	.0284205	-.000976
#3	4.187316	3.891645	3.755500	.001072	.0281497	-.000267

Elem	Sr4077
Units	ppm
Avg	F **-.003758**
Stddev	.000060
%RSD	1.608660
#1	-.003769
#2	-.003692
#3	-.003812

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3032.984**	**68751.03**	**16779.20**	**2604.503**	**4044.555**
Stddev	60.993	828.29	55.62	73.840	54.392
%RSD	2.010975	1.204772	.3314718	2.835088	1.344823
#1	2978.104	68594.17	16717.43	2582.842	3996.766
#2	3022.199	69646.54	16794.87	2686.751	4033.156
#3	3098.650	68012.38	16825.31	2543.916	4103.744

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: LLICV01 Acquired: 6/12/2025 18:02:42 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0219563	.0408708	.0129906	.0209578	.0490627	.1017550	.0952351
Stddev	.0009683	.0016298	.0002757	.0004874	.0006922	.0007886	.0003321
%RSD	4.410345	3.987785	2.122016	2.325741	1.410916	.7750015	.3486723
#1	.0228755	.0394937	.0127633	.0211778	.0494287	.1019844	.0953628
#2	.0220480	.0404485	.0132972	.0212964	.0494951	.1008772	.0948581
#3	.0209454	.0426702	.0129113	.0203992	.0482643	.1024035	.0954843

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062298	.0059619	1.987961	.0104082	.0296995	.0212345	.1074343
Stddev	.0003390	.0001581	.009577	.0004403	.0001158	.0000564	.0055485
%RSD	5.442198	2.651271	.4817398	4.229932	.3897621	.2656376	5.164515
#1	.0066187	.0057814	1.980363	.0108991	.0296706	.0212984	.1039265
#2	.0060744	.0060755	1.984800	.0100484	.0296009	.0212132	.1045451
#3	.0059963	.0060289	1.998718	.0102771	.0298269	.0211918	.1138311

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0212046	2.053651	.0404810	.0098065	1.943694	.0374504	.0425345
Stddev	.0002834	.023684	.0002363	.0002122	.030346	.0004936	.0004240
%RSD	1.336491	1.153262	.5836487	2.163407	1.561277	1.318001	.9968189
#1	.0208908	2.062480	.0405225	.0100512	1.908691	.0369299	.0420570
#2	.0212811	2.026821	.0402267	.0096931	1.962602	.0379118	.0428670
#3	.0214418	2.071653	.0406937	.0096750	1.959790	.0375095	.0426794

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.896715	.1053066	.2006434	.0397229	.0378746	.3664003	.0171193
Stddev	.033631	.0027490	.0000428	.0013662	.0007215	.0040639	.0007023
%RSD	1.773095	2.610426	.0213388	3.439205	1.904975	1.109131	4.102639
#1	1.862115	.1084621	.2006309	.0381997	.0376060	.3617813	.0167501
#2	1.898746	.1040265	.2006911	.0408399	.0386919	.3694264	.0179293
#3	1.929284	.1034311	.2006082	.0401291	.0373259	.3679934	.0166786

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: LLICV01 Acquired: 6/12/2025 18:02:42 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0233659	.0193987	.0196804
Stddev	.0021341	.0003190	.0001638
%RSD	9.133331	1.644701	.8324143
#1	.0225047	.0193474	.0197777
#2	.0217969	.0191084	.0197723
#3	.0257960	.0197403	.0194913

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3122.968	71619.72	16950.75	2727.318	4391.080
Stddev	41.104	1272.50	35.85	140.921	35.017
%RSD	1.316196	1.776745	.2114708	5.167003	.7974620
#1	3088.748	73064.60	16936.83	2887.918	4363.246
#2	3111.595	71128.61	16923.95	2669.699	4379.597
#3	3168.562	70665.97	16991.47	2624.337	4430.397

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICB01 Acquired: 6/12/2025 18:06:59 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0001475	.0003909	.0004674	.0021332	.0007344	.0101521	-.000691
Stddev	.0010111	.0009595	.0002092	.0028283	.0005791	.0028158	.000336
%RSD	685.5471	245.4348	44.76863	132.5826	78.85188	27.73663	48.61041
#1	.0001225	-.000499	.0006513	-.001125	.0001204	.0083198	-.000446
#2	-.000851	.001407	.0002397	.003950	.0008122	.0087420	-.001074
#3	.001171	.000265	.0005112	.003576	.0012707	.0133944	-.000554

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000455	-.000041	.0178408	.0012997	.0001275	.0002193	.0397976
Stddev	.0000504	.000045	.0012953	.0000919	.0002235	.0003305	.0031664
%RSD	110.6565	111.8283	7.260564	7.068545	175.3796	150.7475	7.956127
#1	.0000377	.000009	.0166736	.0011978	.0003855	.0000356	.0386943
#2	.0000994	-.000052	.0192344	.0013253	-.000004	.0000214	.0373305
#3	-.000000	-.000079	.0176144	.0013761	.000001	.0006008	.0433680

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009175	.0306965	.0004574	.0000391	.0172264	-.000853	.0007971
Stddev	.0001018	.0063996	.0003739	.0004548	.0043937	.001022	.0003429
%RSD	11.09435	20.84806	81.73291	1163.768	25.50533	119.8592	43.02071
#1	.0008370	.0375544	.0007147	.0005618	.0130148	-.000250	.0010814
#2	.0010319	.0248839	.0006291	-.000265	.0168826	-.002033	.0004163
#3	.0008837	.0296512	.0000285	-.000180	.0217819	-.000275	.0008936

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028314	.0044441	.0003237	.0016451	.0010097	.0148131	.0011057
Stddev	.003641	.0002345	.0003069	.0003750	.0004345	.0056383	.0044005
%RSD	12.86018	5.275540	94.82167	22.79595	43.02629	38.06282	397.9862
#1	-.028817	.0046619	.0006781	.0017166	.0014776	.0109720	.0061627
#2	-.024447	.0041960	.0001482	.0019792	.0009325	.0212860	-.000993
#3	-.031677	.0044744	.0001448	.0012394	.0006191	.0121812	-.001853

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICB01 Acquired: 6/12/2025 18:06:59 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0032350	.0008011	-.000050
Stddev	.0027846	.0004659	.000029
%RSD	86.07788	58.15045	56.70255
#1	.0017139	.0013382	-.000062
#2	.0064489	.0005588	-.000071
#3	.0015422	.0005064	-.000018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3077.137	71426.77	17152.50	2666.342	4439.268
Stddev	6.158	46.25	23.62	7.400	6.080
%RSD	.2001073	.0647568	.1376933	.2775249	.1369496
#1	3076.967	71408.81	17132.54	2663.457	4445.435
#2	3083.378	71392.19	17146.39	2660.820	4439.088
#3	3071.066	71479.31	17178.58	2674.750	4433.280

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CRI01 Acquired: 6/12/2025 18:12:07 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0206971	.0425477	.0119447	.0209774	.0501363	.1014041	.0985912
Stddev	.0000710	.0002231	.0008825	.0007805	.0006948	.0021033	.0006764
%RSD	.3429641	.5242739	7.388021	3.720426	1.385874	2.074215	.6860546
#1	.0207544	.0425736	.0110289	.0218574	.0499443	.1014217	.0979186
#2	.0206177	.0423128	.0120158	.0203692	.0509069	.1034985	.0985837
#3	.0207192	.0427567	.0127896	.0207056	.0495577	.0992920	.0992713

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061409	.0060094	2.054875	.0111164	.0297573	.0217537	.1121705
Stddev	.0001434	.0000698	.015600	.0001921	.0002986	.0001179	.0017314
%RSD	2.334709	1.161303	.7591563	1.728225	1.003603	.5422083	1.543550
#1	.0062509	.0059402	2.039888	.0112150	.0295522	.0218719	.1102024
#2	.0061930	.0060083	2.053715	.0108950	.0296197	.0216360	.1134589
#3	.0059787	.0060798	2.071022	.0112392	.0300999	.0217531	.1128504

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214392	2.122493	.0410016	.0105607	2.010844	.0392719	.0433532
Stddev	.0002886	.036375	.0005181	.0003421	.012555	.0009752	.0004365
%RSD	1.345945	1.713786	1.263710	3.239383	.6243505	2.483238	1.006909
#1	.0217674	2.100890	.0405984	.0102509	2.005135	.0393198	.0429868
#2	.0212249	2.102100	.0408204	.0105035	2.002158	.0382736	.0432365
#3	.0213254	2.164490	.0415860	.0109278	2.025238	.0402223	.0438362

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959307	.0970199	.2035219	.0405299	.0385745	.3690188	.0162702
Stddev	.022433	.0009622	.0011460	.0007999	.0005122	.0087951	.0026040
%RSD	1.144929	.9917409	.5631041	1.973499	1.327771	2.383384	16.00466
#1	1.941819	.0980205	.2047624	.0409352	.0380381	.3588821	.0186859
#2	1.951501	.0969378	.2033008	.0396085	.0390585	.3735495	.0135119
#3	1.984599	.0961014	.2025025	.0410460	.0386269	.3746249	.0166127

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CRI01 Acquired: 6/12/2025 18:12:07 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0226046	.0198151	.0204848
Stddev	.0035247	.0004606	.0000618
%RSD	15.59268	2.324231	.3016921
#1	.0254642	.0202915	.0205012
#2	.0186668	.0197813	.0205367
#3	.0236830	.0193723	.0204165

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2991.934	71102.15	17140.39	2663.016	4264.185
Stddev	66.539	540.96	57.77	51.905	54.577
%RSD	2.223938	.7608165	.3370297	1.949124	1.279897
#1	2952.682	71576.68	17103.38	2720.442	4229.151
#2	2954.360	71216.67	17110.84	2649.165	4236.335
#3	3068.761	70513.11	17206.96	2619.441	4327.068

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSA01 Acquired: 6/12/2025 18:23:55 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035479**	**-.001120**	**.0010946**	**.0017720**	**-.001937**	**228.3734**
Stddev	.0028227	.001404	.0003751	.0030074	.004013	.5031
%RSD	79.55857	125.3634	34.27361	169.7198	207.2272	.2202879
#1	.0005253	.000459	.0012878	.0034175	.002688	228.3088
#2	.0040032	-.002229	.0013337	.0035974	-.004497	228.9057
#3	.0061153	-.001591	.0006622	-.001699	-.004001	227.9058

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010124**	**.0009903**	**.0052483**	**217.2968**	**.0435379**	**.0018063**
Stddev	.0000378	.0001125	.0000848	.8597	.0004614	.0000532
%RSD	3.736424	11.35560	1.616224	.3956478	1.059699	2.947260
#1	.0010343	.0011080	.0052244	217.9412	.0432823	.0018676
#2	.0009687	.0008839	.0051779	217.6287	.0440705	.0017802
#3	.0010342	.0009792	.0053425	216.3206	.0432609	.0017711

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.010418**	**87.09221**	**.0046786**	**240.0433**	**.0033527**	**-.000974**
Stddev	.000273	.07884	.0002292	.9053	.0000302	.000124
%RSD	2.617001	.0905267	4.897950	.3771345	.9000006	12.72041
#1	-.010523	87.09158	.0045568	240.7102	.0033816	-.001061
#2	-.010108	87.01368	.0049430	240.4070	.0033214	-.001028
#3	-.010622	87.17136	.0045362	239.0127	.0033550	-.000832

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0336597**	**.0032861**	**.0061045**	**-.011772**	F **.1790279**	**.0010479**
Stddev	.0025466	.0007413	.0000610	.005819	.0005610	.0003444
%RSD	7.565749	22.55948	.9997783	49.42920	.3133554	32.87024
#1	.0347176	.0033092	.0061454	-.010056	.1783843	.0013306
#2	.0355068	.0040156	.0060343	-.007004	.1792858	.0006643
#3	.0307546	.0025335	.0061338	-.018256	.1794135	.0011488

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSA01 Acquired: 6/12/2025 18:23:55 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000055	-.002532	.0259779	.0014457	-.001389	-.000042
Stddev	.0018420	.000197	.0098682	.0026598	.001290	.000319
%RSD	33279.74	7.763959	37.98700	183.9812	92.90321	761.0816
#1	-.001821	-.002585	.0170990	.0044897	-.002340	.000018
#2	.001862	-.002696	.0242322	-.000430	-.001905	-.000386
#3	-.000025	-.002314	.0366024	.000277	.000080	.000243

Elem	Sr4077
Units	ppm
Avg	.0078495
Stddev	.0003285
%RSD	4.185317
#1	.0080435
#2	.0080348
#3	.0074702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.511	61667.24	14931.47	2261.548	3291.788
Stddev	5.536	79.03	79.62	2.982	3.998
%RSD	.2170426	.1281523	.5332464	.1318465	.1214549
#1	2544.149	61666.49	14874.76	2264.431	3288.696
#2	2553.155	61746.64	14897.15	2261.736	3296.303
#3	2554.228	61588.58	15022.50	2258.476	3290.364

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSAB01 Acquired: 6/12/2025 18:34:35 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.1053172	.0957778	.0473672	.0520620	.5644314	234.8600
Stddev	.0035515	.0045501	.0017963	.0040751	.0018221	.7534
%RSD	3.372214	4.750646	3.792296	7.827312	.3228265	.3208081
#1	.1044978	.0908210	.0468104	.0558906	.5656163	235.7295
#2	.1092068	.0997646	.0459153	.0525166	.5623333	234.4510
#3	.1022470	.0967479	.0493760	.0477787	.5653448	234.3994

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4669697	.4840689	.9767509	226.6742	.5337178	.4814898
Stddev	.0016990	.0010355	.0051302	.3766	.0033836	.0025767
%RSD	.3638304	.2139120	.5252333	.1661226	.6339623	.5351441
#1	.4671574	.4851835	.9824797	227.1089	.5317059	.4843301
#2	.4685670	.4831369	.9725810	226.4516	.5318233	.4793023
#3	.4651847	.4838864	.9751919	226.4619	.5376242	.4808370

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4457682	93.05256	.4671147	248.6189	.9589602	.2047359
Stddev	.0025150	.61005	.0007108	.5137	.0045069	.0023237
%RSD	.5641981	.6556006	.1521706	.2066255	.4699762	1.134972
#1	.4486467	92.68509	.4679088	249.1879	.9637852	.2035918
#2	.4446614	92.71583	.4665380	248.1892	.9548590	.2032060
#3	.4439963	93.75677	.4668973	248.4796	.9582365	.2074098

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0322531	.4577468	1.025722	-.027741	F 1.199937	1.030893
Stddev	.0018002	.0011456	.006797	.013722	.004154	.005280
%RSD	5.581601	.2502594	.6626096	49.46668	.3462057	.5121451
#1	.0311057	.4581733	1.022398	-.033587	1.200778	1.036849
#2	.0313256	.4564492	1.021227	-.037571	1.195427	1.029043
#3	.0343280	.4586180	1.033541	-.012063	1.203607	1.026788

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSAB01 Acquired: 6/12/2025 18:34:35 Type: Unk
Method: 6010-200.7 NEW(v8) 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	1.056066	1.004709	1.020217	F .0012478	F -.001342	F .0008783
Stddev	.004858	.001992	.010212	.0018589	.000653	.0006509
%RSD	.4599794	.1983031	1.000952	148.9777	48.66300	74.11603
#1	1.061059	1.005481	1.008717	.0022150	-.002096	.0004743
#2	1.051356	1.006199	1.023709	-.000895	-.000981	.0016292
#3	1.055782	1.002446	1.028225	.002424	-.000949	.0005313

Elem	Sr4077
Units	ppm
Avg	F .0050094
Stddev	.0007433
%RSD	14.83878
#1	.0054957
#2	.0053789
#3	.0041538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.970	61430.72	15339.54	2291.709	3377.456
Stddev	10.963	424.25	26.63	9.844	13.469
%RSD	.4143366	.6906144	.1736062	.4295392	.3987936
#1	2633.436	61727.70	15313.11	2298.953	3363.887
#2	2653.771	61619.64	15339.15	2295.673	3390.822
#3	2650.705	60944.83	15366.37	2280.501	3377.658

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSADLX20 Acquired: 6/12/2025 18:38:53 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.0011310**	**.0003718**	**-.001071**	**.0035552**	**.0010134**	**11.82362**	**.0006275**
Stddev	.0005580	.0017334	.000438	.0010819	.0003912	.02987	.0007512
%RSD	49.33564	466.1768	40.87764	30.43039	38.60121	.2525924	119.7136
#1	.0005000	.0011619	-.000593	.0044314	.0009396	11.83403	-.000151
#2	.0013339	.0015694	-.001166	.0023460	.0014363	11.84689	.000686
#3	.0015593	-.001616	-.001453	.0038882	.0006644	11.78994	.001348

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001817**	**.0001382**	**12.11191**	**.0038302**	**.0002186**	**-.000542**	**4.940504**
Stddev	.0000429	.0000662	.01241	.0003433	.0001335	.000062	.016178
%RSD	23.63195	47.92392	.1024520	8.962267	61.06162	11.48803	.3274609
#1	.0001501	.0000970	12.11253	.0034563	.0003723	-.000472	4.955651
#2	.0002305	.0001030	12.12400	.0041312	.0001320	-.000563	4.942400
#3	.0001643	.0002146	12.09920	.0039032	.0001515	-.000591	4.923462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009193**	**12.44839**	**.0008745**	**-.000264**	**.0124170**	**-.000693**	**.0014161**
Stddev	.0004109	.03617	.0001729	.000132	.0034066	.000785	.0002794
%RSD	44.70135	.2905505	19.77320	49.98453	27.43490	113.3617	19.72903
#1	.0010650	12.43877	.0010432	-.000415	.0100724	-.001560	.0015091
#2	.0004554	12.48840	.0006977	-.000174	.0163246	-.000030	.0011021
#3	.0012376	12.41801	.0008825	-.000202	.0108540	-.000488	.0016372

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.027883**	**.0096670**	**.0002898**	**.0023231**	**.0002707**	**.0107808**	**-.001720**
Stddev	.006056	.0008886	.0000779	.0002452	.0003875	.0058642	.002284
%RSD	21.71848	9.191927	26.88131	10.55538	143.1356	54.39437	132.8363
#1	-.027693	.0105385	.0002676	.0023470	.0000872	.0089917	.000665
#2	-.034031	.0097003	.0003764	.0025554	.0007160	.0173312	-.001937
#3	-.021924	.0087623	.0002254	.0020668	.0000091	.0060196	-.003888

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSADLX20 Acquired: 6/12/2025 18:38:53 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0015677	.0007043	.0002091
Stddev	.0021725	.0003901	.0000239
%RSD	138.5754	55.39653	11.44738
#1	.0021302	.0003967	.0002347
#2	.0034037	.0011431	.0001872
#3	-.000831	.0005730	.0002056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3029.935	69646.74	16726.18	2641.987	4183.816
Stddev	16.441	98.25	35.03	16.043	18.708
%RSD	.5426034	.1410740	.2094537	.6072458	.4471495
#1	3023.532	69537.37	16719.31	2637.339	4188.128
#2	3048.613	69727.54	16695.09	2628.782	4199.992
#3	3017.659	69675.31	16764.14	2659.842	4163.329

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSABDLX20 Acquired: 6/12/2025 18:43:10 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044682	.0032191	.0024310	.0070088	.0279043	F 10.46240
Stddev	.0011528	.0009986	.0003769	.0013237	.0004727	.02102
%RSD	25.80006	31.02206	15.50377	18.88672	1.694143	.2009474
#1	.0032027	.0020662	.0020676	.0063360	.0281138	10.46588
#2	.0054585	.0038153	.0028201	.0061566	.0273631	10.43985
#3	.0047433	.0037758	.0024053	.0085338	.0282362	10.48146

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0225932	.0243855	.0475499	10.55965	.0286666	.0236396
Stddev	.0006163	.0003080	.0001392	.03984	.0000805	.0001985
%RSD	2.727688	1.263107	.2927994	.3772690	.2807363	.8395862
#1	.0218906	.0247411	.0474738	10.51549	.0286738	.0237780
#2	.0228466	.0242076	.0474652	10.57060	.0287432	.0234122
#3	.0230423	.0242077	.0477105	10.59287	.0285828	.0237285

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0237492	4.248693	.0252294	10.86391	.0481158	.0092079
Stddev	.0002470	.023550	.0001679	.08583	.0005467	.0001071
%RSD	1.040153	.5542890	.6654203	.7900660	1.136241	1.162935
#1	.0237715	4.228276	.0250494	10.82342	.0474883	.0093195
#2	.0234917	4.243346	.0253817	10.80581	.0483700	.0091059
#3	.0239843	4.274457	.0252571	10.96250	.0484892	.0091983

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106771	.0238453	.0504104	-.017618	.0587354	.0536522
Stddev	.0020251	.0010318	.0003017	.018838	.0006435	.0003906
%RSD	18.96663	4.327067	.5985525	106.9237	1.095592	.7279921
#1	.0091997	.0226981	.0501937	-.006684	.0594590	.0532043
#2	.0129855	.0246973	.0507550	-.006800	.0585196	.0538302
#3	.0098461	.0241406	.0502825	-.039370	.0582275	.0539220

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: ICSABDLX20 Acquired: 6/12/2025 18:43:10 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0542396	.0512966	.0619101	-.002715	.0031894	.0007861
Stddev	.0006359	.0003140	.0043716	.001386	.0041113	.0001479
%RSD	1.172349	.6120686	7.061208	51.05310	128.9064	18.81848
#1	.0542835	.0515258	.0595357	-.001140	.0071852	.0009470
#2	.0535829	.0509387	.0592394	-.003254	-.001028	.0006560
#3	.0548523	.0514253	.0669551	-.003750	.003411	.0007554

Elem	Sr4077
Units	ppm
Avg	.0002274
Stddev	.0000430
%RSD	18.92359
#1	.0002755
#2	.0001926
#3	.0002140

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2966.019	69558.91	16352.79	2596.739	4152.225
Stddev	17.002	121.21	40.85	23.404	18.624
%RSD	.5732232	.1742547	.2498236	.9012836	.4485359
#1	2984.943	69642.01	16320.68	2622.793	4170.833
#2	2961.079	69614.89	16398.78	2589.932	4152.257
#3	2952.033	69419.83	16338.92	2577.494	4133.585

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV01 Acquired: 6/12/2025 18:50:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**4.970375**	**5.073170**	**5.093393**	**4.967145**	**4.952713**	**9.879717**	**9.891730**
Stddev	.024224	.080013	.000626	.009741	.018298	.015538	.023502
%RSD	.4873651	1.577188	.0122832	.1961005	.3694445	.1572736	.2375943
#1	4.957606	5.103584	5.093041	4.958542	4.941350	9.895364	9.883456
#2	4.955206	5.133516	5.093023	4.965171	4.942968	9.864290	9.873485
#3	4.998312	4.982409	5.094115	4.977721	4.973820	9.879497	9.918251

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2581598**	**2.538384**	**25.44100**	**1.028140**	**2.507836**	**1.237070**	**4.887283**
Stddev	.0009815	.002041	.06575	.001684	.001831	.003505	.013524
%RSD	.3802038	.0804114	.2584466	.1638343	.0730164	.2833228	.2767218
#1	.2592880	2.536935	25.51099	1.029266	2.505729	1.233977	4.900936
#2	.2575020	2.540719	25.38053	1.028950	2.508735	1.236356	4.887022
#3	.2576893	2.537500	25.43147	1.026203	2.509043	1.240877	4.873892

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.504872**	**25.33845**	**2.534008**	**1.243258**	**23.80605**	**2.516070**	**2.499009**
Stddev	.008470	.06672	.001075	.000891	.02990	.003797	.013804
%RSD	.3381318	.2633080	.0424407	.0716348	.1255880	.1509129	.5523826
#1	2.514353	25.41270	2.535201	1.243753	23.77250	2.520348	2.513209
#2	2.498051	25.28353	2.533114	1.243791	23.82987	2.513101	2.498179
#3	2.502214	25.31912	2.533708	1.242230	23.81577	2.514761	2.485638

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.78827**	**5.090197**	**5.020588**	**5.100949**	**4.985730**	**4.776364**	**5.299000**
Stddev	.01406	.011730	.008416	.012903	.014511	.019085	.016216
%RSD	.0591161	.2304363	.1676317	.2529489	.2910523	.3995810	.3060138
#1	23.80070	5.103122	5.017564	5.109393	5.002478	4.765127	5.310025
#2	23.77301	5.087242	5.014102	5.107358	4.977801	4.765566	5.306594
#3	23.79111	5.080228	5.030099	5.086097	4.976911	4.798401	5.280381

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV01 Acquired: 6/12/2025 18:50:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**4.964250**	**4.817948**	**5.073723**
Stddev	.014537	.015348	.029479
%RSD	.2928379	.3185636	.5810054
#1	4.970675	4.835656	5.092588
#2	4.974469	4.809713	5.039754
#3	4.947608	4.808475	5.088828

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2892.703**	**69319.39**	**15705.29**	**2576.335**	**3857.157**
Stddev	15.189	64.17	50.15	5.269	11.088
%RSD	.5250923	.0925684	.3193069	.2045010	.2874597
#1	2898.931	69249.63	15647.42	2570.261	3862.512
#2	2903.790	69332.64	15732.44	2579.681	3864.550
#3	2875.390	69375.90	15736.00	2579.062	3844.408

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB01 Acquired: 6/12/2025 18:55:32 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.0012018**	**.0003106**	**.0008245**	**.0026668**	**.0009260**	**.0124964**	**-.000963**
Stddev	.0005990	.0005236	.0005194	.0012574	.0010335	.0014298	.000246
%RSD	49.83640	168.5397	62.99457	47.14984	111.6156	11.44171	25.56215
#1	.0005167	.0000091	.0004129	.0019825	.0000543	.0123529	-.001087
#2	.0016265	.0000076	.0006526	.0041180	.0020677	.0139926	-.001122
#3	.0014623	.0009152	.0014081	.0019000	.0006558	.0111438	-.000679

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000491**	**.0000585**	**.0369280**	**.0014968**	**.0001476**	**.0003887**	**.0110641**
Stddev	.0001008	.0000615	.0042514	.0002317	.0000773	.0000753	.0016996
%RSD	205.3982	105.1447	11.51254	15.48129	52.39379	19.37441	15.36147
#1	.0001481	.0000447	.0347670	.0015580	.0000583	.0003676	.0091042
#2	-.000053	.0001257	.0341913	.0016919	.0001909	.0004723	.0119564
#3	.000052	.0000051	.0418258	.0012407	.0001936	.0003262	.0121318

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022028**	**.0288038**	**.0005832**	**-.000437**	**.0169753**	**-.000184**	**.0015465**
Stddev	.0000886	.0174794	.0004135	.000174	.0037414	.000657	.0001661
%RSD	4.022791	60.68426	70.90939	39.71933	22.04064	356.8220	10.73737
#1	.0022745	.0087875	.0009987	-.000638	.0212384	-.000065	.0014398
#2	.0021037	.0410566	.0001716	-.000334	.0154499	.000405	.0017378
#3	.0022303	.0365673	.0005793	-.000340	.0142374	-.000893	.0014619

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.018397**	**.0042018**	**.0004408**	**.0036282**	**.0003187**	**.0094411**	**-.000968**
Stddev	.009353	.0005125	.0000531	.0004362	.0001283	.0067097	.001975
%RSD	50.83802	12.19604	12.05543	12.02211	40.26799	71.06969	204.1667
#1	-.009426	.0044747	.0003794	.0041295	.0001886	.0171716	-.001257
#2	-.017676	.0045200	.0004715	.0034195	.0004451	.0051287	.001137
#3	-.028090	.0036106	.0004714	.0033356	.0003223	.0060230	-.002783

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB01 Acquired: 6/12/2025 18:55:32 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0025099	.0015772	.0000926
Stddev	.0016590	.0004951	.0000362
%RSD	66.09760	31.39097	39.11614
#1	.0033077	.0019298	.0000806
#2	.0006027	.0010112	.0001333
#3	.0036193	.0017908	.0000639

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3024.976	71679.31	16309.25	2687.358	4305.997
Stddev	3.647	79.06	16.51	8.731	7.692
%RSD	.1205497	.1103037	.1012375	.3248886	.1786417
#1	3026.555	71624.04	16327.51	2684.644	4310.354
#2	3027.567	71769.88	16304.86	2680.307	4310.521
#3	3020.806	71644.02	16295.37	2697.124	4297.115

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2284-02 Acquired: 6/12/2025 18:59:51 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**-.040227**	**-.004058**	**-.009400**	**.3260650**	**.0628985**	**.2871447**
Stddev	.001071	.002326	.001256	.0088741	.0020719	.0006279
%RSD	2.661618	57.31498	13.35828	2.721561	3.293996	.2186834
#1	-.040788	-.001514	-.008276	.3332112	.0639836	.2864198
#2	-.040900	-.006076	-.010755	.3161320	.0605095	.2874953
#3	-.038992	-.004582	-.009169	.3288518	.0642025	.2875191

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.016008**	**.0002331**	**-.000356**	**.1372758**	**.0107052**	**.0031482**
Stddev	.000494	.0000533	.000048	.0038918	.0003121	.0001182
%RSD	3.087572	22.86882	13.62311	2.835029	2.914960	3.754856
#1	-.015510	.0001719	-.000399	.1414251	.0108220	.0031107
#2	-.016016	.0002583	-.000365	.1337067	.0103516	.0032806
#3	-.016498	.0002691	-.000303	.1366955	.0109420	.0030533

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176600**	**.8107633**	**.0533657**	**.0316233**	**.0011046**	**-.000057**
Stddev	.0001758	.0113073	.0002981	.0044616	.0000926	.000392
%RSD	.9953338	1.394650	.5586067	14.10846	8.385599	692.9970
#1	.0177946	.8119291	.0534584	.0280656	.0011865	-.000508
#2	.0174611	.8214425	.0530323	.0366290	.0010041	.000202
#3	.0177242	.7989182	.0536065	.0301753	.0011232	.000136

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.801978**	**.0000857**	**.0183394**	**615.8825**	**.0254965**	**.0107273**
Stddev	.012656	.0004170	.0005455	6.1825	.0007976	.0004209
%RSD	.2635604	486.7033	2.974295	1.003844	3.128258	3.923357
#1	4.802088	-.000319	.0177277	615.8241	.0248020	.0111062
#2	4.814578	.000062	.0187751	622.0940	.0263676	.0102743
#3	4.789267	.000514	.0185155	609.7294	.0253199	.0108014

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2284-02 Acquired: 6/12/2025 18:59:51 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.1225389	.0000921	.2256587	F 204.9045	1.752421	.0004219
Stddev	.0007464	.0005431	.0065646	3.3240	.005027	.0001965
%RSD	.6091406	589.8102	2.909085	1.622195	.2868493	46.57729
#1	.1216945	-.000375	.2312112	201.4337	1.747411	.0006473
#2	.1228115	.000688	.2273514	208.0589	1.757464	.0002864
#3	.1231107	-.000037	.2184135	205.2209	1.752389	.0003321

Elem	Sr4077
Units	ppm
Avg	.0000235
Stddev	.0000244
%RSD	104.1181
#1	.0000513
#2	.0000133
#3	.0000057

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1909.220	49732.15	15098.06	1634.426	3126.912
Stddev	48.859	214.87	27.64	16.293	44.434
%RSD	2.559129	.4320478	.1830559	.9968492	1.421012
#1	1860.341	49882.51	15129.08	1641.629	3085.126
#2	1958.060	49486.06	15089.08	1615.773	3173.589
#3	1909.260	49827.88	15076.03	1645.876	3122.022

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2286-03 Acquired: 6/12/2025 19:04:43 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.4961160**	**-.003538**	**1.061914**	**.0108015**	**.0488681**	**77.31026**
Stddev	.0007622	.001955	.006352	.0027823	.0006366	.40944
%RSD	.1536333	55.27637	.5981366	25.75877	1.302677	.5296064
#1	.4960542	-.005653	1.067189	.0096926	.0481350	77.19062
#2	.4969072	-.001795	1.054864	.0087446	.0491869	77.76620
#3	.4953866	-.003165	1.063691	.0139673	.0492822	76.97397

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8032930**	**.0048250**	**.0150177**	**129.6490**	**.1400676**	**.0634248**
Stddev	.0090954	.0000630	.0002988	1.8622	.0015048	.0003675
%RSD	1.132258	1.305496	1.989918	1.436363	1.074360	.5793816
#1	.8029926	.0048496	.0151233	128.3877	.1402776	.0633817
#2	.8125348	.0048720	.0152494	128.7714	.1414563	.0630808
#3	.7943515	.0047534	.0146804	131.7879	.1384687	.0638119

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7178666**	**106.0500**	**1.427807**	**34.24358**	**.1613094**	**.0036810**
Stddev	.0025733	2.6477	.015022	.67184	.0006877	.0009201
%RSD	.3584710	2.496632	1.052111	1.961952	.4263378	24.99521
#1	.7160563	104.5244	1.416390	33.75514	.1620032	.0032730
#2	.7167311	104.5184	1.422207	33.96584	.1606280	.0030354
#3	.7208124	109.1073	1.444825	35.00976	.1612969	.0047345

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**311.5197**	**.3626452**	**5.006061**	**40.51066**	**.6821347**	**.1867678**
Stddev	12.9585	.0023615	.020153	.16980	.0030733	.0001894
%RSD	4.159775	.6511916	.4025790	.4191565	.4505457	.1014238
#1	297.0547	.3612250	4.987617	40.37672	.6785881	.1869409
#2	315.4364	.3613394	5.002994	40.45363	.6840169	.1865654
#3	322.0681	.3653713	5.027572	40.70164	.6837990	.1867971

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2286-03 Acquired: 6/12/2025 19:04:43 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0093185	2.191393	F 113.4036	6.194097	F 141.0785	.0868709
Stddev	.0012614	.010289	1.7752	.034014	.7056	.0004536
%RSD	13.53688	.4694992	1.565412	.5491290	.5001767	.5221211
#1	.0107609	2.181099	112.4424	6.227140	141.6712	.0867617
#2	.0084214	2.201676	112.3162	6.159190	140.2979	.0873691
#3	.0087733	2.191404	115.4521	6.195960	141.2662	.0864819

Elem	Sr4077
Units	ppm
Avg	.8051546
Stddev	.0073709
%RSD	.9154692
#1	.8105435
#2	.8081656
#3	.7967549

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2820.850	66546.13	16889.52	2420.028	3392.405
Stddev	27.063	434.64	58.87	51.900	24.568
%RSD	.9593816	.6531355	.3485775	2.144603	.7242187
#1	2851.326	66739.68	16889.25	2438.909	3419.579
#2	2811.592	66850.36	16830.78	2459.844	3385.876
#3	2799.631	66048.34	16948.53	2361.331	3371.761

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168414BL Acquired: 6/12/2025 19:09:04 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0012269	.0000082	.0004392	.0060697	.0065072	.0097359
Stddev	.0013998	.0002169	.0003689	.0010347	.0017019	.0030858
%RSD	114.0988	2658.500	83.98125	17.04648	26.15425	31.69571
#1	.0027991	-.000218	.0008300	.0066434	.0083058	.0094801
#2	.0001157	.000027	.0003906	.0048753	.0049222	.0067858
#3	.0007659	.000215	.0000971	.0066906	.0062936	.0129416

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004884	-.000025	.0000081	.0152923	.0006537	.0001269
Stddev	.000386	.000044	.0000674	.0024689	.0000354	.0001698
%RSD	7.894370	179.1721	830.0205	16.14458	5.414566	133.8206
#1	-.005037	-.000001	.0000288	.0151389	.0006162	.0000996
#2	-.005170	.000002	-.000067	.0178343	.0006866	-.000028
#3	-.004446	-.000076	.000063	.0129037	.0006583	.000309

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000230	.0218775	.0005211	.0197816	.0004241	-.000225
Stddev	.0000515	.0023992	.0000759	.0050590	.0001671	.000106
%RSD	223.5704	10.96631	14.57254	25.57456	39.38992	47.15492
#1	.0000553	.0228797	.0005172	.0139492	.0003057	-.000324
#2	.0000502	.0236131	.0004472	.0224118	.0006153	-.000240
#3	-.000036	.0191398	.0005990	.0229837	.0003515	-.000113

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0441272	-.000322	.0008133	.0768250	-.001058	.0001696
Stddev	.0051804	.000818	.0002862	.0141815	.000625	.0000265
%RSD	11.73959	253.5770	35.18711	18.45943	59.07954	15.60850
#1	.0500908	.000469	.0004829	.0893105	-.000393	.0002002
#2	.0415483	-.000273	.0009797	.0797581	-.001147	.0001554
#3	.0407425	-.001164	.0009773	.0614063	-.001634	.0001533

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168414BL Acquired: 6/12/2025 19:09:04 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0012667	.0007820	.0320422	.0023550	F .0270794	.0010051
Stddev	.0002774	.0003830	.0051383	.0005182	.0022160	.0003479
%RSD	21.89925	48.97496	16.03591	22.00601	8.183133	34.60922
#1	.0015773	.0011477	.0262625	.0026897	.0282838	.0009481
#2	.0010436	.0003838	.0360932	.0017580	.0245221	.0006892
#3	.0011792	.0008145	.0337709	.0026172	.0284324	.0013779

Elem	Sr4077
Units	ppm
Avg	.0000065
Stddev	.0000305
%RSD	467.3108
#1	-.000025
#2	.000010
#3	.000035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2957.574	73577.65	16945.30	2633.879	4334.424
Stddev	18.401	247.80	42.74	25.629	19.368
%RSD	.6221638	.3367852	.2522114	.9730417	.4468481
#1	2936.419	73838.88	16913.68	2661.125	4312.675
#2	2969.861	73345.92	16928.31	2630.259	4349.812
#3	2966.443	73548.14	16993.92	2610.252	4340.786

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168414BS Acquired: 6/12/2025 19:13:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.7857743**	**2.031773**	**.9900667**	**1.986260**	**.8058471**	**1.951936**
Stddev	.0035556	.007463	.0036352	.009804	.0045100	.010680
%RSD	.4524947	.3673182	.3671672	.4935797	.5596573	.5471528
#1	.7891678	2.036463	.9926049	1.996805	.8109420	1.962970
#2	.7860788	2.035688	.9916930	1.984553	.8023661	1.951188
#3	.7820762	2.023167	.9859023	1.977421	.8042331	1.941649

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1945957**	**.1943455**	**.1972345**	**1.019910**	**.4054943**	**.1988023**
Stddev	.0002447	.0006871	.0002804	.000839	.0052405	.0003854
%RSD	.1257356	.3535593	.1421881	.0822380	1.292372	.1938679
#1	.1943132	.1936891	.1969152	1.020878	.4065034	.1983888
#2	.1947345	.1942879	.1973479	1.019385	.3998227	.1988663
#3	.1947394	.1950597	.1974406	1.019469	.4101569	.1991516

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3138432**	**2.943068**	**.2003664**	**1.940475**	**.5035788**	**.0731673**
Stddev	.0006180	.042736	.0007759	.011975	.0004135	.0012903
%RSD	.1969104	1.452107	.3872231	.6171418	.0821061	1.763494
#1	.3144547	2.965941	.2007864	1.941692	.5031030	.0738573
#2	.3138560	2.893763	.2008417	1.951796	.5037822	.0716787
#3	.3132189	2.969499	.1994711	1.927938	.5038512	.0739659

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.997491**	**.2964797**	**.2054551**	**9.668083**	**.2925156**	**.4133485**
Stddev	.043410	.0018150	.0022553	.114969	.0007828	.0009254
%RSD	1.448210	.6121736	1.097713	1.189164	.2675923	.2238723
#1	3.025843	.2974796	.2068442	9.736420	.2922026	.4141346
#2	2.947516	.2975748	.2028529	9.535348	.2934064	.4123287
#3	3.019113	.2943847	.2066683	9.732482	.2919378	.4135823

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168414BS Acquired: 6/12/2025 19:13:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.6938728	.1961132	.8546088	5.892963	F .0135629	.2014015
Stddev	.0014697	.0013719	.0205493	.008682	.0001949	.0004373
%RSD	.2118181	.6995671	2.404526	.1473319	1.437304	.2171168
#1	.6923436	.1976105	.8641091	5.883611	.0134758	.2018664
#2	.6940000	.1958126	.8310283	5.894510	.0134267	.2013396
#3	.6952749	.1949165	.8686890	5.900768	.0137862	.2009984

Elem	Sr4077
Units	ppm
Avg	.2046157
Stddev	.0005822
%RSD	.2845343
#1	.2052463
#2	.2045024
#3	.2040985

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2933.925	72766.15	16821.63	2626.809	4179.160
Stddev	13.599	829.36	50.14	30.042	6.789
%RSD	.4635221	1.139763	.2980921	1.143662	.1624447
#1	2918.328	72262.34	16796.09	2600.113	4171.326
#2	2943.303	73723.38	16789.40	2659.340	4183.323
#3	2940.145	72312.75	16879.40	2620.973	4182.832

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168446BL Acquired: 6/12/2025 19:17:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0010850	.0019758	.0002468	.0039353	.0015764	.0025171	-.003446
Stddev	.0006622	.0018283	.0008245	.0009183	.0009181	.0021940	.000945
%RSD	61.03466	92.53043	334.1456	23.33643	58.23722	87.16462	27.41489
#1	.0006835	.0038297	.0001374	.0029232	.0026068	.0019164	-.003933
#2	.0018493	.0001743	.0011205	.0047155	.0012772	.0006860	-.004049
#3	.0007221	.0019235	-.000518	.0041671	.0008453	.0049489	-.002357

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000491	.0000032	-.006746	.0004133	-.000032	.0001501	.0012462
Stddev	.0000049	.0000855	.000917	.0003662	.000076	.0001895	.0011527
%RSD	9.976898	2654.977	13.59712	88.60944	233.7089	126.2735	92.49807
#1	.0000505	-.000081	-.007042	.0004096	-.000054	-.000069	.0009972
#2	.0000436	.000001	-.007479	.0007814	-.000096	.000252	.0025030
#3	.0000531	.000090	-.005717	.0000489	.000052	.000267	.0002383

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001795	-.002574	-.000151	-.000119	.0119930	-.001015	.0003791
Stddev	.0001417	.007020	.000201	.000133	.0031501	.000272	.0000320
%RSD	78.97904	272.6912	133.0372	112.0550	26.26626	26.79867	8.439874
#1	.0001812	-.004140	-.000245	-.000114	.0083830	-.000822	.0003904
#2	.0000368	.005096	.000080	-.000255	.0141844	-.001327	.0004040
#3	.0003203	-.008679	-.000288	.000012	.0134116	-.000897	.0003430

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010232	-.002261	-.000005	-.000617	.0002215	.0177170	-.001200
Stddev	.011465	.000422	.000128	.000904	.0004859	.0026473	.000528
%RSD	112.0540	18.67022	2562.719	146.3869	219.3178	14.94236	43.94650
#1	-.015317	-.001945	-.000110	-.000687	-.000091	.0169199	-.001172
#2	.002896	-.002740	-.000042	-.001484	-.000025	.0155599	-.001742
#3	-.018275	-.002097	.000137	.000319	.000781	.0206714	-.000688

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168446BL Acquired: 6/12/2025 19:17:24 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0080113	.0005910	-.000011
Stddev	.0020267	.0003767	.000018
%RSD	25.29827	63.73471	162.9139
#1	.0103260	.0005824	-.000025
#2	.0065553	.0002187	-.000017
#3	.0071526	.0009719	.000009

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2996.107	71953.06	16774.89	2663.603	4370.352
Stddev	16.491	1036.22	20.95	91.906	16.606
%RSD	.5503990	1.440130	.1248654	3.450444	.3799645
#1	3013.991	73071.55	16798.64	2761.358	4386.855
#2	2981.503	71761.90	16759.04	2650.501	4353.645
#3	2992.827	71025.74	16767.01	2578.952	4370.556

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168446BS Acquired: 6/12/2025 19:21:43 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.8058822**	**2.043283**	**1.018290**	**2.022854**	**.8166336**	**1.993399**
Stddev	.0030644	.038898	.001316	.011845	.0022690	.005796
%RSD	.3802567	1.903705	.1292101	.5855517	.2778527	.2907358
#1	.8058258	2.008276	1.017413	2.010250	.8143818	1.992529
#2	.8028464	2.036417	1.017654	2.024556	.8189195	1.999581
#3	.8089745	2.085158	1.019803	2.033755	.8165995	1.988088

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1978077**	**.2125943**	**.2034233**	**1.025859**	**.4322597**	**.2036597**
Stddev	.0008330	.0031367	.0004562	.006897	.0021695	.0005340
%RSD	.4211085	1.475438	.2242688	.6722750	.5019076	.2621780
#1	.1986548	.2148254	.2037883	1.032055	.4325726	.2042714
#2	.1977786	.2139496	.2029118	1.027093	.4342557	.2034207
#3	.1969896	.2090078	.2035698	1.018429	.4299506	.2032870

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3223578**	**3.071513**	**.2067746**	**1.997705**	**.5184102**	**.0779140**
Stddev	.0001545	.022683	.0003824	.006702	.0009227	.0001693
%RSD	.0479348	.7384899	.1849483	.3354672	.1779940	.2173055
#1	.3221794	3.053582	.2072108	1.997242	.5192936	.0777384
#2	.3224431	3.063944	.2066161	2.004626	.5174526	.0779273
#3	.3224508	3.097012	.2064969	1.991247	.5184845	.0780763

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.073517**	**.3030799**	**.2202145**	**9.980763**	**.3089748**	**.4157737**
Stddev	.025154	.0013688	.0003932	.089900	.0048511	.0012253
%RSD	.8184146	.4516191	.1785358	.9007285	1.570067	.2947065
#1	3.066077	.3046295	.2203514	9.881251	.3101886	.4143969
#2	3.052923	.3025746	.2197712	10.00493	.3131038	.4161794
#3	3.101552	.3020356	.2205209	10.05611	.3036321	.4167446

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: PB168446BS Acquired: 6/12/2025 19:21:43 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.7019447	.1983970	.8710830	6.069416	F .0084704	.2042792
Stddev	.0019719	.0005555	.0100346	.023067	.0018876	.0012374
%RSD	.2809157	.2800042	1.151963	.3800565	22.28423	.6057559
#1	.6996732	.1990336	.8729824	6.045056	.0105490	.2044834
#2	.7029441	.1981466	.8602345	6.072267	.0068632	.2054018
#3	.7032167	.1980107	.8800321	6.090926	.0079989	.2029524

Elem	Sr4077
Units	ppm
Avg	.2079953
Stddev	.0011361
%RSD	.5462099
#1	.2082543
#2	.2089795
#3	.2067521

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2961.314	70657.06	16532.22	2654.045	4203.973
Stddev	15.991	442.04	92.66	38.193	17.259
%RSD	.5399992	.6256110	.5604649	1.439065	.4105467
#1	2979.677	70938.14	16454.00	2681.570	4223.661
#2	2950.451	70885.50	16508.11	2670.123	4191.451
#3	2953.815	70147.54	16634.55	2610.441	4196.807

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2287-01 Acquired: 6/12/2025 19:25:44 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0489603	-.030004	.0563266	-.002429	.0004225	163.1124
Stddev	.0028184	.003682	.0015636	.002039	.0015152	.5541
%RSD	5.756440	12.27099	2.775878	83.93643	358.5937	.3397295
#1	.0521829	-.028410	.0573465	-.000829	-.001243	163.5101
#2	.0469559	-.034214	.0545265	-.001733	.001719	163.3477
#3	.0477422	-.027388	.0571068	-.004725	.000791	162.4794

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.606489	.0186310	.0224006	1375.087	.3021477	.0609434
Stddev	.003474	.0001478	.0003027	5.882	.0016857	.0005724
%RSD	.2162680	.7933406	1.351291	.4277853	.5579105	.9392461
#1	1.608982	.0187789	.0222679	1381.746	.3040820	.0604037
#2	1.607965	.0184833	.0227470	1370.595	.3013688	.0608829
#3	1.602520	.0186309	.0221869	1372.920	.3009923	.0615437

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1993680	134.4642	6.032152	171.9384	.1782096	.0020361
Stddev	.0003848	.2404	.009957	.3838	.0004579	.0000589
%RSD	.1930032	.1787695	.1650647	.2232367	.2569444	2.892763
#1	.1990850	134.2669	6.034129	172.0206	.1776900	.0019739
#2	.1998062	134.3938	6.021355	171.5201	.1783843	.0020433
#3	.1992129	134.7319	6.040972	172.2744	.1785544	.0020911

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.47592	.3307380	1.214818	24.94129	.4640669	.0141023
Stddev	.09282	.0004767	.002426	.05022	.0015191	.0001025
%RSD	.4533102	.1441314	.1997304	.2013715	.3273347	.7265139
#1	20.51297	.3301893	1.214712	24.96259	.4635076	.0142203
#2	20.54449	.3309736	1.217296	24.97736	.4629068	.0140353
#3	20.37030	.3310509	1.212447	24.88393	.4657863	.0140514

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2287-01 Acquired: 6/12/2025 19:25:44 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0143930	7.243748	2.463718	6.069531	F 65.79486	.0554333
Stddev	.0009284	.003911	.018097	.008810	.07069	.0012857
%RSD	6.450099	.0539908	.7345204	.1451460	.1074428	2.319288
#1	.0133935	7.247910	2.471519	6.068648	65.73493	.0552325
#2	.0152283	7.240149	2.476606	6.061197	65.87282	.0568075
#3	.0145573	7.243187	2.443029	6.078750	65.77683	.0542598

Elem	Sr4077
Units	ppm
Avg	2.995490
Stddev	.002953
%RSD	.0985836
#1	2.995235
#2	2.998563
#3	2.992673

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.570	65674.11	17999.18	2357.268	2788.856
Stddev	11.832	148.50	13.81	17.280	13.364
%RSD	.4381269	.2261206	.0767473	.7330332	.4791835
#1	2709.650	65798.78	18015.07	2375.789	2799.660
#2	2687.189	65509.81	17992.44	2341.580	2773.912
#3	2704.871	65713.72	17990.02	2354.436	2792.997

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2295-01 Acquired: 6/12/2025 19:30:05 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.1302823	-.002084	.1623838	-.017249	-.000546	95.42957	.8613557
Stddev	.0013822	.002435	.0006816	.000815	.000757	.24016	.0028881
%RSD	1.060941	116.8051	.4197231	4.724025	138.5050	.2516644	.3352957
#1	.1296560	-.000012	.1631689	-.016693	-.000890	95.25340	.8595670
#2	.1293241	-.001476	.1619440	-.018184	-.001071	95.33219	.8598124
#3	.1318668	-.004766	.1620386	-.016870	.000321	95.70313	.8646875

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0126778	.0292580	117.2323	.2770507	.1707379	.5353954	372.4547
Stddev	.0001571	.0004713	.4365	.0022151	.0002759	.0021424	2.4337
%RSD	1.239276	1.610919	.3723007	.7995158	.1615703	.4001611	.6534117
#1	.0125096	.0291693	117.7221	.2748848	.1710122	.5334028	375.2645
#2	.0128207	.0288372	117.0900	.2793118	.1704605	.5351219	371.0853
#3	.0127031	.0297673	116.8847	.2769553	.1707412	.5376614	371.0142

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.623140	70.84253	.2288841	-.006370	8.198555	.4933989	.6127153
Stddev	.012333	.29457	.0017107	.000803	.014615	.0017767	.0004077
%RSD	.3403832	.4158050	.7474133	12.59992	.1782585	.3601025	.0665433
#1	3.637284	71.16572	.2307163	-.005563	8.215391	.4933770	.6122947
#2	3.617501	70.77273	.2286075	-.006378	8.189144	.4951865	.6131088
#3	3.614635	70.58913	.2273285	-.007168	8.191129	.4916333	.6127422

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.658686	2.444615	.0047479	.0129495	3.967719	13.18471	8.651453
Stddev	.021669	.003238	.0003284	.0004543	.008578	.15302	.027921
%RSD	.3254235	.1324630	6.915806	3.508503	.2161917	1.160565	.3227290
#1	6.683649	2.444968	.0051071	.0126523	3.977424	13.32101	8.657151
#2	6.647684	2.441214	.0044632	.0134725	3.964582	13.21392	8.621123
#3	6.644726	2.447661	.0046735	.0127237	3.961151	13.01919	8.676086

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2295-01 Acquired: 6/12/2025 19:30:05 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**2.569608**	**.2516717**	**.4967885**
Stddev	.005740	.0003158	.0053499
%RSD	.2233764	.1254663	1.076905
#1	2.575632	.2518345	.4906166
#2	2.564202	.2513078	.5001036
#3	2.568990	.2518729	.4996453

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2840.206**	**69968.20**	**17119.10**	**2518.504**	**3548.576**
Stddev	14.781	155.03	28.16	16.635	15.684
%RSD	.5204175	.2215701	.1644823	.6605169	.4419850
#1	2855.870	69817.70	17140.88	2500.602	3564.006
#2	2838.245	69959.51	17129.12	2533.485	3549.072
#3	2826.504	70127.39	17087.30	2521.426	3532.649

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2295-05 Acquired: 6/12/2025 19:34:26 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.0474969**	**-.001222**	**.1183975**	**.0010698**	**-.003231**	**74.80695**	**.4954455**
Stddev	.0021053	.001566	.0017235	.0050369	.001448	.14275	.0015446
%RSD	4.432494	128.1753	1.455675	470.8345	44.83184	.1908208	.3117543
#1	.0499245	-.001149	.1164077	.0026435	-.004350	74.89759	.4964772
#2	.0463949	-.002823	.1193648	.0051319	-.003749	74.88085	.4961896
#3	.0461714	.000307	.1194201	-.004566	-.001595	74.64240	.4936697

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078934**	**.0132187**	**14.61727**	**.0945990**	**.1043743**	**.1610447**	**191.7572**
Stddev	.0001107	.0004495	.07841	.0004310	.0006246	.0018444	1.4425
%RSD	1.402763	3.400216	.5364061	.4556423	.5984209	1.145241	.7522373
#1	.0077661	.0129174	14.56940	.0943283	.1047995	.1593849	193.2923
#2	.0079464	.0130033	14.57466	.0950960	.1046661	.1607191	191.5493
#3	.0079676	.0137353	14.70776	.0943726	.1036572	.1630302	190.4300

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.405583**	**10.04678**	**.1137568**	**-.000385**	**3.228457**	**.2916534**	**.2632871**
Stddev	.008039	.08888	.0003578	.000293	.049030	.0007956	.0027909
%RSD	.3341994	.8847114	.3144881	75.98597	1.518692	.2727897	1.060028
#1	2.404129	9.97242	.1139406	-.000116	3.267467	.2919198	.2647215
#2	2.398369	10.02269	.1139853	-.000696	3.244486	.2907588	.2650691
#3	2.414250	10.14522	.1133445	-.000343	3.173419	.2922816	.2600707

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.663836**	**.4206077**	**.0013422**	**.0060070**	**1.330497**	**4.280677**	**4.260048**
Stddev	.067880	.0043968	.0001221	.0006809	.006061	.059199	.038595
%RSD	1.455446	1.045347	9.099230	11.33493	.4555769	1.382946	.9059703
#1	4.723532	.4255357	.0014692	.0067928	1.324723	4.346335	4.297162
#2	4.677976	.4192007	.0013317	.0055908	1.336810	4.264319	4.262858
#3	4.590000	.4170866	.0012257	.0056374	1.329957	4.231376	4.220126

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2295-05 Acquired: 6/12/2025 19:34:26 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.3898312	.1256715	.0049852
Stddev	.0058963	.0012424	.0012417
%RSD	1.512521	.9886426	24.90810
#1	.3965184	.1262842	.0035527
#2	.3853799	.1264887	.0057540
#3	.3875952	.1242418	.0056490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3360.620	80078.51	19254.02	2941.169	3941.942
Stddev	79.830	1023.22	27.01	62.252	58.321
%RSD	2.375466	1.277766	.1402649	2.116571	1.479495
#1	3425.325	79229.35	19247.69	2896.250	3988.831
#2	3385.126	79791.65	19230.74	2915.027	3960.360
#3	3271.409	81214.55	19283.63	3012.229	3876.636

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-05 Acquired: 6/12/2025 19:38:31 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0986863	-.002472	1.149629	-.007464	-.001627	210.3761	1.483866
Stddev	.0030404	.001171	.001537	.005416	.002366	1.7795	.009105
%RSD	3.080845	47.36246	.1337038	72.56175	145.4788	.8458658	.6135918
#1	.1020006	-.003168	1.148562	-.011915	-.000560	211.0776	1.490085
#2	.0980319	-.001120	1.151391	-.001434	-.004339	208.3528	1.488098
#3	.0960265	-.003127	1.148936	-.009042	.000019	211.6979	1.473415

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0124580	.0343752	23.00234	.2425905	.1474747	.4141827	299.2125
Stddev	.0000927	.0000956	.12640	.0005123	.0002854	.0004165	1.7334
%RSD	.7439560	.2779676	.5495268	.2111700	.1935016	.1005622	.5793287
#1	.0125405	.0342705	23.14751	.2419990	.1473505	.4138292	297.7177
#2	.0123577	.0343974	22.91658	.2428817	.1472725	.4140772	301.1127
#3	.0124759	.0344577	22.94295	.2428908	.1478011	.4146419	298.8072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.053645	52.61549	.3036891	-.001751	5.673912	.4014699	1.443829
Stddev	.038096	.21604	.0008150	.000716	.028619	.0015432	.004407
%RSD	.6293033	.4106048	.2683639	40.88283	.5043989	.3843918	.3052103
#1	6.094669	52.85672	.3040121	-.002570	5.667458	.4014229	1.448808
#2	6.046883	52.54992	.3042932	-.001248	5.705207	.4030361	1.440431
#3	6.019383	52.43982	.3027622	-.001435	5.649070	.3999507	1.442248

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.74848	.6452138	.0104741	.0366137	2.990851	4.318710	7.470848
Stddev	.11669	.0033033	.0001042	.0005190	.012621	.058018	.021888
%RSD	.8487427	.5119634	.9952361	1.417628	.4219941	1.343416	.2929810
#1	13.80448	.6426728	.0103841	.0361033	3.004280	4.354669	7.446425
#2	13.82661	.6489478	.0104499	.0371410	2.989040	4.349683	7.488693
#3	13.61434	.6440208	.0105883	.0365968	2.979233	4.251778	7.477425

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-05 Acquired: 6/12/2025 19:38:31 Type: Unk
Method: 6010-200.7 NEW(v8) 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	1.025624	.3917472	-.076833
Stddev	.001535	.0018062	.001081
%RSD	.1496929	.4610601	1.406745
#1	1.027375	.3910969	-.075856
#2	1.024984	.3937885	-.077994
#3	1.024512	.3903563	-.076648

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3274.085	81268.61	19687.86	2936.930	3619.548
Stddev	13.389	242.25	4.11	13.813	11.040
%RSD	.4089523	.2980860	.0208686	.4703368	.3050166
#1	3270.725	81171.84	19692.52	2921.041	3613.802
#2	3288.834	81089.71	19684.76	2946.082	3632.276
#3	3262.695	81544.29	19686.32	2943.668	3612.565

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV02 Acquired: 6/12/2025 19:42:52 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**5.011431**	**4.963342**	**5.068278**	**5.029711**	**5.027305**	**9.909339**	**9.953577**
Stddev	.019314	.033968	.003326	.005255	.013236	.008163	.131917
%RSD	.3853896	.6843822	.0656240	.1044876	.2632851	.0823735	1.325320
#1	5.005878	4.924392	5.069197	5.035018	5.022040	9.915289	10.03082
#2	4.995503	4.978812	5.071048	5.024508	5.017512	9.912695	10.02865
#3	5.032913	4.986821	5.064589	5.029606	5.042364	9.900033	9.80126

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2554164**	**2.518164**	**24.83705**	**1.027729**	**2.499672**	**1.264136**	**4.883565**
Stddev	.0011599	.003304	.11515	.000339	.001277	.002676	.039833
%RSD	.4541014	.1312232	.4636070	.0329711	.0510881	.2116551	.8156549
#1	.2567200	2.521173	24.79122	1.028001	2.500431	1.263419	4.857305
#2	.2550306	2.518691	24.75188	1.027350	2.500388	1.261893	4.863991
#3	.2544986	2.514628	24.96806	1.027836	2.498198	1.267097	4.929398

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.435574**	**24.53867**	**2.534746**	**1.257547**	**24.74333**	**2.467728**	**2.536213**
Stddev	.007190	.15318	.002529	.001544	.02760	.008039	.007662
%RSD	.2952101	.6242502	.0997859	.1227660	.1115606	.3257564	.3021064
#1	2.433656	24.45633	2.536286	1.257224	24.75536	2.465823	2.533822
#2	2.429538	24.44427	2.536126	1.256190	24.71175	2.460813	2.530031
#3	2.443529	24.71541	2.531827	1.259227	24.76288	2.476548	2.544785

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.52045**	**5.029435**	**5.029865**	**5.072816**	**4.927979**	**5.105883**	**5.358963**
Stddev	.01654	.019371	.009993	.002451	.010208	.060879	.007054
%RSD	.0674646	.3851600	.1986653	.0483189	.2071348	1.192333	.1316345
#1	24.50304	5.047109	5.030140	5.070098	4.939452	5.050201	5.357774
#2	24.52237	5.032472	5.019738	5.073492	4.919905	5.096563	5.352579
#3	24.53595	5.008725	5.039718	5.074858	4.924580	5.170885	5.366536

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV02 Acquired: 6/12/2025 19:42:52 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**5.006081**	**4.910747**	**5.101450**
Stddev	.015502	.028242	.015031
%RSD	.3096611	.5751018	.2946445
#1	5.007378	4.936050	5.089605
#2	4.989972	4.915910	5.096385
#3	5.020894	4.880279	5.118359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2773.129**	**67223.92**	**15630.76**	**2494.249**	**3715.513**
Stddev	9.543	213.54	11.98	14.947	9.365
%RSD	.3441183	.3176599	.0766644	.5992643	.2520517
#1	2779.202	67404.41	15619.35	2508.343	3725.335
#2	2778.055	67279.16	15629.67	2495.829	3714.519
#3	2762.130	66988.18	15643.25	2478.574	3706.685

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB02 Acquired: 6/12/2025 19:47:03 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0001948	.0011337	.0004460	.0040387	.0019685	.0055697	-.002113
Stddev	.0013696	.0003249	.0010491	.0022728	.0007435	.0014840	.000918
%RSD	703.1901	28.66145	235.2128	56.27739	37.76752	26.64466	43.45817
#1	-.001209	.0009580	.0013217	.0061727	.0022589	.0041567	-.002506
#2	.001527	.0009344	-.000717	.0042946	.0011237	.0054365	-.001064
#3	.000267	.0015086	.000733	.0016487	.0025229	.0071158	-.002769

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000011	.0000177	.0372507	.0016316	.0001930	.0002332	.0111956
Stddev	.0000483	.0000821	.0035006	.0001954	.0003620	.0001807	.0007927
%RSD	4314.468	464.2027	9.397480	11.97720	187.5996	77.46847	7.080301
#1	.0000473	.0000454	.0403766	.0018056	.0000135	.0003335	.0118323
#2	.0000050	-.000075	.0379071	.0016689	-.000044	.0000246	.0103078
#3	-.000049	.000082	.0334683	.0014202	.000610	.0003415	.0114468

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005967	.0421486	.0010402	-.000048	.0165069	-.001111	.0003073
Stddev	.0000359	.0014565	.0003173	.000266	.0033098	.000908	.0002418
%RSD	6.017483	3.455591	30.50302	555.2590	20.05071	81.70038	78.68350
#1	.0005570	.0421231	.0006926	.000253	.0136978	-.001664	.0004544
#2	.0006063	.0436176	.0011140	-.000146	.0201556	-.001605	.0000282
#3	.0006268	.0407050	.0013142	-.000251	.0156673	-.000063	.0004394

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052661	.0061645	.0007083	.0036696	.0006666	.0135491	-.003430
Stddev	.0308596	.0009858	.0002180	.0007478	.0003678	.0062106	.002705
%RSD	586.0110	15.99241	30.78485	20.37780	55.17536	45.83762	78.86677
#1	.0178105	.0063519	.0009372	.0045295	.0008435	.0112611	-.005073
#2	.0278780	.0050983	.0006844	.0033074	.0002437	.0205792	-.000308
#3	-.029890	.0070431	.0005031	.0031719	.0009124	.0088071	-.004909

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB02 Acquired: 6/12/2025 19:47:03 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0039396	.0018133	.0001041
Stddev	.0009968	.0003238	.0000277
%RSD	25.30176	17.86003	26.64163
#1	.0032158	.0020041	.0001049
#2	.0035264	.0019964	.0001314
#3	.0050765	.0014394	.0000760

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3022.150	71179.92	16886.76	2670.373	4321.902
Stddev	60.457	336.78	14.71	28.876	75.953
%RSD	2.000467	.4731334	.0871235	1.081349	1.757391
#1	2955.920	70896.47	16886.64	2638.697	4236.839
#2	3036.152	71091.09	16901.52	2677.198	4345.940
#3	3074.378	71552.21	16872.10	2695.226	4382.928

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01 Acquired: 6/12/2025 19:51:23 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0795393	-.006458	2.020172	-.003846	.0000239	185.8133	1.595221
Stddev	.0025439	.002364	.009058	.001650	.0004512	.5068	.003674
%RSD	3.198344	36.61033	.4483619	42.89434	1884.581	.2727470	.2302847
#1	.0794896	-.004128	2.015718	-.002940	-.000459	186.2406	1.593444
#2	.0770206	-.006392	2.030594	-.005750	.000097	185.2534	1.592773
#3	.0821077	-.008855	2.014204	-.002847	.000434	185.9458	1.599445

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0128867	.0362526	36.97675	.2210175	.1322667	.4038334	243.3896
Stddev	.0000810	.0001678	.16526	.0016934	.0002620	.0018124	1.9613
%RSD	.6283167	.4628537	.4469193	.7661998	.1980966	.4488082	.8058459
#1	.0127935	.0361228	37.15201	.2192396	.1325583	.4035046	245.2971
#2	.0129275	.0361929	36.95447	.2212014	.1321908	.4022078	243.4933
#3	.0129392	.0364420	36.82376	.2226114	.1320511	.4057877	241.3785

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.182039	42.41745	.2854995	-.001798	2.951869	.3835196	1.352515
Stddev	.024715	.20780	.0019178	.000837	.002165	.0007949	.001659
%RSD	.3997895	.4898827	.6717291	46.58123	.0733429	.2072681	.1226494
#1	6.205223	42.64723	.2843948	-.000979	2.949371	.3827334	1.352476
#2	6.184860	42.36240	.2877140	-.001761	2.953205	.3835024	1.350876
#3	6.156035	42.24273	.2843898	-.002653	2.953031	.3843230	1.354193

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.08720	.5132531	.0073119	.0407544	2.633267	9.082774	11.37324
Stddev	.00975	.0070133	.0001102	.0010520	.001466	.082399	.02533
%RSD	.0879371	1.366442	1.507503	2.581257	.0556850	.9072011	.2227466
#1	11.09830	.5199442	.0073531	.0395773	2.632222	9.177597	11.40208
#2	11.08329	.5138584	.0073955	.0416027	2.632635	9.042148	11.35458
#3	11.08002	.5059568	.0071870	.0410833	2.634943	9.028577	11.36305

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01 Acquired: 6/12/2025 19:51:23 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**2.355860**	**.2817034**	**.0301351**
Stddev	.008652	.0007177	.0028026
%RSD	.3672437	.2547820	9.300140
#1	2.349498	.2824669	.0280926
#2	2.365711	.2810425	.0289826
#3	2.352369	.2816009	.0333302

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3664.088**	**88094.55**	**20806.37**	**3192.829**	**3646.151**
Stddev	33.515	153.21	27.68	32.772	19.831
%RSD	.9147014	.1739203	.1330453	1.026434	.5438768
#1	3652.779	87924.48	20806.93	3156.677	3638.290
#2	3701.795	88137.35	20833.76	3201.222	3668.707
#3	3637.690	88221.81	20778.41	3220.589	3631.456

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01DUP Acquired: 6/12/2025 19:55:35 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0783461	-.008992	1.884921	-.006847	.0010337	187.3419	1.585940
Stddev	.0021058	.001558	.011270	.005952	.0001955	.8179	.006601
%RSD	2.687809	17.33071	.5979258	86.92526	18.91174	.4365923	.4162181
#1	.0778999	-.007220	1.874645	-.000290	.0011915	186.4208	1.578773
#2	.0764992	-.010151	1.883143	-.011909	.0008150	187.6218	1.587276
#3	.0806393	-.009603	1.896975	-.008342	.0010946	187.9832	1.591771

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0118961	.0326244	32.99597	.2246503	.1284405	.3960744	236.0187
Stddev	.0000252	.0003181	.11472	.0008312	.0009460	.0024558	.7559
%RSD	.2118798	.9750142	.3476884	.3700168	.7365308	.6200241	.3202902
#1	.0118745	.0327332	33.11895	.2241085	.1278619	.3988473	236.8913
#2	.0119238	.0328739	32.89183	.2256074	.1279274	.3952016	235.5636
#3	.0118899	.0322662	32.97713	.2242351	.1295322	.3941743	235.6011

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.156921	40.25448	.2808784	-.000413	2.805934	.3878289	1.374969
Stddev	.026619	.11671	.0018565	.000165	.012975	.0012714	.001742
%RSD	.4323388	.2899191	.6609477	40.08439	.4624108	.3278202	.1266994
#1	6.170805	40.38171	.2792133	-.000431	2.796990	.3864174	1.373508
#2	6.126231	40.15241	.2805419	-.000239	2.820815	.3881848	1.376897
#3	6.173728	40.22931	.2828801	-.000568	2.799996	.3888843	1.374503

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.16306	.5016682	.0069395	.0393526	2.707262	10.07789	9.920103
Stddev	.04273	.0026945	.0000216	.0004542	.006855	.07028	.024685
%RSD	.3827678	.5371007	.3112498	1.154135	.2532006	.6973261	.2488427
#1	11.11860	.5045148	.0069643	.0395978	2.715127	10.09810	9.897662
#2	11.20381	.5013326	.0069248	.0388285	2.702557	10.13585	9.946544
#3	11.16678	.4991573	.0069295	.0396315	2.704103	9.99973	9.916102

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01DUP Acquired: 6/12/2025 19:55:35 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**2.131548**	**.2843720**	**.0384434**
Stddev	.012520	.0007933	.0014823
%RSD	.5873516	.2789784	3.855668
#1	2.117470	.2835094	.0369557
#2	2.141433	.2845361	.0399201
#3	2.135741	.2850704	.0384543

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3563.235**	**86971.14**	**20650.28**	**3150.532**	**3614.414**
Stddev	61.648	107.18	35.71	11.896	43.602
%RSD	1.730104	.1232306	.1729167	.3775964	1.206343
#1	3503.093	86985.54	20637.09	3161.243	3570.221
#2	3560.328	86857.49	20690.71	3137.728	3615.621
#3	3626.285	87070.38	20623.04	3152.623	3657.400

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01LX5 Acquired: 6/12/2025 19:59:47 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0206501	-.001795	.4245265	.0055284	-.000679	43.90917	.3807488
Stddev	.0005578	.001927	.0001236	.0031300	.000984	.09436	.0025450
%RSD	2.701008	107.3172	.0291100	56.61606	144.9313	.2148944	.6684279
#1	.0200137	-.003857	.4245725	.0091320	-.001557	43.87072	.3778165
#2	.0210539	-.001487	.4243866	.0039659	.000385	43.84010	.3820467
#3	.0208827	-.000041	.4246206	.0034873	-.000865	44.01668	.3823832

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030925	.0036205	9.240812	.0556558	.0260447	.1059713	62.18232
Stddev	.0000700	.0001253	.023159	.0002802	.0000902	.0002274	.39494
%RSD	2.264727	3.461107	.2506183	.5034828	.3465378	.2145628	.6351300
#1	.0030130	.0034759	9.262823	.0554110	.0259637	.1062239	62.49524
#2	.0031448	.0036968	9.216654	.0555950	.0261420	.1057830	62.31315
#3	.0031199	.0036889	9.242959	.0559615	.0260285	.1059071	61.73857

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.532289	10.21849	.0581493	-.000277	.7092446	.0949571	.3399032
Stddev	.003917	.04616	.0005271	.000178	.0054311	.0009087	.0013482
%RSD	.2556158	.4517680	.9065453	64.28734	.7657548	.9569391	.3966412
#1	1.529348	10.26316	.0586394	-.000100	.7071816	.0951166	.3399409
#2	1.530784	10.22135	.0582170	-.000457	.7154049	.0939793	.3412321
#3	1.536735	10.17096	.0575916	-.000275	.7051473	.0957755	.3385365

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.677165	.1327284	.0015836	.0067252	.6428001	2.086989	2.187245
Stddev	.020096	.0008729	.0001968	.0004140	.0007995	.035039	.008309
%RSD	.7506553	.6576809	12.42491	6.156476	.1243768	1.678926	.3798808
#1	2.662045	.1337015	.0013704	.0069582	.6423425	2.099706	2.183363
#2	2.699970	.1320142	.0017583	.0069701	.6437233	2.113893	2.181587
#3	2.669479	.1324696	.0016220	.0062471	.6423346	2.047367	2.196784

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01LX5 Acquired: 6/12/2025 19:59:47 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.4508374	.0691226	.0040672
Stddev	.0042864	.0006019	.0003943
%RSD	.9507527	.8708014	9.695285
#1	.4471340	.0685444	.0037887
#2	.4498455	.0690775	.0038944
#3	.4555328	.0697457	.0045184

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3227.297	74807.60	17753.45	2755.924	4149.292
Stddev	17.488	412.68	20.78	26.663	20.913
%RSD	.5418741	.5516597	.1170514	.9674827	.5040230
#1	3213.347	74605.86	17769.58	2741.225	4130.093
#2	3221.628	74534.58	17760.78	2739.846	4146.207
#3	3246.916	75282.34	17730.00	2786.702	4171.577

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01MS Acquired: 6/12/2025 20:03:58 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.6637283	1.721839	2.722592	1.359983	.2706818	205.1412	1.749992
Stddev	.0008726	.007156	.029760	.001869	.0007156	.4485	.007956
%RSD	.1314702	.4156295	1.093075	.1374110	.2643546	.2186379	.4546440
#1	.6636316	1.715104	2.689132	1.358006	.2711618	205.4193	1.740879
#2	.6646453	1.729353	2.732538	1.361721	.2698593	204.6238	1.753537
#3	.6629081	1.721061	2.746105	1.360221	.2710241	205.3805	1.755560

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1606561	.2266827	31.43244	.5468998	.3325144	.7026824	241.5686
Stddev	.0004565	.0006019	.03021	.0011536	.0005513	.0013843	.5214
%RSD	.2841449	.2655195	.0961190	.2109311	.1658018	.1969945	.2158514
#1	.1604219	.2260821	31.42201	.5458699	.3319126	.7014027	242.0134
#2	.1611822	.2272859	31.46649	.5481463	.3329951	.7024927	241.6975
#3	.1603643	.2266802	31.40883	.5466830	.3326357	.7041516	240.9948

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.270647	40.69205	.7887220	.0591125	5.052676	.6174732	1.835281
Stddev	.011981	.13393	.0014554	.0003112	.044507	.0016355	.005257
%RSD	.1910665	.3291231	.1845246	.5265235	.8808663	.2648609	.2864490
#1	6.256838	40.78916	.7872915	.0593507	5.008890	.6164832	1.829273
#2	6.276823	40.74773	.7902011	.0592265	5.051267	.6193609	1.839035
#3	6.278281	40.53927	.7886733	.0587603	5.097871	.6165755	1.837535

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.95120	.6655566	.3056779	.6869207	2.763417	13.19308	15.71240
Stddev	.09803	.0027130	.0005873	.0025644	.005895	.06843	.07594
%RSD	.5172956	.4076253	.1921311	.3733225	.2133380	.5187063	.4833017
#1	18.83878	.6682501	.3061198	.6893822	2.758011	13.26599	15.65758
#2	18.99592	.6655952	.3059026	.6871154	2.762538	13.18299	15.79908
#3	19.01890	.6628245	.3050115	.6842644	2.769703	13.13025	15.68053

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01MS Acquired: 6/12/2025 20:03:58 Type: Unk
Method: 6010-200.7 NEW(v8) 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	2.072300	.4496012	.1944237
Stddev	.016692	.0035807	.0024020
%RSD	.8055022	.7964270	1.235445
#1	2.053644	.4459317	.1921381
#2	2.077432	.4497857	.1942056
#3	2.085823	.4530860	.1969273

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3602.870	85010.39	20654.51	3091.056	3651.508
Stddev	6.648	152.10	35.29	15.251	1.668
%RSD	.1845101	.1789206	.1708622	.4933802	.0456735
#1	3601.958	85177.00	20672.24	3108.030	3650.675
#2	3609.926	84975.20	20613.87	3086.632	3653.428
#3	3596.725	84878.97	20677.42	3078.507	3650.421

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01MSD Acquired: 6/13/2025 1:16:42 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.6489342	1.752250	2.075015	1.330627	.2750145	203.2888	1.768209
Stddev	.0056736	.041238	.029115	.012985	.0043535	1.5970	.008016
%RSD	.8743015	2.353437	1.403128	.9758832	1.583018	.7856004	.4533363
#1	.6552867	1.783241	2.108119	1.343967	.2798427	203.9643	1.773325
#2	.6471451	1.768064	2.063544	1.329885	.2738127	201.4650	1.772331
#3	.6443708	1.705446	2.053383	1.318028	.2713881	204.4370	1.758971

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1650776	.2228475	27.51779	.5412734	.3257383	.6679146	232.7820
Stddev	.0004636	.0035673	.08582	.0012103	.0043550	.0070141	.2443
%RSD	.2808499	1.600766	.3118883	.2236102	1.336964	1.050152	.1049349
#1	.1651283	.2268844	27.56107	.5411297	.3307336	.6755299	232.9793
#2	.1645907	.2215382	27.41894	.5401413	.3237418	.6664950	232.5088
#3	.1655138	.2201199	27.57335	.5425492	.3227395	.6617188	232.8579

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.609545	37.90737	.7821051	.0584677	4.530357	.6151833	1.840657
Stddev	.014588	.17852	.0105500	.0003091	.016338	.0005296	.004974
%RSD	.2600611	.4709448	1.348926	.5285788	.3606348	.0860832	.2702401
#1	5.621505	37.89292	.7942098	.0587804	4.535505	.6149671	1.839847
#2	5.593292	37.73652	.7772403	.0584601	4.543501	.6147960	1.845986
#3	5.613839	38.09268	.7748651	.0581625	4.512065	.6157867	1.836137

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.65280	.6539914	.3085733	.7297898	2.569520	9.530313	15.58682
Stddev	.07312	.0012712	.0035545	.0098092	.003657	.038420	.20919
%RSD	.4142291	.1943688	1.151913	1.344111	.1423239	.4031313	1.342115
#1	17.64377	.6548994	.3123332	.7406484	2.566813	9.510693	15.79927
#2	17.73001	.6525386	.3081188	.7271512	2.568066	9.574581	15.58014
#3	17.58461	.6545360	.3052679	.7215698	2.573680	9.505664	15.38104

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01MSD Acquired: 6/13/2025 1:16:42 Type: Unk
Method: 6010-200.7 NEW(v8) 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	1.744530	.4313297	.1630280
Stddev	.027097	.0011194	.0007517
%RSD	1.553231	.2595189	.4611138
#1	1.775368	.4318161	.1631375
#2	1.733688	.4321235	.1637189
#3	1.724533	.4300493	.1622274

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3724.174	89330.38	20913.59	3267.921	3783.151
Stddev	25.601	34.74	50.27	9.427	40.610
%RSD	.6874257	.0388908	.2403829	.2884727	1.073435
#1	3695.357	89367.08	20884.91	3270.961	3736.574
#2	3732.876	89326.04	20971.64	3257.349	3801.739
#3	3744.290	89298.01	20884.23	3275.452	3811.141

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01A Acquired: 6/13/2025 1:25:56 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.6514842**	**1.741847**	**2.808347**	**1.361297**	**.5622432**	**182.1555**	**1.731902**
Stddev	.0051590	.009445	.007680	.002876	.0020003	.3601	.006613
%RSD	.7918775	.5422429	.2734598	.2112570	.3557660	.1976884	.3818317
#1	.6487008	1.744096	2.815402	1.364034	.5632761	181.8198	1.739517
#2	.6483148	1.731480	2.800167	1.358300	.5599377	182.5358	1.728588
#3	.6574371	1.749964	2.809471	1.361558	.5635159	182.1110	1.727602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1702294**	**.2236358**	**35.50914**	**.5265492**	**.3263988**	**.6012749**	**241.4000**
Stddev	.0003062	.0004838	.01438	.0006745	.0001021	.0002720	.2963
%RSD	.1798718	.2163423	.0405078	.1280977	.0312647	.0452352	.1227255
#1	.1704641	.2241006	35.52328	.5270772	.3265047	.6015136	241.5175
#2	.1698831	.2231350	35.50961	.5257894	.3263908	.6013324	241.6195
#3	.1703410	.2236718	35.49452	.5267810	.3263010	.6009788	241.0631

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.517635**	**43.07314**	**.7625310**	**.0554019**	**4.777868**	**.6118262**	**1.505108**
Stddev	.001277	.08949	.0023182	.0001164	.012710	.0022355	.005012
%RSD	.0196003	.2077552	.3040143	.2100334	.2660221	.3653796	.3330141
#1	6.517632	43.02922	.7645129	.0555273	4.791404	.6092519	1.504386
#2	6.516358	43.01410	.7599818	.0552974	4.766188	.6129492	1.510442
#3	6.518913	43.17610	.7630983	.0553810	4.776012	.6132776	1.500496

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.68945**	**.7345825**	**.3054755**	**.7093608**	**2.758153**	**7.302713**	**16.81116**
Stddev	.04939	.0007199	.0007709	.0020527	.005992	.081335	.03929
%RSD	.2792206	.0979999	.2523534	.2893719	.2172629	1.113771	.2336865
#1	17.74616	.7353327	.3058274	.7082760	2.763806	7.266455	16.84573
#2	17.66635	.7345174	.3045914	.7080781	2.751871	7.245813	16.76844
#3	17.65585	.7338974	.3060076	.7117283	2.758780	7.395872	16.81931

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-01A Acquired: 6/13/2025 1:25:56 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**2.186086**	**.4289248**	**.1724892**
Stddev	.005577	.0010093	.0005999
%RSD	.2551237	.2353087	.3478062
#1	2.184750	.4300499	.1730523
#2	2.192210	.4280989	.1718582
#3	2.181298	.4286257	.1725571

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3764.358**	**88198.41**	**20048.79**	**3251.814**	**3754.581**
Stddev	4.377	123.59	19.17	10.695	5.725
%RSD	.1162644	.1401226	.0956236	.3288810	.1524766
#1	3760.313	88133.22	20032.33	3246.683	3749.216
#2	3769.004	88121.07	20044.20	3244.652	3760.608
#3	3763.757	88340.94	20069.84	3264.108	3753.919

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-09 Acquired: 6/13/2025 1:30:02 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0609985	-.003846	.2001245	-.007476	-.004166	177.9015	.6420975
Stddev	.0023344	.002391	.0009299	.003554	.001147	.8224	.0020673
%RSD	3.826907	62.16787	.4646694	47.54170	27.52329	.4622647	.3219539
#1	.0624450	-.001330	.1991663	-.011010	-.002984	178.8511	.6444099
#2	.0583055	-.006088	.2010233	-.007516	-.004240	177.4242	.6404283
#3	.0622451	-.004120	.2001839	-.003902	-.005274	177.4292	.6414544

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100330	.0173435	11.88193	.2076698	.1205058	.3442804	254.4686
Stddev	.0001787	.0004020	.06658	.0007136	.0004345	.0003237	.9254
%RSD	1.780602	2.317994	.5603696	.3436301	.3605937	.0940268	.3636473
#1	.0098922	.0171699	11.80699	.2081609	.1201294	.3441981	254.3513
#2	.0099729	.0170575	11.93428	.2079973	.1209814	.3440058	255.4471
#3	.0102340	.0178032	11.90450	.2068512	.1204067	.3446373	253.6075

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.435600	33.99940	.2213355	-.004970	2.643711	.3577836	.5614380
Stddev	.009999	.15456	.0005769	.000140	.008991	.0017710	.0028120
%RSD	.2910337	.4545939	.2606346	2.825120	.3400739	.4949985	.5008610
#1	3.424160	33.83366	.2210827	-.004810	2.653283	.3557824	.5627091
#2	3.439971	34.13961	.2219957	-.005032	2.642404	.3591488	.5633901
#3	3.442668	34.02492	.2209282	-.005069	2.635445	.3584196	.5582148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.670742	.5361700	.0063700	.0122765	2.768663	4.808556	4.735829
Stddev	.049516	.0029762	.0002403	.0005515	.003007	.027667	.030405
%RSD	.7422926	.5550857	3.772188	4.492573	.1086194	.5753764	.6420245
#1	6.725821	.5364198	.0060951	.0117826	2.765230	4.838933	4.738310
#2	6.656490	.5390135	.0065401	.0121753	2.769927	4.784800	4.764918
#3	6.629914	.5330768	.0064749	.0128716	2.770833	4.801934	4.704259

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-09 Acquired: 6/13/2025 1:30:02 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.5381125	.2563350	-.140914
Stddev	.0004861	.0002970	.000965
%RSD	.0903412	.1158769	.6851475
#1	.5386643	.2565371	-.140733
#2	.5379257	.2559940	-.141957
#3	.5377475	.2564740	-.140051

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3649.279	81270.58	17994.33	3137.218	4045.787
Stddev	26.544	267.74	23.47	15.433	25.120
%RSD	.7273745	.3294466	.1304189	.4919279	.6208874
#1	3646.830	81016.18	18019.97	3129.309	4049.901
#2	3676.963	81245.63	17989.11	3127.344	4068.596
#3	3624.045	81549.92	17973.92	3155.002	4018.865

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-13 Acquired: 6/13/2025 1:34:17 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0567084	-.005341	.2206049	-.005234	-.004434	171.8908	.7419800
Stddev	.0014127	.001929	.0011602	.001526	.000700	.7984	.0031584
%RSD	2.491099	36.11773	.5259330	29.16004	15.78101	.4644992	.4256698
#1	.0580314	-.007305	.2198063	-.006895	-.003701	171.0054	.7402264
#2	.0552206	-.003449	.2219357	-.003894	-.004506	172.1111	.7400875
#3	.0568733	-.005269	.2200726	-.004912	-.005095	172.5560	.7456261

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093721	.0169056	12.90622	.2160417	.1181650	.1739907	224.8303
Stddev	.0000894	.0004744	.09415	.0020088	.0005838	.0017515	1.6841
%RSD	.9539451	2.805930	.7294777	.9298030	.4940888	1.006680	.7490373
#1	.0093182	.0165745	12.82977	.2160375	.1175135	.1722929	223.6038
#2	.0093228	.0166933	13.01138	.2140350	.1186409	.1738878	226.7504
#3	.0094753	.0174490	12.87750	.2180525	.1183407	.1757914	224.1366

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.016733	33.68181	.2051546	.0003638	3.978018	.3596737	.6693062
Stddev	.018800	.28637	.0011747	.0005994	.011380	.0018239	.0009068
%RSD	.6231964	.8502279	.5725903	164.7522	.2860724	.5070967	.1354855
#1	2.995438	33.46155	.2038109	-.000137	3.990969	.3583402	.6687498
#2	3.031035	34.00554	.2059869	.001028	3.973469	.3617521	.6688161
#3	3.023725	33.57834	.2056660	.000201	3.969616	.3589288	.6703526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.673806	.4950307	.0045492	.0150373	2.614820	5.027884	4.836892
Stddev	.013114	.0058526	.0002005	.0000994	.003666	.083928	.029444
%RSD	.1965008	1.182267	4.406674	.6611891	.1402118	1.669243	.6087347
#1	6.678987	.4925333	.0047717	.0151338	2.611041	5.016448	4.819544
#2	6.683538	.5017176	.0044935	.0150429	2.618362	5.116943	4.870889
#3	6.658893	.4908410	.0043825	.0149352	2.615056	4.950260	4.820244

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-13 Acquired: 6/13/2025 1:34:17 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.5985861	.2504665	-.079203
Stddev	.0043189	.0005516	.001903
%RSD	.7215162	.2202110	2.402691
#1	.6032725	.2505005	-.077728
#2	.5947660	.2498988	-.081351
#3	.5977197	.2510003	-.078531

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3901.324	86962.83	20902.42	3292.910	4037.951
Stddev	55.564	275.71	47.68	29.136	50.396
%RSD	1.424243	.3170474	.2281113	.8848170	1.248062
#1	3953.953	86942.16	20957.15	3295.789	4089.874
#2	3906.791	86698.04	20869.84	3262.441	4034.745
#3	3843.228	87248.30	20880.28	3320.500	3989.235

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-17 Acquired: 6/13/2025 1:38:30 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0262544	-.002552	.2109636	-.008493	-.002846	116.7937	.6144384
Stddev	.0022218	.001953	.0028833	.001126	.001422	.2500	.0027894
%RSD	8.462605	76.52266	1.366733	13.25711	49.97405	.2140505	.4539686
#1	.0286129	-.004442	.2087298	-.007554	-.001347	116.5599	.6112759
#2	.0259497	-.000541	.2142185	-.008183	-.003015	116.7638	.6154911
#3	.0242007	-.002674	.2099426	-.009741	-.004176	117.0572	.6165482

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0110631	.0144311	13.77636	.1714354	.1146972	.4354597	214.7521
Stddev	.0005274	.0011040	.33046	.0049200	.0008223	.0026758	5.1330
%RSD	4.767283	7.650189	2.398723	2.869881	.7169300	.6144662	2.390178
#1	.0116721	.0146168	14.12291	.1767832	.1141287	.4349187	216.2191
#2	.0107595	.0132460	13.74139	.1671010	.1156400	.4330958	218.9918
#3	.0107578	.0154305	13.46478	.1704219	.1143228	.4383646	209.0453

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.570782	39.86153	.2094952	-.003577	3.524600	.2375521	.4460254
Stddev	.109302	1.24471	.0021219	.001228	.082633	.0015985	.0018099
%RSD	1.962060	3.122573	1.012872	34.33755	2.344472	.6729172	.4057828
#1	5.687259	41.24300	.2098712	-.004102	3.434674	.2392717	.4462056
#2	5.554634	39.51422	.2114040	-.002173	3.597191	.2372732	.4477384
#3	5.470452	38.82736	.2072104	-.004455	3.541935	.2361113	.4441321

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.36626	.4747183	.0028077	.0091942	2.524400	4.476348	3.375180
Stddev	.22798	.0153585	.0002801	.0016576	.016566	.044241	.031295
%RSD	2.005743	3.235286	9.976521	18.02874	.6562319	.9883172	.9272041
#1	11.15367	.4765114	.0031054	.0074903	2.530960	4.427976	3.364946
#2	11.60701	.4891015	.0027684	.0092911	2.536682	4.514760	3.410311
#3	11.33812	.4585419	.0025493	.0108013	2.505559	4.486307	3.350283

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-17 Acquired: 6/13/2025 1:38:30 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.2010741	.2736953	-.096468
Stddev	.0030612	.0028196	.005426
%RSD	1.522441	1.030193	5.624936
#1	.2044491	.2704751	-.098820
#2	.2002966	.2757210	-.100322
#3	.1984766	.2748898	-.090263

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3702.817	84743.22	18290.90	3236.760	4171.304
Stddev	82.959	1490.48	87.17	141.281	62.476
%RSD	2.240427	1.758818	.4765597	4.364882	1.497768
#1	3680.238	86030.47	18192.94	3377.009	4151.427
#2	3794.727	83110.26	18359.92	3094.470	4241.301
#3	3633.484	85088.91	18319.84	3238.801	4121.185

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-21 Acquired: 6/13/2025 1:42:36 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0603823	-.006156	9.207702	-.009906	.0054294	118.2300	.9707013
Stddev	.0011064	.001621	.051167	.002719	.0001625	.4395	.0071064
%RSD	1.832378	26.33071	.5556927	27.44440	2.992514	.3717367	.7320934
#1	.0616170	-.005282	9.251106	-.010773	.0054825	117.7711	.9674368
#2	.0600492	-.005160	9.220714	-.006860	.0052470	118.6471	.9788535
#3	.0594807	-.008026	9.151286	-.012086	.0055587	118.2719	.9658137

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098235	.0215582	22.29848	.2350327	.1181406	.5114067	240.9797
Stddev	.0002238	.0004701	.20663	.0017314	.0005475	.0016380	3.4681
%RSD	2.278480	2.180750	.9266461	.7366635	.4634253	.3202873	1.439181
#1	.0095791	.0210249	22.50370	.2332396	.1183556	.5095649	244.9052
#2	.0098730	.0217367	22.09047	.2366950	.1185479	.5119552	238.3307
#3	.0100185	.0219129	22.30127	.2351634	.1175182	.5127001	239.7033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.945236	39.12401	.2665576	.0013094	2.712656	.3303619	2.988030
Stddev	.040632	.47271	.0019564	.0015245	.017305	.0017267	.005746
%RSD	.6834339	1.208225	.7339373	116.4245	.6379249	.5226582	.1923076
#1	5.990463	39.59232	.2680933	.0029545	2.715003	.3316661	2.986756
#2	5.911815	38.64703	.2672246	-.000056	2.728668	.3284038	2.994307
#3	5.933431	39.13269	.2643550	.001030	2.694298	.3310157	2.983029

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.50584	.5531827	.0127933	.1072542	3.030524	5.345390	8.304562
Stddev	.05954	.0109673	.0002895	.0002791	.004147	.056596	.037768
%RSD	.5667200	1.982585	2.262761	.2601983	.1368567	1.058773	.4547907
#1	10.52149	.5654501	.0124717	.1069357	3.035195	5.396579	8.346409
#2	10.55599	.5443258	.0128751	.1073711	3.029101	5.284613	8.294272
#3	10.44004	.5497723	.0130330	.1074559	3.027274	5.354978	8.273005

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2296-21 Acquired: 6/13/2025 1:42:36 Type: Unk
Method: 6010-200.7 NEW(v8) 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	2.050149	.2863748	.0063002
Stddev	.018439	.0012250	.0046933
%RSD	.8993744	.4277469	74.49511
#1	2.069058	.2859728	.0010033
#2	2.049168	.2877503	.0099409
#3	2.032220	.2854014	.0079564

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3589.842	84875.52	19154.83	3186.112	4002.853
Stddev	36.846	378.79	18.86	34.542	22.190
%RSD	1.026387	.4462838	.0984418	1.084138	.5543466
#1	3617.076	84449.86	19176.33	3153.145	4018.020
#2	3604.533	85001.27	19141.12	3183.153	4013.154
#3	3547.917	85175.45	19147.03	3222.038	3977.385

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV03 Acquired: 6/13/2025 1:46:41 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.767843**	**5.057091**	**5.130714**	**4.659760**	**4.647008**	**9.612316**
Stddev	.019685	.109201	.035612	.023450	.042292	.014922
%RSD	.4128713	2.159362	.6940967	.5032467	.9100936	.1552406
#1	4.745661	5.092728	5.167470	4.635187	4.601564	9.614720
#2	4.783232	5.144022	5.128303	4.662196	4.654247	9.596338
#3	4.774636	4.934524	5.096368	4.681897	4.685214	9.625890

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.942973**	F **.2830939**	**2.610302**	**25.99585**	**1.063032**	**2.572645**
Stddev	.036332	.0022136	.019572	.07522	.002298	.009256
%RSD	.3654068	.7819215	.7497921	.2893640	.2161462	.3597840
#1	9.917567	.2846014	2.630481	26.07279	1.060752	2.581265
#2	9.926764	.2841279	2.609023	25.99228	1.065347	2.573806
#3	9.984589	.2805526	2.591400	25.92247	1.062997	2.562863

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.200530**	**4.875306**	**2.571129**	**25.69132**	**2.555737**	**1.266282**
Stddev	.008677	.025219	.012078	.11104	.011230	.000903
%RSD	.7227818	.5172846	.4697708	.4322226	.4393935	.0712764
#1	1.192811	4.867931	2.584239	25.81915	2.568051	1.267007
#2	1.198857	4.854596	2.568697	25.63603	2.553097	1.266569
#3	1.209922	4.903391	2.560452	25.61878	2.546062	1.265271

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **22.33942**	**2.513197**	**2.475270**	**23.09875**	**5.477933**	**4.906395**
Stddev	.16101	.004588	.004359	.08553	.033608	.023718
%RSD	.7207251	.1825724	.1760890	.3702845	.6135228	.4834094
#1	22.17793	2.515371	2.470589	23.02341	5.508194	4.880563
#2	22.34039	2.516294	2.479211	23.08112	5.483844	4.911430
#3	22.49994	2.507926	2.476012	23.19172	5.441761	4.927191

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV03 Acquired: 6/13/2025 1:46:41 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.203750**	**4.985518**	**4.582185**	F **5.694521**	**5.068715**	**4.741563**
Stddev	.035085	.008175	.051569	.037097	.032597	.008866
%RSD	.6742282	.1639841	1.125428	.6514570	.6431067	.1869831
#1	5.234387	4.994288	4.532256	5.723705	5.086972	4.732988
#2	5.211389	4.978108	4.579047	5.707084	5.088094	4.741007
#3	5.165475	4.984159	4.635251	5.652773	5.031081	4.750693

Elem	Sr4077
Units	ppm
Avg	**4.924490**
Stddev	.013705
%RSD	.2782997
#1	4.930523
#2	4.908803
#3	4.934142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3181.120**	**71553.01**	**15393.70**	**2758.535**	**4121.997**
Stddev	57.224	378.21	28.94	18.559	45.843
%RSD	1.798868	.5285665	.1879997	.6727774	1.112163
#1	3238.965	71818.69	15362.45	2768.525	4168.440
#2	3179.856	71720.33	15419.57	2769.959	4120.772
#3	3124.538	71120.00	15399.09	2737.121	4076.778

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB03 Acquired: 6/13/2025 1:50:51 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0006900	.0012057	.0008764	.0008006	-.000383	.0085464	.0055114
Stddev	.0009861	.0004133	.0008852	.0012095	.000607	.0021094	.0003273
%RSD	142.8965	34.28416	101.0085	151.0621	158.6777	24.68149	5.939018
#1	-.000007	.0007545	.0015045	.0012650	-.000182	.0077953	.0051336
#2	.001818	.0012962	.0012606	.0017092	-.001065	.0109285	.0057108
#3	.000259	.0015662	-.000136	-.000572	.000099	.0069154	.0056897

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000631	.0000674	-.002961	.0003639	.0002127	.0004193	.0192805
Stddev	.0000369	.0000916	.000559	.0001865	.0001489	.0002514	.0020772
%RSD	58.43430	135.9229	18.89032	51.25545	70.00602	59.94563	10.77346
#1	.0000285	.0001307	-.003189	.0005537	.0003706	.0002042	.0169516
#2	.0001018	-.000038	-.003370	.0003570	.0001926	.0006957	.0209416
#3	.0000589	.000109	-.002323	.0001809	.0000748	.0003581	.0199484

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008789	.0098707	.0003267	-.000222	.0061252	.0002979	.0006874
Stddev	.0001425	.0046672	.0003106	.000041	.0017165	.0012651	.0001862
%RSD	16.20965	47.28292	95.08274	18.57160	28.02264	424.6356	27.08226
#1	.0008474	.0132097	.0003430	-.000215	.0079892	-.000433	.0008144
#2	.0007548	.0045378	.0006289	-.000267	.0057768	.001759	.0004737
#3	.0010345	.0118646	.0000083	-.000185	.0046097	-.000432	.0007742

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089576	.0026536	.0006233	-.000606	.0007634	.0079287	-.001079
Stddev	.0152676	.0006004	.0002838	.000305	.0005511	.0056221	.000659
%RSD	170.4420	22.62786	45.53371	50.43568	72.18970	70.90905	61.04164
#1	.0075318	.0033059	.0008652	-.000253	.0001709	.0093336	-.000766
#2	-.005547	.0021241	.0006937	-.000788	.0008588	.0017373	-.000636
#3	.024888	.0025307	.0003109	-.000776	.0012607	.0127151	-.001836

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB03 Acquired: 6/13/2025 1:50:51 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0036301	.0012830	.0003531
Stddev	.0030063	.0003109	.0000845
%RSD	82.81608	24.23096	23.93607
#1	.0048825	.0014062	.0002632
#2	.0058076	.0015134	.0003652
#3	.0002001	.0009294	.0004309

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3214.767	74397.92	16793.48	2787.242	4592.583
Stddev	2.292	125.54	53.64	18.330	5.688
%RSD	.0712826	.1687464	.3194026	.6576421	.1238427
#1	3217.399	74409.10	16855.30	2806.221	4598.846
#2	3213.219	74517.49	16759.26	2785.865	4591.163
#3	3213.682	74267.16	16765.88	2769.639	4587.740

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2297-01 Acquired: 6/13/2025 1:55:10 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**.1531633**	**-.005645**	**2.145402**	**-.005232**	**.0094938**	**68.12958**	**.8564108**
Stddev	.0033892	.001774	.009492	.001830	.0011856	.14338	.0038335
%RSD	2.212792	31.42341	.4424285	34.97106	12.48837	.2104460	.4476225
#1	.1570571	-.003602	2.152507	-.005063	.0108612	67.97884	.8543353
#2	.1515559	-.006790	2.149078	-.003493	.0088687	68.26423	.8608346
#3	.1508769	-.006543	2.134622	-.007141	.0087516	68.14567	.8540627

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0085918**	**.0159449**	**52.08234**	**.1925790**	**.0710282**	**.7903844**	**170.3530**
Stddev	.0000366	.0001618	.04998	.0006229	.0004875	.0013357	.3140
%RSD	.4254988	1.014731	.0959677	.3234296	.6864100	.1689943	.1843325
#1	.0086309	.0161197	52.06730	.1931988	.0715900	.7919044	170.0669
#2	.0085585	.0158004	52.04161	.1925850	.0707781	.7898510	170.3030
#3	.0085859	.0159145	52.13812	.1919531	.0707164	.7893978	170.6890

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.126666**	**34.26340**	**.2408303**	**-.001658**	**10.98967**	**.2700816**	**6.587470**
Stddev	.020705	.05061	.0011198	.000133	.01805	.0029594	.003909
%RSD	.2268625	.1477032	.4649914	7.996152	.1642119	1.095751	.0593402
#1	9.105901	34.32086	.2420469	-.001811	10.97257	.2687182	6.591298
#2	9.147310	34.24388	.2406014	-.001593	10.98792	.2734770	6.587628
#3	9.126788	34.22546	.2398426	-.001571	11.00853	.2680496	6.583485

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.836278**	**.4375627**	**.0071280**	**.1406234**	**2.190198**	**7.862548**	**5.675177**
Stddev	.025162	.0012740	.0001637	.0005794	.009860	.031371	.047934
%RSD	.3210938	.2911570	2.296127	.4119991	.4501908	.3989931	.8446229
#1	7.809002	.4364582	.0069996	.1412761	2.178875	7.845124	5.723065
#2	7.841248	.4372735	.0073123	.1401701	2.196889	7.843757	5.675267
#3	7.858584	.4389564	.0070721	.1404239	2.194831	7.898764	5.627198

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: Q2297-01 Acquired: 6/13/2025 1:55:10 Type: Unk
Method: 6010-200.7 NEW(v8) 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	**2.982023**	**.1707981**	**.1209170**
Stddev	.016289	.0004779	.0005356
%RSD	.5462252	.2797983	.4429178
#1	2.997129	.1703108	.1209564
#2	2.984176	.1708176	.1214317
#3	2.964766	.1712660	.1203628

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3346.882**	**80799.77**	**17762.06**	**3015.511**	**3960.287**
Stddev	12.530	116.87	19.24	11.027	11.916
%RSD	.3743921	.1446427	.1083226	.3656890	.3008926
#1	3344.160	80894.57	17779.21	3027.692	3955.291
#2	3360.549	80835.55	17741.25	3012.632	3973.888
#3	3335.935	80669.19	17765.71	3006.209	3951.682

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV04 Acquired: 6/13/2025 1:59:14 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.749402**	**4.965302**	**5.106472**	**4.633961**	**4.624441**	**9.648155**
Stddev	.008457	.071415	.012523	.020822	.011379	.022168
%RSD	.1780600	1.438280	.2452343	.4493245	.2460723	.2297670
#1	4.745214	4.917164	5.092654	4.627627	4.634978	9.627526
#2	4.743857	4.931388	5.109690	4.617042	4.612374	9.645345
#3	4.759136	5.047355	5.117071	4.657214	4.625972	9.671595

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.908002**	F **.2809666**	**2.593730**	**25.83260**	**1.033646**	**2.558301**
Stddev	.044262	.0037008	.006647	.13253	.010375	.004108
%RSD	.4467291	1.317154	.2562761	.5130531	1.003732	.1605787
#1	9.917632	.2766999	2.586055	25.96536	1.026301	2.553588
#2	9.946656	.2828943	2.597619	25.70029	1.029124	2.560191
#3	9.859718	.2833055	2.597516	25.83217	1.045515	2.561124

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.192139**	**4.686766**	**2.556061**	**25.63986**	**2.541453**	**1.239588**
Stddev	.001787	.054802	.012513	.15428	.002638	.012210
%RSD	.1499137	1.169283	.4895442	.6017000	.1037900	.9849649
#1	1.194100	4.727722	2.567722	25.80514	2.539396	1.239781
#2	1.190601	4.624512	2.542841	25.49967	2.540537	1.227284
#3	1.191718	4.708062	2.557619	25.61476	2.544427	1.251701

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **21.77838**	**2.501836**	**2.414118**	F **22.44317**	**5.489313**	**4.881195**
Stddev	.23461	.006867	.018109	.24898	.048323	.012222
%RSD	1.077281	.2744745	.7501296	1.109362	.8803144	.2503827
#1	21.92277	2.508656	2.415319	22.64124	5.433832	4.881520
#2	21.50767	2.494923	2.395438	22.16368	5.511905	4.868814
#3	21.90470	2.501929	2.431596	22.52458	5.522202	4.893251

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCV04 Acquired: 6/13/2025 1:59:14 Type: Unk
Method: 6010-200.7 NEW(v8) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.175977**	**4.965305**	F **4.485170**	F **5.629318**	**5.036479**	**4.796473**
Stddev	.013560	.015004	.072827	.038612	.020748	.019798
%RSD	.2619884	.3021849	1.623721	.6859051	.4119609	.4127655
#1	5.162585	4.975857	4.535109	5.600405	5.015735	4.776501
#2	5.175645	4.948128	4.401606	5.614382	5.036471	4.796826
#3	5.189700	4.971929	4.518794	5.673167	5.057231	4.816093

Elem	Sr4077
Units	ppm
Avg	**4.910721**
Stddev	.010949
%RSD	.2229588
#1	4.921544
#2	4.910970
#3	4.899650

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3183.675**	**71913.09**	**14999.67**	**2719.885**	**4129.499**
Stddev	16.509	806.41	25.38	41.146	13.632
%RSD	.5185427	1.121371	.1691776	1.512776	.3301107
#1	3165.898	71328.64	14994.84	2677.453	4114.918
#2	3198.524	72833.10	15027.12	2759.611	4141.926
#3	3186.605	71577.54	14977.06	2722.591	4131.655

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB04 Acquired: 6/13/2025 2:03:25 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0010647	.0009533	.0008939	.0017866	.0011887	.0114119	.0054534
Stddev	.0007887	.0017547	.0004487	.0029173	.0002482	.0015064	.0007820
%RSD	74.07765	184.0554	50.19395	163.2899	20.87708	13.20028	14.34016
#1	.0005738	-.000585	.0006169	.0001350	.0009322	.0097395	.0052046
#2	.0019745	.000580	.0006532	.0000698	.0012063	.0126624	.0063296
#3	.0006459	.002865	.0014116	.0051550	.0014275	.0118337	.0048261

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000655	.0002601	.0075949	.0009375	.0003575	.0005067	.0227820
Stddev	.0000299	.0000591	.0028524	.0001844	.0001012	.0000987	.0010032
%RSD	45.59528	22.72973	37.55686	19.66770	28.30622	19.47235	4.403400
#1	.0000957	.0003283	.0045870	.0008742	.0004523	.0004580	.0218060
#2	.0000648	.0002245	.0102611	.0011452	.0002509	.0006202	.0227297
#3	.0000360	.0002274	.0079366	.0007930	.0003692	.0004418	.0238104

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008146	.0137431	.0007509	-.000045	.0168334	-.001021	.0047033
Stddev	.0001762	.0152601	.0001533	.000174	.0022007	.001543	.0003053
%RSD	21.63417	111.0380	20.41317	385.2980	13.07349	151.1281	6.490173
#1	.0009934	-.003855	.0008893	.000010	.0149853	-.000125	.0050277
#2	.0006411	.023321	.0005862	-.000240	.0192679	-.002803	.0044218
#3	.0008092	.021763	.0007772	.000094	.0162469	-.000135	.0046605

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0104895	.0063447	.0011287	.0012008	.0005660	.0078382	-.001614
Stddev	.0065949	.0005462	.0001059	.0004267	.0005155	.0048536	.001898
%RSD	62.87181	8.608660	9.381104	35.53451	91.07789	61.92158	117.5968
#1	.0113639	.0059910	.0012475	.0010010	.0009073	.0072131	-.001120
#2	.0166036	.0060694	.0010942	.0016907	-.000027	.0129741	-.000012
#3	.0035010	.0069738	.0010443	.0009107	.000818	.0033275	-.003709

Reviewed By:jaswal
On:6/16/2025 5:52:22 PM
Inst Id :P4
LB :LB136140

Sample Name: CCB04 Acquired: 6/13/2025 2:03:25 Type: Unk
Method: 6010-200.7 NEW(v8) 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	.0056405	.0019511	.0005350
Stddev	.0008333	.0002784	.0000867
%RSD	14.77443	14.26982	16.19792
#1	.0054892	.0020640	.0004518
#2	.0048931	.0021554	.0005285
#3	.0065391	.0016340	.0006247

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3347.050	75721.42	16383.41	2866.889	4713.450
Stddev	17.460	426.69	12.76	36.818	16.105
%RSD	.5216557	.5635017	.0779030	1.284232	.3416716
#1	3333.797	75244.22	16388.45	2829.240	4706.616
#2	3366.834	76066.21	16392.88	2902.814	4731.845
#3	3340.520	75853.82	16368.90	2868.612	4701.890

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168414

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: 06/11/2025 **Time :** 11:15 **Temp :** 96 °C

End Digest Date: 06/11/2025 **Time :** 14:20 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLD.

Supervisor Signature: JRP

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6007
LFS-2	0.25	M6016
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
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
06/11/25 15:20	SLD met dig	JRP Met Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168414

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB168414BL	PBW414	<2	50	25	Colorless	Colorless	Cloudy	Clear	N/A	1
PB168414BS	LCS414	<2	50	25	Colorless	Colorless	Cloudy	Clear	M6007,M6016	2
Q2276-01	MH-6-10-2025	<2	5	25	Colorless	Colorless	Cloudy	Clear	N/A	3
Q2279-01	301-469-5TH-AVE	<2	50	25	Brown	Colorless	Cloudy	Clear	N/A	4
Q2279-01MS	301-469-5TH-AVEMS	<2	50	25	Brown	Colorless	Cloudy	Clear	M6007,M6016	6
Q2279-01MSD	301-469-5TH-AVEMSD	<2	50	25	Brown	Colorless	Cloudy	Clear	M6007,M6016	7
Q2279-01DUP	301-469-5TH-AVEDUP	<2	50	25	Brown	Colorless	Cloudy	Clear	N/A	5
Q2282-04	251233	<2	2	25	light Brown	Colorless	Cloudy	Clear	N/A	8
Q2284-02	TRE-GAS-25-0068	<2	50	25	light Brown	Colorless	Cloudy	Clear	N/A	9
Q2286-03	LAW-25-0084	<2	50	25	light Brown	Colorless	Cloudy	Clear	N/A	10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB168414 **WorkList ID :** 190101 **Department :** Digestion **Date :** 06-11-2025 10:03:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2276-01	MH-6-10-2025	Water	Metals Group3	1:1 HNO3 to pH < 2	EURO03	D31	06/10/2025	6010D
Q2279-01	301-469-5TH-AVE	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D41	06/10/2025	6010D
Q2282-04	251233	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D31	06/10/2025	6010D
Q2284-02	TRE-GAS-25-0068	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D41	06/10/2025	6010D
Q2286-03	LAW-25-0084	Water	Metals PSEG Group2	1:1 HNO3 to pH < 2	PSEG03	D41	06/10/2025	6010D

Date/Time 06/12/25 10:15
Raw Sample Received by: SUB. met dig
Raw Sample Relinquished by: CLP Cust

Date/Time 06/12/25 11:15
Raw Sample Received by: CLP Cust
Raw Sample Relinquished by: SUB. met. dig

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136119

Review By	Janvi	Review On	6/12/2025 2:20:51 PM
Supervise By	jaswal	Supervise On	6/12/2025 5:41:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	06/11/25 12:36		Jaswal	OK
2	S1	S1	CAL2	06/11/25 12:41		Jaswal	OK
3	S2	S2	CAL3	06/11/25 12:45		Jaswal	OK
4	S3	S3	CAL4	06/11/25 12:49		Jaswal	OK
5	S4	S4	CAL5	06/11/25 12:53		Jaswal	OK
6	S5	S5	CAL6	06/11/25 12:58		Jaswal	OK
7	ICV01	ICV01	ICV	06/11/25 13:53		Jaswal	OK
8	LLICV01	LLICV01	LLICV	06/11/25 13:57		Jaswal	OK
9	ICB01	ICB01	ICB	06/11/25 14:03		Jaswal	OK
10	CRI01	CRI01	CRDL	06/11/25 14:07		Jaswal	OK
11	ICSA01	ICSA01	ICSA	06/11/25 14:14		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	06/11/25 14:27		Jaswal	OK
13	ICSADL	ICSADL	ICSA	06/11/25 14:32		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	06/11/25 14:37		Jaswal	OK
15	CCV01	CCV01	CCV	06/11/25 14:42		Jaswal	OK
16	CCB01	CCB01	CCB	06/11/25 14:46		Jaswal	OK
17	Q2238-01	0528	SAM	06/11/25 14:51		Jaswal	OK
18	Q2238-01DUP	0528DUP	DUP	06/11/25 14:55		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136119

Review By	Janvi	Review On	6/12/2025 2:20:51 PM
Supervise By	jaswal	Supervise On	6/12/2025 5:41:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

19	Q2238-01L	0528L	SD	06/11/25 14:59		Jaswal	OK
20	Q2238-01MS	0528MS	MS	06/11/25 15:04		Jaswal	OK
21	Q2238-01MSD	0528MSD	MSD	06/11/25 15:08		Jaswal	OK
22	Q2238-01A	0528A	PS	06/11/25 15:13		Jaswal	OK
23	Q2279-01	301-469-5TH-AVE	SAM	06/11/25 15:57		Jaswal	OK
24	Q2279-01DUP	301-469-5TH-AVEDU	DUP	06/11/25 16:07		Jaswal	OK
25	Q2279-01L	301-469-5TH-AVEL	SD	06/11/25 16:11		Jaswal	OK
26	CCV02	CCV02	CCV	06/11/25 16:33		Jaswal	OK
27	CCB02	CCB02	CCB	06/11/25 16:44		Jaswal	OK
28	Q2279-01MS	301-469-5TH-AVEMS	MS	06/11/25 16:49		Jaswal	OK
29	Q2279-01MSD	301-469-5TH-AVEMS	MSD	06/11/25 16:53		Jaswal	OK
30	Q2279-01A	301-469-5TH-AVEA	PS	06/11/25 16:57		Jaswal	OK
31	PB168369TB	PB168369TB	MB	06/11/25 17:01		Jaswal	OK
32	Q2214-04	RBR251425	SAM	06/11/25 17:05		Jaswal	OK
33	Q2271-04	TP12-MHK-WC	SAM	06/11/25 17:10		Jaswal	OK
34	Q2272-04	TP-6	SAM	06/11/25 17:14		Jaswal	OK
35	Q2273-04	WC-4	SAM	06/11/25 17:19		Jaswal	OK
36	Q2273-08	WC-6	SAM	06/11/25 17:23		Jaswal	OK
37	CCV03	CCV03	CCV	06/11/25 17:27		Jaswal	OK
38	CCB03	CCB03	CCB	06/11/25 17:34		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136119

Review By	Janvi	Review On	6/12/2025 2:20:51 PM
Supervise By	jaswal	Supervise On	6/12/2025 5:41:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

39	Q2274-04	TP-13-MHP-WC	SAM	06/11/25 17:38		Jaswal	OK
40	Q2278-04	TP-2	SAM	06/11/25 17:43		Jaswal	OK
41	Q2280-02	VNJ-210	SAM	06/11/25 17:47		Jaswal	OK
42	Q2280-04	RT-4643	SAM	06/11/25 17:51		Jaswal	OK
43	Q2285-05	HAM-CONCRETE	SAM	06/11/25 17:56		Jaswal	OK
44	Q2267-01	WC-20250605	SAM	06/11/25 18:00		Jaswal	OK
45	Q2267-01DUP	WC-20250605DUP	DUP	06/11/25 18:04		Jaswal	OK
46	Q2267-01L	WC-20250605L	SD	06/11/25 18:09		Jaswal	OK
47	Q2267-01MS	WC-20250605MS	MS	06/11/25 18:13		Jaswal	OK
48	Q2267-01MSD	WC-20250605MSD	MSD	06/11/25 18:17		Jaswal	OK
49	CCV04	CCV04	CCV	06/11/25 18:21		Jaswal	OK
50	CCB04	CCB04	CCB	06/11/25 18:25		Jaswal	OK
51	Q2267-01A	WC-20250605A	PS	06/11/25 18:29		Jaswal	OK
52	PB168423BL	PB168423BL	MB	06/11/25 18:33		Jaswal	OK
53	PB168423BS	PB168423BS	LCS	06/11/25 18:38		Jaswal	OK
54	PB168390TB	PB168390TB	MB	06/11/25 18:42		Jaswal	OK
55	PB168415BL	PB168415BL	MB	06/11/25 18:46		Jaswal	OK
56	PB168415BS	PB168415BS	LCS	06/11/25 18:52		Jaswal	OK
57	Q2278-01	TP-2	SAM	06/11/25 18:56		Jaswal	OK
58	Q2280-01	VNJ-210	SAM	06/11/25 19:00		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136119

Review By	Janvi	Review On	6/12/2025 2:20:51 PM
Supervise By	jaswal	Supervise On	6/12/2025 5:41:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

59	Q2283-01	MOO-25-0166-MOO-2	SAM	06/11/25 19:05		Jaswal	OK
60	CCV05	CCV05	CCV	06/11/25 19:09		Jaswal	OK
61	CCB05	CCB05	CCB	06/11/25 19:14		Jaswal	OK
62	Q2280-03	RT-4643	SAM	06/11/25 19:19		Jaswal	OK
63	Q2280-03DUP	RT-4643DUP	DUP	06/11/25 19:23		Jaswal	OK
64	Q2280-03L	RT-4643L	SD	06/11/25 19:28		Jaswal	OK
65	Q2280-03MS	RT-4643MS	MS	06/11/25 19:32		Jaswal	OK
66	Q2280-03MSD	RT-4643MSD	MSD	06/11/25 19:36		Jaswal	OK
67	Q2280-03A	RT-4643A	PS	06/11/25 19:40		Jaswal	OK
68	Q2283-03	PAD-061025	SAM	06/11/25 19:45		Jaswal	OK
69	Q2286-01	LAW-25-0082-LAW-25	SAM	06/11/25 19:49		Jaswal	OK
70	Q2282-04	251233	SAM	06/11/25 19:55		Jaswal	OK
71	Q2276-01DL	MH-6-10-2025DL	SAM	06/11/25 19:59	Straight 5x Dilution for All elements	Jaswal	OK
72	CCV06	CCV06	CCV	06/11/25 20:06		Jaswal	OK
73	CCB06	CCB06	CCB	06/11/25 20:11		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136140

Review By	Janvi	Review On	6/13/2025 3:30:03 PM
Supervise By	jaswal	Supervise On	6/16/2025 5:52:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	06/12/25 17:12		Jaswal	OK
2	S1	S1	CAL2	06/12/25 17:17		Jaswal	OK
3	S2	S2	CAL3	06/12/25 17:21		Jaswal	OK
4	S3	S3	CAL4	06/12/25 17:25		Jaswal	OK
5	S4	S4	CAL5	06/12/25 17:29		Jaswal	OK
6	S5	S5	CAL6	06/12/25 17:33		Jaswal	OK
7	ICV01	ICV01	ICV	06/12/25 17:58		Jaswal	OK
8	LLICV01	LLICV01	LLICV	06/12/25 18:02		Jaswal	OK
9	ICB01	ICB01	ICB	06/12/25 18:06		Jaswal	OK
10	CRI01	CRI01	CRDL	06/12/25 18:12		Jaswal	OK
11	ICSA01	ICSA01	ICSA	06/12/25 18:23		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	06/12/25 18:34		Jaswal	OK
13	ICSADL	ICSADL	ICSA	06/12/25 18:38		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	06/12/25 18:43		Jaswal	OK
15	CCV01	CCV01	CCV	06/12/25 18:50		Jaswal	OK
16	CCB01	CCB01	CCB	06/12/25 18:55		Jaswal	OK
17	Q2284-02	TRE-GAS-25-0068	SAM	06/12/25 18:59		Jaswal	OK
18	Q2286-03	LAW-25-0084	SAM	06/12/25 19:04		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136140

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Supervise By	jaswal	Supervise On	6/16/2025 5:52:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

19	PB168414BL	PB168414BL	MB	06/12/25 19:09		Jaswal	OK
20	PB168414BS	PB168414BS	LCS	06/12/25 19:13		Jaswal	OK
21	PB168446BL	PB168446BL	MB	06/12/25 19:17		Jaswal	OK
22	PB168446BS	PB168446BS	LCS	06/12/25 19:21		Jaswal	OK
23	Q2287-01	CONCRETE-SLAB	SAM	06/12/25 19:25		Jaswal	OK
24	Q2295-01	TP01-MH1-WC	SAM	06/12/25 19:30		Jaswal	OK
25	Q2295-05	TP02-MH5-WC	SAM	06/12/25 19:34		Jaswal	OK
26	Q2296-05	WC-2	SAM	06/12/25 19:38		Jaswal	OK
27	CCV02	CCV02	CCV	06/12/25 19:42		Jaswal	OK
28	CCB02	CCB02	CCB	06/12/25 19:47		Jaswal	OK
29	Q2296-01	WC-1	SAM	06/12/25 19:51	CCV03 fail for Be,Na	Jaswal	Not Ok
30	Q2296-01DUP	WC-1DUP	DUP	06/12/25 19:55	CCV03 fail for Be,Na	Jaswal	Not Ok
31	Q2296-01L	WC-1L	SD	06/12/25 19:59	CCV03 fail for Be,Na	Jaswal	Not Ok
32	Q2296-01MS	WC-1MS	MS	06/12/25 20:03	CCV03 fail for Be,Na	Jaswal	Not Ok
33	Q2296-01MSD	WC-1MSD	MSD	06/13/25 01:16	CCV03 fail for Be,Na	Jaswal	Not Ok
34	Q2296-01A	WC-1A	PS	06/13/25 01:25	CCV03 fail for Be,Na	Jaswal	Not Ok
35	Q2296-09	WC-3	SAM	06/13/25 01:30	CCV03 fail for Be,Na	Jaswal	Not Ok
36	Q2296-13	WC-4	SAM	06/13/25 01:34	CCV03 fail for Be,Na	Jaswal	Not Ok
37	Q2296-17	WC-5	SAM	06/13/25 01:38	CCV03 fail for Be,Na	Jaswal	Not Ok
38	Q2296-21	WC-6	SAM	06/13/25 01:42	CCV03 fail for Be,Na	Jaswal	Not Ok

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136140

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Supervise By	jaswal	Supervise On	6/16/2025 5:52:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

39	CCV03	CCV03	CCV	06/13/25 01:46	Fail for Be,Na	Jaswal	OK
40	CCB03	CCB03	CCB	06/13/25 01:50		Jaswal	OK
41	Q2297-01	TP-3	SAM	06/13/25 01:55	CCV04 fail for Be,K,Na	Jaswal	Not Ok
42	CCV04	CCV04	CCV	06/13/25 01:59	Fail for Be,K,Na	Jaswal	OK
43	CCB04	CCB04	CCB	06/13/25 02:03		Jaswal	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q2276

Test : Metals Group3

Prepbatch ID : PB168414,

Sequence ID/Qc Batch ID: LB136119,LB136119,LB136140,LB136140,LB136140,

Standard ID :
MP85156,MP85867,MP85868,MP85869,MP85870,MP85871,MP85873,MP85874,MP85875,MP85876,MP85877,MP85896,MP85897,MP85934,

Chemical ID :
M5466,M5467,M5471,M5658,M5697,M5747,M5748,M5798,M5799,M5800,M5801,M5811,M5814,M5820,M5942,M5962,M5969,M5970,M5984,M5985,M5996,M5997,M6007,M6016,M6021,M6023,M6028,M6030,M6032,M6077,M6127,M6128,M6137,M6138,M6142,M6144,M6145,M6146,M6151,M6152,M6155,M6158,M6159,M6162,M6163,M6164,M6165,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	08/18/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85867	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6162 = 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)	MP85868	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5471 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5970 + 5.00000ml of M5996 + 5.00000ml of M5997 + 5.00000ml of M6077 + 5.00000ml of M6146 + 455.00000ml of MP85867 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85869	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 50.00000ml of MP85867 + 50.00000ml of MP85868 = 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	MP85870	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 25.00000ml of MP85868 + 75.00000ml of MP85867 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
908	ICP AES S2/CRI MINERALS ONLY STD	MP85871	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 8.00000ml of MP85868 + 92.00000ml of MP85867 = 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
904	ICP AES ICSA SOLN	MP85873	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85867 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85874	06/02/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 10.00000ml of M6152 + 10.00000ml of M6155 + 80.00000ml of MP85867 = 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
911	ICP AES CCV SOLN	MP85875	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 50.00000ml of MP85867 + 50.00000ml of MP85868 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85876	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6162 = 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
903	ICP AES RINSE SOLN	MP85877	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 200.00000ml of M6162 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85896	06/02/2025	06/13/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5969 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5942 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M6137 + 90.03000ml of MP85867 = 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
2951	ICP AES S1/CRI WORK STD	MP85897	06/02/2025	06/23/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 2.00000ml of MP85896 + 90.03000ml of MP85867 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP85934	06/10/2025	06/23/2025	Sarabjit Jaswal	METALS_SCALE_1 (M SC-1)	METALS_PIPETTE_3 (A)	Mohan Bera 06/16/2025

FROM 0.20000ml of M6163 + 0.20000ml of M6164 + 0.20000ml of M6165 + 49.40000ml of MP85867 = Final Quantity: 50.000 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 #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

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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.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

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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.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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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	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	08/05/2024 / kareem	06/14/2024 / Jaswal	M5984

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-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	05/07/2024 / JANVI	02/22/2024 / kareem	M5996

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	05/27/2026	05/27/2025 / Janvi	05/14/2024 / Jaswal	M6007

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	10/30/2025	04/30/2025 / mohan	05/14/2024 / Jaswal	M6016

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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.	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.	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	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.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	06/20/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

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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.	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 #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

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	05/22/2029	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	06/01/2028	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	01/02/2030	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 #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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Certified Reference Material CRM

M6032

R: 8/5/24

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https://Absolutestandards.com

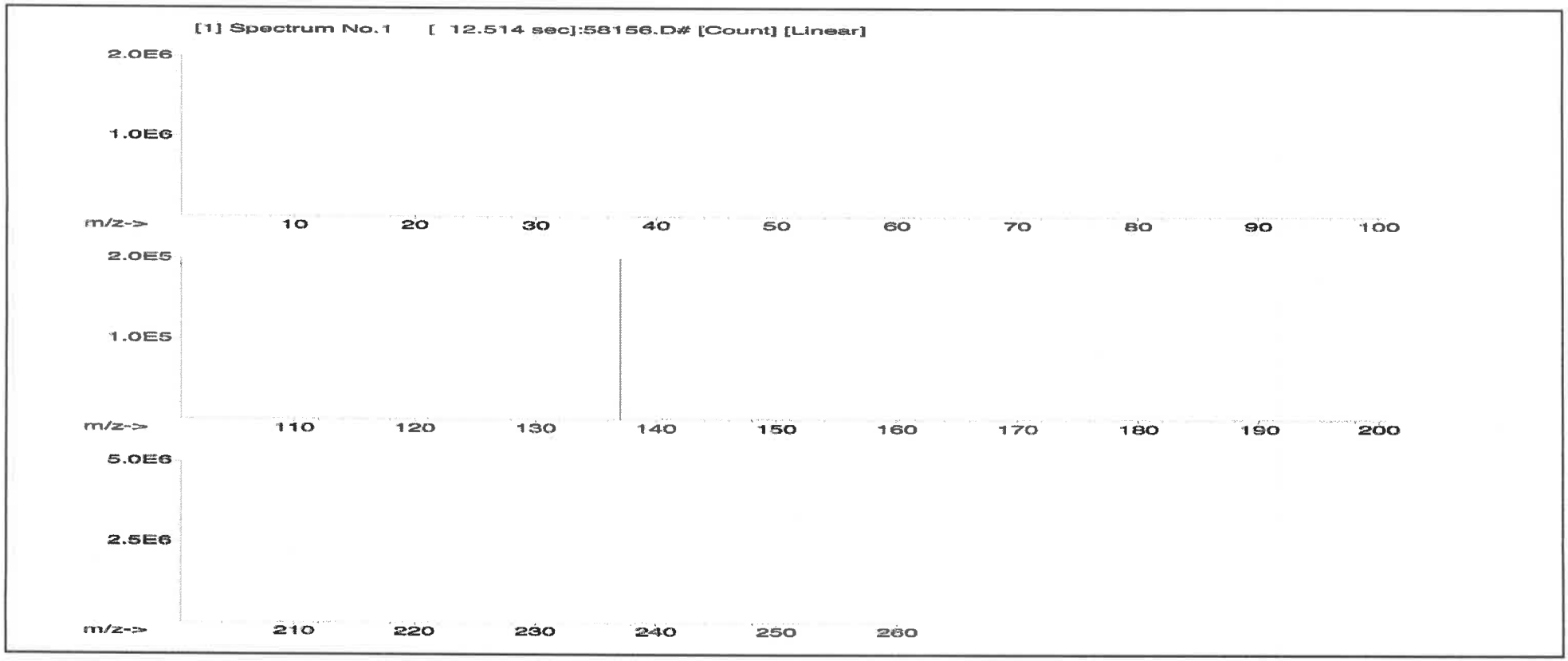
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M6028

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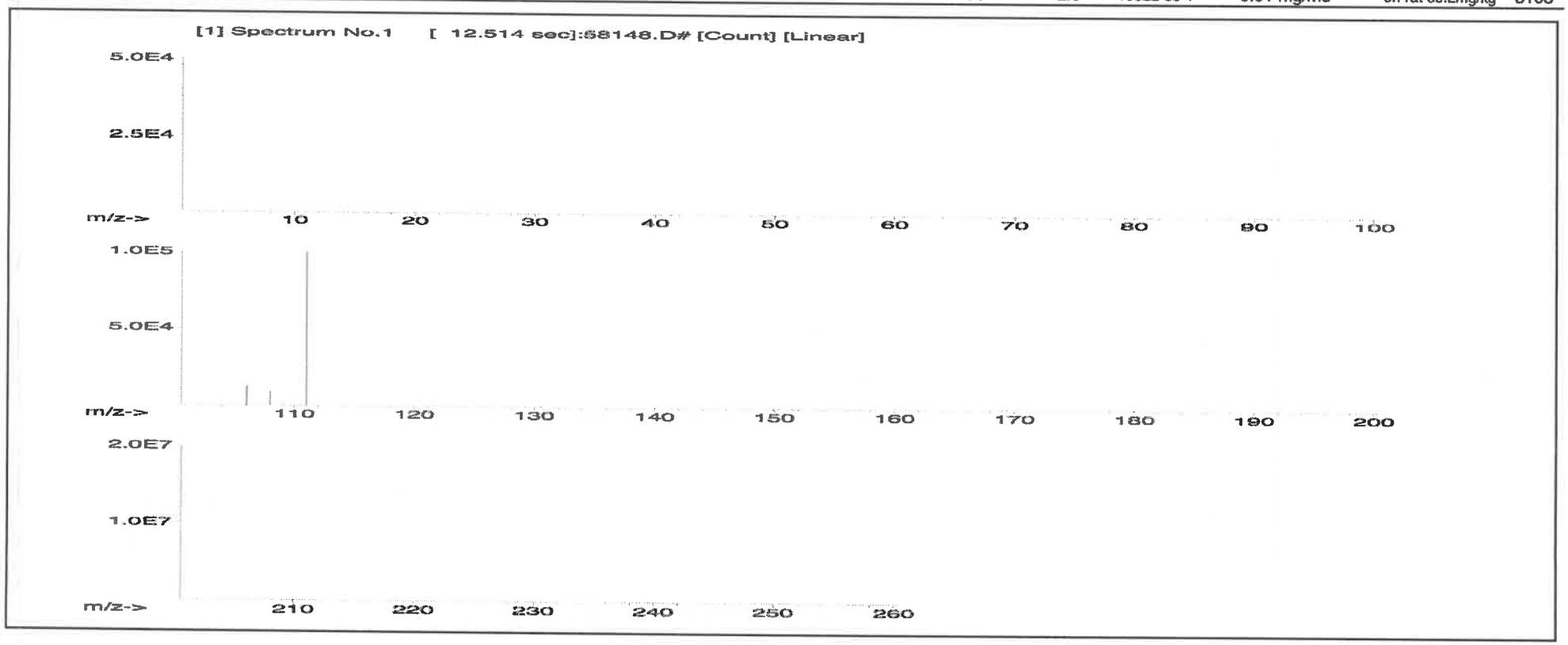
CERTIFIED WEIGHT REPORT:

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
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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Certified Reference Material CRM

R : 01/03/24. M5810, M5811

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

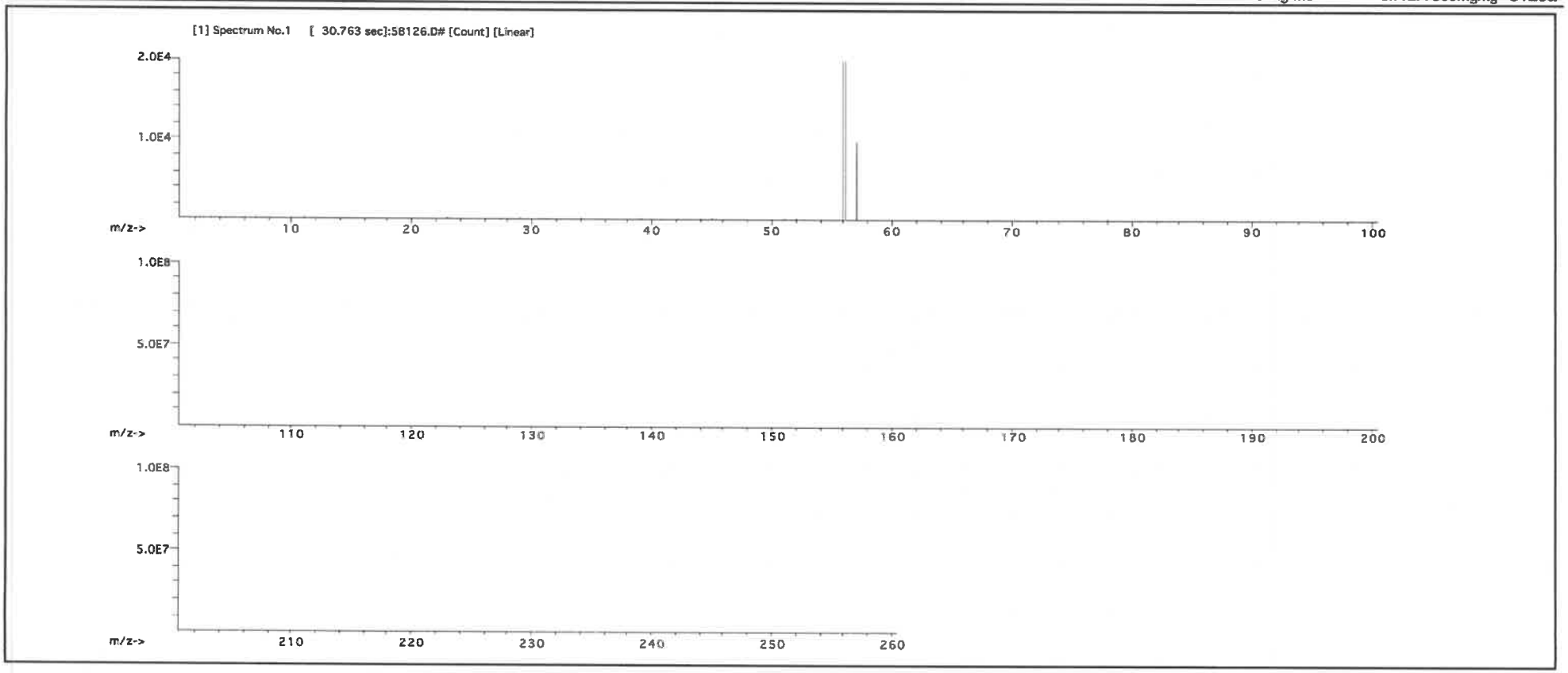
Expiration Date: 051526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
	5.0%	250.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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RD:05/14/2024

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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:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

IN 5466
R: 03/01/23 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

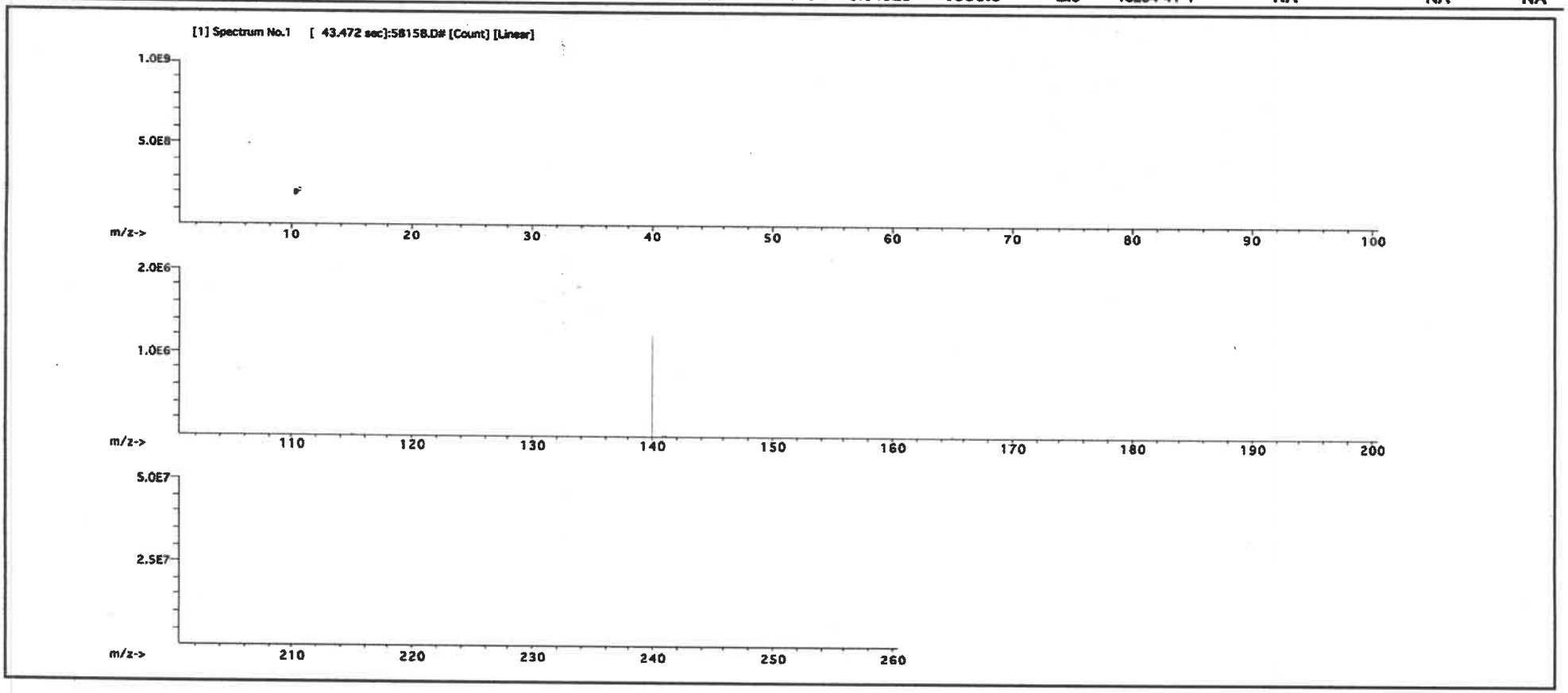
Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #	
Solvent:	20510011	Nitric Acid
2%	20.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

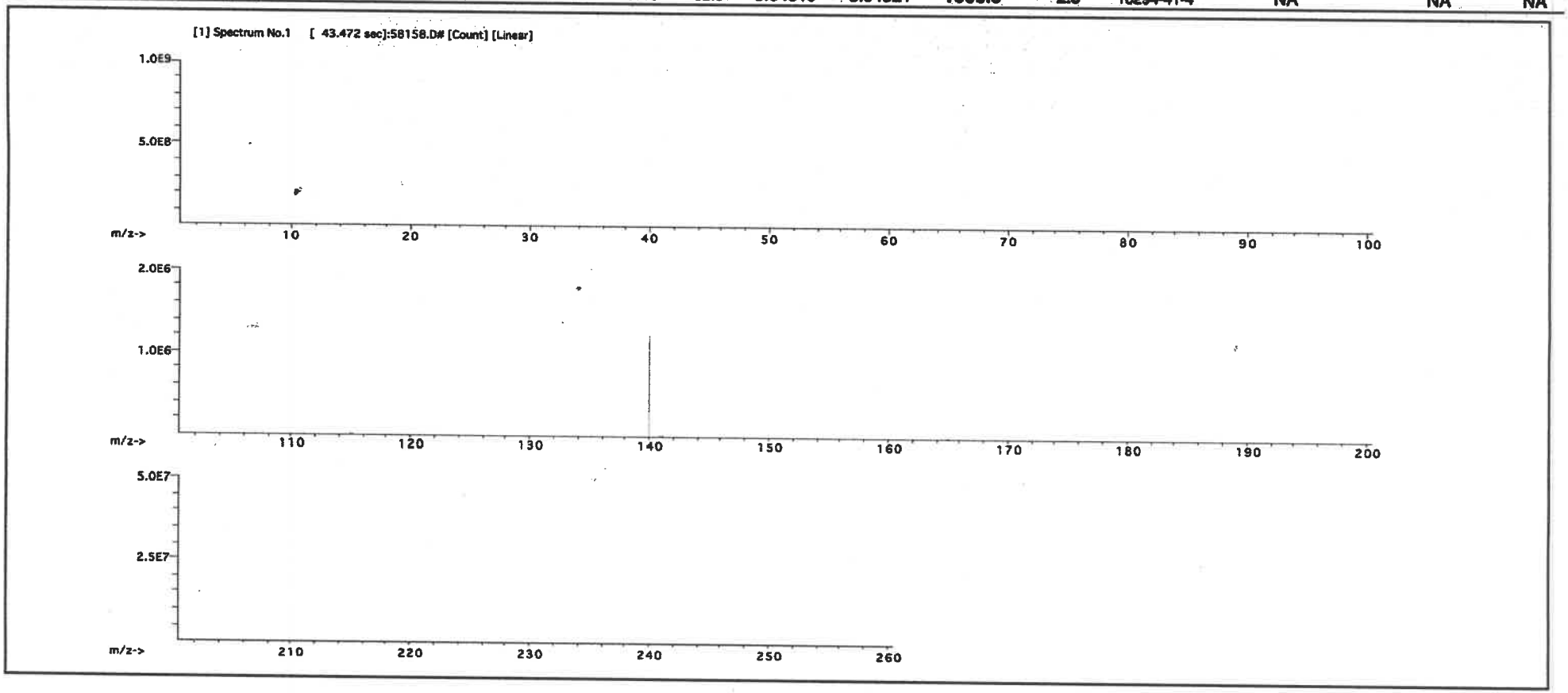
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5658 R ! 8/25/23

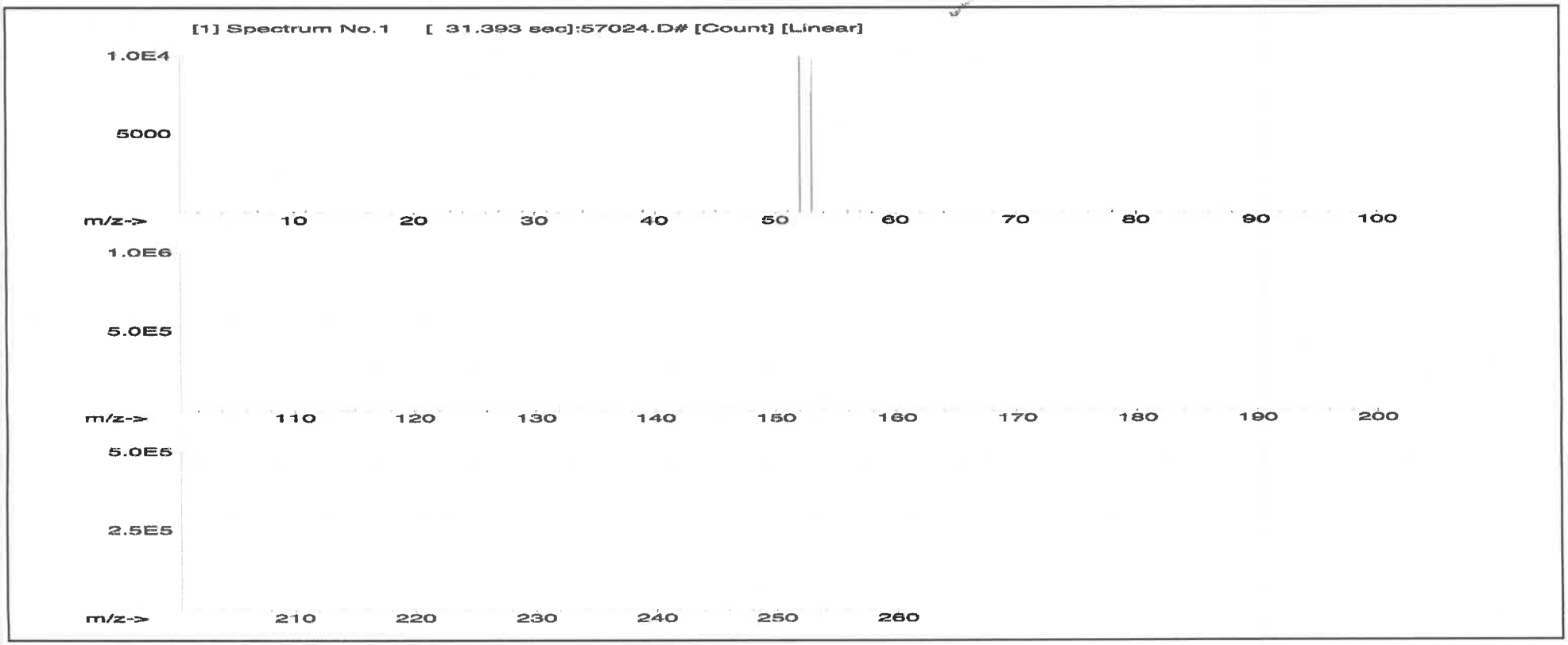
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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M5697 R: 10/27/23

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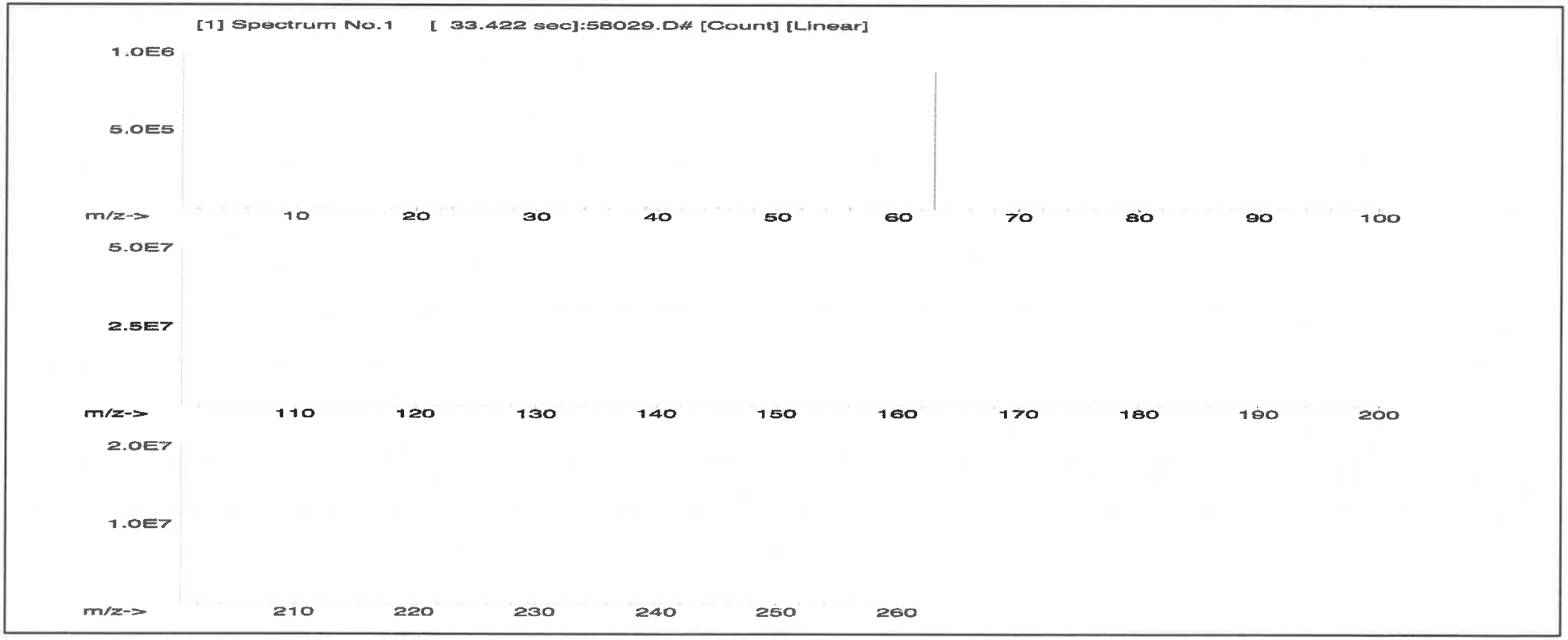
CERTIFIED WEIGHT REPORT:

		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



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.
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R: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

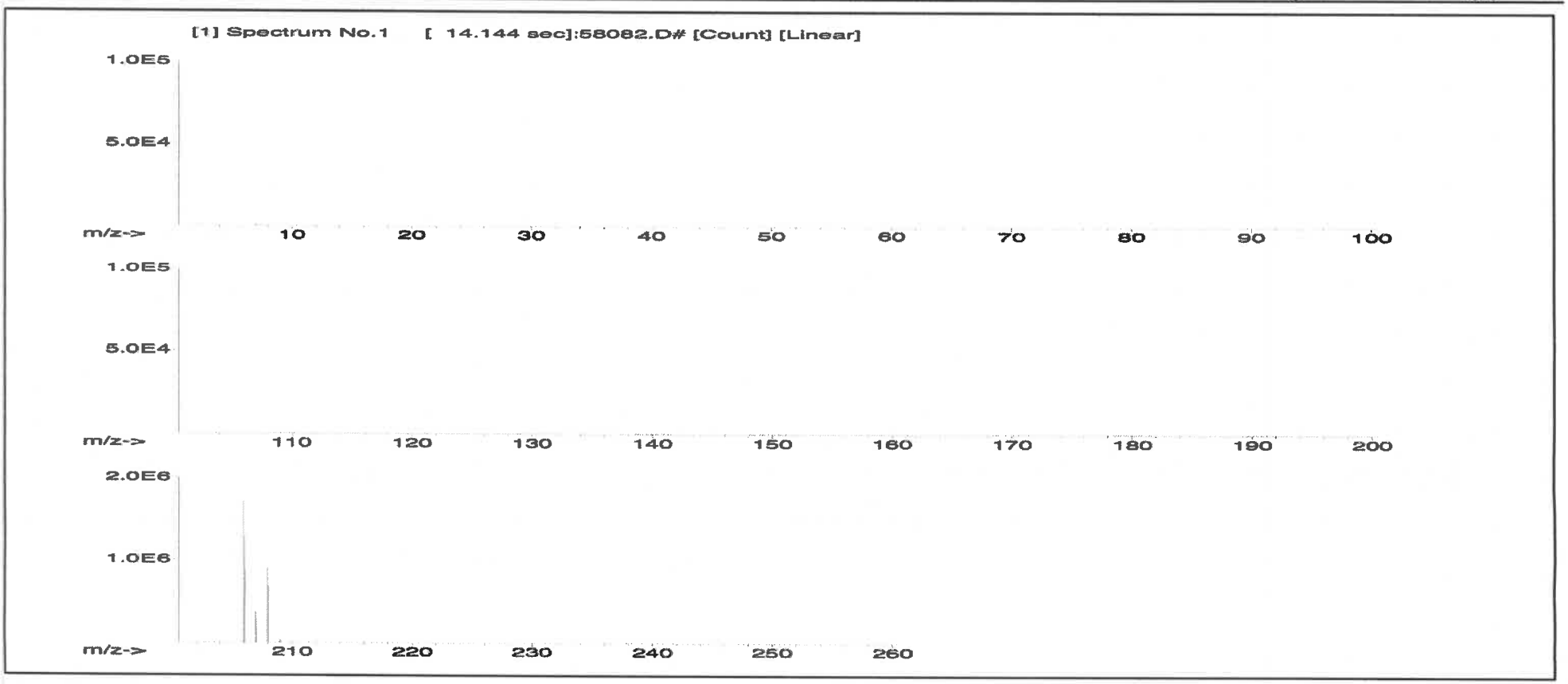
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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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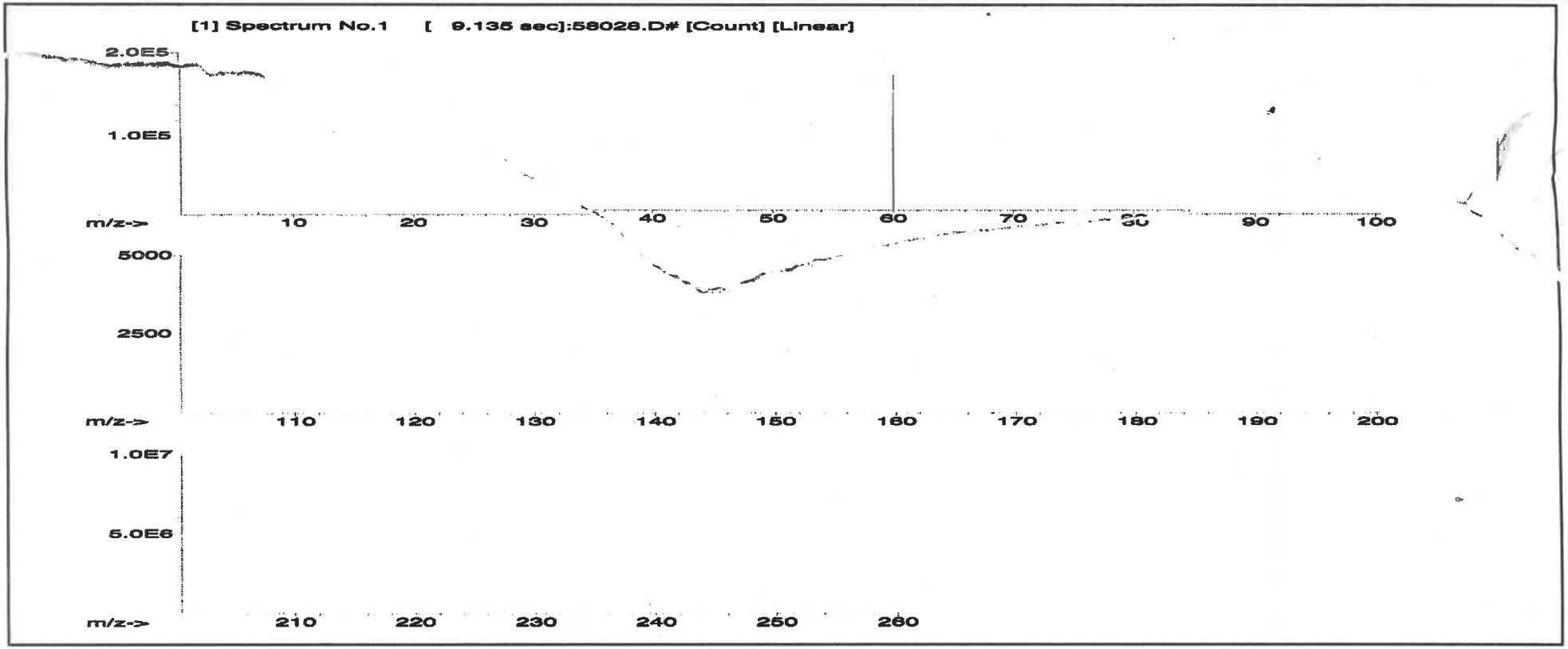
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	**2.2**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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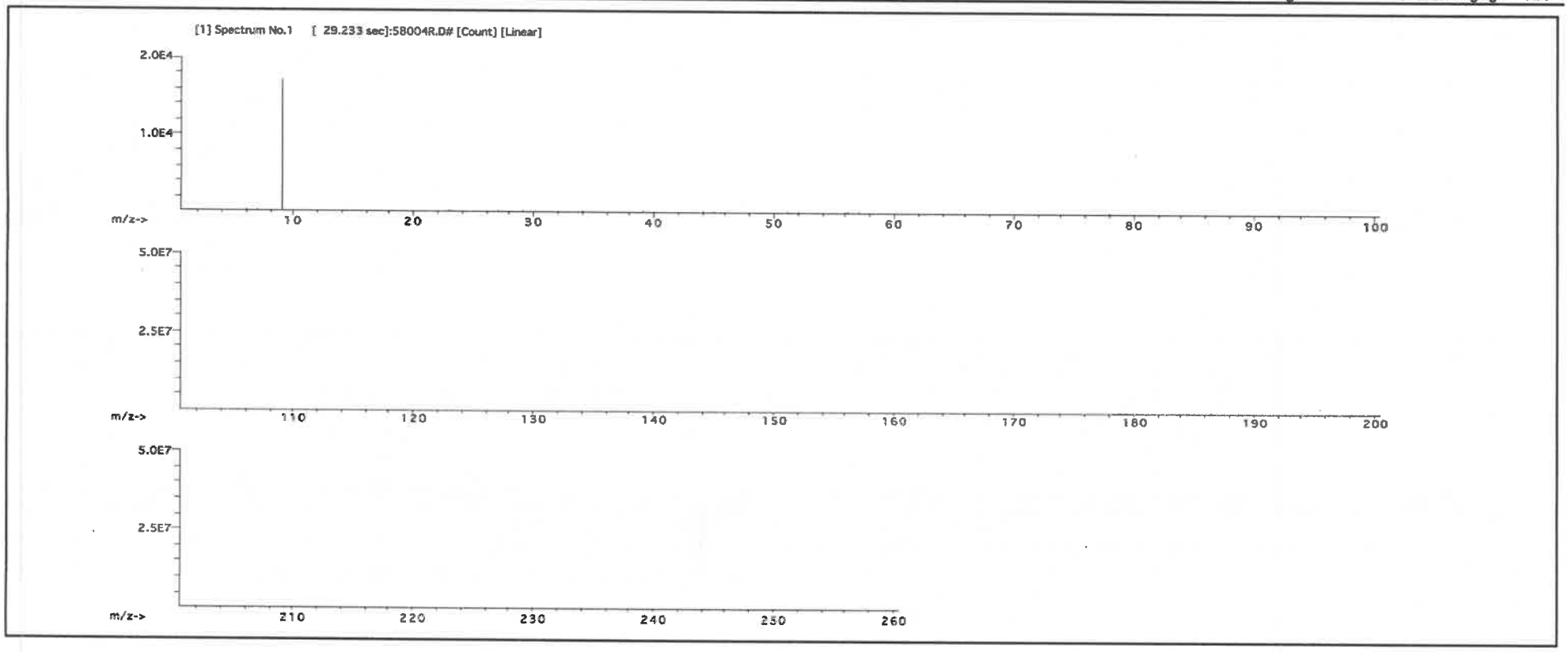
CERTIFIED WEIGHT REPORT:

		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



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

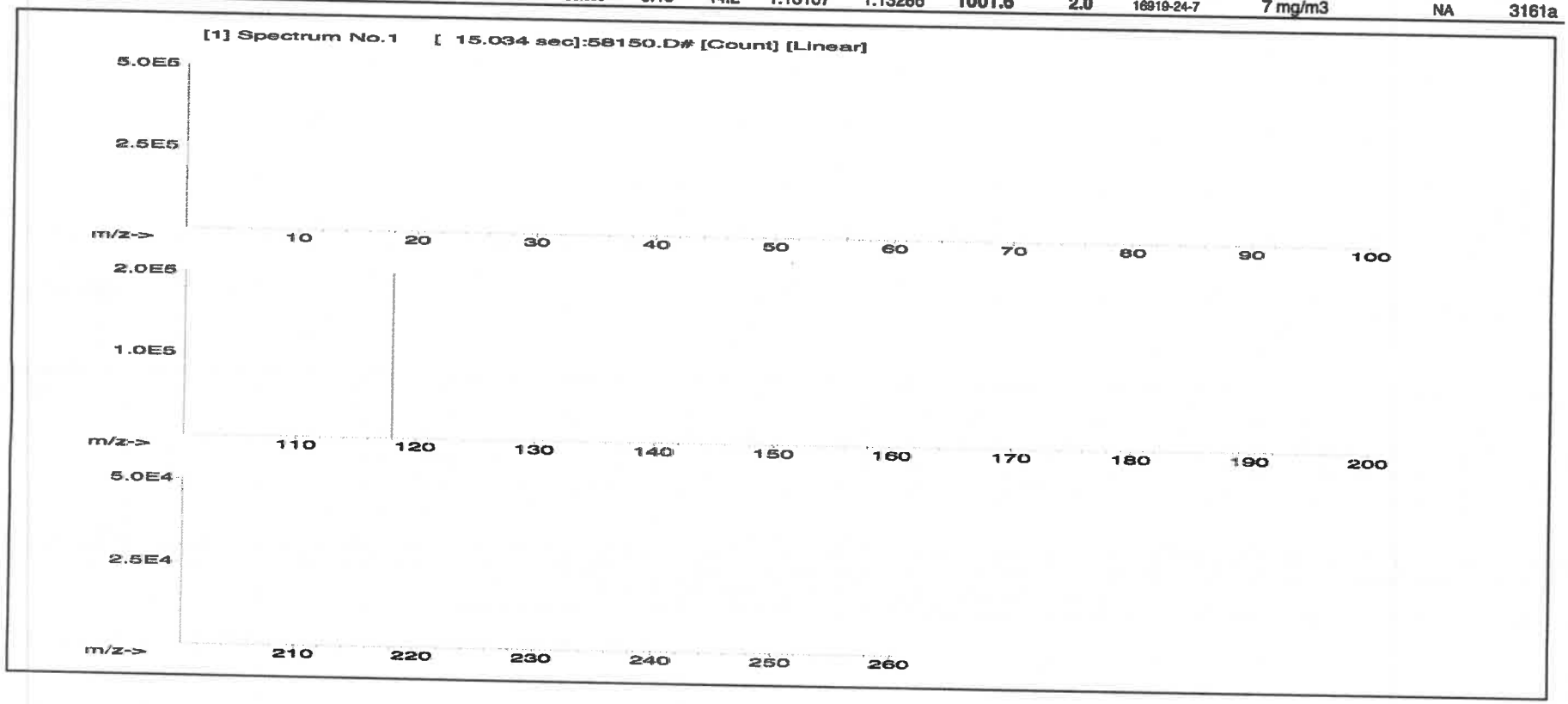
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 02/09/24 IM5800 BH

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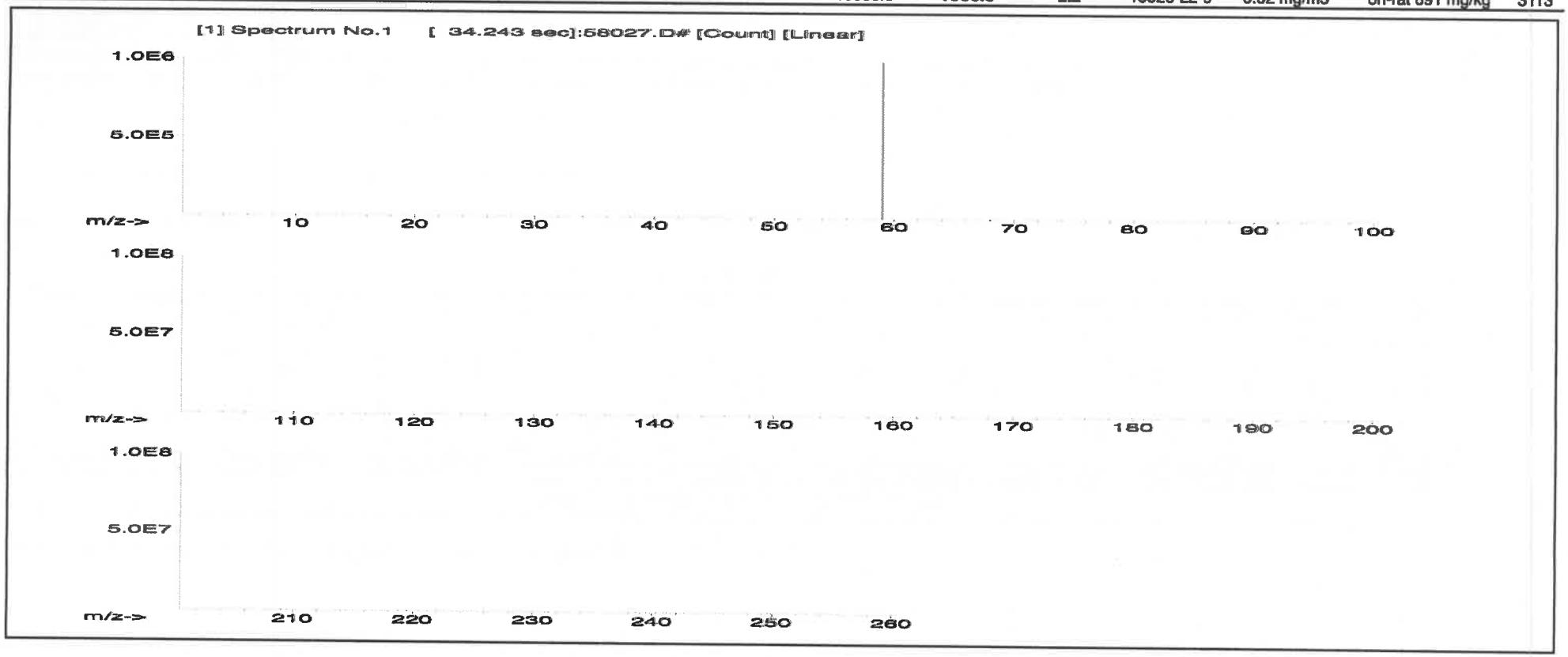
CERTIFIED WEIGHT REPORT:

		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



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 IM5801 BH

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AR-1539 Certificate Number
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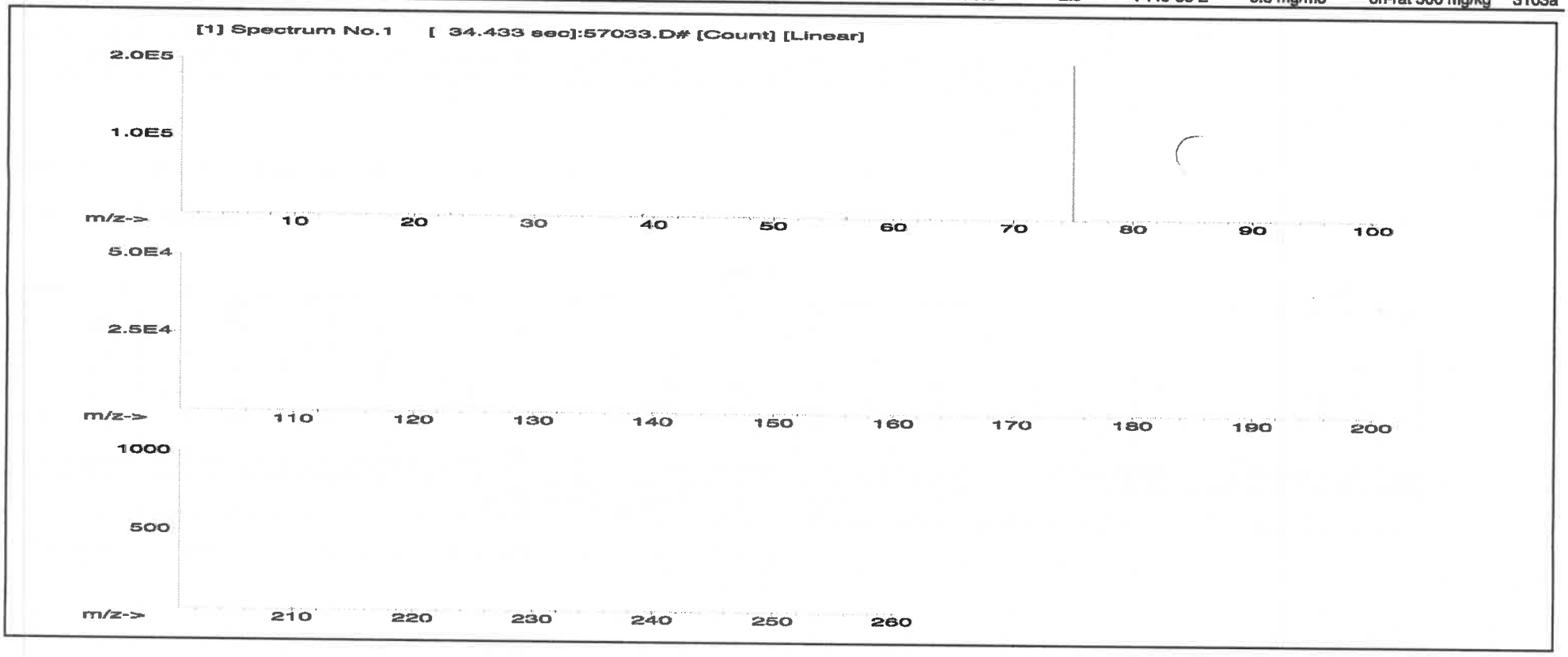
CERTIFIED **WEIGHT** REPORT:

		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



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

A: 02/09/24 M.5814

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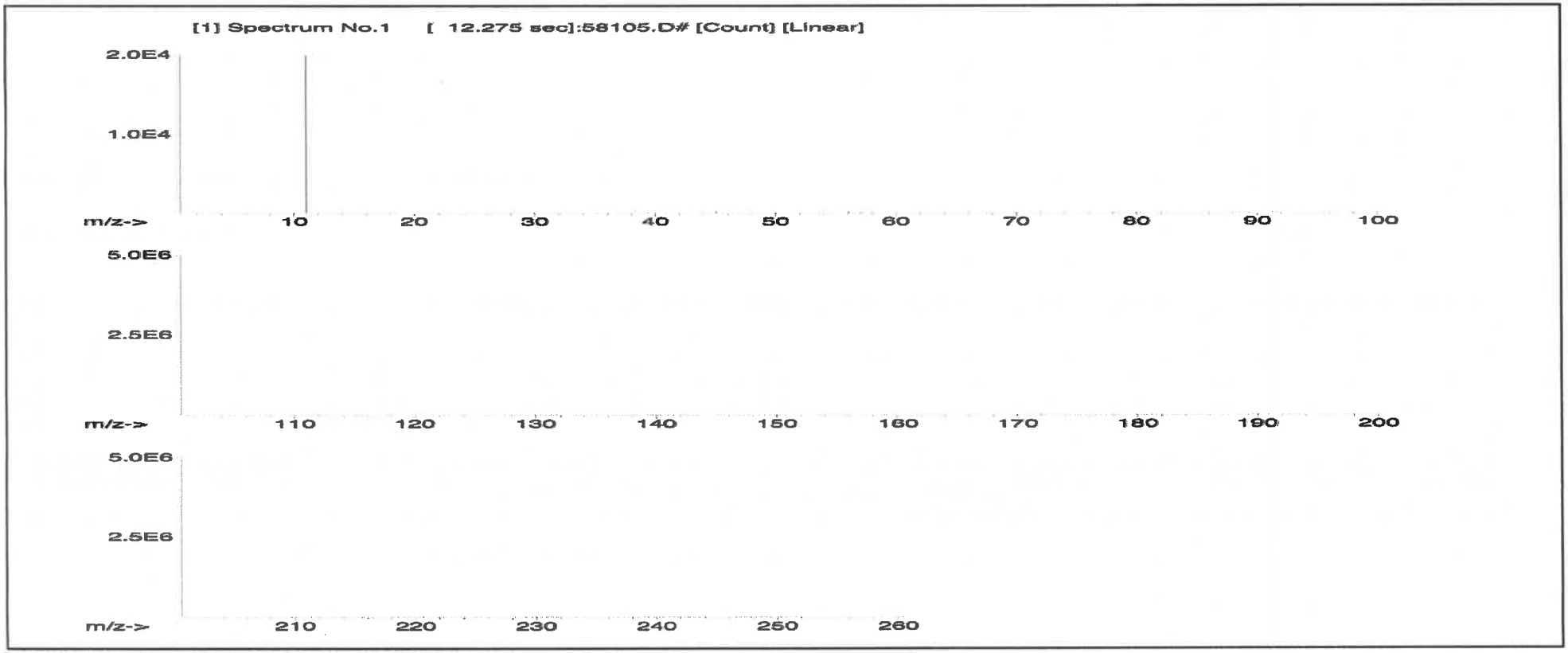
CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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Certified Reference Material CRM

R: 02/09/24 M5820

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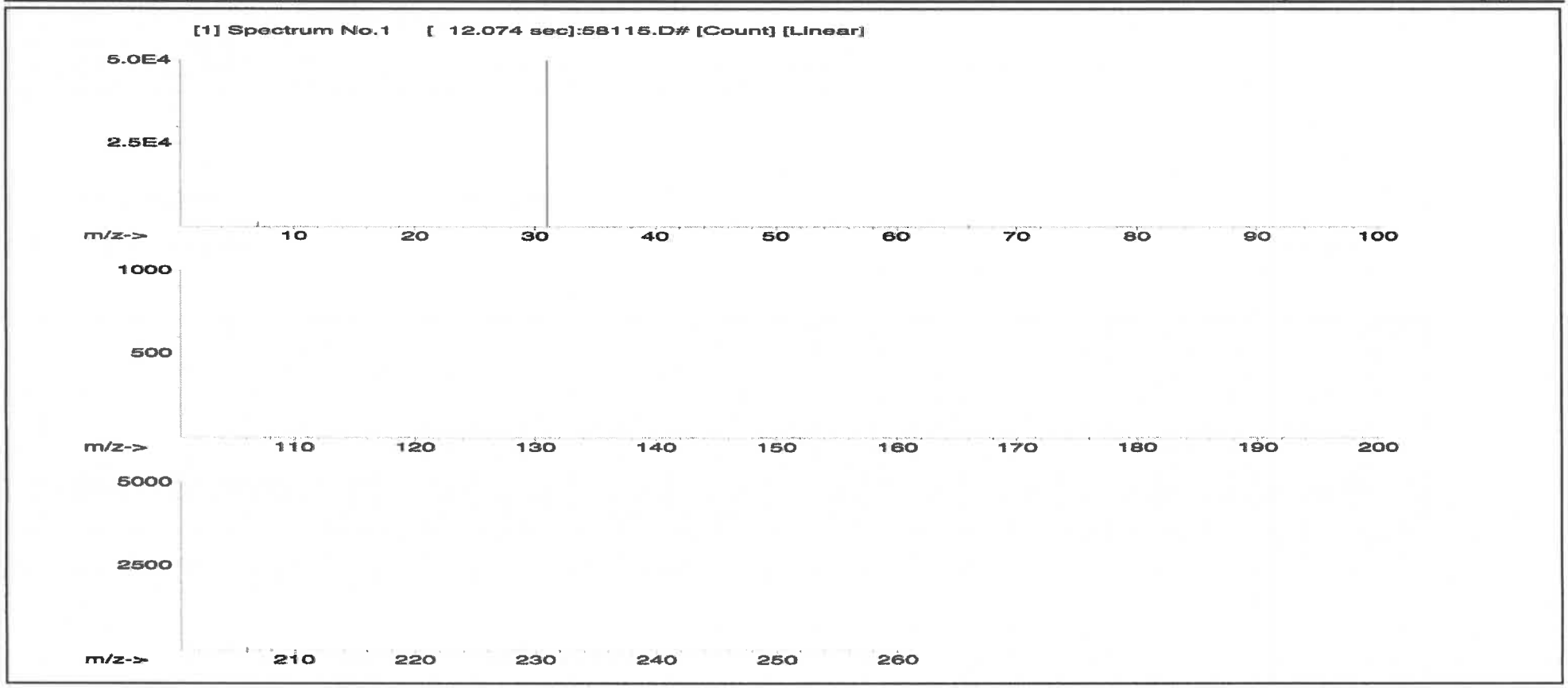
CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



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

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Certified by:

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Certificate of Analysis

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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:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

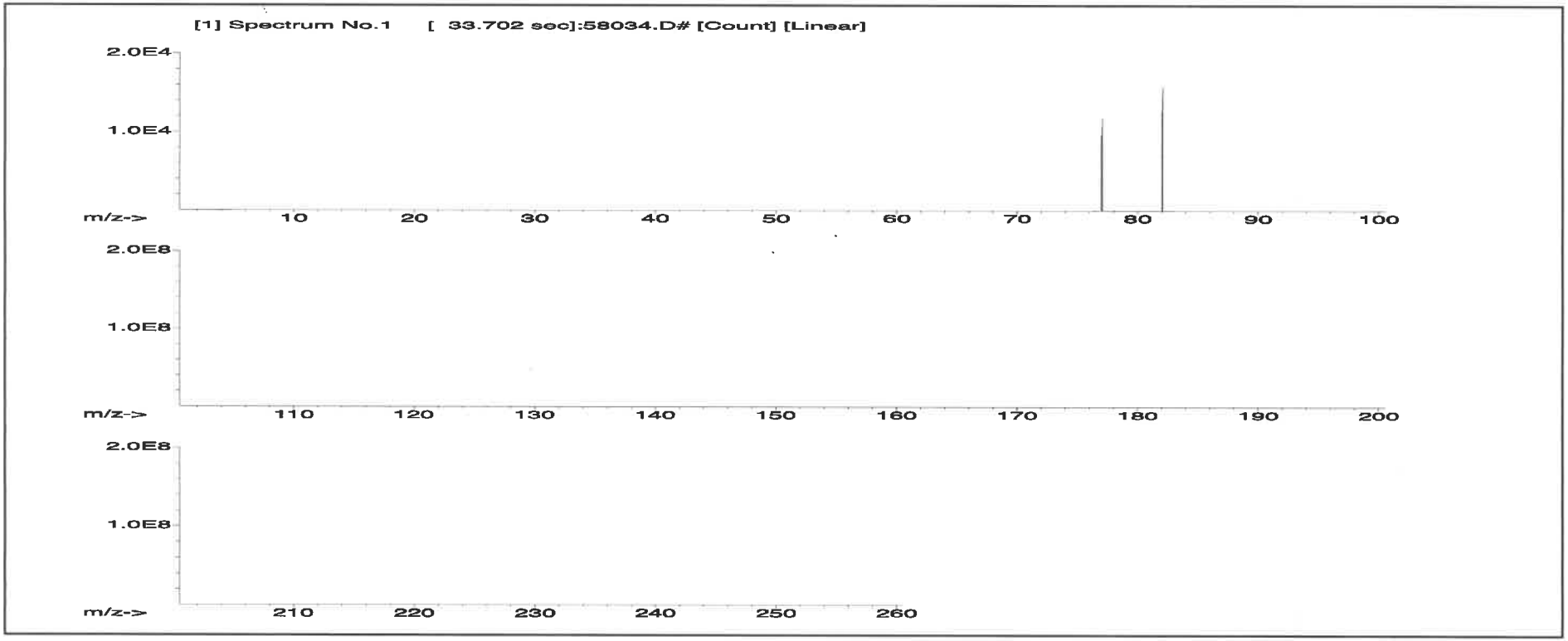
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5969 R: 06/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

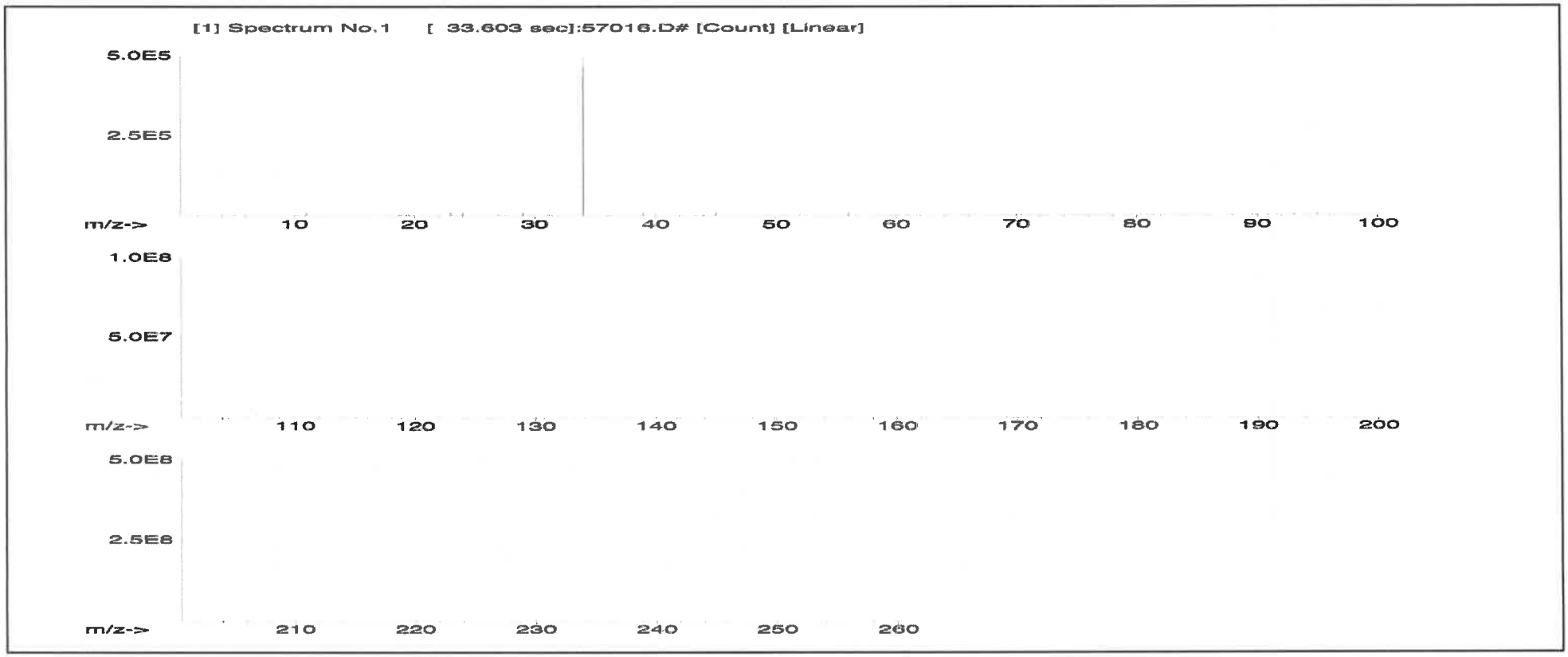
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	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	

Lot #

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

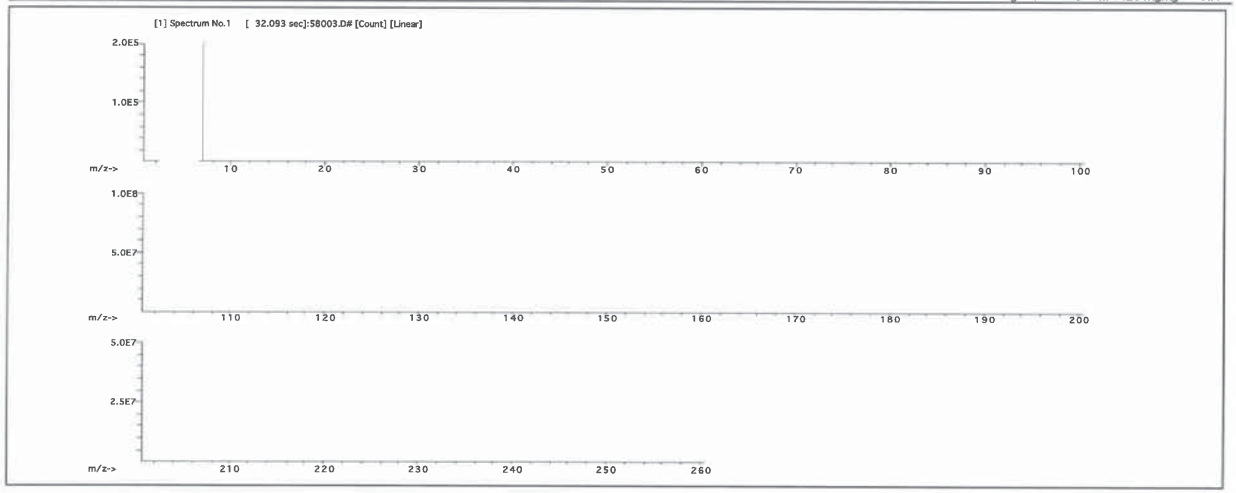
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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MS984
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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:	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

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info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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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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Certificate of Analysis

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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:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 °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
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
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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:	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

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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.

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- 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"

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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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 5 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R -> 1/13/25

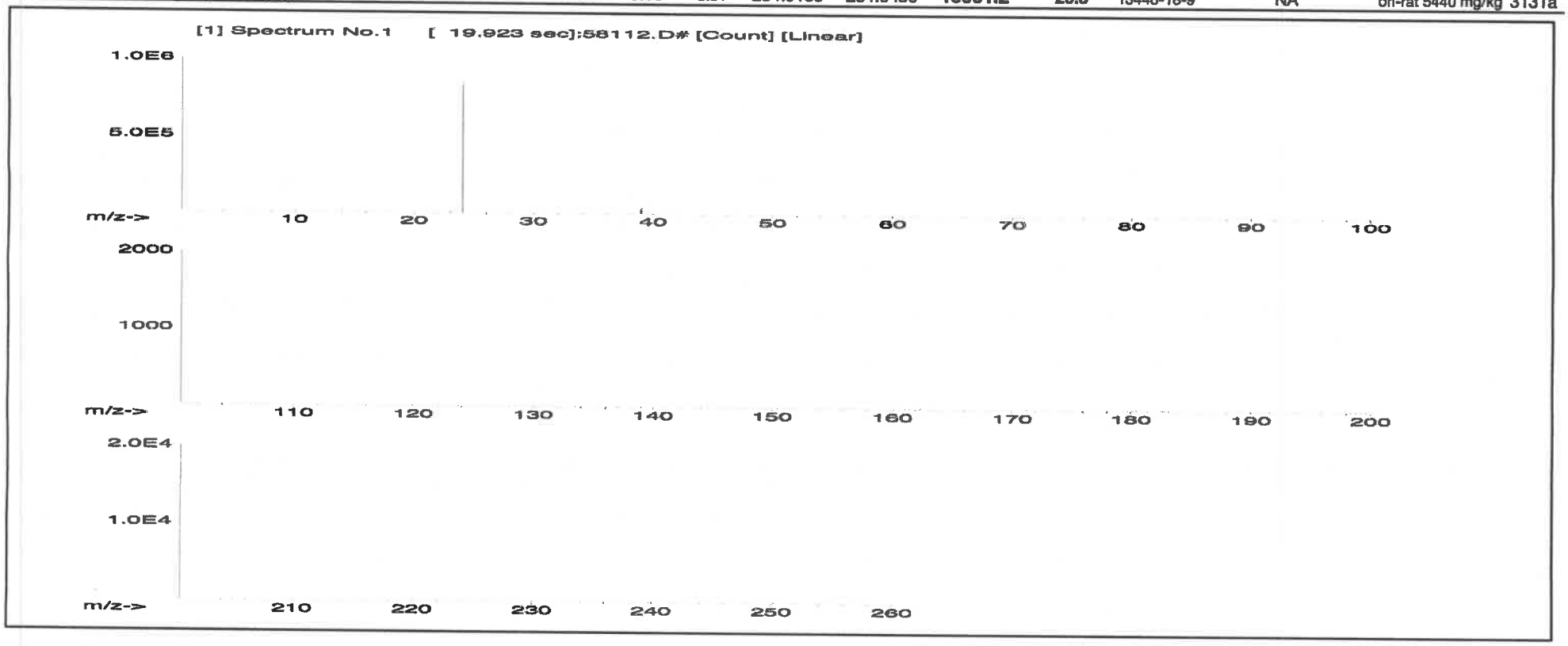
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	24012496	Nitric Acid
Lot Number:	**112124**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

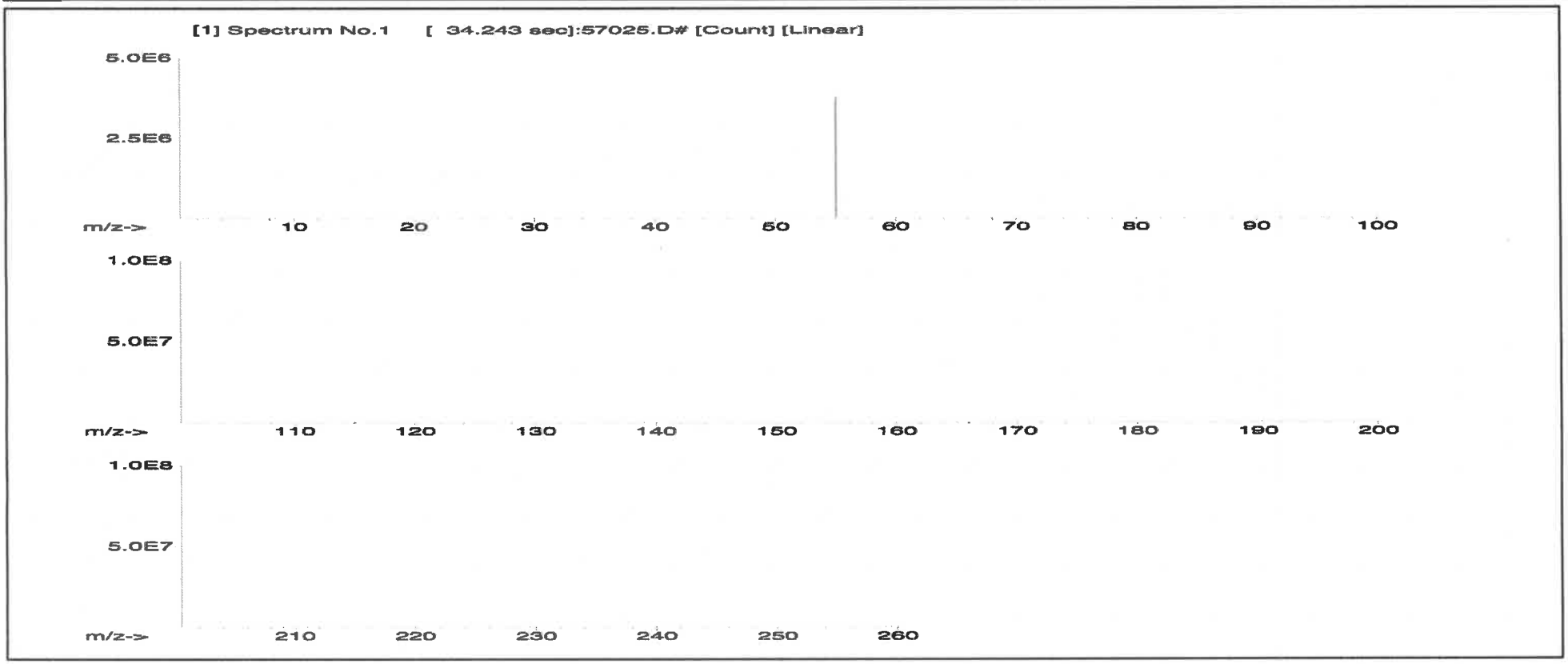
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

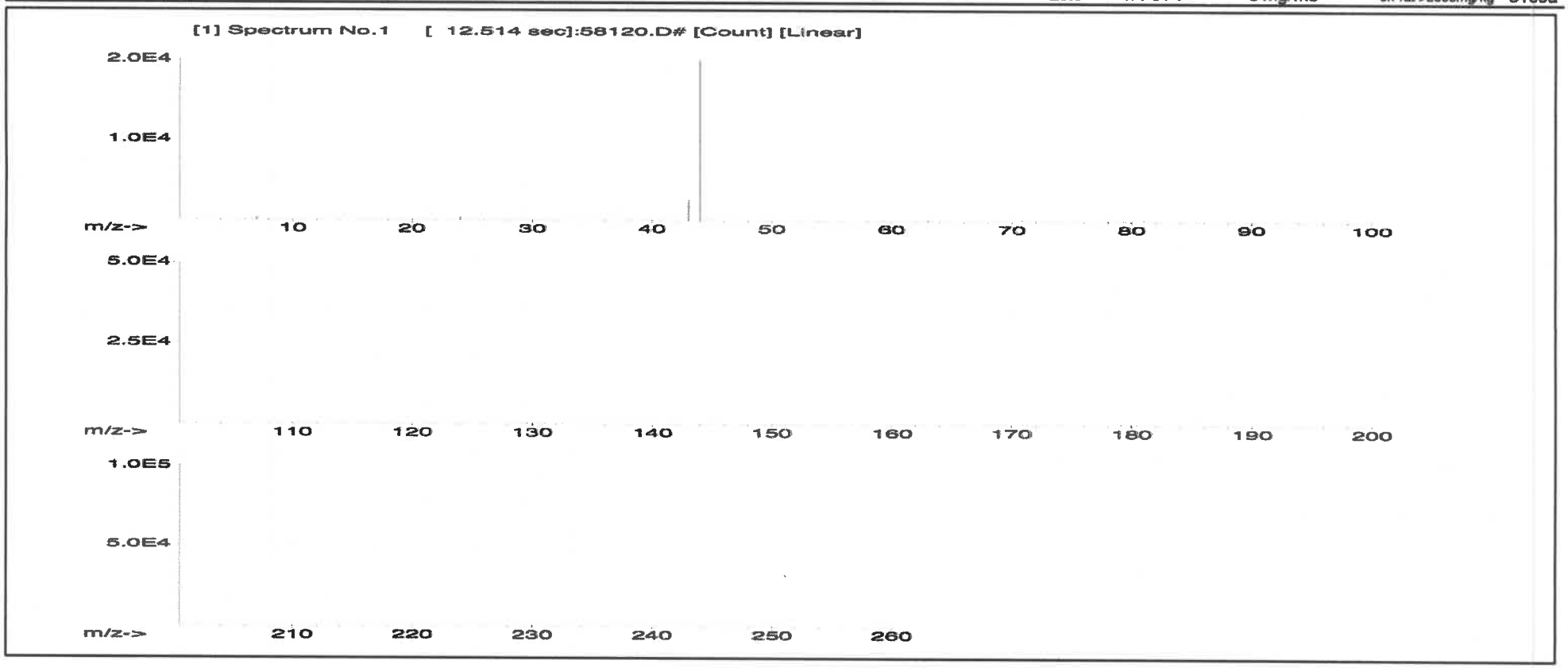
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2677	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

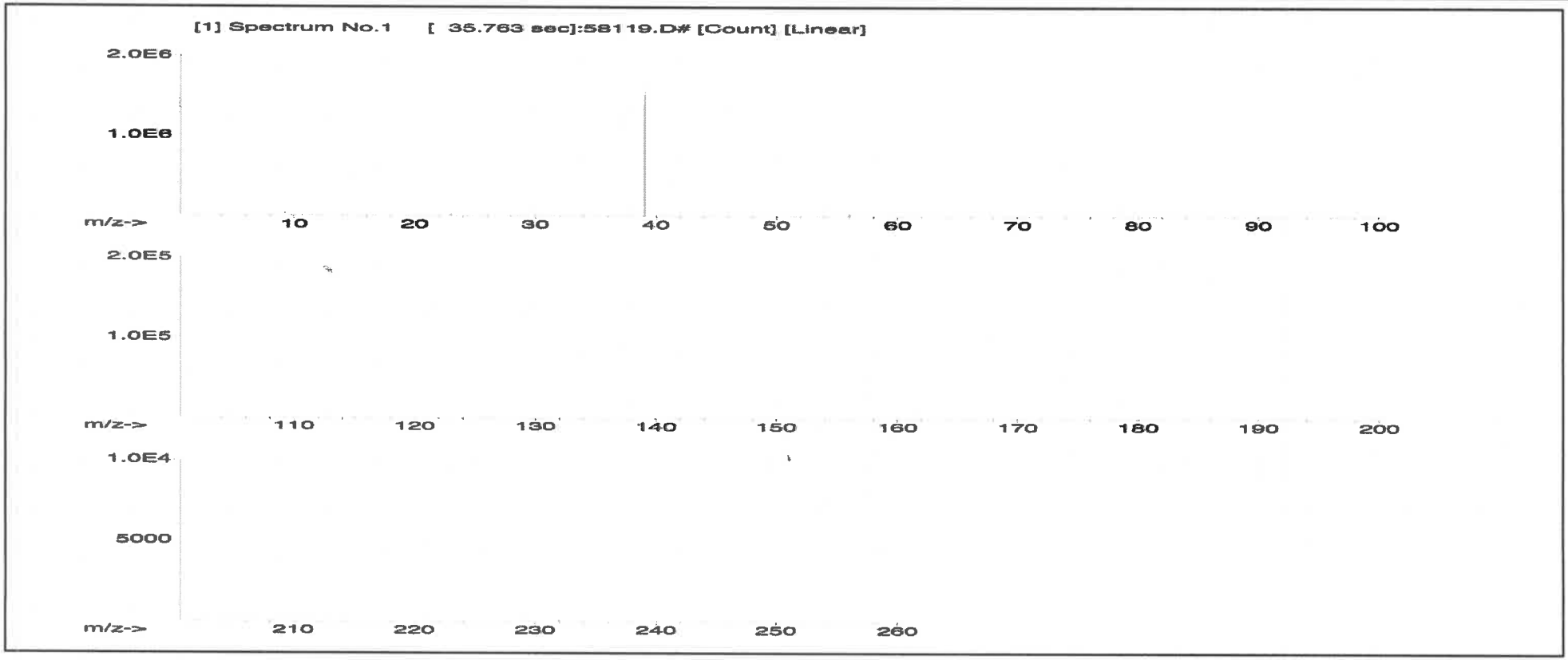
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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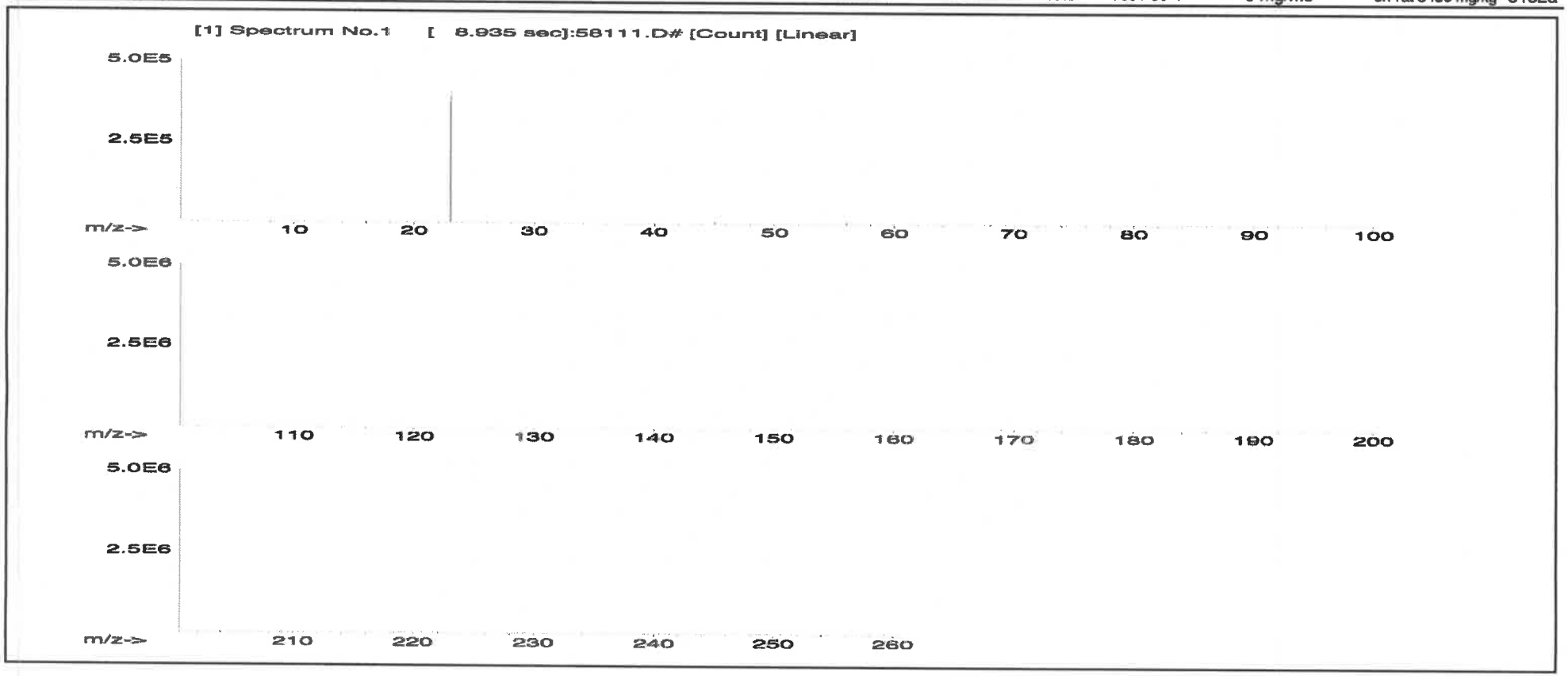
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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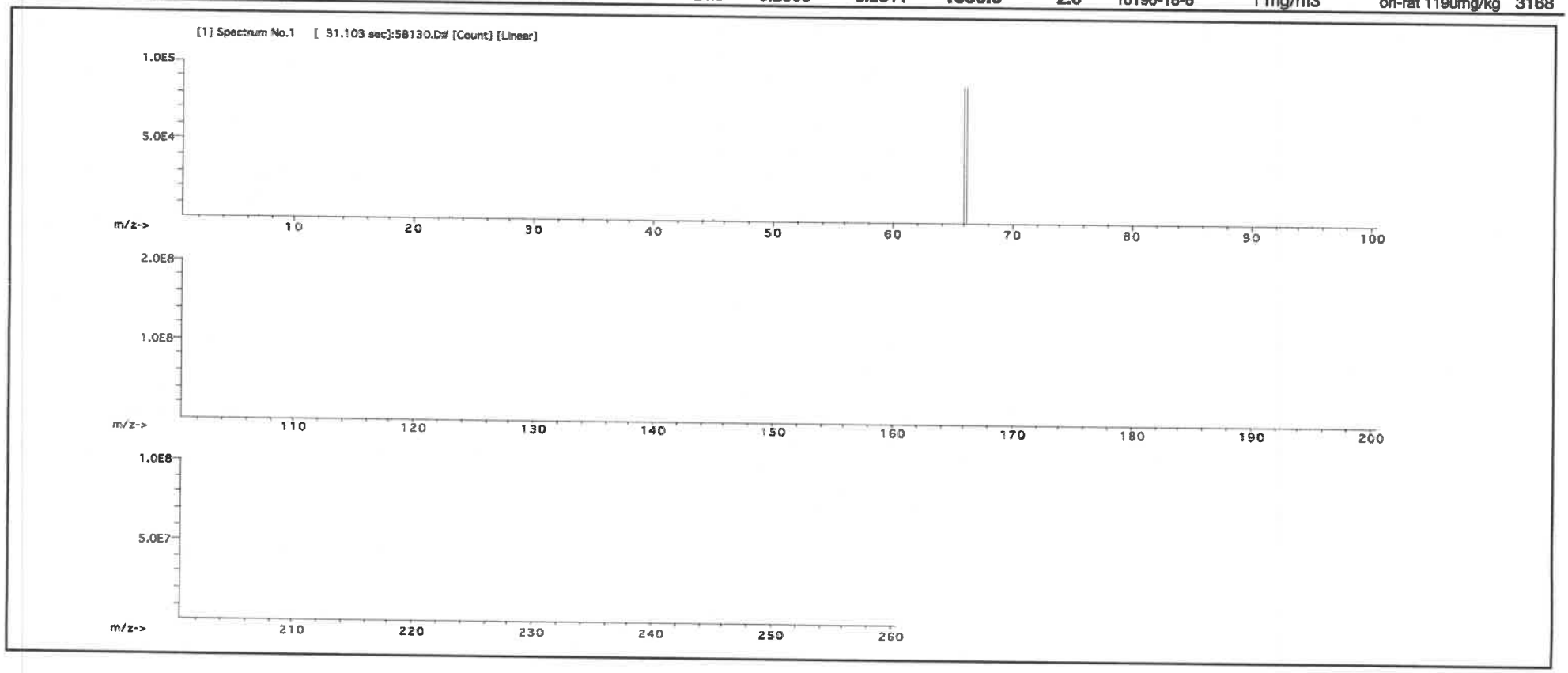
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10 Flask Uncertainty			

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

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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

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

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

m-5162

R. Date :- 04/27/2025

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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
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inorganicventures.com

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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

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 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.

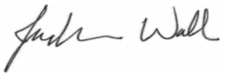
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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:	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

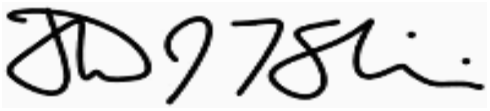
- Sealed TCT Bag Open Date: _____

- 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

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 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.

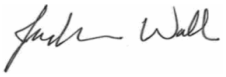
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

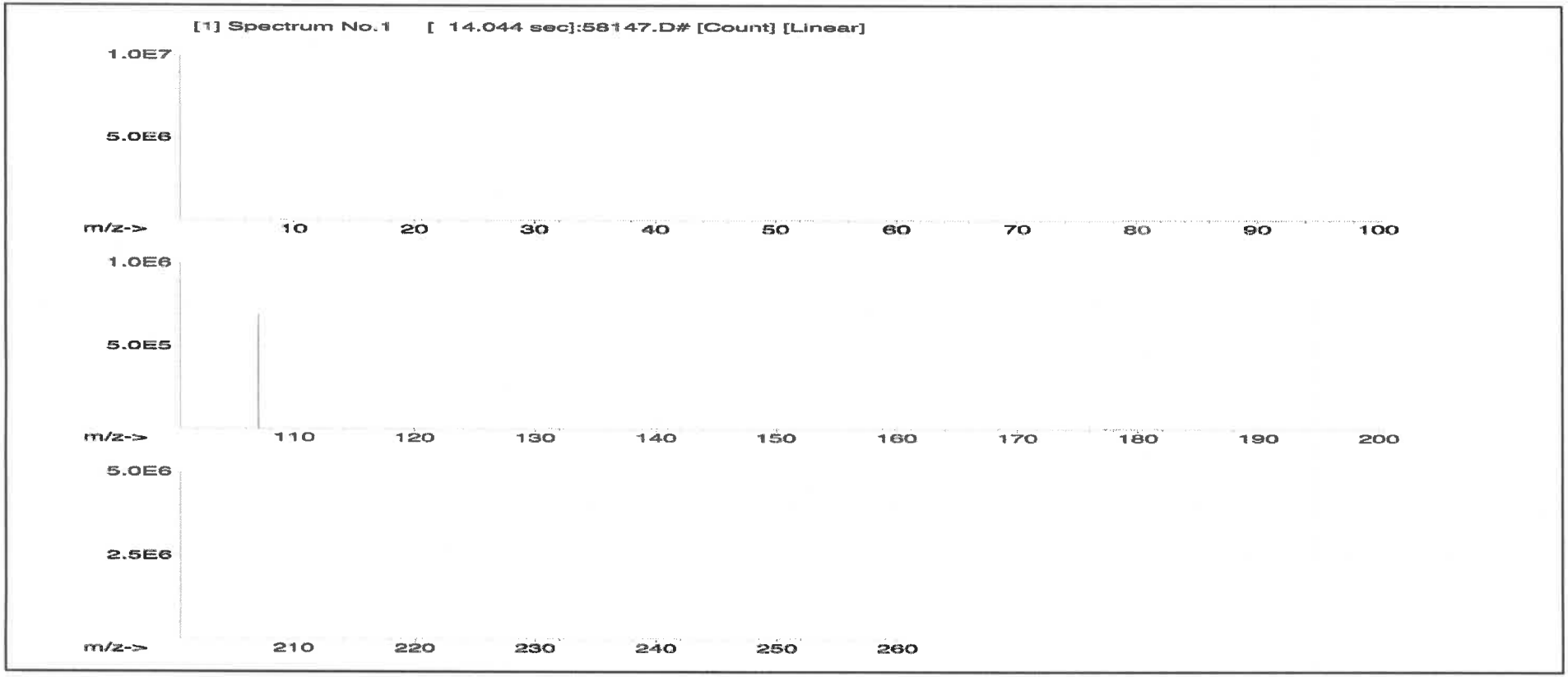
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**071724**			
Description:	**Antimony (Sb)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071727			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.26	0.058	Flask Uncertainty	

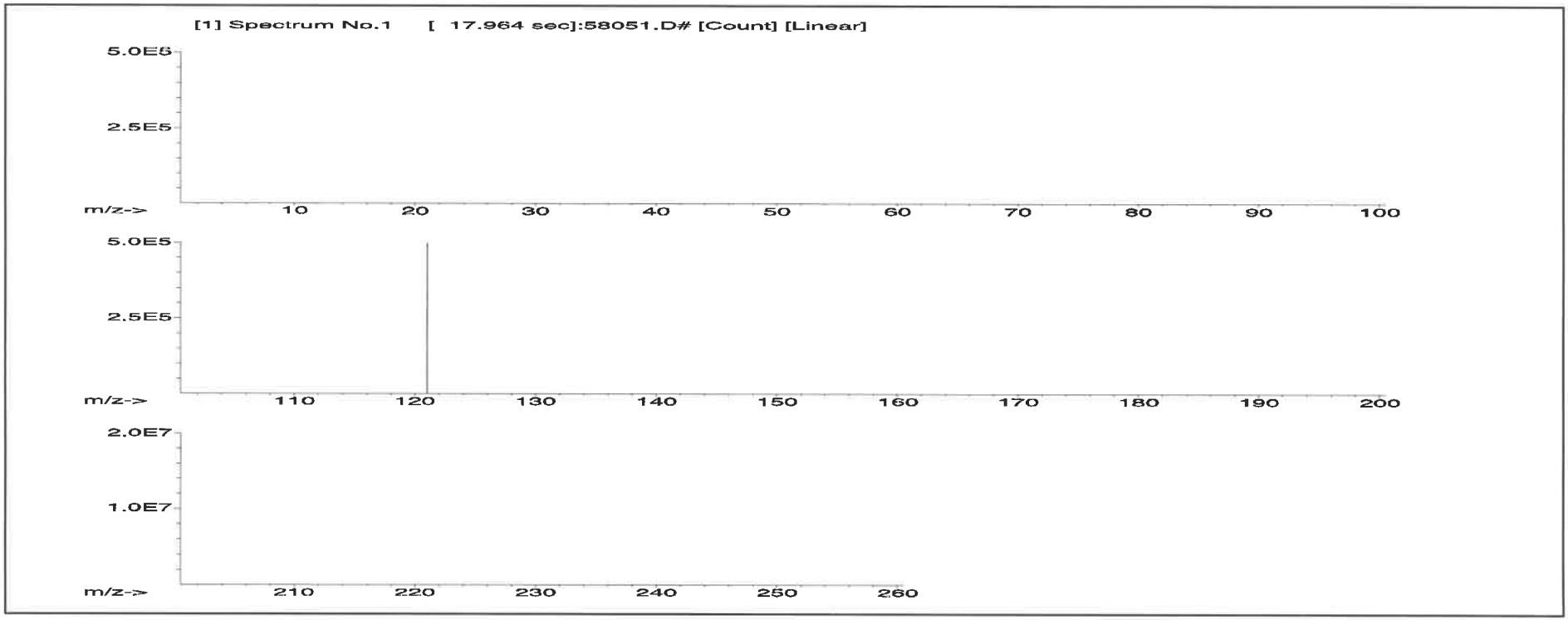
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

APTIM

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6152

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6155

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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Certificate of Analysis

R: 8/5/24 M6019

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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 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R ! 8/5/24

M6023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

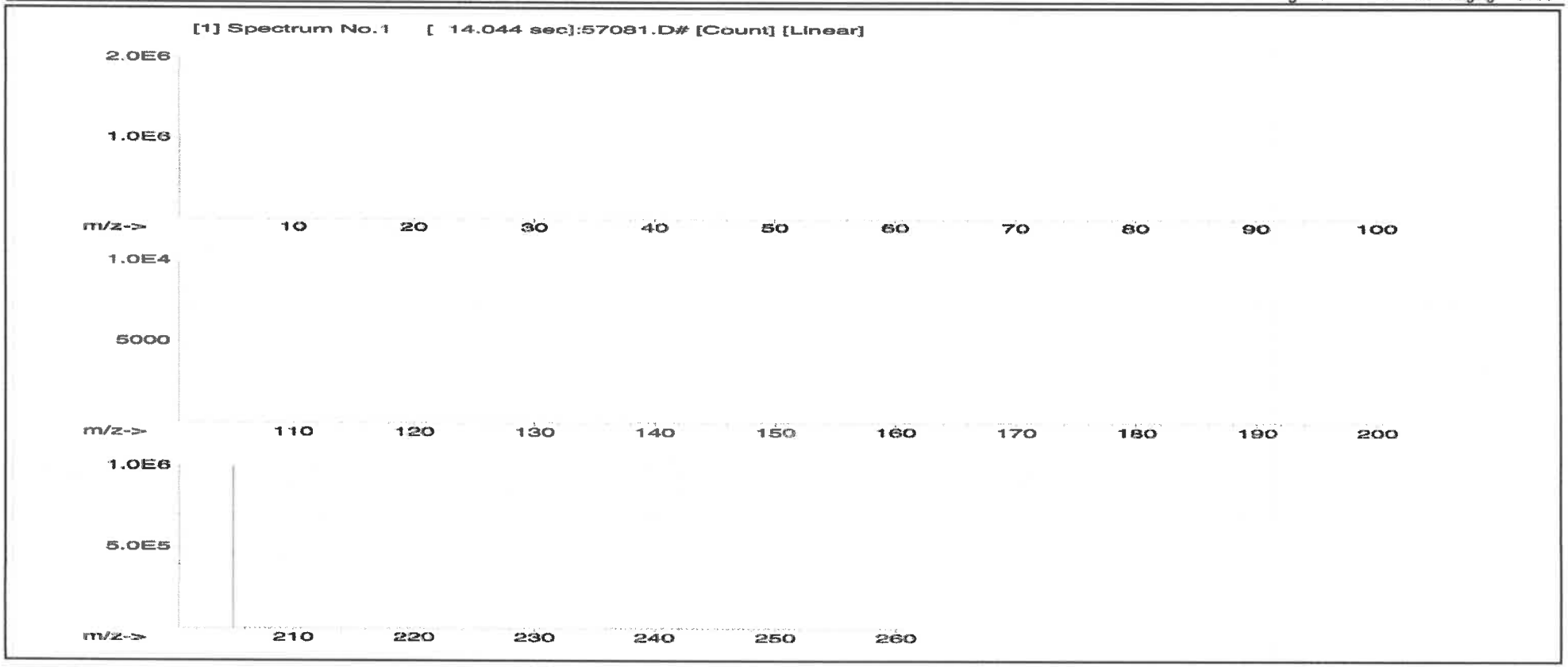
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

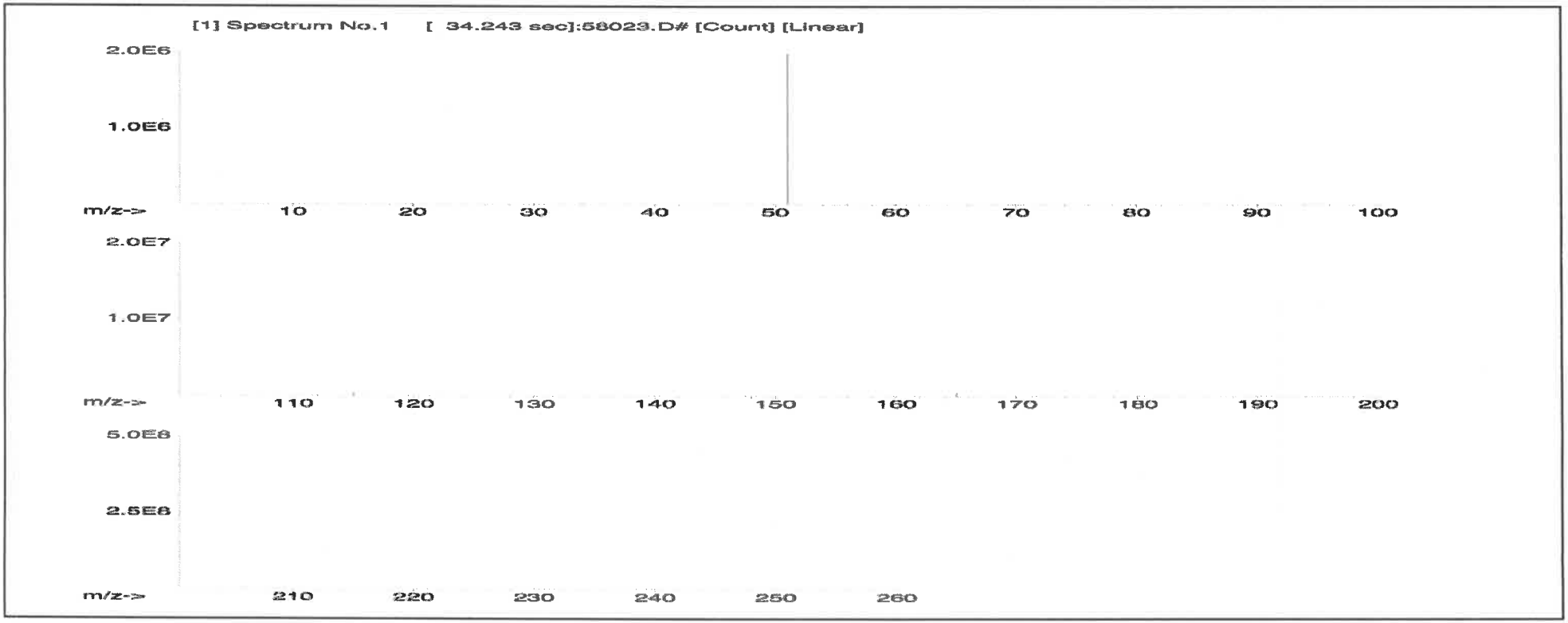
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q2276 | 77
COC Number 2046522

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: EUROPASTRY USA
ADDRESS: 571 JERSEY AVE
CITY NEW BRUNSWICK STATE: NJ ZIP: 08901
ATTENTION: KEVIN CARLUCCI
PHONE: 631 563 6262 FAX: x2602

CLIENT PROJECT INFORMATION

PROJECT NAME: MCUA Permit No 1424-571 Jersey Ave NB-NJ
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

❑ Level 1 (Results Only) ❑ Level 4 (QC + Full Raw Data)
❑ Level 2 (Results + QC) ❑ NJ Reduced ❑ US EPA CLP
❑ Level 3 (Results + QC + Raw Data) ❑ NYS ASP A ❑ NYS ASP B
❑ Other _____
❑ EDD FORMAT _____

ANALYSIS

1	2	3	4	5	6	7	8	9
TPH	O&G	PH, BOD5	TSS	Met. Group 3	COD	PFAS		

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	MH-6-10-2025	W.		X	6/9/0	1110	11	X	X	X	X	X	X	X			
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME	RECEIVED BY
RELINQUISHED BY SAMPLER: 1.	6/10/25 1115	RECEIVED BY: 1.
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY SAMPLER: 3.	DATE/TIME: 6/10/25 1230	RECEIVED BY: 3.

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ❑ COOLER TEMP 3.2 °C
Comments:

Page 1 of 1

CLIENT: ❑ Hand Delivered ❑ Other

Shipment Complete ❑ YES ❑ NO

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WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148