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

DATA PACKAGE

METALS

PROJECT NAME : NWIRP BETHPAGE 112G08005-WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1985

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

Table Of Contents for Q1985

1) METALS DATA 2
2) Signature Page 4
3) Case Narrative 5
4) Qualifier Page 7
5) Conformance/Non Conformance 8
6) QA Checklist 10
7) Chronicle 11
8) Hit Summary 12
9) Sample Data 13
9.1) RW8-BW-20250507 14
10) METALS CALIBRATION DATA 15
10.1) Initial and Continuing Calibration Verification 16
10.2) CRDL Standard For AA & ICP 31
10.3) Initial and Continuing Calibration Blank Summary 33
10.4) Preparation Blank Summary 44
10.5) Interference Check Sample 46
11) METALS QC DATA 49
11.1) Matrix Spike Summary 50
11.2) Post Digest Spike Summary 54
11.3) Duplicate Sample Summary 56
11.4) Laboratory Control Sample Summary 60
11.5) ICP Serial Dilutions 62
12) METALS PREPARATION & INSTRUMENT DATA 64
12.1) ICP Interelement Correction Factors 65
13) PREPARATION & ANALYTICAL SUMMARY 70
13.1) Sample Preparation Summary 71
13.2) Analysis Run Log 73
14) METALS RAW DATA 76
14.1) METALS RAW DATA - ANALYTICAL 77
14.2) LB135778 77
14.3) LB135794 239
14.4) LB135763 417
14.5) METALS RAW DATA - PREP 419
14.5.1) PB167955 419
14.5.2) PB167980 422

15) Analytical Runlogs 425
16) Standard Prep Logs 438
17) Shipping Document 604
17.1) Chain Of Custody 605
17.2) Lab Certificate 606
17.3) Internal COC 607

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

Cover Page

Order ID : Q1985

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
Q1985-01	RW8-BW-20250507
Q1985-02	TB-20250507

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

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 1:58 pm, May 20, 2025

Date: 5/16/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: NWIRP Bethpage 112G08005-WE13
Project Manager : Ernie Wu
Order ID # Q1985
Test Name: Mercury,Metals ICP-TAL

A. Number of Samples and Date of Receipt:
2 Water samples were received on 05/08/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, pH, SVOC-SIMGroup1, SVOC-TCL BNA - 20, TSS and VOCMS Group1. This data package contains results for Mercury,Metals ICP-TAL.

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

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate (RW8-BW-20250507DUP) analysis met criteria for all samples except for Manganese due to sample matrix interference. The Duplicate (RW8-BW-20250507MSD) analysis met criteria for all samples except for Manganese due to Chemical Interference during Digestion Process.
The Matrix Spike (RW8-BW-20250507MS) analysis met criteria for all samples except for Manganese and Silver due to Chemical Interference during Digestion Process.
The Matrix Spike Duplicate (IDW-AQ-DRUM-633-05092025MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (RW8-BW-20250507MSD) analysis met criteria for all samples except for Manganese and Silver due to Chemical Interference during Digestion Process.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met criteria for all samples.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).
In analytical sequence LB135794, The % recovery was outside of acceptance limit for Lead and Zinc of CCV05 but, no any sample of this project associated under this CCV.
The Post Digest Spike (RW8-BW-20250507A) analysis met criteria for all samples except for Manganese and Silver due to unknown chemical interferences of matrix with the addition of spike amount after digestion and before analysis , matrix has suppression effect during addition of spike.

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

Signature_____ APPROVED
By Nimisha Pandya, QA/QC Supervisor at 1:59 pm, May 20, 2025

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q1985 MATRIX: Water

METHOD: 6010D,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
	The Serial Dilution met criteria for all samples.			
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike (RW8-BW-20250507MS) analysis met criteria for all samples except for Manganese and Silver due to Chemical Interference during Digestion Process. The Matrix Spike Duplicate (IDW-AQ-DRUM-633-05092025MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (RW8-BW-20250507MSD) analysis met criteria for all samples except for Manganese and Silver due to Chemical Interference during Digestion Process.			
7.	Sample Duplicate Analysis Met QC Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Duplicate (RW8-BW-20250507DUP) analysis met criteria for all samples except for Manganese due to sample matrix interference. The Duplicate (RW8-BW-20250507MSD) analysis met criteria for all samples except for Manganese due to Chemical Interference during Digestion Process.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is). In analytical sequence LB135794, The % recovery was outside of acceptance limit for Lead and Zinc of CCV05 but, no any sample of this project associated under this CCV.

The Post Digest Spike (RW8-BW-20250507A) analysis met criteria for all samples except for Manganese and Silver due to unknown chemical interferences of matrix with the addition of spike amount after digestion and before analysis , matrix has suppression effect during addition of spike.

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 1:40 pm, May 20, 2025

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1985

	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:** 05/16/2025

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

LAB CHRONICLE

OrderID:	Q1985	**OrderDate:**	5/8/2025 10:49:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	**Location:**	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1985-01	**RW8-BW-20250507**	**Water**			**05/07/25**			**05/08/25**
			Mercury	7470A		05/13/25	05/14/25	
			Metals ICP-TAL	6010D		05/12/25	05/15/25	

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

Hit Summary Sheet
SW-846

SDG No.:	Q1985	**Order ID:**	Q1985
Client:	Tetra Tech NUS, Inc.	**Project ID:**	NWIRP Bethpage 112G08005-WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW8-BW-20250507									
Q1985-01	RW8-BW-20250507	Water	Aluminum	24.0	J	5.67	40.0	50.0	ug/L
Q1985-01	RW8-BW-20250507	Water	Calcium	1380		117	250	1000	ug/L
Q1985-01	RW8-BW-20250507	Water	Chromium	2.48	J	1.06	2.50	5.00	ug/L
Q1985-01	RW8-BW-20250507	Water	Iron	678		11.7	40.0	50.0	ug/L
Q1985-01	RW8-BW-20250507	Water	Magnesium	1330		122	250	1000	ug/L
Q1985-01	RW8-BW-20250507	Water	Manganese	52.0		2.97	7.50	10.0	ug/L
Q1985-01	RW8-BW-20250507	Water	Potassium	333000		459	800	1000	ug/L
Q1985-01	RW8-BW-20250507	Water	Sodium	44800		434	500	1000	ug/L

SAMPLE DATA

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/07/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	05/08/25
Client Sample ID:	RW8-BW-20250507	SDG No.:	Q1985
Lab Sample ID:	Q1985-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	24.0	J	1	5.67	40.0	50.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-36-0	Antimony	6.25	U	1	3.38	6.25	25.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-38-2	Arsenic	7.50	U	1	2.56	7.50	10.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-39-3	Barium	12.5	U	1	7.28	12.5	50.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-41-7	Beryllium	0.75	U	1	0.28	0.75	3.00	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-43-9	Cadmium	0.75	U	1	0.25	0.75	3.00	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-70-2	Calcium	1380		1	117	250	1000	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-47-3	Chromium	2.48	J	1	1.06	2.50	5.00	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-48-4	Cobalt	3.75	U	1	1.13	3.75	15.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-50-8	Copper	8.00	U	1	2.30	8.00	10.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7439-89-6	Iron	678		1	11.7	40.0	50.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7439-92-1	Lead	4.80	U	1	1.15	4.80	6.00	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7439-95-4	Magnesium	1330		1	122	250	1000	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7439-96-5	Manganese	52.0	N*	1	2.97	7.50	10.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7439-97-6	Mercury	0.16	UN	1	0.076	0.16	0.20	ug/L	05/13/25 14:20	05/14/25 14:11	7470A	
7440-02-0	Nickel	5.00	U	1	1.53	5.00	20.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-09-7	Potassium	333000		1	459	800	1000	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-22-4	Silver	2.50	UN	1	0.81	2.50	5.00	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-23-5	Sodium	44800		1	434	500	1000	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-62-2	Vanadium	10.0	U	1	3.13	10.0	20.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010
7440-66-6	Zinc	7.50	U	1	8.33	7.50	20.0	ug/L	05/12/25 10:15	05/15/25 15:40	6010D	SW3010

Color Before:	Colorless	Clarity Before:	Cloudy	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	METALS-TAL				

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

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

METAL CALIBRATION DATA

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV08	Mercury	3.70	4.0	93	90 - 110	CV	05/14/2025	11:42	LB135763

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV22	Mercury	4.97	5.0	100	90 - 110	CV	05/14/2025	11:46	LB135763
CCV23	Mercury	5.44	5.0	109	90 - 110	CV	05/14/2025	12:24	LB135763
CCV24	Mercury	5.50	5.0	110	90 - 110	CV	05/14/2025	12:51	LB135763
CCV25	Mercury	4.82	5.0	96	90 - 110	CV	05/14/2025	13:28	LB135763
CCV26	Mercury	5.14	5.0	103	90 - 110	CV	05/14/2025	13:55	LB135763
CCV27	Mercury	4.71	5.0	94	90 - 110	CV	05/14/2025	14:23	LB135763
CCV28	Mercury	4.80	5.0	96	90 - 110	CV	05/14/2025	14:39	LB135763
CCV29	Mercury	5.15	5.0	103	90 - 110	CV	05/14/2025	14:57	LB135763

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2350	2500	94	90 - 110	P	05/14/2025	13:24	LB135778
	Antimony	990	1000	99	90 - 110	P	05/14/2025	13:24	LB135778
	Arsenic	984	1000	98	90 - 110	P	05/14/2025	13:24	LB135778
	Barium	487	520	94	90 - 110	P	05/14/2025	13:24	LB135778
	Beryllium	497	510	98	90 - 110	P	05/14/2025	13:24	LB135778
	Cadmium	489	510	96	90 - 110	P	05/14/2025	13:24	LB135778
	Calcium	9150	10000	92	90 - 110	P	05/14/2025	13:24	LB135778
	Chromium	508	520	98	90 - 110	P	05/14/2025	13:24	LB135778
	Cobalt	482	520	93	90 - 110	P	05/14/2025	13:24	LB135778
	Copper	504	510	99	90 - 110	P	05/14/2025	13:24	LB135778
	Iron	10300	10000	104	90 - 110	P	05/14/2025	13:24	LB135778
	Lead	962	1000	96	90 - 110	P	05/14/2025	13:24	LB135778
	Magnesium	5880	6000	98	90 - 110	P	05/14/2025	13:24	LB135778
	Manganese	471	520	91	90 - 110	P	05/14/2025	13:24	LB135778
	Nickel	484	530	91	90 - 110	P	05/14/2025	13:24	LB135778
	Potassium	10700	9900	108	90 - 110	P	05/14/2025	13:24	LB135778
	Selenium	1010	1000	101	90 - 110	P	05/14/2025	13:24	LB135778
	Silver	272	250	109	90 - 110	P	05/14/2025	13:24	LB135778
	Sodium	10500	10000	105	90 - 110	P	05/14/2025	13:24	LB135778
	Thallium	1010	1000	101	90 - 110	P	05/14/2025	13:24	LB135778
	Vanadium	460	500	92	90 - 110	P	05/14/2025	13:24	LB135778
	Zinc	1010	1000	101	90 - 110	P	05/14/2025	13:24	LB135778

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	100	100	100	80 - 120	P	05/14/2025	13:34	LB135778
	Antimony	52.2	50.0	104	80 - 120	P	05/14/2025	13:34	LB135778
	Arsenic	19.8	20.0	99	80 - 120	P	05/14/2025	13:34	LB135778
	Barium	92.3	100	92	80 - 120	P	05/14/2025	13:34	LB135778
	Beryllium	6.20	6.0	103	80 - 120	P	05/14/2025	13:34	LB135778
	Cadmium	6.13	6.0	102	80 - 120	P	05/14/2025	13:34	LB135778
	Calcium	2030	2000	102	80 - 120	P	05/14/2025	13:34	LB135778
	Chromium	9.42	10.0	94	80 - 120	P	05/14/2025	13:34	LB135778
	Cobalt	28.7	30.0	96	80 - 120	P	05/14/2025	13:34	LB135778
	Copper	22.6	20.0	113	80 - 120	P	05/14/2025	13:34	LB135778
	Iron	93.7	100	94	80 - 120	P	05/14/2025	13:34	LB135778
	Lead	12.3	12.0	103	80 - 120	P	05/14/2025	13:34	LB135778
	Magnesium	2080	2000	104	80 - 120	P	05/14/2025	13:34	LB135778
	Manganese	20.9	20.0	105	80 - 120	P	05/14/2025	13:34	LB135778
	Nickel	39.1	40.0	98	80 - 120	P	05/14/2025	13:34	LB135778
	Potassium	1890	2000	95	80 - 120	P	05/14/2025	13:34	LB135778
	Selenium	23.4	20.0	117	80 - 120	P	05/14/2025	13:34	LB135778
	Silver	9.52	10.0	95	80 - 120	P	05/14/2025	13:34	LB135778
	Sodium	1880	2000	94	80 - 120	P	05/14/2025	13:34	LB135778
	Thallium	39.9	40.0	100	80 - 120	P	05/14/2025	13:34	LB135778
	Vanadium	40.8	40.0	102	80 - 120	P	05/14/2025	13:34	LB135778
	Zinc	41.6	40.0	104	80 - 120	P	05/14/2025	13:34	LB135778

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9980	10000	100	90 - 110	P	05/14/2025	14:51	LB135778
	Antimony	4930	5000	99	90 - 110	P	05/14/2025	14:51	LB135778
	Arsenic	4860	5000	97	90 - 110	P	05/14/2025	14:51	LB135778
	Barium	9640	10000	96	90 - 110	P	05/14/2025	14:51	LB135778
	Beryllium	243	250	97	90 - 110	P	05/14/2025	14:51	LB135778
	Cadmium	2410	2500	96	90 - 110	P	05/14/2025	14:51	LB135778
	Calcium	24400	25000	98	90 - 110	P	05/14/2025	14:51	LB135778
	Chromium	979	1000	98	90 - 110	P	05/14/2025	14:51	LB135778
	Cobalt	2430	2500	97	90 - 110	P	05/14/2025	14:51	LB135778
	Copper	1230	1250	99	90 - 110	P	05/14/2025	14:51	LB135778
	Iron	4840	5000	97	90 - 110	P	05/14/2025	14:51	LB135778
	Lead	4840	5000	97	90 - 110	P	05/14/2025	14:51	LB135778
	Magnesium	24000	25000	96	90 - 110	P	05/14/2025	14:51	LB135778
	Manganese	2450	2500	98	90 - 110	P	05/14/2025	14:51	LB135778
	Nickel	2430	2500	97	90 - 110	P	05/14/2025	14:51	LB135778
	Potassium	24400	25000	97	90 - 110	P	05/14/2025	14:51	LB135778
	Selenium	4900	5000	98	90 - 110	P	05/14/2025	14:51	LB135778
	Silver	1220	1250	97	90 - 110	P	05/14/2025	14:51	LB135778
	Sodium	24800	25000	99	90 - 110	P	05/14/2025	14:51	LB135778
	Thallium	5040	5000	101	90 - 110	P	05/14/2025	14:51	LB135778
	Vanadium	2470	2500	99	90 - 110	P	05/14/2025	14:51	LB135778
	Zinc	2450	2500	98	90 - 110	P	05/14/2025	14:51	LB135778
CCV02	Aluminum	9710	10000	97	90 - 110	P	05/14/2025	15:53	LB135778
	Antimony	5020	5000	100	90 - 110	P	05/14/2025	15:53	LB135778
	Arsenic	4980	5000	100	90 - 110	P	05/14/2025	15:53	LB135778
	Barium	9410	10000	94	90 - 110	P	05/14/2025	15:53	LB135778
	Beryllium	229	250	92	90 - 110	P	05/14/2025	15:53	LB135778
	Cadmium	2430	2500	97	90 - 110	P	05/14/2025	15:53	LB135778
	Calcium	23700	25000	95	90 - 110	P	05/14/2025	15:53	LB135778
	Chromium	977	1000	98	90 - 110	P	05/14/2025	15:53	LB135778
	Cobalt	2440	2500	98	90 - 110	P	05/14/2025	15:53	LB135778
	Copper	1250	1250	100	90 - 110	P	05/14/2025	15:53	LB135778
	Iron	5010	5000	100	90 - 110	P	05/14/2025	15:53	LB135778
	Lead	4880	5000	98	90 - 110	P	05/14/2025	15:53	LB135778

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	23200	25000	93	90 - 110	P	05/14/2025	15:53	LB135778
	Manganese	2360	2500	94	90 - 110	P	05/14/2025	15:53	LB135778
	Nickel	2440	2500	98	90 - 110	P	05/14/2025	15:53	LB135778
	Potassium	25300	25000	101	90 - 110	P	05/14/2025	15:53	LB135778
	Selenium	5010	5000	100	90 - 110	P	05/14/2025	15:53	LB135778
	Silver	1210	1250	97	90 - 110	P	05/14/2025	15:53	LB135778
	Sodium	26200	25000	105	90 - 110	P	05/14/2025	15:53	LB135778
	Thallium	5080	5000	102	90 - 110	P	05/14/2025	15:53	LB135778
	Vanadium	2410	2500	96	90 - 110	P	05/14/2025	15:53	LB135778
	Zinc	2450	2500	98	90 - 110	P	05/14/2025	15:53	LB135778
CCV03	Aluminum	9750	10000	98	90 - 110	P	05/14/2025	16:44	LB135778
	Antimony	4910	5000	98	90 - 110	P	05/14/2025	16:44	LB135778
	Arsenic	4820	5000	96	90 - 110	P	05/14/2025	16:44	LB135778
	Barium	9260	10000	93	90 - 110	P	05/14/2025	16:44	LB135778
	Beryllium	240	250	96	90 - 110	P	05/14/2025	16:44	LB135778
	Cadmium	2390	2500	96	90 - 110	P	05/14/2025	16:44	LB135778
	Calcium	23700	25000	95	90 - 110	P	05/14/2025	16:44	LB135778
	Chromium	988	1000	99	90 - 110	P	05/14/2025	16:44	LB135778
	Cobalt	2400	2500	96	90 - 110	P	05/14/2025	16:44	LB135778
	Copper	1220	1250	98	90 - 110	P	05/14/2025	16:44	LB135778
	Iron	4820	5000	96	90 - 110	P	05/14/2025	16:44	LB135778
	Lead	4800	5000	96	90 - 110	P	05/14/2025	16:44	LB135778
	Magnesium	23400	25000	94	90 - 110	P	05/14/2025	16:44	LB135778
	Manganese	2350	2500	94	90 - 110	P	05/14/2025	16:44	LB135778
	Nickel	2400	2500	96	90 - 110	P	05/14/2025	16:44	LB135778
	Potassium	24400	25000	98	90 - 110	P	05/14/2025	16:44	LB135778
	Selenium	4840	5000	97	90 - 110	P	05/14/2025	16:44	LB135778
	Silver	1210	1250	97	90 - 110	P	05/14/2025	16:44	LB135778
	Sodium	25200	25000	101	90 - 110	P	05/14/2025	16:44	LB135778
	Thallium	4970	5000	99	90 - 110	P	05/14/2025	16:44	LB135778
	Vanadium	2400	2500	96	90 - 110	P	05/14/2025	16:44	LB135778
	Zinc	2450	2500	98	90 - 110	P	05/14/2025	16:44	LB135778
CCV04	Aluminum	9660	10000	97	90 - 110	P	05/14/2025	18:08	LB135778
	Antimony	4880	5000	98	90 - 110	P	05/14/2025	18:08	LB135778

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4830	5000	97	90 - 110	P	05/14/2025	18:08	LB135778
	Barium	9330	10000	93	90 - 110	P	05/14/2025	18:08	LB135778
	Beryllium	231	250	92	90 - 110	P	05/14/2025	18:08	LB135778
	Cadmium	2420	2500	97	90 - 110	P	05/14/2025	18:08	LB135778
	Calcium	23800	25000	95	90 - 110	P	05/14/2025	18:08	LB135778
	Chromium	995	1000	100	90 - 110	P	05/14/2025	18:08	LB135778
	Cobalt	2420	2500	97	90 - 110	P	05/14/2025	18:08	LB135778
	Copper	1220	1250	98	90 - 110	P	05/14/2025	18:08	LB135778
	Iron	4990	5000	100	90 - 110	P	05/14/2025	18:08	LB135778
	Lead	4840	5000	97	90 - 110	P	05/14/2025	18:08	LB135778
	Magnesium	23400	25000	94	90 - 110	P	05/14/2025	18:08	LB135778
	Manganese	2370	2500	95	90 - 110	P	05/14/2025	18:08	LB135778
	Nickel	2430	2500	97	90 - 110	P	05/14/2025	18:08	LB135778
	Potassium	25000	25000	100	90 - 110	P	05/14/2025	18:08	LB135778
	Selenium	4860	5000	97	90 - 110	P	05/14/2025	18:08	LB135778
	Silver	1220	1250	98	90 - 110	P	05/14/2025	18:08	LB135778
	Sodium	25600	25000	102	90 - 110	P	05/14/2025	18:08	LB135778
	Thallium	4910	5000	98	90 - 110	P	05/14/2025	18:08	LB135778
	Vanadium	2400	2500	96	90 - 110	P	05/14/2025	18:08	LB135778
	Zinc	2460	2500	98	90 - 110	P	05/14/2025	18:08	LB135778
CCV05	Aluminum	9540	10000	95	90 - 110	P	05/14/2025	19:21	LB135778
	Antimony	4830	5000	97	90 - 110	P	05/14/2025	19:21	LB135778
	Arsenic	4790	5000	96	90 - 110	P	05/14/2025	19:21	LB135778
	Barium	9050	10000	90	90 - 110	P	05/14/2025	19:21	LB135778
	Beryllium	233	250	93	90 - 110	P	05/14/2025	19:21	LB135778
	Cadmium	2430	2500	97	90 - 110	P	05/14/2025	19:21	LB135778
	Calcium	23500	25000	94	90 - 110	P	05/14/2025	19:21	LB135778
	Chromium	992	1000	99	90 - 110	P	05/14/2025	19:21	LB135778
	Cobalt	2410	2500	97	90 - 110	P	05/14/2025	19:21	LB135778
	Copper	1200	1250	96	90 - 110	P	05/14/2025	19:21	LB135778
	Iron	4830	5000	97	90 - 110	P	05/14/2025	19:21	LB135778
	Lead	4830	5000	96	90 - 110	P	05/14/2025	19:21	LB135778
	Magnesium	23300	25000	93	90 - 110	P	05/14/2025	19:21	LB135778
	Manganese	2310	2500	92	90 - 110	P	05/14/2025	19:21	LB135778

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2440	2500	98	90 - 110	P	05/14/2025	19:21	LB135778
	Potassium	24200	25000	97	90 - 110	P	05/14/2025	19:21	LB135778
	Selenium	4850	5000	97	90 - 110	P	05/14/2025	19:21	LB135778
	Silver	1210	1250	97	90 - 110	P	05/14/2025	19:21	LB135778
	Sodium	25000	25000	100	90 - 110	P	05/14/2025	19:21	LB135778
	Thallium	4960	5000	99	90 - 110	P	05/14/2025	19:21	LB135778
	Vanadium	2380	2500	95	90 - 110	P	05/14/2025	19:21	LB135778
	Zinc	2420	2500	97	90 - 110	P	05/14/2025	19:21	LB135778

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2430	2500	97	90 - 110	P	05/15/2025	13:37	LB135794
	Antimony	991	1000	99	90 - 110	P	05/15/2025	13:37	LB135794
	Arsenic	997	1000	100	90 - 110	P	05/15/2025	13:37	LB135794
	Barium	515	520	99	90 - 110	P	05/15/2025	13:37	LB135794
	Beryllium	480	510	94	90 - 110	P	05/15/2025	13:37	LB135794
	Cadmium	500	510	98	90 - 110	P	05/15/2025	13:37	LB135794
	Calcium	9530	10000	95	90 - 110	P	05/15/2025	13:37	LB135794
	Chromium	506	520	97	90 - 110	P	05/15/2025	13:37	LB135794
	Cobalt	492	520	95	90 - 110	P	05/15/2025	13:37	LB135794
	Copper	508	510	100	90 - 110	P	05/15/2025	13:37	LB135794
	Iron	9530	10000	95	90 - 110	P	05/15/2025	13:37	LB135794
	Lead	989	1000	99	90 - 110	P	05/15/2025	13:37	LB135794
	Magnesium	5580	6000	93	90 - 110	P	05/15/2025	13:37	LB135794
	Manganese	492	520	94	90 - 110	P	05/15/2025	13:37	LB135794
	Nickel	494	530	93	90 - 110	P	05/15/2025	13:37	LB135794
	Potassium	9270	9900	94	90 - 110	P	05/15/2025	13:37	LB135794
	Selenium	1020	1000	102	90 - 110	P	05/15/2025	13:37	LB135794
	Silver	237	250	95	90 - 110	P	05/15/2025	13:37	LB135794
	Sodium	9880	10000	99	90 - 110	P	05/15/2025	13:37	LB135794
	Thallium	1030	1000	103	90 - 110	P	05/15/2025	13:37	LB135794
	Vanadium	474	500	95	90 - 110	P	05/15/2025	13:37	LB135794
	Zinc	1000	1000	100	90 - 110	P	05/15/2025	13:37	LB135794

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	104	100	104	80 - 120	P	05/15/2025	13:42	LB135794
	Antimony	53.7	50.0	107	80 - 120	P	05/15/2025	13:42	LB135794
	Arsenic	23.2	20.0	116	80 - 120	P	05/15/2025	13:42	LB135794
	Barium	95.7	100	96	80 - 120	P	05/15/2025	13:42	LB135794
	Beryllium	5.98	6.0	100	80 - 120	P	05/15/2025	13:42	LB135794
	Cadmium	6.08	6.0	101	80 - 120	P	05/15/2025	13:42	LB135794
	Calcium	2010	2000	100	80 - 120	P	05/15/2025	13:42	LB135794
	Chromium	9.66	10.0	97	80 - 120	P	05/15/2025	13:42	LB135794
	Cobalt	29.2	30.0	97	80 - 120	P	05/15/2025	13:42	LB135794
	Copper	22.6	20.0	113	80 - 120	P	05/15/2025	13:42	LB135794
	Iron	98.5	100	98	80 - 120	P	05/15/2025	13:42	LB135794
	Lead	12.2	12.0	102	80 - 120	P	05/15/2025	13:42	LB135794
	Magnesium	2070	2000	103	80 - 120	P	05/15/2025	13:42	LB135794
	Manganese	20.6	20.0	103	80 - 120	P	05/15/2025	13:42	LB135794
	Nickel	39.6	40.0	99	80 - 120	P	05/15/2025	13:42	LB135794
	Potassium	1960	2000	98	80 - 120	P	05/15/2025	13:42	LB135794
	Selenium	20.1	20.0	100	80 - 120	P	05/15/2025	13:42	LB135794
	Silver	10.2	10.0	102	80 - 120	P	05/15/2025	13:42	LB135794
	Sodium	1890	2000	94	80 - 120	P	05/15/2025	13:42	LB135794
	Thallium	42.6	40.0	106	80 - 120	P	05/15/2025	13:42	LB135794
	Vanadium	38.4	40.0	96	80 - 120	P	05/15/2025	13:42	LB135794
	Zinc	42.8	40.0	107	80 - 120	P	05/15/2025	13:42	LB135794

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9930	10000	99	90 - 110	P	05/15/2025	14:18	LB135794
	Antimony	4920	5000	98	90 - 110	P	05/15/2025	14:18	LB135794
	Arsenic	4990	5000	100	90 - 110	P	05/15/2025	14:18	LB135794
	Barium	9620	10000	96	90 - 110	P	05/15/2025	14:18	LB135794
	Beryllium	252	250	101	90 - 110	P	05/15/2025	14:18	LB135794
	Cadmium	2470	2500	99	90 - 110	P	05/15/2025	14:18	LB135794
	Calcium	24700	25000	99	90 - 110	P	05/15/2025	14:18	LB135794
	Chromium	1010	1000	101	90 - 110	P	05/15/2025	14:18	LB135794
	Cobalt	2490	2500	100	90 - 110	P	05/15/2025	14:18	LB135794
	Copper	1250	1250	100	90 - 110	P	05/15/2025	14:18	LB135794
	Iron	4870	5000	97	90 - 110	P	05/15/2025	14:18	LB135794
	Lead	4990	5000	100	90 - 110	P	05/15/2025	14:18	LB135794
	Magnesium	24100	25000	97	90 - 110	P	05/15/2025	14:18	LB135794
	Manganese	2450	2500	98	90 - 110	P	05/15/2025	14:18	LB135794
	Nickel	2470	2500	99	90 - 110	P	05/15/2025	14:18	LB135794
	Potassium	24200	25000	97	90 - 110	P	05/15/2025	14:18	LB135794
	Selenium	4940	5000	99	90 - 110	P	05/15/2025	14:18	LB135794
	Silver	1240	1250	100	90 - 110	P	05/15/2025	14:18	LB135794
	Sodium	24300	25000	97	90 - 110	P	05/15/2025	14:18	LB135794
	Thallium	4970	5000	99	90 - 110	P	05/15/2025	14:18	LB135794
	Vanadium	2430	2500	97	90 - 110	P	05/15/2025	14:18	LB135794
	Zinc	2530	2500	101	90 - 110	P	05/15/2025	14:18	LB135794
CCV02	Aluminum	9960	10000	100	90 - 110	P	05/15/2025	15:05	LB135794
	Antimony	4950	5000	99	90 - 110	P	05/15/2025	15:05	LB135794
	Arsenic	5050	5000	101	90 - 110	P	05/15/2025	15:05	LB135794
	Barium	9610	10000	96	90 - 110	P	05/15/2025	15:05	LB135794
	Beryllium	249	250	100	90 - 110	P	05/15/2025	15:05	LB135794
	Cadmium	2480	2500	99	90 - 110	P	05/15/2025	15:05	LB135794
	Calcium	24800	25000	99	90 - 110	P	05/15/2025	15:05	LB135794
	Chromium	1010	1000	101	90 - 110	P	05/15/2025	15:05	LB135794
	Cobalt	2510	2500	100	90 - 110	P	05/15/2025	15:05	LB135794
	Copper	1260	1250	101	90 - 110	P	05/15/2025	15:05	LB135794
	Iron	5010	5000	100	90 - 110	P	05/15/2025	15:05	LB135794
	Lead	5030	5000	100	90 - 110	P	05/15/2025	15:05	LB135794

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24200	25000	97	90 - 110	P	05/15/2025	15:05	LB135794
	Manganese	2450	2500	98	90 - 110	P	05/15/2025	15:05	LB135794
	Nickel	2480	2500	99	90 - 110	P	05/15/2025	15:05	LB135794
	Potassium	24700	25000	99	90 - 110	P	05/15/2025	15:05	LB135794
	Selenium	4980	5000	100	90 - 110	P	05/15/2025	15:05	LB135794
	Silver	1250	1250	100	90 - 110	P	05/15/2025	15:05	LB135794
	Sodium	25000	25000	100	90 - 110	P	05/15/2025	15:05	LB135794
	Thallium	4980	5000	100	90 - 110	P	05/15/2025	15:05	LB135794
	Vanadium	2450	2500	98	90 - 110	P	05/15/2025	15:05	LB135794
	Zinc	2530	2500	101	90 - 110	P	05/15/2025	15:05	LB135794
CCV03	Aluminum	9950	10000	100	90 - 110	P	05/15/2025	15:53	LB135794
	Antimony	4890	5000	98	90 - 110	P	05/15/2025	15:53	LB135794
	Arsenic	4930	5000	98	90 - 110	P	05/15/2025	15:53	LB135794
	Barium	9350	10000	94	90 - 110	P	05/15/2025	15:53	LB135794
	Beryllium	261	250	104	90 - 110	P	05/15/2025	15:53	LB135794
	Cadmium	2430	2500	97	90 - 110	P	05/15/2025	15:53	LB135794
	Calcium	24500	25000	98	90 - 110	P	05/15/2025	15:53	LB135794
	Chromium	995	1000	100	90 - 110	P	05/15/2025	15:53	LB135794
	Cobalt	2460	2500	98	90 - 110	P	05/15/2025	15:53	LB135794
	Copper	1240	1250	99	90 - 110	P	05/15/2025	15:53	LB135794
	Iron	4540	5000	91	90 - 110	P	05/15/2025	15:53	LB135794
	Lead	4930	5000	99	90 - 110	P	05/15/2025	15:53	LB135794
	Magnesium	24100	25000	96	90 - 110	P	05/15/2025	15:53	LB135794
	Manganese	2430	2500	97	90 - 110	P	05/15/2025	15:53	LB135794
	Nickel	2440	2500	98	90 - 110	P	05/15/2025	15:53	LB135794
	Potassium	22700	25000	91	90 - 110	P	05/15/2025	15:53	LB135794
	Selenium	4860	5000	97	90 - 110	P	05/15/2025	15:53	LB135794
	Silver	1220	1250	98	90 - 110	P	05/15/2025	15:53	LB135794
	Sodium	22900	25000	92	90 - 110	P	05/15/2025	15:53	LB135794
	Thallium	4910	5000	98	90 - 110	P	05/15/2025	15:53	LB135794
	Vanadium	2410	2500	96	90 - 110	P	05/15/2025	15:53	LB135794
	Zinc	2460	2500	98	90 - 110	P	05/15/2025	15:53	LB135794
CCV04	Aluminum	9920	10000	99	90 - 110	P	05/15/2025	16:39	LB135794
	Antimony	4830	5000	96	90 - 110	P	05/15/2025	16:39	LB135794

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4930	5000	99	90 - 110	P	05/15/2025	16:39	LB135794
	Barium	9520	10000	95	90 - 110	P	05/15/2025	16:39	LB135794
	Beryllium	251	250	100	90 - 110	P	05/15/2025	16:39	LB135794
	Cadmium	2450	2500	98	90 - 110	P	05/15/2025	16:39	LB135794
	Calcium	24500	25000	98	90 - 110	P	05/15/2025	16:39	LB135794
	Chromium	998	1000	100	90 - 110	P	05/15/2025	16:39	LB135794
	Cobalt	2480	2500	99	90 - 110	P	05/15/2025	16:39	LB135794
	Copper	1240	1250	99	90 - 110	P	05/15/2025	16:39	LB135794
	Iron	4680	5000	94	90 - 110	P	05/15/2025	16:39	LB135794
	Lead	4960	5000	99	90 - 110	P	05/15/2025	16:39	LB135794
	Magnesium	23800	25000	95	90 - 110	P	05/15/2025	16:39	LB135794
	Manganese	2420	2500	97	90 - 110	P	05/15/2025	16:39	LB135794
	Nickel	2440	2500	98	90 - 110	P	05/15/2025	16:39	LB135794
	Potassium	23300	25000	93	90 - 110	P	05/15/2025	16:39	LB135794
	Selenium	4830	5000	97	90 - 110	P	05/15/2025	16:39	LB135794
	Silver	1220	1250	98	90 - 110	P	05/15/2025	16:39	LB135794
	Sodium	23400	25000	94	90 - 110	P	05/15/2025	16:39	LB135794
	Thallium	4890	5000	98	90 - 110	P	05/15/2025	16:39	LB135794
	Vanadium	2420	2500	97	90 - 110	P	05/15/2025	16:39	LB135794
	Zinc	2440	2500	97	90 - 110	P	05/15/2025	16:39	LB135794
CCV05	Aluminum	10100	10000	101	90 - 110	P	05/15/2025	17:27	LB135794
	Antimony	4810	5000	96	90 - 110	P	05/15/2025	17:27	LB135794
	Arsenic	4940	5000	99	90 - 110	P	05/15/2025	17:27	LB135794
	Barium	9330	10000	93	90 - 110	P	05/15/2025	17:27	LB135794
	Beryllium	266	250	106	90 - 110	P	05/15/2025	17:27	LB135794
	Cadmium	2470	2500	99	90 - 110	P	05/15/2025	17:27	LB135794
	Calcium	25300	25000	101	90 - 110	P	05/15/2025	17:27	LB135794
	Chromium	1030	1000	103	90 - 110	P	05/15/2025	17:27	LB135794
	Cobalt	2500	2500	100	90 - 110	P	05/15/2025	17:27	LB135794
	Copper	1240	1250	99	90 - 110	P	05/15/2025	17:27	LB135794
	Iron	4850	5000	97	90 - 110	P	05/15/2025	17:27	LB135794
	Lead	5580	5000	112	90 - 110	P	05/15/2025	17:27	LB135794
	Magnesium	24900	25000	100	90 - 110	P	05/15/2025	17:27	LB135794
	Manganese	2450	2500	98	90 - 110	P	05/15/2025	17:27	LB135794

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2600	2500	104	90 - 110	P	05/15/2025	17:27	LB135794
	Potassium	23300	25000	93	90 - 110	P	05/15/2025	17:27	LB135794
	Selenium	4820	5000	96	90 - 110	P	05/15/2025	17:27	LB135794
	Silver	1260	1250	101	90 - 110	P	05/15/2025	17:27	LB135794
	Sodium	23600	25000	94	90 - 110	P	05/15/2025	17:27	LB135794
	Thallium	4880	5000	98	90 - 110	P	05/15/2025	17:27	LB135794
	Vanadium	2440	2500	98	90 - 110	P	05/15/2025	17:27	LB135794
	Zinc	7780	2500	311	90 - 110	P	05/15/2025	17:27	LB135794
CCV06	Aluminum	9950	10000	100	90 - 110	P	05/15/2025	17:41	LB135794
	Antimony	4800	5000	96	90 - 110	P	05/15/2025	17:41	LB135794
	Arsenic	4900	5000	98	90 - 110	P	05/15/2025	17:41	LB135794
	Barium	9440	10000	94	90 - 110	P	05/15/2025	17:41	LB135794
	Beryllium	263	250	105	90 - 110	P	05/15/2025	17:41	LB135794
	Cadmium	2470	2500	99	90 - 110	P	05/15/2025	17:41	LB135794
	Calcium	25200	25000	101	90 - 110	P	05/15/2025	17:41	LB135794
	Chromium	1020	1000	102	90 - 110	P	05/15/2025	17:41	LB135794
	Cobalt	2490	2500	100	90 - 110	P	05/15/2025	17:41	LB135794
	Copper	1230	1250	98	90 - 110	P	05/15/2025	17:41	LB135794
	Iron	4860	5000	97	90 - 110	P	05/15/2025	17:41	LB135794
	Lead	5000	5000	100	90 - 110	P	05/15/2025	17:41	LB135794
	Magnesium	24600	25000	99	90 - 110	P	05/15/2025	17:41	LB135794
	Manganese	2450	2500	98	90 - 110	P	05/15/2025	17:41	LB135794
	Nickel	2460	2500	98	90 - 110	P	05/15/2025	17:41	LB135794
	Potassium	23500	25000	94	90 - 110	P	05/15/2025	17:41	LB135794
	Selenium	4790	5000	96	90 - 110	P	05/15/2025	17:41	LB135794
	Silver	1250	1250	100	90 - 110	P	05/15/2025	17:41	LB135794
	Sodium	23600	25000	95	90 - 110	P	05/15/2025	17:41	LB135794
	Thallium	4950	5000	99	90 - 110	P	05/15/2025	17:41	LB135794
	Vanadium	2450	2500	98	90 - 110	P	05/15/2025	17:41	LB135794
	Zinc	2500	2500	100	90 - 110	P	05/15/2025	17:41	LB135794
CCV07	Aluminum	9840	10000	98	90 - 110	P	05/15/2025	18:47	LB135794
	Antimony	4680	5000	94	90 - 110	P	05/15/2025	18:47	LB135794
	Arsenic	4790	5000	96	90 - 110	P	05/15/2025	18:47	LB135794
	Barium	9280	10000	93	90 - 110	P	05/15/2025	18:47	LB135794

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	262	250	105	90 - 110	P	05/15/2025	18:47	LB135794
	Cadmium	2440	2500	98	90 - 110	P	05/15/2025	18:47	LB135794
	Calcium	25000	25000	100	90 - 110	P	05/15/2025	18:47	LB135794
	Chromium	1030	1000	103	90 - 110	P	05/15/2025	18:47	LB135794
	Cobalt	2460	2500	99	90 - 110	P	05/15/2025	18:47	LB135794
	Copper	1210	1250	97	90 - 110	P	05/15/2025	18:47	LB135794
	Iron	4790	5000	96	90 - 110	P	05/15/2025	18:47	LB135794
	Lead	4940	5000	99	90 - 110	P	05/15/2025	18:47	LB135794
	Magnesium	24600	25000	98	90 - 110	P	05/15/2025	18:47	LB135794
	Manganese	2450	2500	98	90 - 110	P	05/15/2025	18:47	LB135794
	Nickel	2430	2500	97	90 - 110	P	05/15/2025	18:47	LB135794
	Potassium	23200	25000	93	90 - 110	P	05/15/2025	18:47	LB135794
	Selenium	4640	5000	93	90 - 110	P	05/15/2025	18:47	LB135794
	Silver	1230	1250	99	90 - 110	P	05/15/2025	18:47	LB135794
	Sodium	23200	25000	93	90 - 110	P	05/15/2025	18:47	LB135794
	Thallium	4850	5000	97	90 - 110	P	05/15/2025	18:47	LB135794
	Vanadium	2430	2500	97	90 - 110	P	05/15/2025	18:47	LB135794
	Zinc	2480	2500	99	90 - 110	P	05/15/2025	18:47	LB135794

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

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.18	0.2	89	70 - 130	CV	05/14/2025	11:54	LB135763
CRI01	Aluminum	91.1	100	91	65 - 135	P	05/14/2025	13:43	LB135778
	Antimony	50.6	50.0	101	65 - 135	P	05/14/2025	13:43	LB135778
	Arsenic	19.9	20.0	99	65 - 135	P	05/14/2025	13:43	LB135778
	Barium	85.9	100	86	65 - 135	P	05/14/2025	13:43	LB135778
	Beryllium	5.80	6.0	97	65 - 135	P	05/14/2025	13:43	LB135778
	Cadmium	6.01	6.0	100	65 - 135	P	05/14/2025	13:43	LB135778
	Calcium	1910	2000	95	65 - 135	P	05/14/2025	13:43	LB135778
	Chromium	9.05	10.0	90	65 - 135	P	05/14/2025	13:43	LB135778
	Cobalt	29.0	30.0	97	65 - 135	P	05/14/2025	13:43	LB135778
	Copper	22.3	20.0	112	65 - 135	P	05/14/2025	13:43	LB135778
	Iron	93.3	100	93	65 - 135	P	05/14/2025	13:43	LB135778
	Lead	11.1	12.0	92	65 - 135	P	05/14/2025	13:43	LB135778
	Magnesium	1970	2000	98	65 - 135	P	05/14/2025	13:43	LB135778
	Manganese	19.4	20.0	97	65 - 135	P	05/14/2025	13:43	LB135778
	Nickel	38.8	40.0	97	65 - 135	P	05/14/2025	13:43	LB135778
	Potassium	1920	2000	96	65 - 135	P	05/14/2025	13:43	LB135778
	Selenium	22.6	20.0	113	65 - 135	P	05/14/2025	13:43	LB135778
	Silver	9.49	10.0	95	65 - 135	P	05/14/2025	13:43	LB135778
	Sodium	1890	2000	94	65 - 135	P	05/14/2025	13:43	LB135778
	Thallium	39.1	40.0	98	65 - 135	P	05/14/2025	13:43	LB135778
	Vanadium	38.4	40.0	96	65 - 135	P	05/14/2025	13:43	LB135778
	Zinc	42.2	40.0	106	65 - 135	P	05/14/2025	13:43	LB135778
CRI01	Aluminum	102	100	102	65 - 135	P	05/15/2025	13:51	LB135794
	Antimony	52.8	50.0	106	65 - 135	P	05/15/2025	13:51	LB135794
	Arsenic	21.4	20.0	107	65 - 135	P	05/15/2025	13:51	LB135794
	Barium	94.3	100	94	65 - 135	P	05/15/2025	13:51	LB135794
	Beryllium	5.81	6.0	97	65 - 135	P	05/15/2025	13:51	LB135794
	Cadmium	6.05	6.0	101	65 - 135	P	05/15/2025	13:51	LB135794
	Calcium	2010	2000	100	65 - 135	P	05/15/2025	13:51	LB135794
	Chromium	9.78	10.0	98	65 - 135	P	05/15/2025	13:51	LB135794
	Cobalt	29.2	30.0	97	65 - 135	P	05/15/2025	13:51	LB135794
	Copper	22.2	20.0	111	65 - 135	P	05/15/2025	13:51	LB135794
	Iron	104	100	104	65 - 135	P	05/15/2025	13:51	LB135794
	Lead	12.3	12.0	102	65 - 135	P	05/15/2025	13:51	LB135794

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

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Magnesium	2060	2000	103	65 - 135	P	05/15/2025	13:51	LB135794
	Manganese	20.4	20.0	102	65 - 135	P	05/15/2025	13:51	LB135794
	Nickel	39.1	40.0	98	65 - 135	P	05/15/2025	13:51	LB135794
	Potassium	1920	2000	96	65 - 135	P	05/15/2025	13:51	LB135794
	Selenium	22.4	20.0	112	65 - 135	P	05/15/2025	13:51	LB135794
	Silver	10.1	10.0	101	65 - 135	P	05/15/2025	13:51	LB135794
	Sodium	1880	2000	94	65 - 135	P	05/15/2025	13:51	LB135794
	Thallium	42.5	40.0	106	65 - 135	P	05/15/2025	13:51	LB135794
	Vanadium	38.1	40.0	95	65 - 135	P	05/15/2025	13:51	LB135794
	Zinc	42.5	40.0	106	65 - 135	P	05/15/2025	13:51	LB135794

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB08	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	11:44	LB135763

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB22	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	11:51	LB135763
CCB23	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	12:26	LB135763
CCB24	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	12:54	LB135763
CCB25	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	13:30	LB135763
CCB26	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	13:57	LB135763
CCB27	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	14:25	LB135763
CCB28	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	14:41	LB135763
CCB29	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	05/14/2025	14:59	LB135763

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	05/14/2025	13:38	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	13:38	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	13:38	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	13:38	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	13:38	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	13:38	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	13:38	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	13:38	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	13:38	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	13:38	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	13:38	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	13:38	LB135778
	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	13:38	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	13:38	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	13:38	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	13:38	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	13:38	LB135778
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	13:38	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	13:38	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	13:38	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	13:38	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	13:38	LB135778

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	05/14/2025	14:56	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	14:56	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	14:56	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	14:56	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	14:56	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	14:56	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	14:56	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	14:56	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	14:56	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	14:56	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	14:56	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	14:56	LB135778
	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	14:56	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	14:56	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	14:56	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	14:56	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	14:56	LB135778
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	14:56	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	14:56	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	14:56	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	14:56	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	14:56	LB135778
CCB02	Aluminum	100	+/-100	U	80.0	100	P	05/14/2025	15:57	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	15:57	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	15:57	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	15:57	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	15:57	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	15:57	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	15:57	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	15:57	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	15:57	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	15:57	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	15:57	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	15:57	LB135778
	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	15:57	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	15:57	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	15:57	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	15:57	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	15:57	LB135778

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	15:57	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	15:57	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	15:57	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	15:57	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	15:57	LB135778
CCB03	Aluminum	15.4	+/-100	J	80.0	100	P	05/14/2025	16:48	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	16:48	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	16:48	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	16:48	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	16:48	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	16:48	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	16:48	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	16:48	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	16:48	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	16:48	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	16:48	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	16:48	LB135778
	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	16:48	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	16:48	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	16:48	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	16:48	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	16:48	LB135778
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	16:48	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	16:48	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	16:48	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	16:48	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	16:48	LB135778
CCB04	Aluminum	100	+/-100	U	80.0	100	P	05/14/2025	18:12	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	18:12	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	18:12	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	18:12	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	18:12	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	18:12	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	18:12	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	18:12	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	18:12	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	18:12	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	18:12	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	18:12	LB135778

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	18:12	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	18:12	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	18:12	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	18:12	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	18:12	LB135778
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	18:12	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	18:12	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	18:12	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	18:12	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	18:12	LB135778
CCB05	Aluminum	100	+/-100	U	80.0	100	P	05/14/2025	19:25	LB135778
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/14/2025	19:25	LB135778
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	19:25	LB135778
	Barium	100	+/-100	U	25.0	100	P	05/14/2025	19:25	LB135778
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	19:25	LB135778
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/14/2025	19:25	LB135778
	Calcium	2000	+/-2000	U	500	2000	P	05/14/2025	19:25	LB135778
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	19:25	LB135778
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/14/2025	19:25	LB135778
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	19:25	LB135778
	Iron	100	+/-100	U	80.0	100	P	05/14/2025	19:25	LB135778
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/14/2025	19:25	LB135778
	Magnesium	2000	+/-2000	U	500	2000	P	05/14/2025	19:25	LB135778
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/14/2025	19:25	LB135778
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/14/2025	19:25	LB135778
	Potassium	2000	+/-2000	U	1600	2000	P	05/14/2025	19:25	LB135778
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/14/2025	19:25	LB135778
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/14/2025	19:25	LB135778
	Sodium	2000	+/-2000	U	1000	2000	P	05/14/2025	19:25	LB135778
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	19:25	LB135778
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/14/2025	19:25	LB135778
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/14/2025	19:25	LB135778

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	13:47	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	13:47	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	13:47	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	13:47	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	13:47	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	13:47	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	13:47	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	13:47	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	13:47	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	13:47	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	13:47	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	13:47	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	13:47	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	13:47	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	13:47	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	13:47	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	13:47	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	13:47	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	13:47	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	13:47	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	13:47	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	13:47	LB135794

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	14:22	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	14:22	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	14:22	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	14:22	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	14:22	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	14:22	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	14:22	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	14:22	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	14:22	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	14:22	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	14:22	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	14:22	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	14:22	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	14:22	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	14:22	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	14:22	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	14:22	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	14:22	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	14:22	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	14:22	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	14:22	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	14:22	LB135794
CCB02	Aluminum	13.0	+/-100	J	80.0	100	P	05/15/2025	15:09	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	15:09	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	15:09	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	15:09	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	15:09	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	15:09	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	15:09	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	15:09	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	15:09	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	15:09	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	15:09	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	15:09	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	15:09	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	15:09	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	15:09	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	15:09	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	15:09	LB135794

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	15:09	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	15:09	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	15:09	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	15:09	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	15:09	LB135794
CCB03	Aluminum	22.1	+/-100	J	80.0	100	P	05/15/2025	15:57	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	15:57	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	15:57	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	15:57	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	15:57	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	15:57	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	15:57	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	15:57	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	15:57	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	15:57	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	15:57	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	15:57	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	15:57	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	15:57	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	15:57	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	15:57	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	15:57	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	15:57	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	15:57	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	15:57	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	15:57	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	15:57	LB135794
CCB04	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	16:44	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	16:44	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	16:44	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	16:44	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	16:44	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	16:44	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	16:44	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	16:44	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	16:44	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	16:44	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	16:44	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	16:44	LB135794

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	16:44	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	16:44	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	16:44	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	16:44	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	16:44	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	16:44	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	16:44	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	16:44	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	16:44	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	16:44	LB135794
CCB05	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	17:31	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	17:31	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	17:31	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	17:31	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	17:31	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	17:31	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	17:31	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	17:31	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	17:31	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	17:31	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	17:31	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	17:31	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	17:31	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	17:31	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	17:31	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	17:31	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	17:31	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	17:31	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	17:31	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	17:31	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	17:31	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	17:31	LB135794
CCB06	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	17:56	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	17:56	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	17:56	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	17:56	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	17:56	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	17:56	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	17:56	LB135794

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	17:56	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	17:56	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	17:56	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	17:56	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	17:56	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	17:56	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	17:56	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	17:56	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	17:56	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	17:56	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	17:56	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	17:56	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	17:56	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	17:56	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	17:56	LB135794
CCB07	Aluminum	100	+/-100	U	80.0	100	P	05/15/2025	18:52	LB135794
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	05/15/2025	18:52	LB135794
	Arsenic	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	18:52	LB135794
	Barium	100	+/-100	U	25.0	100	P	05/15/2025	18:52	LB135794
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	18:52	LB135794
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	05/15/2025	18:52	LB135794
	Calcium	2000	+/-2000	U	500	2000	P	05/15/2025	18:52	LB135794
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	18:52	LB135794
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	05/15/2025	18:52	LB135794
	Copper	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	18:52	LB135794
	Iron	100	+/-100	U	80.0	100	P	05/15/2025	18:52	LB135794
	Lead	12.0	+/-12.0	U	9.60	12.0	P	05/15/2025	18:52	LB135794
	Magnesium	2000	+/-2000	U	500	2000	P	05/15/2025	18:52	LB135794
	Manganese	20.0	+/-20.0	U	15.0	20.0	P	05/15/2025	18:52	LB135794
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	05/15/2025	18:52	LB135794
	Potassium	2000	+/-2000	U	1600	2000	P	05/15/2025	18:52	LB135794
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	05/15/2025	18:52	LB135794
	Silver	10.0	+/-10.0	U	5.00	10.0	P	05/15/2025	18:52	LB135794
	Sodium	2000	+/-2000	U	1000	2000	P	05/15/2025	18:52	LB135794
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	18:52	LB135794
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	05/15/2025	18:52	LB135794
	Zinc	40.0	+/-40.0	U	15.0	40.0	P	05/15/2025	18:52	LB135794

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167980BL		**WATER**		**Batch Number:**		**PB167980**		**Prep Date:**	**05/13/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	05/14/2025	13:53	LB135763

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167955BL		**WATER**		**Batch Number:**		**PB167955**		**Prep Date:**	**05/12/2025**	
	Aluminum	50.0	<50.0	U	40.0	50.0	P	05/14/2025	18:25	LB135778
	Antimony	25.0	<25.0	U	6.25	25.0	P	05/14/2025	18:25	LB135778
	Arsenic	10.0	<10.0	U	7.50	10.0	P	05/14/2025	18:25	LB135778
	Barium	50.0	<50.0	U	12.5	50.0	P	05/14/2025	18:25	LB135778
	Beryllium	3.00	<3.00	U	0.75	3.00	P	05/14/2025	18:25	LB135778
	Cadmium	3.00	<3.00	U	0.75	3.00	P	05/14/2025	18:25	LB135778
	Calcium	1000	<1000	U	250	1000	P	05/14/2025	18:25	LB135778
	Chromium	5.00	<5.00	U	2.50	5.00	P	05/14/2025	18:25	LB135778
	Cobalt	15.0	<15.0	U	3.75	15.0	P	05/14/2025	18:25	LB135778
	Copper	10.0	<10.0	U	8.00	10.0	P	05/14/2025	18:25	LB135778
	Iron	50.0	<50.0	U	40.0	50.0	P	05/14/2025	18:25	LB135778
	Lead	6.00	<6.00	U	4.80	6.00	P	05/14/2025	18:25	LB135778
	Magnesium	1000	<1000	U	250	1000	P	05/14/2025	18:25	LB135778
	Manganese	10.0	<10.0	U	7.50	10.0	P	05/14/2025	18:25	LB135778
	Nickel	20.0	<20.0	U	5.00	20.0	P	05/14/2025	18:25	LB135778
	Potassium	1000	<1000	U	800	1000	P	05/14/2025	18:25	LB135778
	Selenium	10.0	<10.0	U	8.00	10.0	P	05/14/2025	18:25	LB135778
	Silver	5.00	<5.00	U	2.50	5.00	P	05/14/2025	18:25	LB135778
	Sodium	1000	<1000	U	500	1000	P	05/14/2025	18:25	LB135778
	Thallium	20.0	<20.0	U	10.0	20.0	P	05/14/2025	18:25	LB135778
	Vanadium	20.0	<20.0	U	10.0	20.0	P	05/14/2025	18:25	LB135778
	Zinc	20.0	<20.0	U	7.50	20.0	P	05/14/2025	18:25	LB135778

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

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

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	234000	255000	92	216000	294000	05/14/2025	14:09	LB135778
	Antimony	-3.07			-50	50	05/14/2025	14:09	LB135778
	Arsenic	4.85			-20	20	05/14/2025	14:09	LB135778
	Barium	1.76	6.0	29	-94	106	05/14/2025	14:09	LB135778
	Beryllium	1.12			-6	6	05/14/2025	14:09	LB135778
	Cadmium	-3.09	1.0	309	-5	7	05/14/2025	14:09	LB135778
	Calcium	218000	245000	89	208000	282000	05/14/2025	14:09	LB135778
	Chromium	52.2	52.0	100	42	62	05/14/2025	14:09	LB135778
	Cobalt	0.31			-30	30	05/14/2025	14:09	LB135778
	Copper	0.58	2.0	29	-18	22	05/14/2025	14:09	LB135778
	Iron	93300	101000	92	85600	116500	05/14/2025	14:09	LB135778
	Lead	0.26			-12	12	05/14/2025	14:09	LB135778
	Magnesium	228000	255000	89	216000	294000	05/14/2025	14:09	LB135778
	Manganese	3.08	7.0	44	-13	27	05/14/2025	14:09	LB135778
	Nickel	1.20	2.0	60	-38	42	05/14/2025	14:09	LB135778
	Potassium	22.4			0	0	05/14/2025	14:09	LB135778
	Selenium	-3.16			-20	20	05/14/2025	14:09	LB135778
	Silver	0.95			-10	10	05/14/2025	14:09	LB135778
	Sodium	71.8			0	0	05/14/2025	14:09	LB135778
	Thallium	6.83			-40	40	05/14/2025	14:09	LB135778
	Vanadium	0.97			-40	40	05/14/2025	14:09	LB135778
	Zinc	3.75			-40	40	05/14/2025	14:09	LB135778
ICSAB01	Aluminum	236000	247000	96	209000	285000	05/14/2025	14:16	LB135778
	Antimony	592	618	96	525	711	05/14/2025	14:16	LB135778
	Arsenic	108	104	104	88.4	120	05/14/2025	14:16	LB135778
	Barium	442	537	82	437	637	05/14/2025	14:16	LB135778
	Beryllium	446	495	90	420	570	05/14/2025	14:16	LB135778
	Cadmium	933	972	96	826	1120	05/14/2025	14:16	LB135778
	Calcium	219000	235000	93	199000	271000	05/14/2025	14:16	LB135778
	Chromium	525	542	97	460	624	05/14/2025	14:16	LB135778
	Cobalt	463	476	97	404	548	05/14/2025	14:16	LB135778
	Copper	468	511	92	434	588	05/14/2025	14:16	LB135778
	Iron	94500	99300	95	84400	114500	05/14/2025	14:16	LB135778
	Lead	46.1	49.0	94	37	61	05/14/2025	14:16	LB135778
	Magnesium	230000	248000	93	210000	286000	05/14/2025	14:16	LB135778
	Manganese	446	507	88	430	584	05/14/2025	14:16	LB135778
	Nickel	916	954	96	810	1100	05/14/2025	14:16	LB135778
	Potassium	-47.9			0	0	05/14/2025	14:16	LB135778
	Selenium	40.7	46.0	88	26	66	05/14/2025	14:16	LB135778
	Silver	203	201	101	170	232	05/14/2025	14:16	LB135778
	Sodium	-147			0	0	05/14/2025	14:16	LB135778
	Thallium	104	108	96	68	148	05/14/2025	14:16	LB135778

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

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

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	445	491	91	417	565	05/14/2025	14:16	LB135778
	Zinc	981	952	103	809	1095	05/14/2025	14:16	LB135778
ICSA01	Aluminum	232000	255000	91	216000	294000	05/15/2025	14:01	LB135794
	Antimony	-2.73			-50	50	05/15/2025	14:01	LB135794
	Arsenic	5.60			-20	20	05/15/2025	14:01	LB135794
	Barium	2.71	6.0	45	-94	106	05/15/2025	14:01	LB135794
	Beryllium	1.30			-6	6	05/15/2025	14:01	LB135794
	Cadmium	-3.02	1.0	302	-5	7	05/15/2025	14:01	LB135794
	Calcium	220000	245000	90	208000	282000	05/15/2025	14:01	LB135794
	Chromium	52.3	52.0	101	42	62	05/15/2025	14:01	LB135794
	Cobalt	1.23			-30	30	05/15/2025	14:01	LB135794
	Copper	-2.10	2.0	105	-18	22	05/15/2025	14:01	LB135794
	Iron	93300	101000	92	85600	116500	05/15/2025	14:01	LB135794
	Lead	1.30			-12	12	05/15/2025	14:01	LB135794
	Magnesium	231000	255000	91	216000	294000	05/15/2025	14:01	LB135794
	Manganese	7.39	7.0	106	-13	27	05/15/2025	14:01	LB135794
	Nickel	1.31	2.0	66	-38	42	05/15/2025	14:01	LB135794
	Potassium	3.65			0	0	05/15/2025	14:01	LB135794
	Selenium	-5.78			-20	20	05/15/2025	14:01	LB135794
	Silver	-0.091			-10	10	05/15/2025	14:01	LB135794
	Sodium	-5.99			0	0	05/15/2025	14:01	LB135794
	Thallium	6.40			-40	40	05/15/2025	14:01	LB135794
	Vanadium	1.49			-40	40	05/15/2025	14:01	LB135794
	Zinc	3.33			-40	40	05/15/2025	14:01	LB135794
ICSAB01	Aluminum	231000	247000	94	209000	285000	05/15/2025	14:05	LB135794
	Antimony	574	618	93	525	711	05/15/2025	14:05	LB135794
	Arsenic	107	104	103	88.4	120	05/15/2025	14:05	LB135794
	Barium	449	537	84	437	637	05/15/2025	14:05	LB135794
	Beryllium	448	495	90	420	570	05/15/2025	14:05	LB135794
	Cadmium	951	972	98	826	1120	05/15/2025	14:05	LB135794
	Calcium	220000	235000	94	199000	271000	05/15/2025	14:05	LB135794
	Chromium	525	542	97	460	624	05/15/2025	14:05	LB135794
	Cobalt	470	476	99	404	548	05/15/2025	14:05	LB135794
	Copper	453	511	89	434	588	05/15/2025	14:05	LB135794
	Iron	93800	99300	94	84400	114500	05/15/2025	14:05	LB135794
	Lead	45.4	49.0	93	37	61	05/15/2025	14:05	LB135794
	Magnesium	231000	248000	93	210000	286000	05/15/2025	14:05	LB135794
	Manganese	454	507	90	430	584	05/15/2025	14:05	LB135794
	Nickel	924	954	97	810	1100	05/15/2025	14:05	LB135794
	Potassium	-15.5			0	0	05/15/2025	14:05	LB135794
	Selenium	37.6	46.0	82	26	66	05/15/2025	14:05	LB135794
	Silver	214	201	106	170	232	05/15/2025	14:05	LB135794

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

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

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Sodium	-57.9			0	0	05/15/2025	14:05	LB135794
	Thallium	104	108	96	68	148	05/15/2025	14:05	LB135794
	Vanadium	442	491	90	417	565	05/15/2025	14:05	LB135794
	Zinc	965	952	101	809	1095	05/15/2025	14:05	LB135794

METAL QC DATA

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1985

contract: TETR06 **lab code:** CHEM **case no.:** Q1985 **sas no.:** Q1985

matrix: Water **sample id:** Q1985-01 **client id:** RW8-BW-20250507MS

Percent Solids for Sample: NA **Spiked ID:** Q1985-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	967		24.0	J	1000	94		P
Antimony	ug/L	88 - 113	384		25.0	U	400	96		P
Arsenic	ug/L	87 - 113	394		10.0	U	400	98		P
Barium	ug/L	88 - 113	95.0		50.0	U	100	95		P
Beryllium	ug/L	89 - 112	90.9		3.00	U	100	91		P
Cadmium	ug/L	88 - 113	99.0		3.00	U	100	99		P
Calcium	ug/L	87 - 113	1880		1380		500	100		P
Chromium	ug/L	90 - 113	199		2.48	J	200	98		P
Cobalt	ug/L	89 - 114	98.0		15.0	U	100	98		P
Copper	ug/L	86 - 114	140		10.0	U	150	93		P
Iron	ug/L	87 - 115	2170		678		1500	99		P
Lead	ug/L	86 - 113	471		6.00	U	500	94		P
Magnesium	ug/L	85 - 113	2250		1330		1000	92		P
Manganese	ug/L	90 - 114	170		52.0		100	118	N	P
Nickel	ug/L	88 - 113	241		20.0	U	250	96		P
Potassium	ug/L	86 - 114	351000		333000		5000	359		P
Selenium	ug/L	83 - 114	916		10.0	U	1000	92		P
Silver	ug/L	84 - 115	29.9		5.00	U	37.5	80	N	P
Sodium	ug/L	87 - 115	48000		44800		1500	217		P
Thallium	ug/L	85 - 114	905		20.0	U	1000	90		P
Vanadium	ug/L	90 - 111	141		20.0	U	150	94		P
Zinc	ug/L	87 - 115	101		20.0	U	100	101		P

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1985

contract: TETR06 **lab code:** CHEM **case no.:** Q1985 **sas no.:** Q1985

matrix: Water **sample id:** Q1985-01 **client id:** RW8-BW-20250507MSD

Percent Solids for Sample: NA **Spiked ID:** Q1985-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	962		24.0	J	1000	94		P
Antimony	ug/L	88 - 113	381		25.0	U	400	95		P
Arsenic	ug/L	87 - 113	391		10.0	U	400	98		P
Barium	ug/L	88 - 113	93.2		50.0	U	100	93		P
Beryllium	ug/L	89 - 112	92.2		3.00	U	100	92		P
Cadmium	ug/L	88 - 113	98.3		3.00	U	100	98		P
Calcium	ug/L	87 - 113	1840		1380		500	92		P
Chromium	ug/L	90 - 113	198		2.48	J	200	98		P
Cobalt	ug/L	89 - 114	97.2		15.0	U	100	97		P
Copper	ug/L	86 - 114	138		10.0	U	150	92		P
Iron	ug/L	87 - 115	2140		678		1500	97		P
Lead	ug/L	86 - 113	469		6.00	U	500	94		P
Magnesium	ug/L	85 - 113	2220		1330		1000	89		P
Manganese	ug/L	90 - 114	113		52.0		100	61	N	P
Nickel	ug/L	88 - 113	238		20.0	U	250	95		P
Potassium	ug/L	86 - 114	343000		333000		5000	207		P
Selenium	ug/L	83 - 114	915		10.0	U	1000	92		P
Silver	ug/L	84 - 115	29.3		5.00	U	37.5	78	N	P
Sodium	ug/L	87 - 115	46900		44800		1500	141		P
Thallium	ug/L	85 - 114	895		20.0	U	1000	90		P
Vanadium	ug/L	90 - 111	139		20.0	U	150	93		P
Zinc	ug/L	87 - 115	100		20.0	U	100	100		P

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1985

contract: TETR06 **lab code:** CHEM **case no.:** Q1985 **sas no.:** Q1985

matrix: Water **sample id:** Q2008-01 **client id:** IDW-AQ-DRUM-633-05092025MS

Percent Solids for Sample: NA **Spiked ID:** Q2008-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.56		0.082	J	4.0	87		CV

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1985

contract: TETR06 **lab code:** CHEM **case no.:** Q1985 **sas no.:** Q1985

matrix: Water **sample id:** Q2008-01 **client id:** IDW-AQ-DRUM-633-05092025MSD

Percent Solids for Sample: NA **Spiked ID:** Q2008-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.25		0.082	J	4.0	79	N	CV

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

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Level:** LOW **Client ID:** RW8-BW-20250507A

Sample ID: Q1985-01 **Spiked ID:** Q1985-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Manganese	ug/L	90 - 114	140		52.0		100	88	N	P
Silver	ug/L	84 - 115	25.3		5.00	U	37.5	68	N	P

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

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Level:** LOW **Client ID:** IDW-AQ-DRUM-633-05092025A

Sample ID: Q2008-01 **Spiked ID:** Q2008-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.86		0.082	J	4.00	94		CV

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Sample ID:** Q1985-01 **Client ID:** RW8-BW-20250507DUP

Percent Solids for Sample: NA **Duplicate ID** Q1985-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	24.0	J	31.0	J	25		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	50.0	U	50.0	U			P
Beryllium	ug/L	20	3.00	U	3.00	U			P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Calcium	ug/L	20	1380		1390		1		P
Chromium	ug/L	20	2.48	J	2.47	J	0		P
Cobalt	ug/L	20	15.0	U	15.0	U			P
Copper	ug/L	20	10.0	U	10.0	U			P
Iron	ug/L	20	678		687		1		P
Lead	ug/L	20	6.00	U	6.00	U			P
Magnesium	ug/L	20	1330		1320		1		P
Manganese	ug/L	20	52.0		18.7		94	*	P
Nickel	ug/L	20	20.0	U	20.0	U			P
Potassium	ug/L	20	333000		344000		3		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	44800		46000		3		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	20.0	U	20.0	U			P
Zinc	ug/L	20	20.0	U	20.0	U			P

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

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Sample ID:** Q1985-01MS **Client ID:** RW8-BW-20250507MSD

Percent Solids for Sample: NA **Duplicate ID** Q1985-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	967		962		1		P
Antimony	ug/L	20	384		381		1		P
Arsenic	ug/L	20	394		391		1		P
Barium	ug/L	20	95.0		93.2		2		P
Beryllium	ug/L	20	90.9		92.2		1		P
Cadmium	ug/L	20	99.0		98.3		1		P
Calcium	ug/L	20	1880		1840		2		P
Chromium	ug/L	20	199		198		1		P
Cobalt	ug/L	20	98.0		97.2		1		P
Copper	ug/L	20	140		138		1		P
Iron	ug/L	20	2170		2140		1		P
Lead	ug/L	20	471		469		0		P
Magnesium	ug/L	20	2250		2220		1		P
Manganese	ug/L	20	170		113		40	*	P
Nickel	ug/L	20	241		238		1		P
Potassium	ug/L	20	351000		343000		2		P
Selenium	ug/L	20	916		915		0		P
Silver	ug/L	20	29.9		29.3		2		P
Sodium	ug/L	20	48000		46900		2		P
Thallium	ug/L	20	905		895		1		P
Vanadium	ug/L	20	141		139		1		P
Zinc	ug/L	20	101		100		1		P

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

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Sample ID:** Q2008-01 **Client ID:** IDW-AQ-DRUM-633-05092025DUP

Percent Solids for Sample: NA **Duplicate ID** Q2008-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	0.082	J	0.20	U	200.0		CV

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

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Matrix: Water **Sample ID:** Q2008-01MS **Client ID:** IDW-AQ-DRUM-633-05092025MSD

Percent Solids for Sample: NA **Duplicate ID** Q2008-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	3.56		3.25		9		CV

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

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167955BS							
Aluminum	ug/L	1000	914		91	86 - 115	P
Antimony	ug/L	400	382		96	88 - 113	P
Arsenic	ug/L	400	382		96	87 - 113	P
Barium	ug/L	100	107		107	88 - 113	P
Beryllium	ug/L	100	96.5		96	89 - 112	P
Cadmium	ug/L	100	97.5		98	88 - 113	P
Calcium	ug/L	500	461	J	92	87 - 113	P
Chromium	ug/L	200	190		95	90 - 113	P
Cobalt	ug/L	100	94.5		94	89 - 114	P
Copper	ug/L	150	145		97	86 - 114	P
Iron	ug/L	1500	1400		93	87 - 115	P
Lead	ug/L	500	473		95	86 - 113	P
Magnesium	ug/L	1000	872	J	87	85 - 113	P
Manganese	ug/L	100	92.3		92	90 - 114	P
Nickel	ug/L	250	240		96	88 - 113	P
Potassium	ug/L	5000	4550		91	86 - 114	P
Selenium	ug/L	1000	973		97	83 - 114	P
Silver	ug/L	37.5	34.3		92	84 - 115	P
Sodium	ug/L	1500	1330		89	87 - 115	P
Thallium	ug/L	1000	968		97	85 - 114	P
Vanadium	ug/L	150	139		93	90 - 111	P
Zinc	ug/L	100	94.6		95	87 - 115	P

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167980BS							
Mercury	ug/L	4.0	3.71		93	82 - 119	CV

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

RW8-BW-20250507L

Lab Name: Chemtech Consulting Group **Contract:** TETR06

Lab Code: CHEM **Lb No.:** lb135794 **Lab Sample ID :** Q1985-01L **SDG No.:** Q1985

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	24.0	J	47.8	J	99		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	50.0	U	250	U			P
Beryllium	3.00	U	15.0	U			P
Cadmium	3.00	U	15.0	U			P
Calcium	1380		1330	J	4		P
Chromium	2.48	J	25.0	U	100.0		P
Cobalt	15.0	U	75.0	U			P
Copper	10.0	U	50.0	U			P
Iron	678		612		10		P
Lead	6.00	U	30.0	U			P
Magnesium	1330		1270	J	5		P
Manganese	52.0		49.6	J	5		P
Nickel	20.0	U	100	U			P
Potassium	333000		304000		9		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	44800		40500		10		P
Thallium	20.0	U	100	U			P
Vanadium	20.0	U	100	U			P
Zinc	20.0	U	100	U			P

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

IDW-AQ-DRUM-633-05092025L

Lab Name: Chemtech Consulting Group **Contract:** TETR06

Lab Code: CHEM **Lb No.:** lb135763 **Lab Sample ID :** Q2008-01L **SDG No.:** Q1985

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
Mercury	0.082	J	1.00	U	100.0		CV

METAL PREPARATION & INSTRUMENT DATA

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1985 **SAS No.:** Q1985

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

METAL PREPARATION & ANALYICAL SUMMARY

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Method:**

Case No.: Q1985 **SAS No.:** Q1985

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167955**						
PB167955BL	PB167955BL	MB	WATER	05/12/2025	50.0	25.0	
PB167955BS	PB167955BS	LCS	WATER	05/12/2025	50.0	25.0	
Q1985-01	RW8-BW-20250507	SAM	WATER	05/12/2025	50.0	25.0	
Q1985-01DUP	RW8-BW-20250507DUP	DUP	WATER	05/12/2025	50.0	25.0	
Q1985-01MS	RW8-BW-20250507MS	MS	WATER	05/12/2025	50.0	25.0	
Q1985-01MSD	RW8-BW-20250507MSD	MSD	WATER	05/12/2025	50.0	25.0	

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1985

Contract: TETR06 **Lab Code:** CHEM **Method:**

Case No.: Q1985 **SAS No.:** Q1985

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167980**						
PB167980BL	PB167980BL	MB	WATER	05/13/2025	30.0	30.0	
PB167980BS	PB167980BS	LCS	WATER	05/13/2025	30.0	30.0	
Q1985-01	RW8-BW-20250507	SAM	WATER	05/13/2025	30.0	30.0	
Q2008-01DUP	IDW-AQ-DRUM-633-05092025DUP	DUP	WATER	05/13/2025	30.0	30.0	
Q2008-01MS	IDW-AQ-DRUM-633-05092025MS	MS	WATER	05/13/2025	30.0	30.0	
Q2008-01MSD	IDW-AQ-DRUM-633-05092025MSD	MSD	WATER	05/13/2025	30.0	30.0	

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** Q1985 **Sas no.:** Q1985 **Sdg no.:** Q1985

Instrument id number: **Method:** **Run number:** LB135763

Start date: 05/14/2025 **End date:** 05/14/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1127	HG
S0.2	S0.2	1	1130	HG
S2.5	S2.5	1	1132	HG
S5	S5	1	1134	HG
S7.5	S7.5	1	1136	HG
S10	S10	1	1139	HG
ICV08	ICV08	1	1142	HG
ICB08	ICB08	1	1144	HG
CCV22	CCV22	1	1146	HG
CCB22	CCB22	1	1151	HG
CRA	CRA	1	1154	HG
CCV23	CCV23	1	1224	HG
CCB23	CCB23	1	1226	HG
CCV24	CCV24	1	1251	HG
CCB24	CCB24	1	1254	HG
CCV25	CCV25	1	1328	HG
CCB25	CCB25	1	1330	HG
PB167980BL	PB167980BL	1	1353	HG
CCV26	CCV26	1	1355	HG
CCB26	CCB26	1	1357	HG
PB167980BS	PB167980BS	1	1400	HG
Q1985-01	RW8-BW-20250507	1	1411	HG
Q2008-01DUP	IDW-AQ-DRUM-633-05092025	1	1420	HG
CCV27	CCV27	1	1423	HG
CCB27	CCB27	1	1425	HG
Q2008-01MS	IDW-AQ-DRUM-633-05092025	1	1427	HG
Q2008-01MSD	IDW-AQ-DRUM-633-05092025	1	1429	HG
CCV28	CCV28	1	1439	HG
CCB28	CCB28	1	1441	HG
Q2008-01L	IDW-AQ-DRUM-633-05092025	5	1452	HG
Q2008-01A	IDW-AQ-DRUM-633-05092025	1	1455	HG
CCV29	CCV29	1	1457	HG
CCB29	CCB29	1	1459	HG

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** Q1985 **Sas no.:** Q1985 **Sdg no.:** Q1985

Instrument id number: **Method:** **Run number:** LB135778

Start date: 05/14/2025 **End date:** 05/14/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1212	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1216	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1221	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1225	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1229	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1233	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1324	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1334	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1338	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1343	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1409	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1416	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1451	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1456	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1553	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1557	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1644	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1648	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1808	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1812	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167955BL	PB167955BL	1	1825	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167955BS	PB167955BS	1	1904	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1921	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1925	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

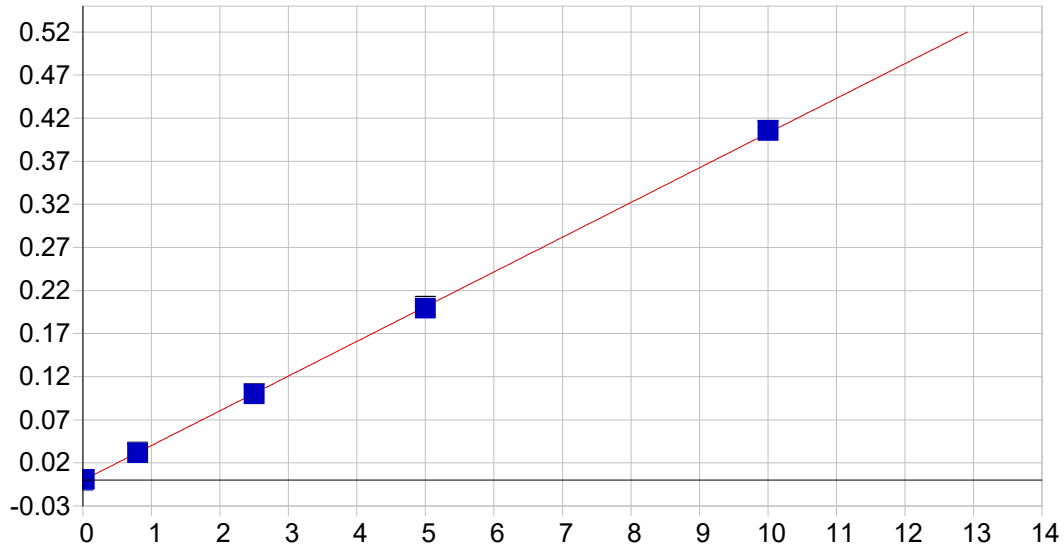
Lab code: CHEM **Case no.:** Q1985 **Sas no.:** Q1985 **Sdg no.:** Q1985

Instrument id number: **Method:** **Run number:** LB135794

Start date: 05/15/2025 **End date:** 05/15/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1312	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1316	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1320	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1324	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1329	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1333	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1337	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1342	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1347	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1351	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1401	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1405	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1418	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1422	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1505	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1509	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01	RW8-BW-20250507	1	1540	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01DUP	RW8-BW-20250507DUP	1	1544	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01L	RW8-BW-20250507L	5	1548	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1553	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1557	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01MS	RW8-BW-20250507MS	1	1601	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01MSD	RW8-BW-20250507MSD	1	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1985-01A	RW8-BW-20250507A	1	1610	Ag,Mn
CCV04	CCV04	1	1639	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1644	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1727	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1731	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1741	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1756	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1847	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1852	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

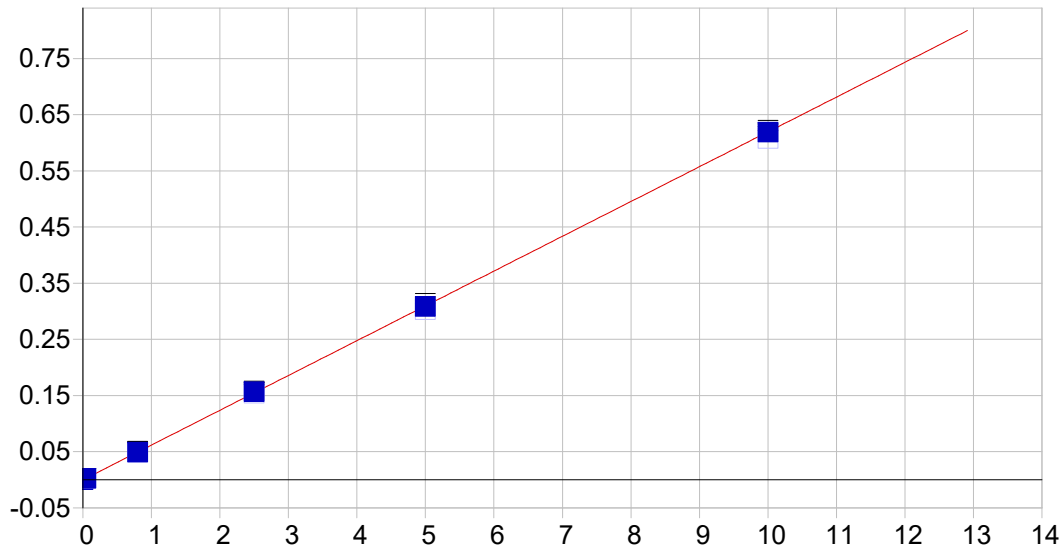


As 189.042 {479}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000120	Re-Slope:	1.000000
A1 (Gain):	0.040285	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.004059		
Predicted MQL:	0.013529		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00012	.000	1
S1	.02000	.02268	.003	13.4	.00079	.000	1
S3	2.5000	2.4825	-.018	-.701	.09978	.000	1
S4	5.0000	4.9525	-.047	-.949	.19917	.002	1
S5	10.000	10.074	.074	.737	.40526	.000	1
S2	.80000	.78858	-.011	-1.43	.03161	.001	1

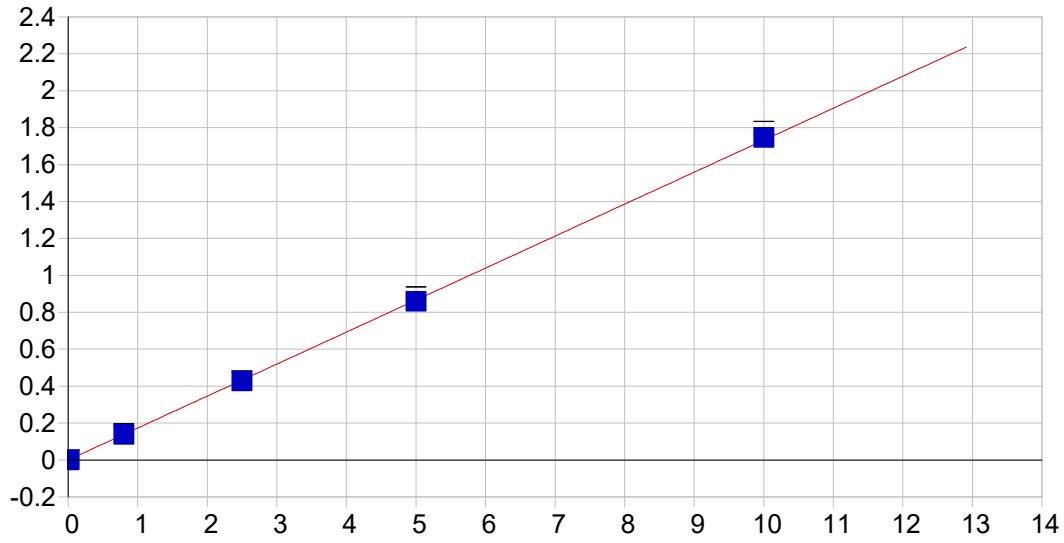


Tl 190.856 {477}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000073	Re-Slope:	1.000000
A1 (Gain):	0.061959	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.002505		
Predicted MQL:	0.008350		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.04000	.04092	.001	2.31	.00230	.000	1
S3	2.5000	2.5284	.028	1.14	.15373	.001	1
S4	5.0000	4.9769	-.023	-.462	.30258	.006	1
S5	10.000	9.9949	-.005	-.051	.60779	.003	1
S2	.80000	.79891	-.001	-.136	.04851	.002	1

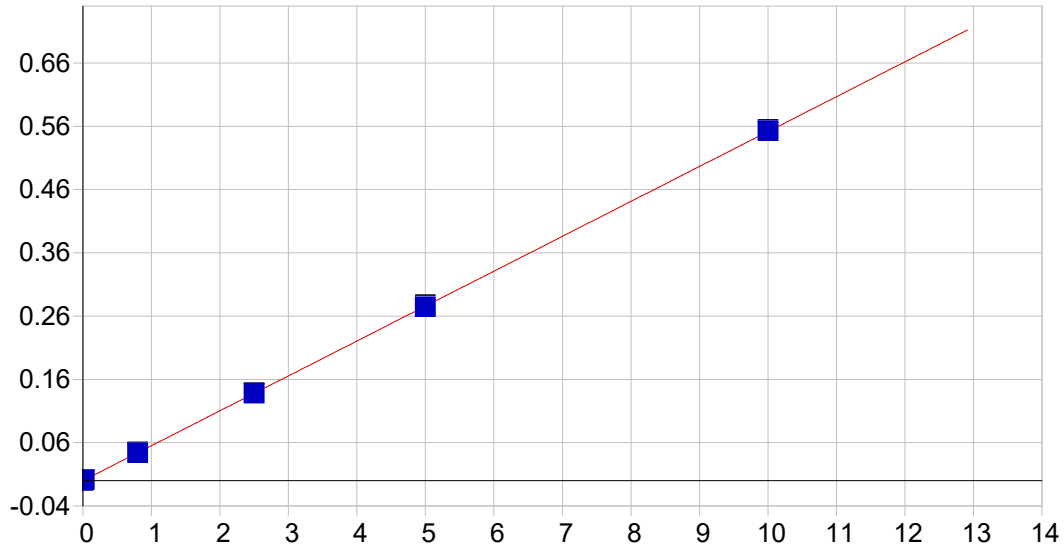


Pb 220.353 {453}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000224	Re-Slope:	1.000000
A1 (Gain):	0.173246	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.002126		
Predicted MQL:	0.007088		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00022	.000	1
S1	.01200	.01193	-.000	-.574	.00180	.000	1
S3	2.5000	2.4664	-.034	-1.34	.42663	.003	1
S4	5.0000	4.9607	-.039	-.787	.85830	.025	1
S5	10.000	10.079	.079	.789	1.7441	.035	1
S2	.80000	.79412	-.006	-.734	.13721	.006	1

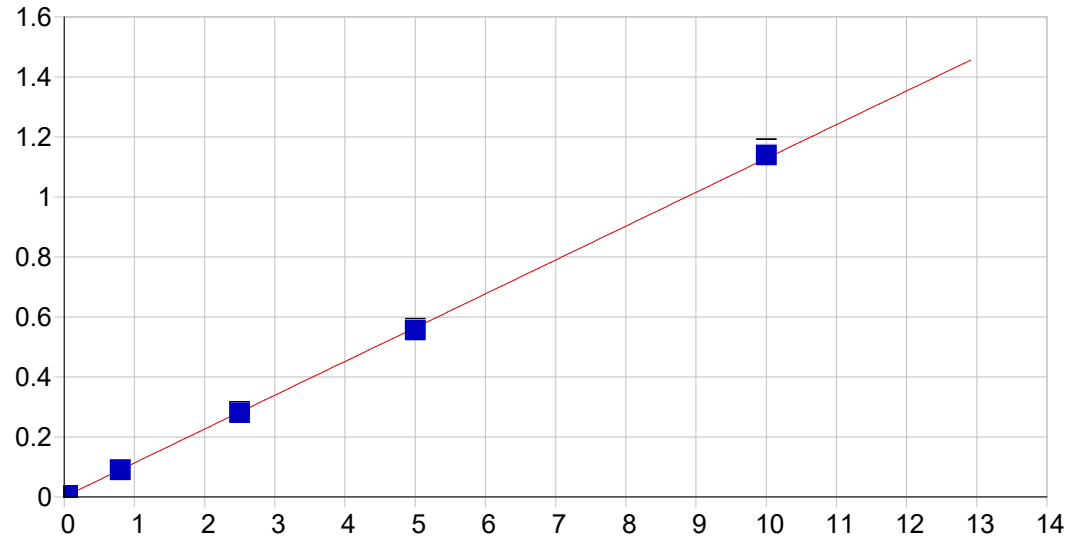


Se 196.090 {472}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.055157	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.004342		
Predicted MQL:	0.014475		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00002	.000	1
S1	.02000	.02533	.005	26.7	.00142	.000	1
S3	2.5000	2.5006	.001	.024	.13790	.001	1
S4	5.0000	4.9765	-.024	-.470	.27441	.003	1
S5	10.000	10.022	.022	.215	.55258	.002	1
S2	.80000	.79606	-.004	-.493	.04391	.001	1

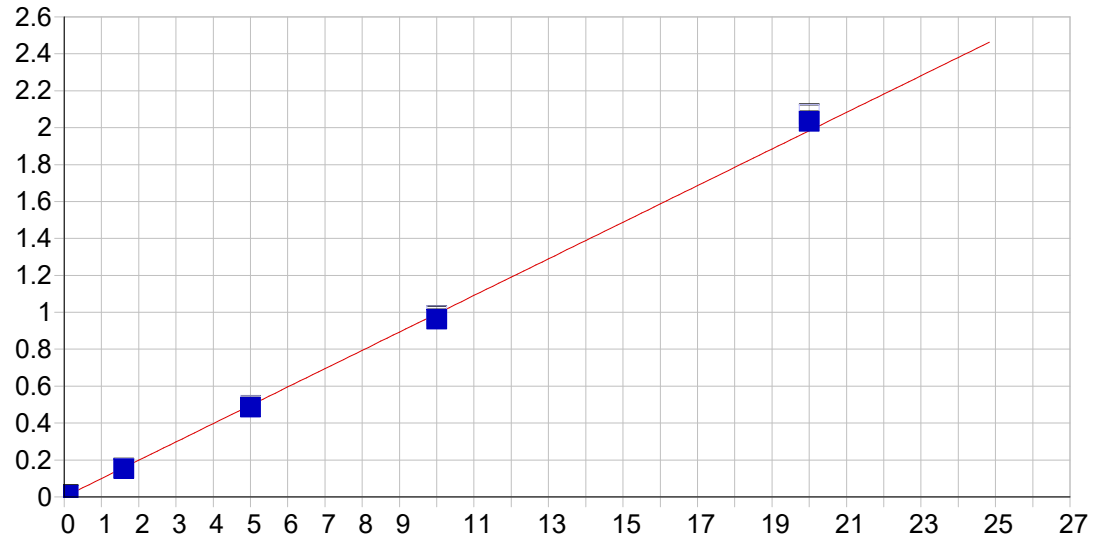


Sb 206.833 {463}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000535	Re-Slope:	1.000000
A1 (Gain):	0.112741	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.002743		
Predicted MQL:	0.009143		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00053	.000	1
S1	.05000	.05277	.003	5.54	.00650	.000	1
S3	2.5000	2.4870	-.013	-.520	.28169	.003	1
S4	5.0000	4.9238	-.076	-1.52	.55718	.005	1
S5	10.000	10.099	.099	.990	1.1422	.019	1
S2	.80000	.78745	-.013	-1.57	.08956	.000	1

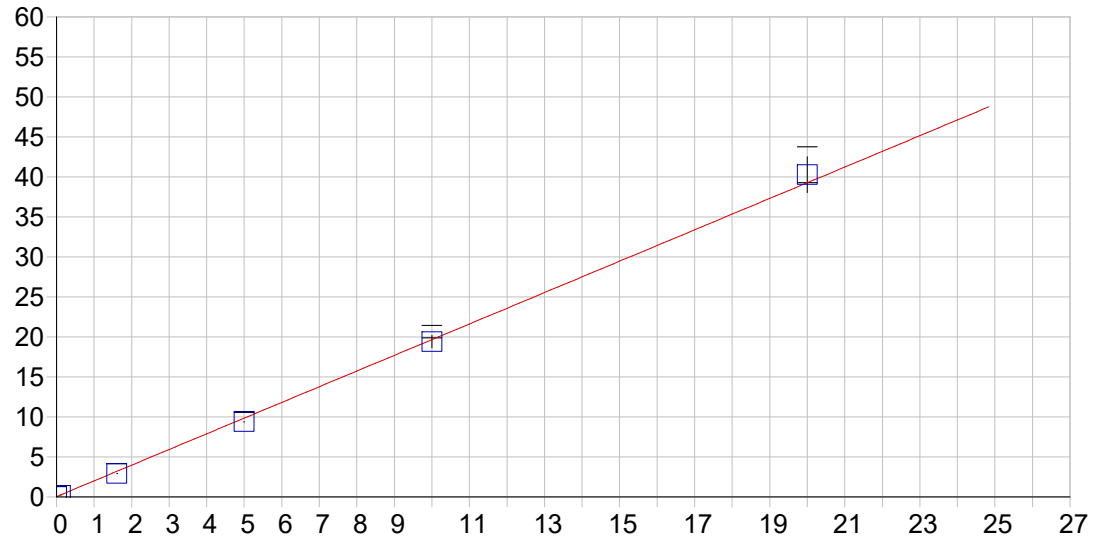


Al 396.152 { 85}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000458	Re-Slope:	1.000000
A1 (Gain):	0.099157	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999629	Status:	OK.
Std Error of Est:	0.000204		
Predicted MDL:	0.006349		
Predicted MQL:	0.021164		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00046	.000	1
S1	.10000	.10037	.000	.366	.01118	.000	1
S3	5.0000	4.8821	-.118	-2.36	.49417	.001	1
S4	10.000	9.6889	-.311	-3.11	.98042	.003	1
S5	20.000	20.501	.501	2.51	2.0718	.002	1
S2	1.6000	1.5271	-.073	-4.56	.15496	.001	1

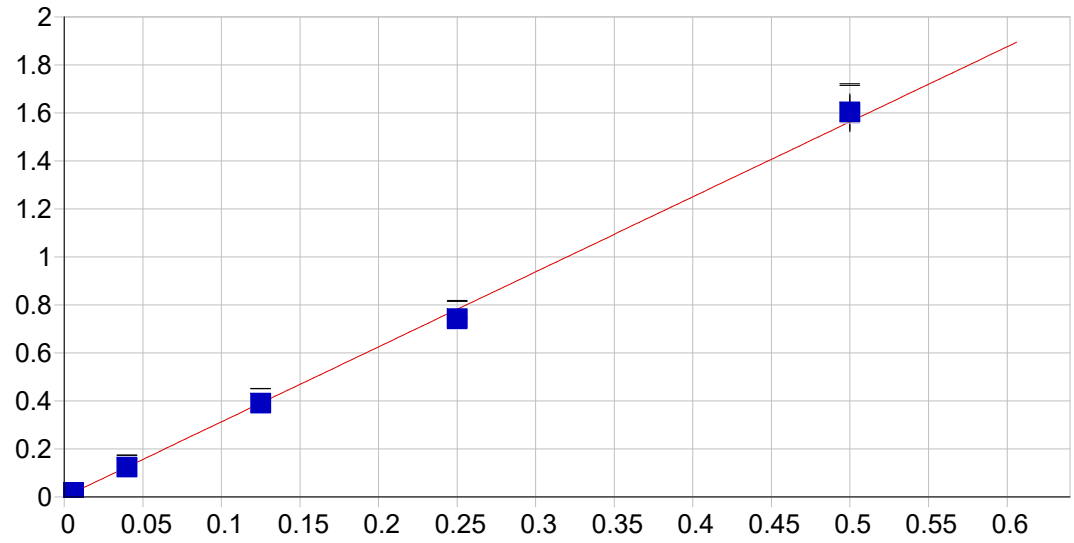


Ba 493.409 { 68}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.044765	Re-Slope:	1.000000
A1 (Gain):	1.961258	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999474	Status:	OK.
Std Error of Est:	0.004717		
Predicted MDL:	0.001099		
Predicted MQL:	0.003665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.04481	.000	1
S1	.10000	.09124	-.009	-8.76	.22372	.002	1
S3	5.0000	4.7632	-.237	-4.74	9.3867	.052	1
S4	10.000	9.8695	-.131	-1.31	19.401	.780	1
S5	20.000	20.513	.513	2.57	40.276	2.23	1
S2	1.6000	1.4629	-.137	-8.57	2.9138	.010	1

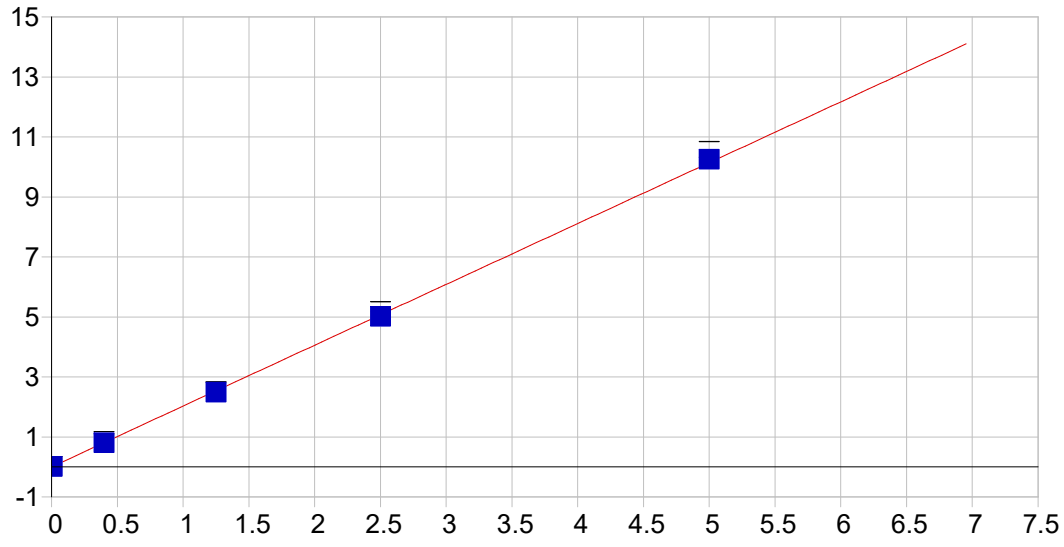


Be 234.861 {144}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	3.126055	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999460	Status:	OK.
Std Error of Est:	0.000294		
Predicted MDL:	0.000066		
Predicted MQL:	0.000219		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00002	.000	1
S1	.00600	.00594	-.000	-.923	.01846	.001	1
S3	.12500	.12485	-.000	-.119	.38856	.020	1
S4	.25000	.23743	-.013	-5.03	.73872	.035	1
S5	.50000	.51321	.013	2.64	1.5974	.076	1
S2	.04000	.03957	-.000	-1.09	.12314	.009	1

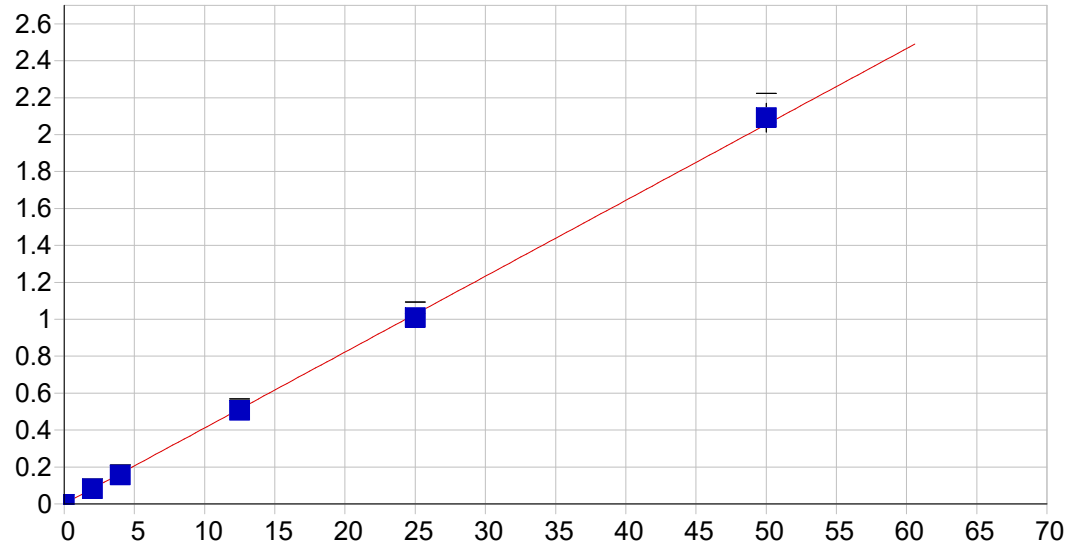


Cd 226.502 {449}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000063	Re-Slope:	1.000000
A1 (Gain):	2.028112	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000221		
Predicted MDL:	0.000124		
Predicted MQL:	0.000415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00006	.000	1
S1	.00600	.00631	.000	5.18	.01280	.000	1
S3	1.2500	1.2277	-.022	-1.79	2.4921	.017	1
S4	2.5000	2.4712	-.029	-1.15	5.0163	.163	1
S5	5.0000	5.0531	.053	1.06	10.257	.261	1
S2	.40000	.39763	-.002	-.592	.80710	.038	1

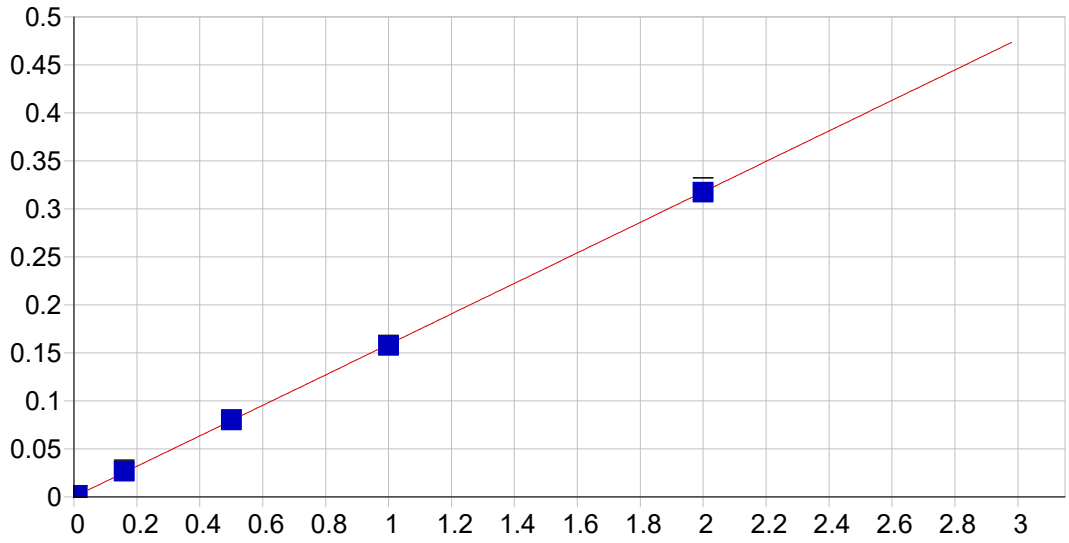


Ca 373.690 { 90}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000592	Re-Slope:	1.000000
A1 (Gain):	0.041084	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999791	Status:	OK.
Std Error of Est:	0.000444		
Predicted MDL:	0.011748		
Predicted MQL:	0.039159		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	.00060	.000	1
S2	4.0000	3.8029	-.197	-4.93	.15683	.000	1
S3	12.500	12.291	-.209	-1.67	.50554	.009	1
S4	25.000	24.534	-.466	-1.87	1.0085	.031	1
S5	50.000	50.908	.908	1.82	2.0921	.078	1
S1	2.0000	1.9649	-.035	-1.76	.08132	.001	1

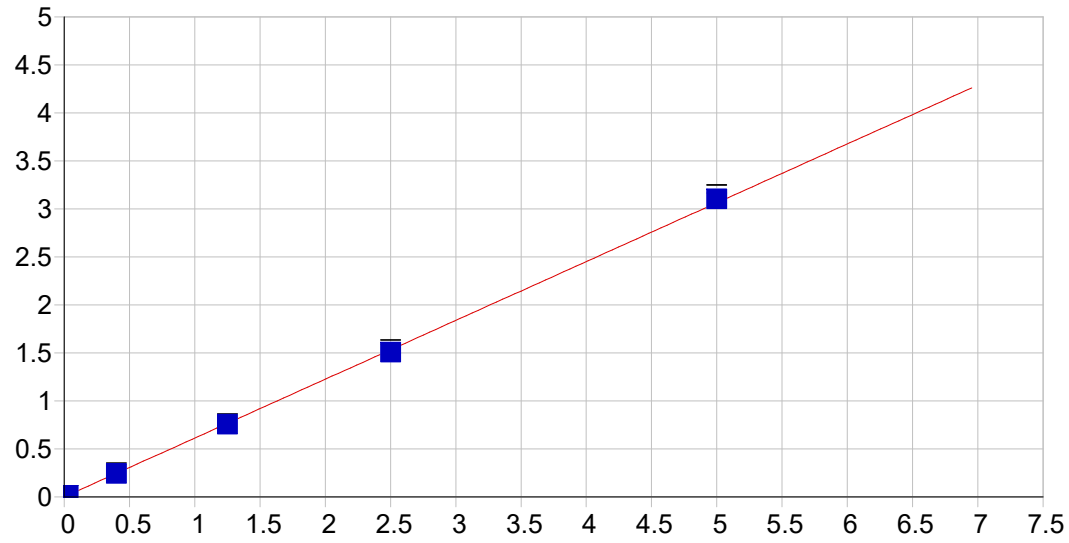


Cr 267.716 {126}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000077	Re-Slope:	1.000000
A1 (Gain):	0.158830	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.000482		
Predicted MQL:	0.001608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00008	.000	1
S1	.01000	.01043	.000	4.33	.00173	.000	1
S3	.50000	.50371	.004	.743	.08011	.000	1
S4	1.0000	.99242	-.008	-.758	.15775	.000	1
S5	2.0000	1.9965	-.003	-.173	.31728	.005	1
S2	.16000	.16689	.007	4.31	.02659	.002	1

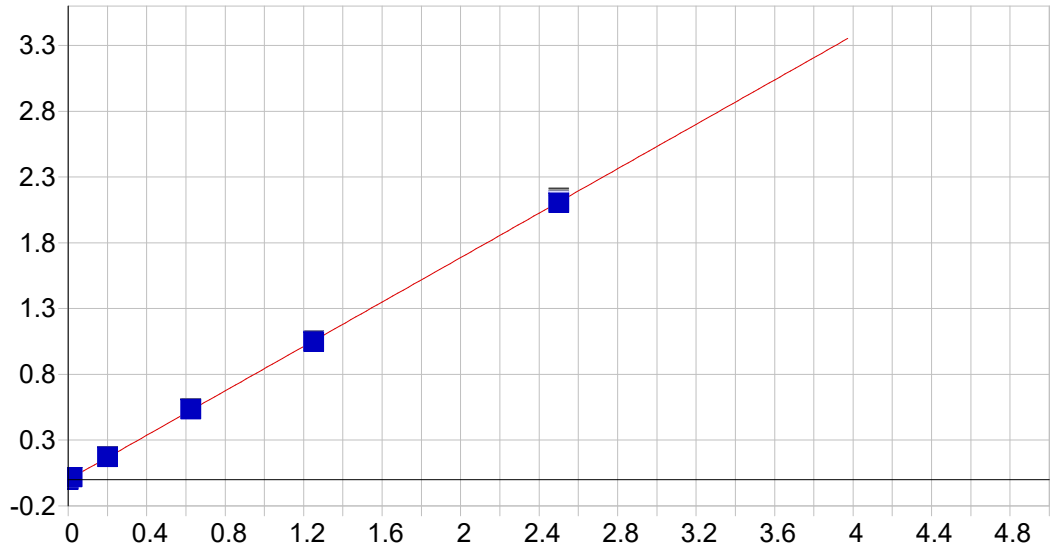


Co 228.616 {448}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000128	Re-Slope:	1.000000
A1 (Gain):	0.612774	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000171		
Predicted MDL:	0.000409		
Predicted MQL:	0.001362		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00013	.000	1
S1	.03000	.03006	.000	.214	.01847	.000	1
S3	1.2500	1.2344	-.016	-1.25	.75782	.005	1
S4	2.5000	2.4585	-.041	-1.66	1.5092	.024	1
S5	5.0000	5.0624	.062	1.25	3.1074	.043	1
S2	.40000	.39465	-.005	-1.34	.24237	.008	1

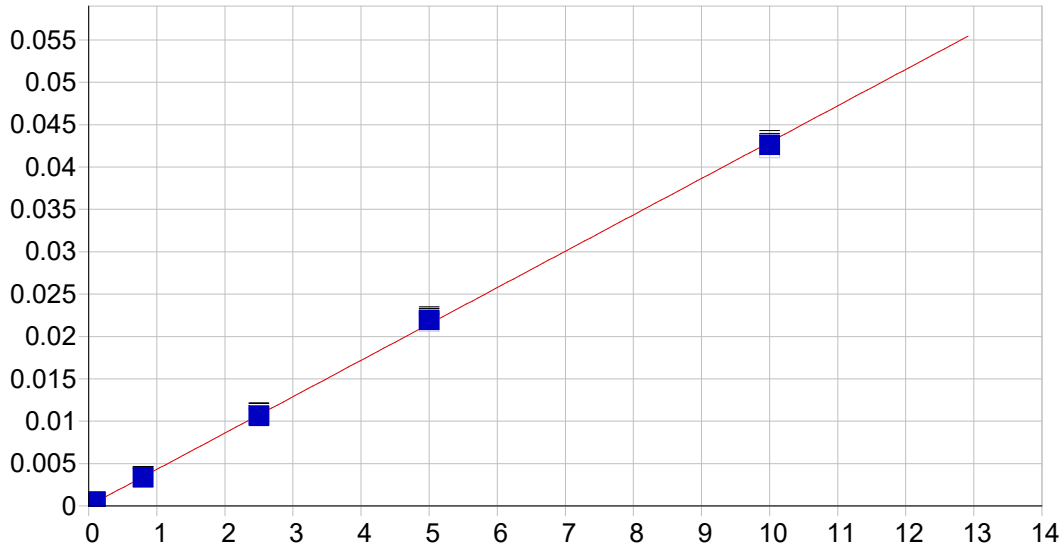


Cu 224.700 {450}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000719	Re-Slope:	1.000000
A1 (Gain):	0.844232	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000124		
Predicted MDL:	0.000505		
Predicted MQL:	0.001682		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00072	.000	1
S1	.02000	.02310	.003	15.5	.01895	.000	1
S3	.62500	.63293	.008	1.27	.53747	.003	1
S4	1.2500	1.2422	-.008	-.624	1.0557	.002	1
S5	2.5000	2.4931	-.007	-.277	2.1194	.022	1
S2	.20000	.20370	.004	1.85	.17248	.001	1

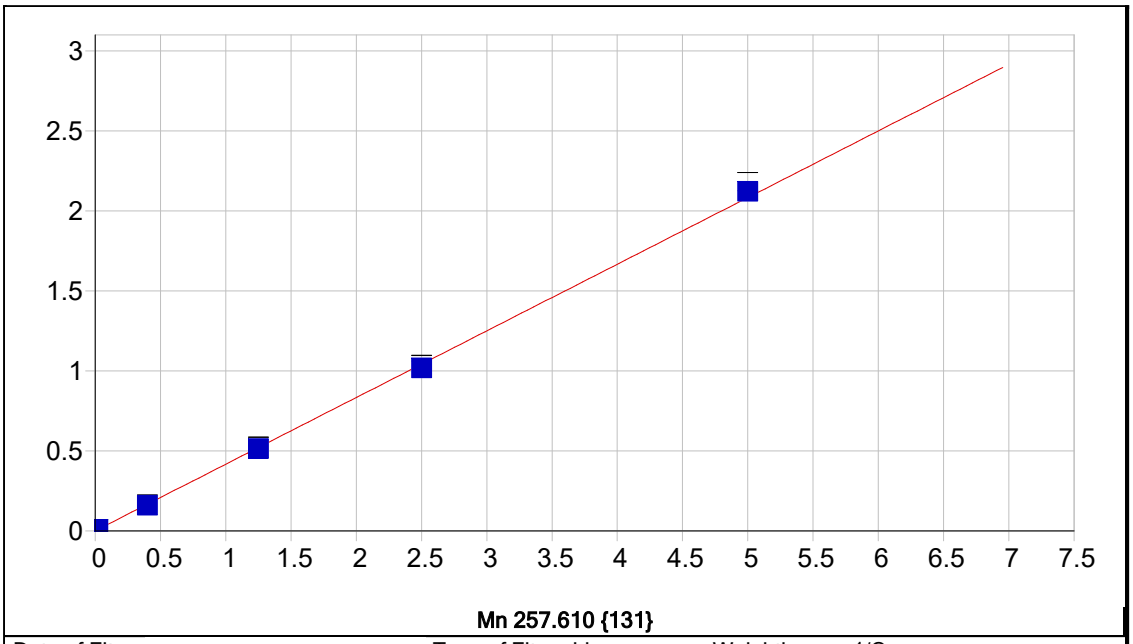


Fe 240.488 {140}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.004292	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.005999		
Predicted MQL:	0.019998		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.10000	.10348	.003	3.48	.00045	.000	1
S3	2.5000	2.4791	-.021	-.838	.01056	.000	1
S4	5.0000	5.1102	.110	2.20	.02176	.000	1
S5	10.000	9.9244	-.076	-.756	.04225	.001	1
S2	.80000	.78286	-.017	-2.14	.00334	.000	1

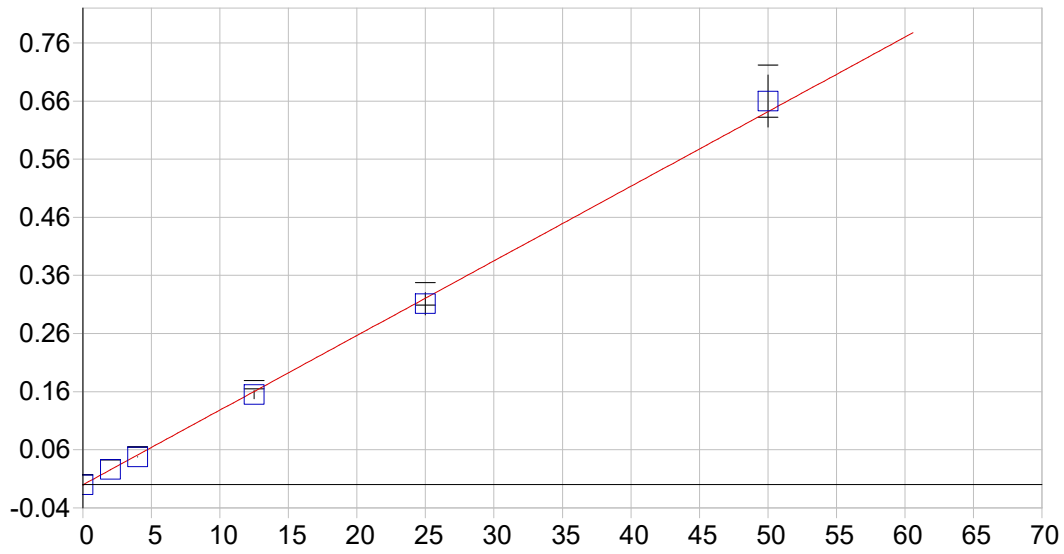


Mn 257.610 {131}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000524	Re-Slope:	1.000000
A1 (Gain):	0.416548	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999786	Status:	OK.
Std Error of Est:	0.000143		
Predicted MDL:	0.000437		
Predicted MQL:	0.001458		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00052	.000	1
S1	.02000	.02027	.000	1.34	.00897	.000	1
S3	1.2500	1.2327	-.017	-1.39	.51410	.009	1
S4	2.5000	2.4413	-.059	-2.35	1.0177	.018	1
S5	5.0000	5.0915	.092	1.83	2.1218	.057	1
S2	.40000	.38418	-.016	-3.95	.16059	.001	1

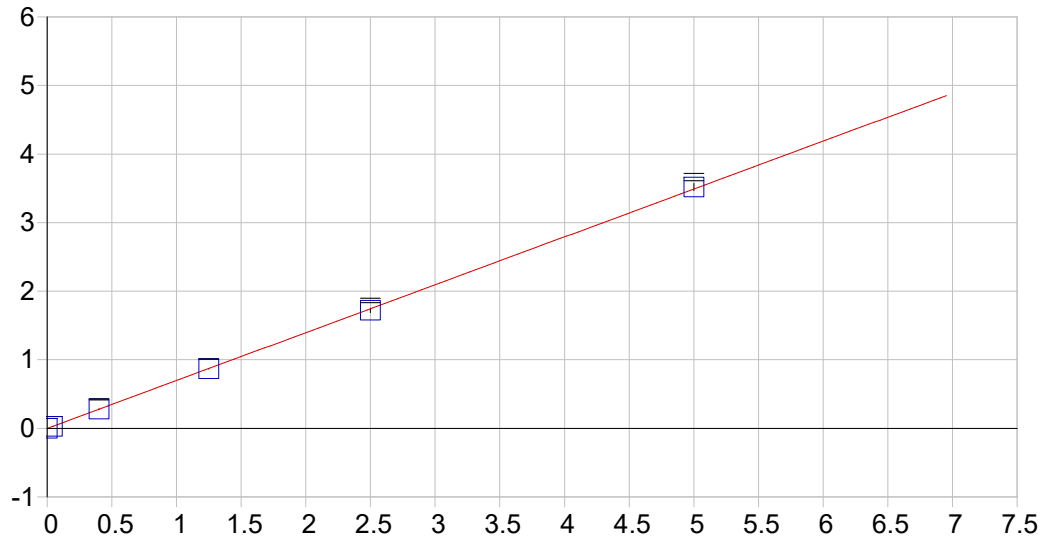


Mg 279.079 {121}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000096	Re-Slope:	1.000000
A1 (Gain):	0.012836	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999485	Status:	OK.
Std Error of Est:	0.000218		
Predicted MDL:	0.016222		
Predicted MQL:	0.054074		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00018	.000	.000	-.00009	.000	1
S2	4.0000	3.7187	-.281	-7.03	.04764	.000	1
S3	12.500	12.083	-.417	-3.34	.15500	.007	1
S4	25.000	24.257	-.743	-2.97	.31127	.020	1
S5	50.000	51.416	1.42	2.83	.65991	.045	1
S1	2.0000	2.0258	.026	1.29	.02591	.000	1

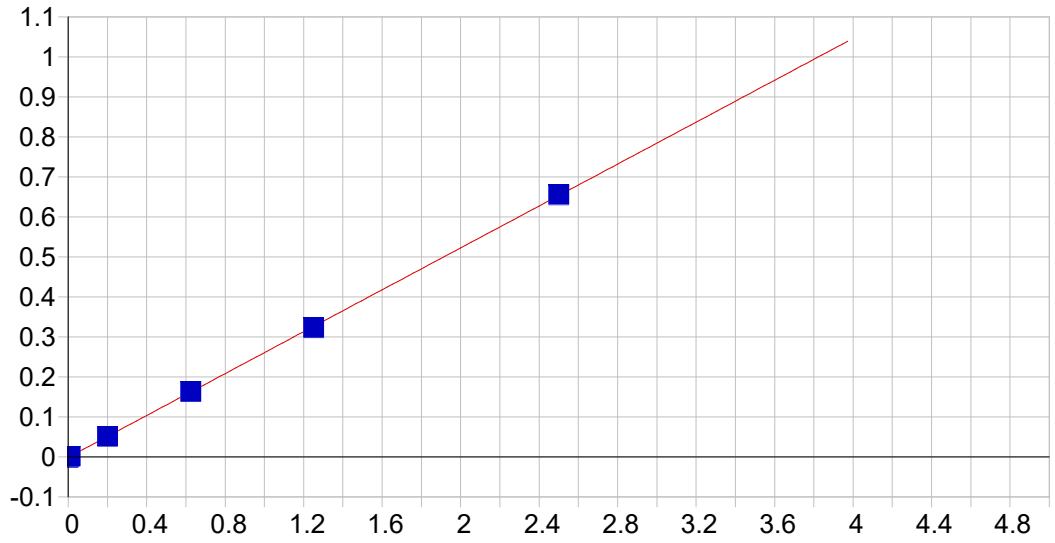


Ni 231.604 {446}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000334	Re-Slope:	1.000000
A1 (Gain):	0.698029	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000154		
Predicted MDL:	0.000399		
Predicted MQL:	0.001330		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00033	.000	1
S1	.04000	.04038	.000	.959	.02785	.000	1
S3	1.2500	1.2424	-.008	-.609	.86689	.005	1
S4	2.5000	2.4676	-.032	-1.29	1.7221	.033	1
S5	5.0000	5.0410	.041	.820	3.5184	.053	1
S2	.40000	.39858	-.001	-.354	.27789	.009	1

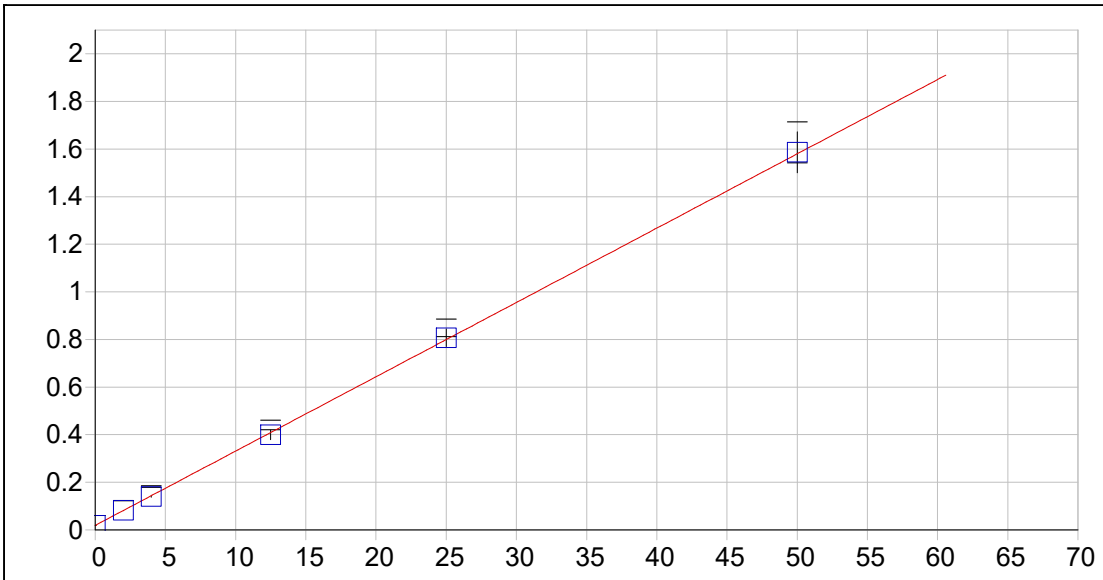


Ag 328.068 {103}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001218	Re-Slope:	1.000000
A1 (Gain):	0.261886	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.000416		
Predicted MQL:	0.001386		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00122	.000	1
S1	.01000	.01032	.000	3.16	.00147	.000	1
S3	.62500	.62818	.003	.509	.16264	.000	1
S4	1.2500	1.2382	-.012	-.943	.32175	.000	1
S5	2.5000	2.5083	.008	.334	.65308	.000	1
S2	.20000	.19995	-.000	-.025	.05094	.000	1

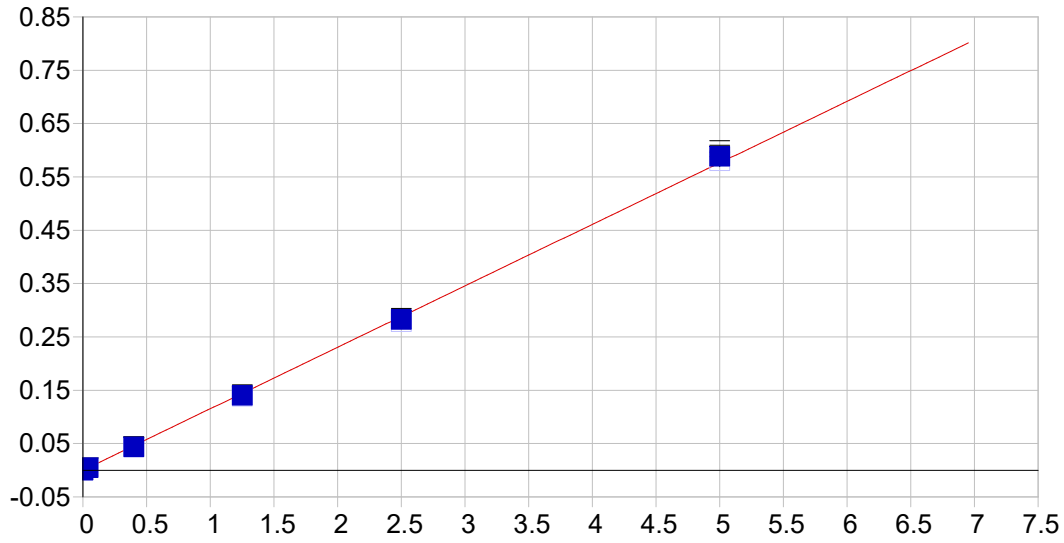


Na 589.592 { 57}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.019065	Re-Slope:	1.000000
A1 (Gain):	0.031217	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000208		
Predicted MDL:	0.008394		
Predicted MQL:	0.027979		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.01907	.000	1
S2	4.0000	3.8837	-.116	-2.91	.14030	.004	1
S3	12.500	12.175	-.325	-2.60	.39915	.021	1
S4	25.000	25.238	.238	.953	.80694	.037	1
S5	50.000	50.200	.200	.400	1.5862	.086	1
S1	2.0000	2.0023	.002	.117	.08157	.001	1

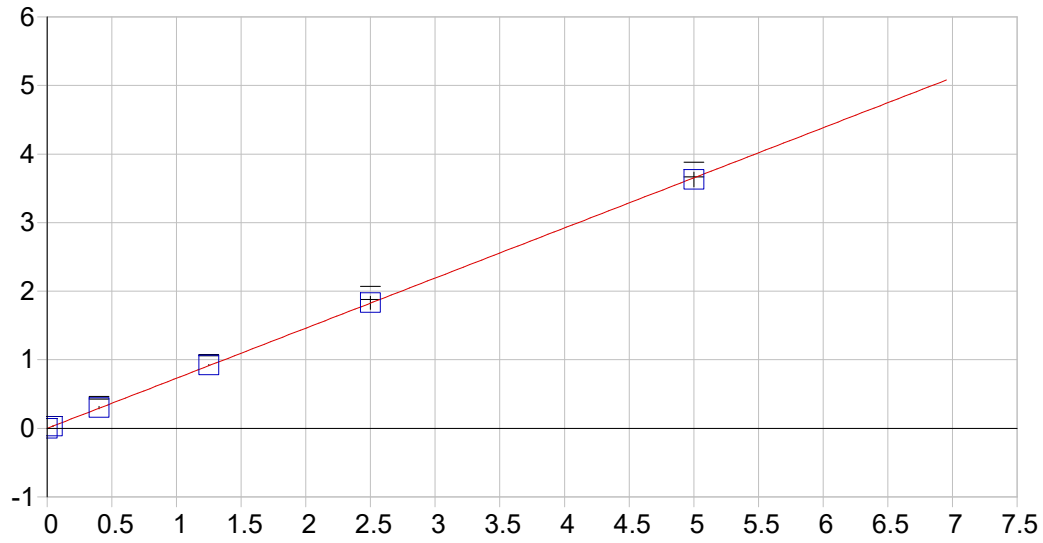


V 292.402 {115}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000049	Re-Slope:	1.000000
A1 (Gain):	0.115275	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999718	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.001908		
Predicted MQL:	0.006361		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.04000	.04012	.000	.298	.00440	.000	1
S3	1.2500	1.2171	-.033	-2.63	.13816	.001	1
S4	2.5000	2.4490	-.051	-2.04	.27806	.003	1
S5	5.0000	5.1036	.104	2.07	.57987	.011	1
S2	.40000	.38012	-.020	-4.97	.04310	.001	1

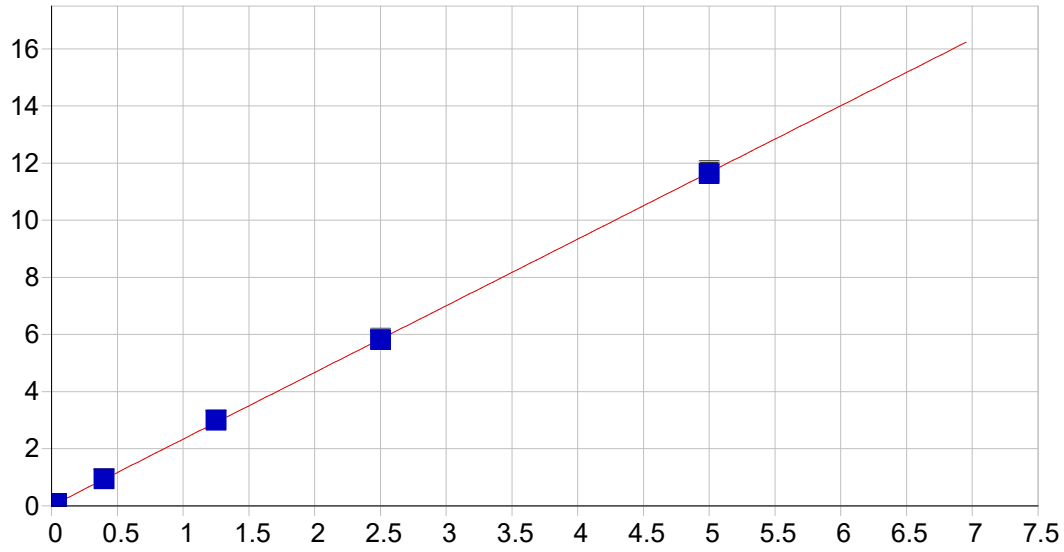


Zn 206.200 {464}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.730542	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000170		
Predicted MDL:	0.000297		
Predicted MQL:	0.000989		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00002	.000	1
S1	.04000	.04293	.003	7.32	.03138	.000	1
S3	1.2500	1.2614	.011	.911	.92152	.009	1
S4	2.5000	2.5057	.006	.227	1.8305	.095	1
S5	5.0000	4.9679	-.032	-.642	3.6293	.109	1
S2	.40000	.41210	.012	3.03	.30108	.018	1

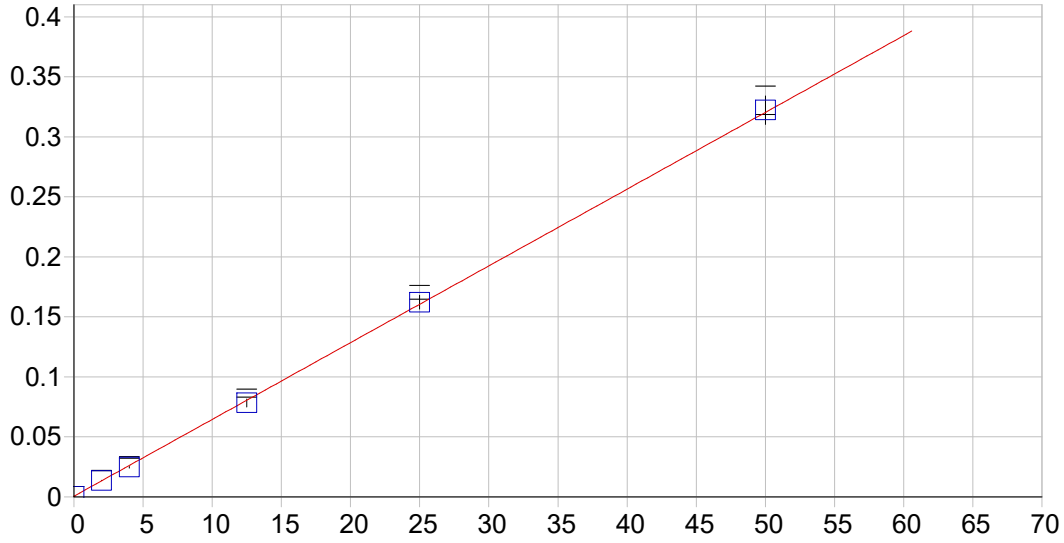


Zn 213.856 {158}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002231	Re-Slope:	1.000000
A1 (Gain):	2.334758	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999944	Status:	OK.
Std Error of Est:	0.000584		
Predicted MDL:	0.000413		
Predicted MQL:	0.001376		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00222	.001	1
S1	.04000	.04249	.002	6.22	.10208	.001	1
S3	1.2500	1.2803	.030	2.43	3.0118	.003	1
S4	2.5000	2.4876	-.012	-.495	5.8508	.023	1
S5	5.0000	4.9789	-.021	-.423	11.708	.024	1
S2	.40000	.40067	.001	.168	.94420	.004	1

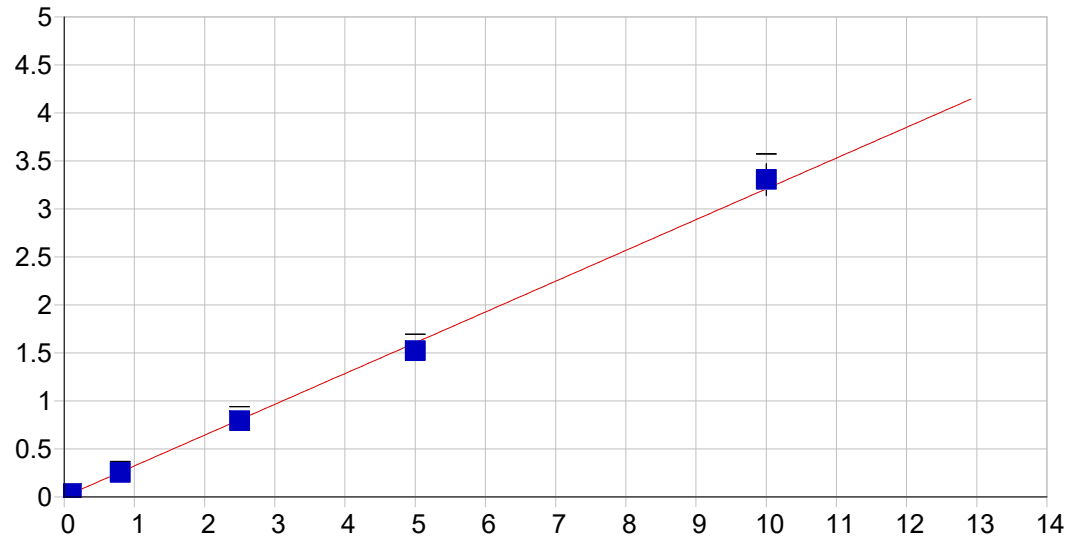


K 766.490 { 44}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000624	Re-Slope:	1.000000
A1 (Gain):	0.006394	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999841	Status:	OK.
Std Error of Est:	0.000060		
Predicted MDL:	0.037447		
Predicted MQL:	0.124822		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00010	.000	.000	.00062	.000	1
S2	4.0000	3.7612	-.239	-5.97	.02467	.001	1
S3	12.500	12.144	-.356	-2.85	.07827	.003	1
S4	25.000	25.256	.256	1.03	.16212	.006	1
S5	50.000	50.295	.295	.591	.32222	.012	1
S1	2.0000	2.0432	.043	2.16	.01369	.000	1

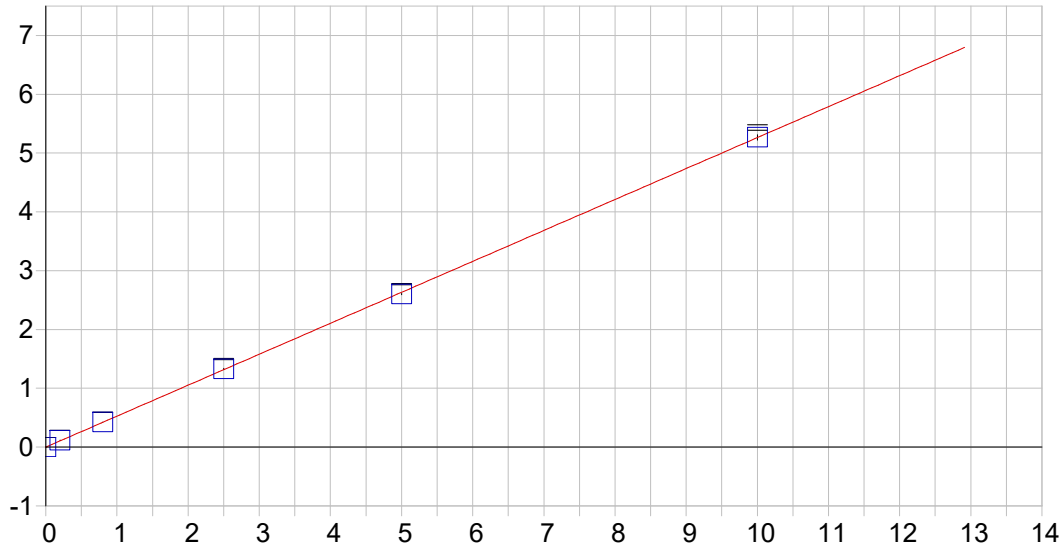


B 249.678 {135}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002299	Re-Slope:	1.000000
A1 (Gain):	0.320646	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999345	Status:	OK.
Std Error of Est:	0.000609		
Predicted MDL:	0.000822		
Predicted MQL:	0.002740		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00230	.000	1
S1	.10000	.10133	.001	1.33	.03466	.001	1
S3	2.5000	2.4692	-.031	-1.23	.79268	.044	1
S4	5.0000	4.7400	-.260	-5.20	1.5194	.071	1
S5	10.000	10.310	.310	3.10	3.3026	.166	1
S2	.80000	.77955	-.020	-2.56	.25182	.013	1

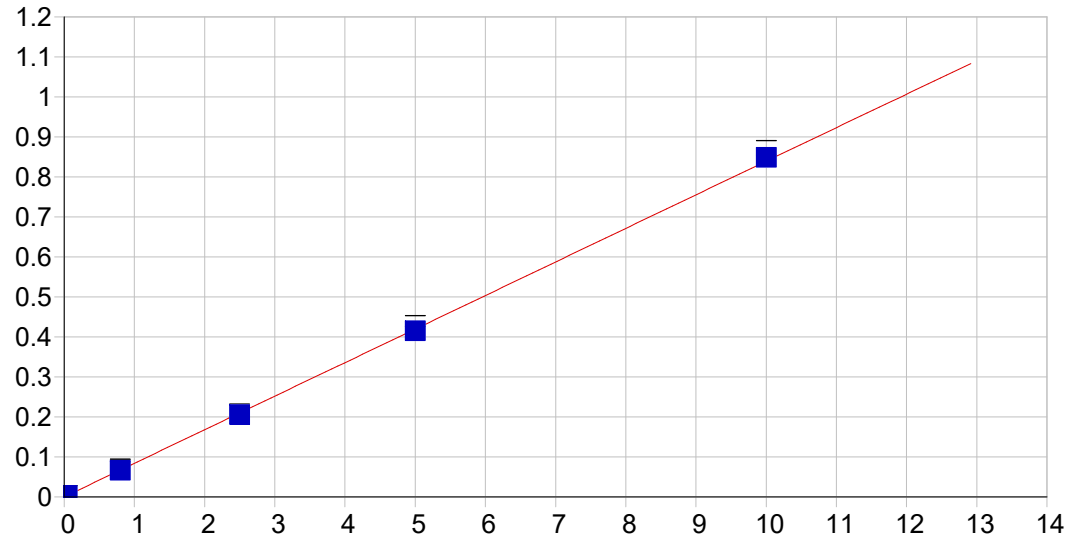


Mo 202.030 {467}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000190	Re-Slope:	1.000000
A1 (Gain):	0.526318	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000420		
Predicted MDL:	0.000429		
Predicted MQL:	0.001430		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00018	.000	1
S1	.20000	.21592	.016	7.96	.11383	.000	1
S3	2.5000	2.5241	.024	.964	1.3287	.010	1
S4	5.0000	4.9470	-.053	-1.06	2.6039	.011	1
S5	10.000	10.006	.006	.057	5.2664	.046	1
S2	.80000	.80722	.007	.903	.42505	.002	1

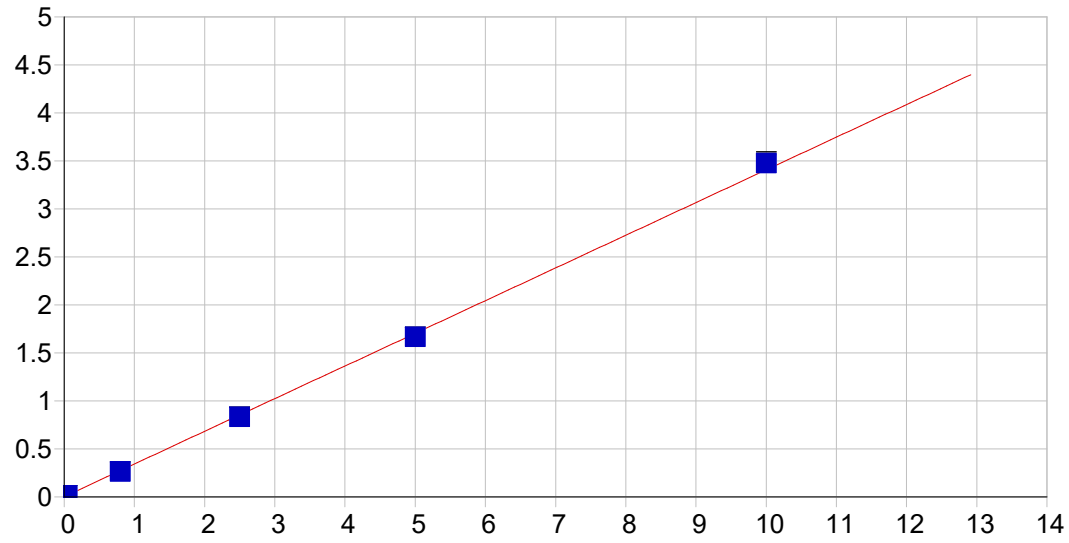


Sn 189.989 {478}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000110	Re-Slope:	1.000000
A1 (Gain):	0.083900	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.000035		
Predicted MDL:	0.001309		
Predicted MQL:	0.004362		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00011	.000	1
S1	.04000	.04069	.001	1.73	.00352	.000	1
S3	2.5000	2.4500	-.050	-2.00	.20545	.002	1
S4	5.0000	4.9472	-.053	-1.06	.41475	.013	1
S5	10.000	10.113	.113	1.13	.84770	.018	1
S2	.80000	.78946	-.011	-1.32	.06628	.003	1

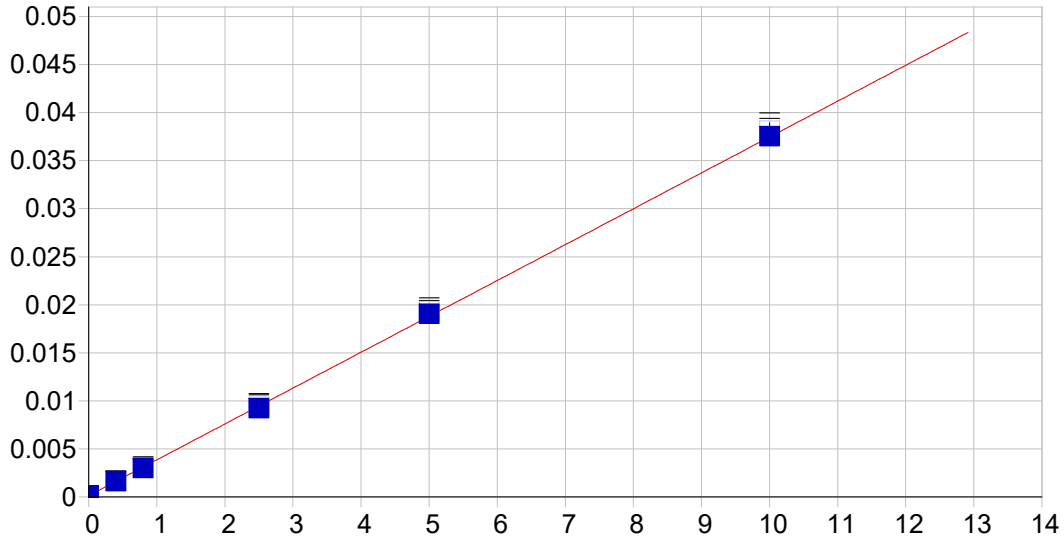


Ti 336.121 {100}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002125	Re-Slope:	1.000000
A1 (Gain):	0.340427	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999734	Status:	OK.
Std Error of Est:	0.000260		
Predicted MDL:	0.000929		
Predicted MQL:	0.003097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00213	.000	1
S1	.04000	.04064	.001	1.59	.01595	.000	1
S3	2.5000	2.4428	-.057	-2.29	.83343	.002	1
S4	5.0000	4.8872	-.113	-2.26	1.6652	.001	1
S5	10.000	10.206	.206	2.06	3.4752	.015	1
S2	.80000	.76367	-.036	-4.54	.26200	.001	1

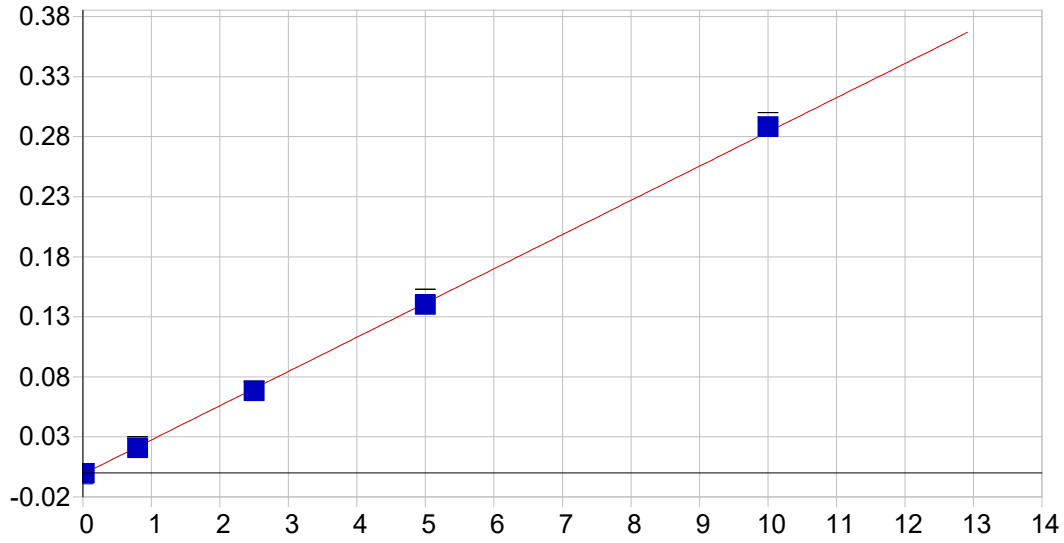


Si 288.158 {117}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000123	Re-Slope:	1.000000
A1 (Gain):	0.003734	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.011899		
Predicted MQL:	0.039664		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00012	.000	1
S1	.40000	.40488	.005	1.22	.00164	.000	1
S3	2.5000	2.4388	-.061	-2.45	.00937	.000	1
S4	5.0000	5.0657	.066	1.31	.01932	.000	1
S5	10.000	10.022	.022	.217	.03811	.001	1
S2	.80000	.76890	-.031	-3.89	.00304	.000	1

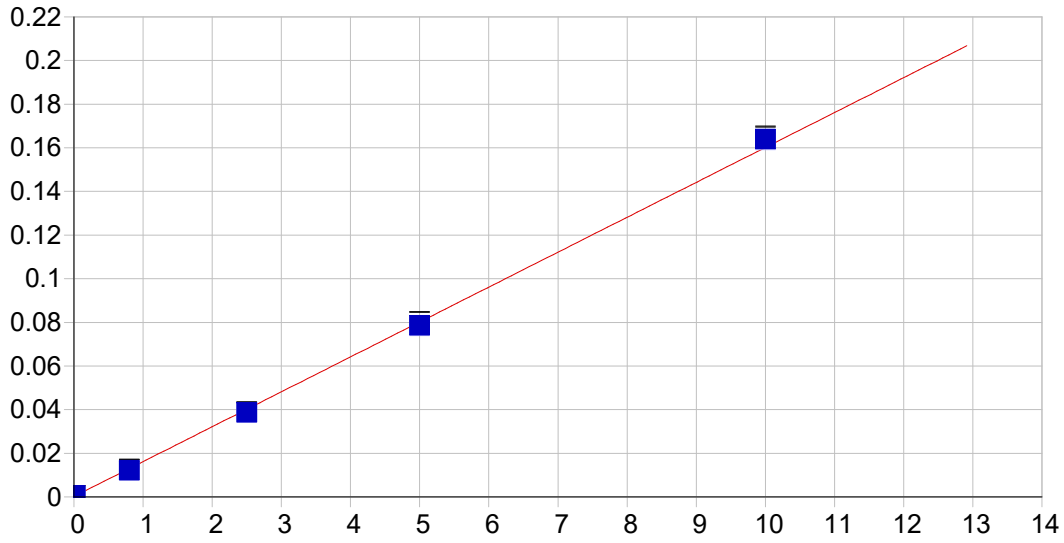


P 177.495 {490}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001002	Re-Slope:	1.000000
A1 (Gain):	0.028493	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999808	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.004072		
Predicted MQL:	0.013574		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00100	.000	1
S1	.02000	.02321	.003	16.1	-.00034	.000	1
S3	2.5000	2.4259	-.074	-2.96	.06811	.000	1
S4	5.0000	4.9561	-.044	-.878	.14019	.004	1
S5	10.000	10.151	.151	1.51	.28819	.004	1
S2	.80000	.76376	-.036	-4.53	.02076	.001	1

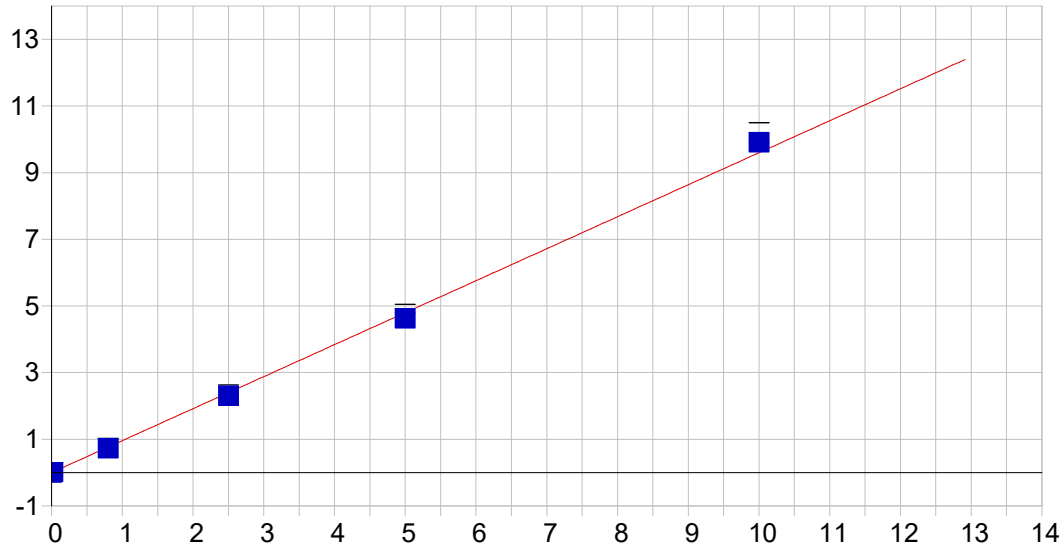


S 182.034 {485}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000182	Re-Slope:	1.000000
A1 (Gain):	0.015997	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999593	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.005998		
Predicted MQL:	0.019994		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00018	.000	1
S1	.02000	.02309	.003	15.4	.00054	.000	1
S3	2.5000	2.4074	-.093	-3.70	.03859	.000	1
S4	5.0000	4.9020	-.098	-1.96	.07839	.002	1
S5	10.000	10.239	.239	2.39	.16356	.001	1
S2	.80000	.74865	-.051	-6.42	.01213	.001	1

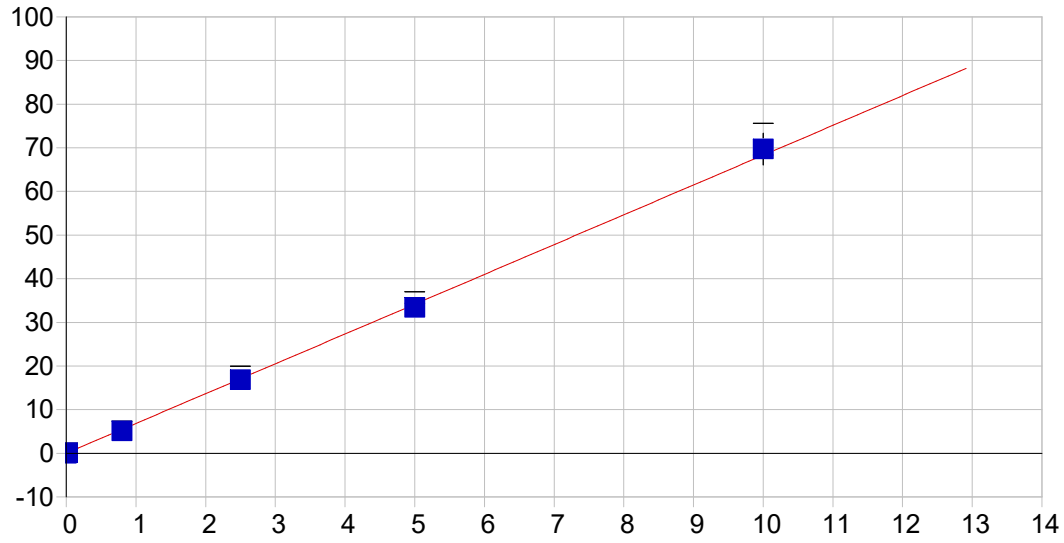


Li 670.784 { 50}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001246	Re-Slope:	1.000000
A1 (Gain):	0.960005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999364	Status:	OK.
Std Error of Est:	0.000803		
Predicted MDL:	0.001226		
Predicted MQL:	0.004088		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00124	.000	1
S5	10.000	10.324	.324	3.24	9.9146	.291	1
S4	5.0000	4.8207	-.179	-3.59	4.6291	.126	1
S3	2.5000	2.3999	-.100	-4.00	2.3039	.024	1
S1	.02000	.01878	-.001	-6.11	.01709	.001	1
S2	.80000	.75670	-.043	-5.41	.72558	.004	1

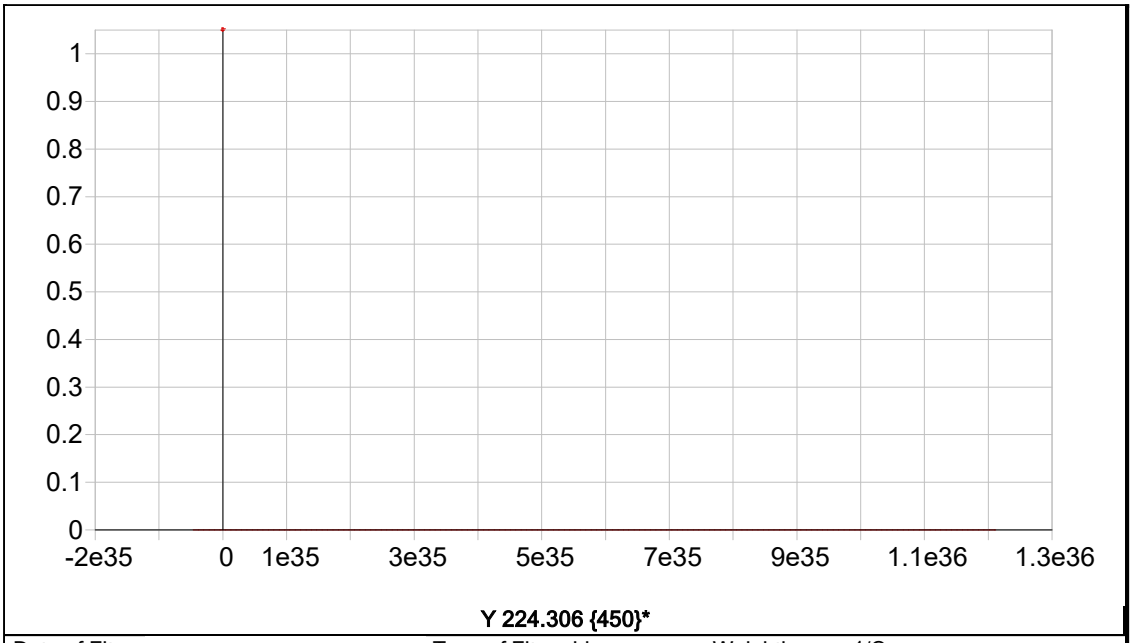


Sr 407.771 { 83}

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000067	Re-Slope:	1.000000
A1 (Gain):	6.831059	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999697	Status:	OK.
Std Error of Est:	0.003946		
Predicted MDL:	0.000092		
Predicted MQL:	0.000305		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.02000	.01924	-.001	-3.79	.13203	.001	1
S3	2.5000	2.4676	-.032	-1.29	16.873	.813	1
S4	5.0000	4.8881	-.112	-2.24	33.424	1.33	1
S5	10.000	10.202	.202	2.02	69.758	3.63	1
S2	.80000	.74276	-.057	-7.16	5.0790	.014	1

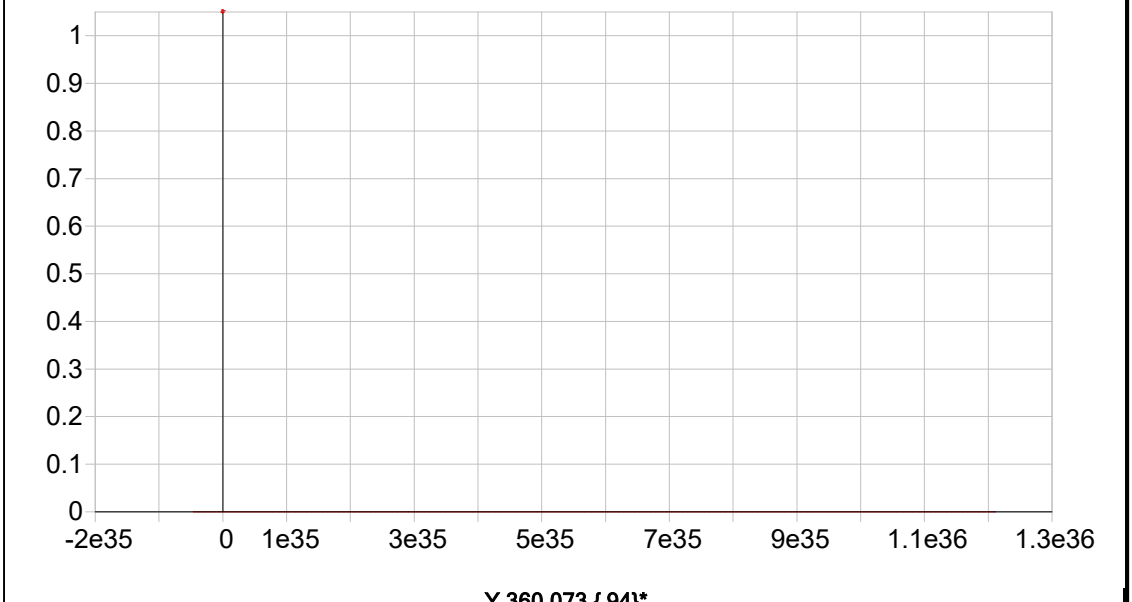


Y 224.306 {450}*

Date of Fit:	5/14/2025 12:55:41	Type of Fit:	Linear	Weighting:	1/Conc

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

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



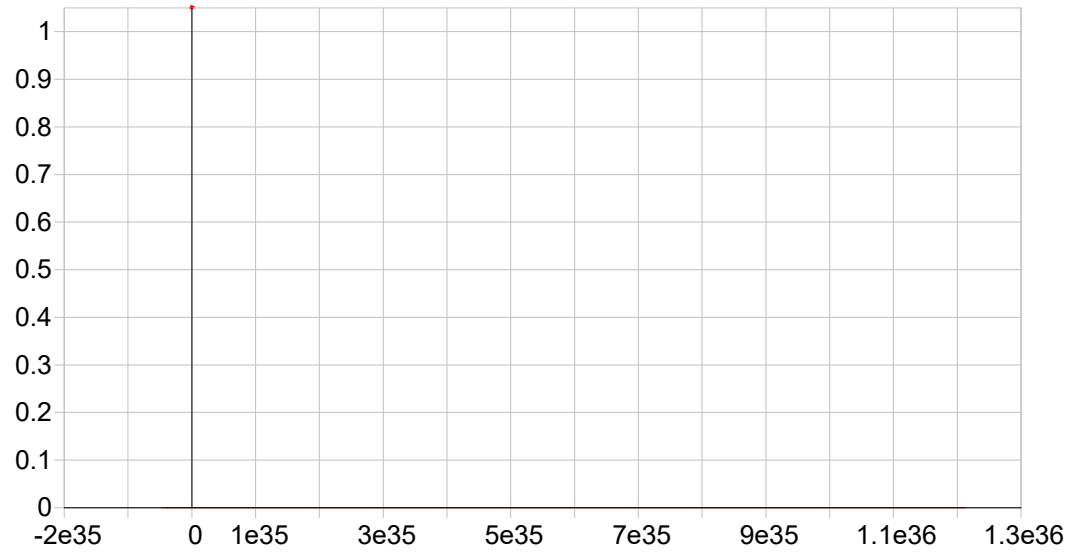
Y 360.073 { 94}*

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

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

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

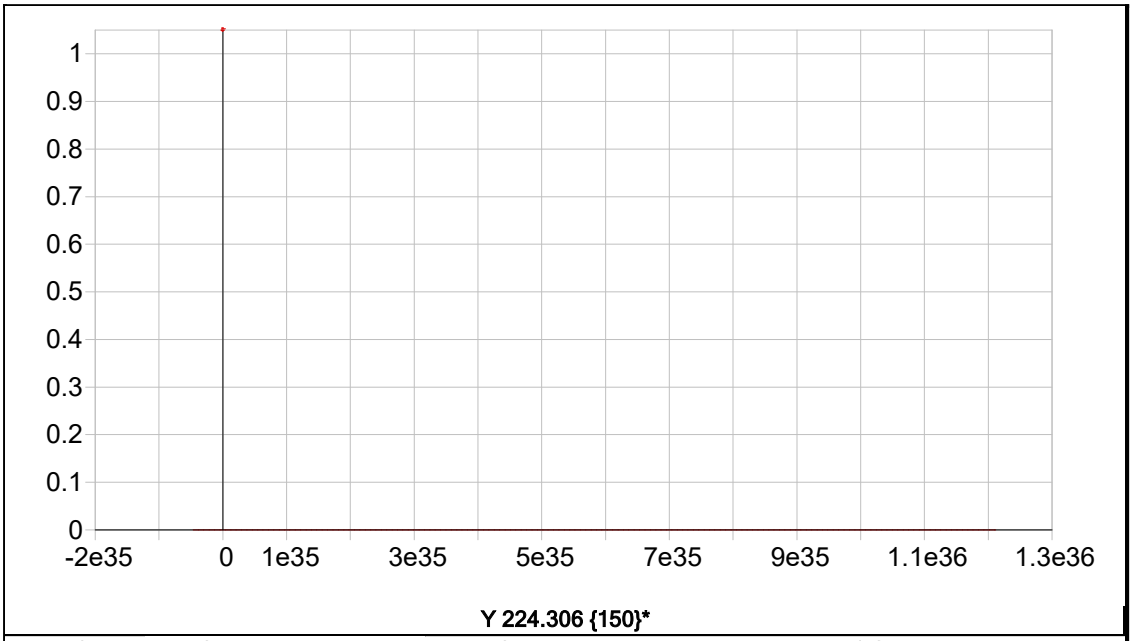
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 371.030 { 91}*

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

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

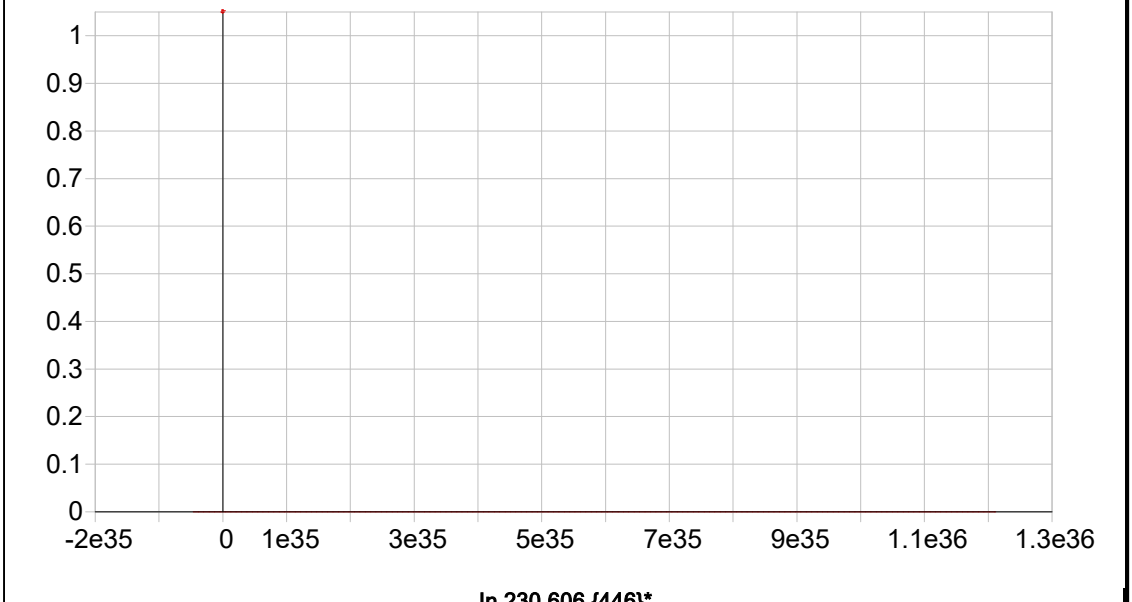


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

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

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

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					
Std. Name	**Stated Conc.**	**Found Conc.**	**Difference**	**% Diff.**	**(S)IR**	**Std Dev**	**Emphasis**

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S0 Acquired: 5/14/2025 12:12:25 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00012	-.00007	-.00022	.00002	.00053	.00046	.04481	.00002
Stddev	.00018	.00005	.00015	.00019	.00019	.00026	.00011	.00002
%RSD	147.66	63.042	69.140	959.13	35.025	56.851	.25054	78.000
#1	-.00029	-.00009	-.00038	.00015	.00040	.00024	.04490	.00002
#2	-.00014	-.00011	-.00021	-.00020	.00045	.00075	.04484	.00004
#3	.00007	-.00002	-.00007	.00010	.00075	.00039	.04468	.00001

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	-.00006	.00060	.00008	.00013	-.00072	.00001	.00052	-.00009
Stddev	.00016	.00016	.00004	.00007	.00037	.00000	.00004	.00023
%RSD	252.42	26.128	57.175	55.550	51.733	14.934	8.0538	240.65
#1	-.00023	.00058	.00011	.00006	-.00031	.00001	.00057	-.00035
#2	.00009	.00076	.00009	.00013	-.00083	.00001	.00052	.00002
#3	-.00005	.00045	.00003	.00020	-.00103	.00001	.00048	.00005

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	-.00033	-.00122	.01907	-.00005	.00222	.00062	.00230	.00018
Stddev	.00030	.00005	.00031	.00011	.00117	.00001	.00022	.00019
%RSD	89.673	3.7169	1.6347	231.55	52.616	2.2303	9.3992	107.63
#1	-.00052	-.00117	.01931	-.00015	.00202	.00063	.00225	.00025
#2	-.00050	-.00125	.01918	.00007	.00348	.00064	.00254	-.00004
#3	.00001	-.00124	.01872	-.00007	.00117	.00061	.00211	.00033

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	.00011	.00213	.00012	-.00100	.00018	-.00124	-.00005
Stddev	.00007	.00009	.00003	.00018	.00004	.00027	.00039
%RSD	66.898	4.4491	22.715	17.587	23.084	21.367	790.81
#1	.00010	.00203	.00015	-.00120	.00023	-.00150	.00039
#2	.00019	.00222	.00011	-.00096	.00017	-.00097	-.00037
#3	.00004	.00212	.00010	-.00085	.00015	-.00125	-.00017

Sample Name: S0 Acquired: 5/14/2025 12:12:25 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2615.8	61566.	12111.	1725.2	4021.7
Stddev	43.9	188.	31.	3.7	28.1
%RSD	1.6786	.30477	.25319	.21291	.69863
#1	2648.8	61580.	12093.	1725.1	4050.5
#2	2566.0	61747.	12146.	1728.9	3994.3
#3	2632.6	61372.	12092.	1721.6	4020.2

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S1 Acquired: 5/14/2025 12:16:50 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00079	.00230	.00180	.00142	.00650	.01118	.22372	.01846
Stddev	.00008	.00005	.00015	.00026	.00021	.00036	.00192	.00109
%RSD	9.9503	2.1775	8.1527	18.041	3.2963	3.1978	.85868	5.9128
#1	.00071	.00231	.00181	.00169	.00625	.01159	.22155	.01784
#2	.00079	.00235	.00165	.00137	.00663	.01102	.22441	.01782
#3	.00087	.00225	.00195	.00119	.00661	.01093	.22520	.01972

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	.01280	.08132	.00173	.01847	.01895	.00045	.00897	.02591
Stddev	.00013	.00070	.00005	.00017	.00018	.00002	.00012	.00038
%RSD	1.0274	.86617	3.1189	.93671	.96997	3.6023	1.3089	1.4769
#1	.01279	.08106	.00179	.01829	.01874	.00044	.00887	.02548
#2	.01267	.08078	.00168	.01864	.01904	.00047	.00910	.02602
#3	.01293	.08211	.00173	.01849	.01907	.00045	.00895	.02622

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	.02785	.00147	.08157	.00440	.10208	.01369	.03466	.11383
Stddev	.00026	.00011	.00058	.00024	.00139	.00019	.00051	.00044
%RSD	.94732	7.3975	.71497	5.3869	1.3597	1.3529	1.4749	.38949
#1	.02757	.00157	.08160	.00453	.10192	.01348	.03454	.11371
#2	.02809	.00148	.08098	.00455	.10354	.01383	.03422	.11346
#3	.02790	.00135	.08214	.00413	.10078	.01376	.03522	.11433

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	.00352	.01595	.00164	-.00034	.00054	.01709	.13203
Stddev	.00007	.00008	.00002	.00002	.00002	.00060	.00093
%RSD	1.9197	.49642	1.0520	5.9882	3.2163	3.5203	.70073
#1	.00360	.01588	.00165	-.00034	.00055	.01686	.13241
#2	.00347	.01603	.00162	-.00036	.00055	.01663	.13097
#3	.00350	.01593	.00165	-.00032	.00052	.01777	.13270

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S1 Acquired: 5/14/2025 12:16:50 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2560.5	61330.	12222.	1750.7	3971.2
Stddev	21.0	474.	19.	77.2	21.6
%RSD	.81976	.77295	.15688	4.4096	.54375
#1	2556.2	61518.	12244.	1708.3	3973.1
#2	2583.2	61681.	12213.	1704.1	3991.8
#3	2541.9	60791.	12208.	1839.8	3948.8

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S2 Acquired: 5/14/2025 12:21:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03161	.04851	.13721	.04391	.08956	.15496	2.9138	.12314
Stddev	.00074	.00168	.00631	.00091	.00012	.00087	.0097	.00950
%RSD	2.3353	3.4550	4.5994	2.0736	.13606	.56122	.33337	7.7123
#1	.03124	.04800	.13278	.04337	.08954	.15422	2.9167	.13410
#2	.03246	.05039	.14444	.04496	.08944	.15592	2.9217	.11806
#3	.03114	.04716	.13442	.04341	.08969	.15474	2.9030	.11727

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	.80710	.15683	.02659	.24237	.17248	.00334	.16059	.04764
Stddev	.03813	.00040	.00155	.00753	.00143	.00010	.00067	.00024
%RSD	4.7246	.25621	5.8396	3.1049	.83195	2.8885	.41753	.50303
#1	.78052	.15669	.02838	.23675	.17108	.00323	.16077	.04741
#2	.85079	.15728	.02579	.25092	.17395	.00340	.16115	.04788
#3	.78998	.15652	.02561	.23944	.17242	.00340	.15985	.04762

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	.27789	.05094	.14030	.04310	.94420	.02467	.25182	.42505
Stddev	.00902	.00035	.00363	.00053	.00383	.00076	.01334	.00225
%RSD	3.2468	.68892	2.5885	1.2353	.40568	3.0825	5.2974	.52908
#1	.27119	.05126	.13612	.04334	.94673	.02380	.26709	.42271
#2	.28815	.05099	.14260	.04347	.94608	.02504	.24594	.42719
#3	.27433	.05057	.14219	.04249	.93979	.02518	.24242	.42524

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	.06628	.26200	.00304	.02076	.01213	.72558	5.0790
Stddev	.00294	.00081	.00009	.00096	.00056	.00391	.0139
%RSD	4.4334	.31015	3.0601	4.6439	4.5992	.53917	.27346
#1	.06419	.26197	.00295	.02031	.01176	.72574	5.0855
#2	.06964	.26283	.00303	.02186	.01277	.72941	5.0884
#3	.06500	.26120	.00314	.02010	.01184	.72159	5.0631

Sample Name: S2 Acquired: 5/14/2025 12:21:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.9	60405.	11708.	1775.0	3925.3
Stddev	67.3	1311.	78.	160.5	42.8
%RSD	2.6085	2.1698	.66504	9.0396	1.0905
#1	2544.5	61899.	11668.	1960.1	3912.8
#2	2658.6	59450.	11659.	1676.3	3973.0
#3	2539.6	59865.	11798.	1688.6	3890.1

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S3 Acquired: 5/14/2025 12:25:25 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09978	.15373	.42663	.13790	.28169	.49417	9.3867	.38856
Stddev	.00040	.00122	.00343	.00062	.00262	.00076	.0521	.02047
%RSD	.40194	.79505	.80459	.45318	.92901	.15442	.55473	5.2691
#1	.09941	.15271	.42821	.13719	.27870	.49469	9.4461	.37671
#2	.09971	.15339	.42269	.13812	.28277	.49329	9.3650	.37677
#3	.10021	.15509	.42898	.13838	.28359	.49452	9.3490	.41220

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4921	.50554	.08011	.75782	.53747	.01056	.51410	.15500
Stddev	.0171	.00911	.00043	.00509	.00329	.00034	.00914	.00699
%RSD	.68795	1.8020	.53104	.67146	.61227	3.1843	1.7772	4.5087
#1	2.5047	.50160	.08042	.75863	.53446	.01076	.51057	.15071
#2	2.4725	.49906	.08028	.75237	.53696	.01075	.50725	.15123
#3	2.4989	.51595	.07962	.76245	.54098	.01017	.52447	.16306

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	.86689	.16264	.39915	.13816	3.0118	.07827	.79268	1.3287
Stddev	.00497	.00019	.02069	.00105	.0032	.00342	.04374	.0095
%RSD	.57315	.11482	5.1840	.76354	.10549	4.3728	5.5177	.71746
#1	.86842	.16286	.41147	.13762	3.0101	.08055	.76858	1.3206
#2	.86133	.16256	.41072	.13747	3.0099	.07993	.76629	1.3263
#3	.87091	.16252	.37526	.13937	3.0155	.07434	.84316	1.3392

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	.20545	.83343	.00937	.06811	.03859	2.3039	16.873
Stddev	.00165	.00240	.00035	.00021	.00027	.0237	.813
%RSD	.80513	.28739	3.7883	.30336	.70225	1.0288	4.8192
#1	.20649	.83273	.00959	.06802	.03839	2.3247	16.333
#2	.20354	.83146	.00956	.06796	.03848	2.3088	16.477
#3	.20631	.83609	.00896	.06835	.03890	2.2781	17.808

Sample Name: S3 Acquired: 5/14/2025 12:25:25 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2547.4	59789.	11474.	1700.0	3845.8
Stddev	39.3	375.	573.	8.7	43.4
%RSD	1.5444	.62778	4.9933	.50913	1.1283
#1	2592.6	59562.	11797.	1698.9	3894.9
#2	2528.2	59582.	11813.	1691.9	3829.8
#3	2521.3	60222.	10812.	1709.1	3812.7

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S4 Acquired: 5/14/2025 12:29:40 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.19917	.30258	.85830	.27441	.55718	.98042	19.401	.73872
Stddev	.00236	.00565	.02537	.00318	.00504	.00254	.780	.03524
%RSD	1.1846	1.8674	2.9563	1.1577	.90397	.25891	4.0216	4.7704
#1	.20190	.30850	.88750	.27808	.55140	.98325	18.952	.72248
#2	.19771	.29725	.84167	.27258	.56065	.97834	20.302	.77916
#3	.19792	.30200	.84571	.27257	.55949	.97968	18.950	.71453

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.0163	1.0085	.15775	1.5092	1.0557	.02176	1.0177	.31127
Stddev	.1632	.0308	.00023	.0239	.0024	.00036	.0175	.01952
%RSD	3.2531	3.0502	.14406	1.5866	.23120	1.6714	1.7202	6.2723
#1	5.2047	.99223	.15784	1.5368	1.0582	.02198	1.0088	.30004
#2	4.9201	1.0440	.15792	1.4936	1.0555	.02134	1.0378	.33382
#3	4.9242	.98934	.15749	1.4973	1.0534	.02197	1.0063	.29996

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	1.7221	.32175	.80694	.27806	5.8508	.16212	1.5194	2.6039
Stddev	.0326	.00036	.03697	.00272	.0229	.00571	.0706	.0110
%RSD	1.8920	.11322	4.5819	.97665	.39140	3.5200	4.6451	.42141
#1	1.7597	.32207	.82657	.27723	5.8770	.16469	1.4865	2.5912
#2	1.7010	.32184	.76429	.28109	5.8408	.15558	1.6004	2.6098
#3	1.7058	.32135	.82996	.27585	5.8347	.16608	1.4713	2.6106

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	.41475	1.6652	.01932	.14019	.07839	4.6291	33.424
Stddev	.01331	.0010	.00038	.00439	.00171	.1262	1.329
%RSD	3.2096	.06067	1.9753	3.1293	2.1763	2.7258	3.9766
#1	.43012	1.6662	.01943	.14525	.08035	4.7033	32.797
#2	.40665	1.6653	.01890	.13749	.07722	4.4834	34.950
#3	.40749	1.6642	.01963	.13782	.07761	4.7006	32.524

Sample Name: S4 Acquired: 5/14/2025 12:29:40 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2533.5	58697.	11658.	1660.8	3755.5
Stddev	70.1	20.	523.	7.8	56.9
%RSD	2.7656	.03457	4.4864	.47117	1.5149
#1	2613.9	58714.	11903.	1651.7	3820.8
#2	2485.8	58674.	11057.	1665.8	3717.0
#3	2500.7	58703.	12014.	1664.8	3728.6

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: S5 Acquired: 5/14/2025 12:33:55 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.40526	.60779	1.7441	.55258	1.1422	2.0718	40.276	1.5974
Stddev	.00034	.00339	.0347	.00179	.0188	.0025	2.233	.0762
%RSD	.08286	.55699	1.9909	.32410	1.6461	.11947	5.5435	4.7698
#1	.40495	.61068	1.7203	.55292	1.1515	2.0707	42.854	1.6804
#2	.40562	.60406	1.7281	.55417	1.1545	2.0701	39.042	1.5307
#3	.40522	.60862	1.7840	.55064	1.1205	2.0746	38.934	1.5809

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	10.257	2.0921	.31728	3.1074	2.1194	.04225	2.1218	.65991
Stddev	.261	.0781	.00464	.0426	.0219	.00054	.0570	.04480
%RSD	2.5464	3.7347	1.4640	1.3722	1.0337	1.2756	2.6852	6.7891
#1	10.079	2.1822	.31361	3.0769	2.1292	.04166	2.1875	.71162
#2	10.136	2.0440	.31573	3.0893	2.1347	.04273	2.0860	.63284
#3	10.557	2.0500	.32251	3.1561	2.0943	.04235	2.0919	.63526

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	3.5184	.65308	1.5862	.57987	11.708	.32222	3.3026	5.2664
Stddev	.0535	.00024	.0860	.01087	.024	.01192	.1655	.0461
%RSD	1.5202	.03690	5.4193	1.8742	.20331	3.6997	5.0125	.87632
#1	3.4809	.65284	1.4877	.59235	11.710	.30869	3.4889	5.2901
#2	3.4948	.65332	1.6464	.57253	11.731	.33120	3.1723	5.2959
#3	3.5797	.65308	1.6244	.57472	11.683	.32676	3.2466	5.2132

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	.84770	3.4752	.03811	.28819	.16356	9.9146	69.758
Stddev	.01804	.0152	.00084	.00366	.00147	.2912	3.632
%RSD	2.1277	.43818	2.2158	1.2687	.89640	2.9367	5.2064
#1	.83544	3.4910	.03717	.28579	.16291	9.5784	73.887
#2	.83924	3.4607	.03881	.28638	.16254	10.080	68.326
#3	.86841	3.4738	.03835	.29239	.16524	10.085	67.060

Sample Name: S5 Acquired: 5/14/2025 12:33:55 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2496.5	59034.	10931.	1666.4	3631.8
Stddev	113.1	596.	576.	42.5	109.9
%RSD	4.5314	1.0102	5.2700	2.5497	3.0264
#1	2433.0	58894.	10266.	1645.6	3573.7
#2	2429.3	58520.	11240.	1638.2	3563.2
#3	2627.1	59688.	11286.	1715.2	3758.6

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICV01 Acquired: 5/14/2025 13:24:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9839753	1.009261	.9624405	1.013583	.9901563	2.354090
Stddev	.0066288	.018691	.0023162	.008216	.0076771	.003393
%RSD	.6736791	1.851931	.2406554	.8105881	.7753474	.1441307
#1	.9814832	.993114	.9622197	1.011789	.9861321	2.350523
#2	.9789537	1.004934	.9602427	1.006413	.9853277	2.357277
#3	.9914890	1.029736	.9648592	1.022548	.9990089	2.354469

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4870378	.4972950	.4887208	9.150919	.5081714	.4824976
Stddev	.0014263	.0133992	.0010090	.009861	.0196955	.0019969
%RSD	.2928446	2.694424	.2064520	.1077571	3.875765	.4138756
#1	.4856247	.4886527	.4875568	9.145009	.4963452	.4810233
#2	.4884768	.4905021	.4892603	9.162302	.4972612	.4816994
#3	.4870120	.5127303	.4893454	9.145445	.5309077	.4847702

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5040573	10.34662	.4711220	5.877203	.4839275	.2722041
Stddev	.0030621	.08676	.0015098	.027853	.0011575	.0010898
%RSD	.6074903	.8385436	.3204610	.4739085	.2391920	.4003769
#1	.5039668	10.29364	.4701291	5.888094	.4833885	.2711037
#2	.5010415	10.29947	.4703776	5.845551	.4831377	.2722254
#3	.5071637	10.44674	.4728594	5.897965	.4852562	.2732831

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.53446	.4596409	1.007047	10.68053	2.262051	2.468212
Stddev	.07896	.0036070	.007104	.10525	.042811	.015755
%RSD	.7495572	.7847355	.7053870	.9853922	1.892567	.6382965
#1	10.46697	.4555350	1.002004	10.57258	2.232289	2.462878
#2	10.51511	.4622991	1.003967	10.68618	2.242749	2.455817
#3	10.62129	.4610885	1.015171	10.78284	2.311114	2.485941

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICV01 Acquired: 5/14/2025 13:24:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.343196	2.336745	F 2.166317	F .0081794	F -.009830	F .0033646
Stddev	.011246	.006827	.013044	.0000809	.005021	.0005931
%RSD	.4799289	.2921700	.6021230	.9894488	51.07511	17.62769
#1	2.334182	2.329061	2.153810	.0080940	-.015483	.0038984
#2	2.339609	2.339057	2.165303	.0081893	-.005890	.0034695
#3	2.355798	2.342115	2.179838	.0082550	-.008118	.0027261

Elem	Sr4077
Units	ppm
Avg	F -.008736
Stddev	.000028
%RSD	.3160357
#1	-.008767
#2	-.008712
#3	-.008730

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2531.815	60453.98	12144.51	1734.397	3899.454
Stddev	17.174	327.79	60.37	70.681	15.739
%RSD	.6783198	.5422146	.4971170	4.075255	.4036145
#1	2525.694	60388.70	12078.70	1685.311	3896.032
#2	2551.211	60809.50	12157.50	1702.470	3916.622
#3	2518.541	60163.74	12197.33	1815.409	3885.707

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: LLICV01 Acquired: 5/14/2025 13:34:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197543	.0398738	.0123084	.0233594	.0521761	.1002213	.0923443
Stddev	.0020575	.0003667	.0017836	.0018559	.0024203	.0116986	.0123779
%RSD	10.41519	.9196603	14.49130	7.944992	4.638608	11.67279	13.40408
#1	.0191880	.0399640	.0107180	.0255020	.0512723	.0946012	.0852359
#2	.0220356	.0394704	.0142369	.0223199	.0549182	.0923932	.0851600
#3	.0180393	.0401869	.0119702	.0222561	.0503379	.1136694	.1066370

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061970	.0061260	2.030437	.0094211	.0286991	.0226312	.0937243
Stddev	.0004534	.0001266	.239324	.0005955	.0001416	.0007226	.0020374
%RSD	7.317106	2.067428	11.78684	6.320831	.4935285	3.192957	2.173812
#1	.0064351	.0060834	1.886867	.0100867	.0286865	.0223905	.0913882
#2	.0056741	.0062685	1.897730	.0092376	.0285643	.0220596	.0951330
#3	.0064818	.0060262	2.306713	.0089389	.0288467	.0234434	.0946517

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209401	2.083975	.0390723	.0095229	1.877998	.0407725	.0415611
Stddev	.0024764	.240842	.0003660	.0003963	.062464	.0046013	.0004485
%RSD	11.82628	11.55686	.9366223	4.161166	3.326121	11.28541	1.079071
#1	.0194488	1.936926	.0390590	.0091036	1.815814	.0394614	.0411433
#2	.0195728	1.953080	.0394447	.0095739	1.877441	.0369689	.0420350
#3	.0237987	2.361919	.0387132	.0098912	1.940739	.0458870	.0415051

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.893152	.1110720	.2069993	.0449286	.0418480	.3919583	.0224671
Stddev	.060658	.0079622	.0006067	.0010191	.0047419	.0182283	.0030927
%RSD	3.204086	7.168488	.2931025	2.268228	11.33114	4.650562	13.76527
#1	1.827100	.1114779	.2073026	.0446788	.0389872	.3710123	.0242919
#2	1.905999	.1029147	.2063007	.0460494	.0392353	.4006376	.0242131
#3	1.946358	.1188235	.2073946	.0440576	.0473216	.4042250	.0188963

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: LLICV01 Acquired: 5/14/2025 13:34:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0154547	.0216201	.0198934
Stddev	.0061036	.0021412	.0021155
%RSD	39.49365	9.903541	10.63433
#1	.0099483	.0197113	.0186934
#2	.0220177	.0212136	.0186507
#3	.0143982	.0239353	.0223360

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2575.862	62288.05	11312.96	1813.671	3971.344
Stddev	30.664	989.68	936.72	153.810	24.404
%RSD	1.190440	1.588879	8.280102	8.480617	.6145116
#1	2554.873	63430.72	11849.28	1991.235	3947.384
#2	2611.052	61702.40	11858.27	1721.560	3996.170
#3	2561.660	61731.04	10231.34	1728.219	3970.478

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICB01 Acquired: 5/14/2025 13:38:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013575	-.000289	-.002407	.0043835	-.000125	.0112849	-.004388
Stddev	.0009028	.001490	.001117	.0003199	.001595	.0064018	.001681
%RSD	66.50589	515.3125	46.41239	7.298799	1277.927	56.72909	38.31286
#1	.0022902	.000702	-.001552	.0040148	-.001470	.0184424	-.002746
#2	.0012944	.000433	-.003671	.0045877	.001637	.0061056	-.006106
#3	.0004879	-.002002	-.001998	.0045481	-.000541	.0093068	-.004312

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000008	.0000726	.0008816	.0001047	-.000168	.0001845	-.001077
Stddev	.000031	.0001170	.0068267	.0001655	.000398	.0000190	.001008
%RSD	371.5649	161.0492	774.3091	158.1638	236.7779	10.29128	93.59355
#1	-.000017	.0001775	.0073756	-.000058	.000290	.0001742	.000046
#2	-.000034	.0000940	.0015045	.000273	-.000363	.0001729	-.001375
#3	.000026	-.000054	-.006235	.000099	-.000431	.0002064	-.001904

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004786	.0036466	-.000202	.0002315	-.138833	-.001258	.0005495
Stddev	.0002690	.0067231	.000287	.0001663	.009412	.000579	.0002233
%RSD	56.19957	184.3675	141.7062	71.84180	6.779555	46.03542	40.63262
#1	.0003581	.0040795	-.000075	.0002962	-.128783	-.001562	.0003176
#2	.0002910	.0101428	-.000001	.0003557	-.140276	-.000590	.0005678
#3	.0007868	-.003282	-.000531	.0000426	-.147441	-.001622	.0007631

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.013678	-.000357	.0001003	.0015754	.0003428	.0131711	.0027222
Stddev	.016510	.000703	.0001203	.0008375	.0006298	.0059915	.0020795
%RSD	120.7056	196.9017	119.8942	53.16299	183.7372	45.48989	76.39186
#1	-.032421	-.000021	-.000022	.0006865	-.000009	.0189115	.0013341
#2	-.001290	.000115	.000105	.0016898	.001070	.0069566	.0051131
#3	-.007323	-.001166	.000218	.0023498	-.000033	.0136452	.0017194

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICB01 Acquired: 5/14/2025 13:38:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009556	.0008373	.0000352
Stddev	.0052769	.0012706	.0000100
%RSD	552.2086	151.7431	28.30038
#1	-.002507	-.000272	.0000306
#2	.007029	.002224	.0000466
#3	-.001655	.000560	.0000283

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2548.709	62303.11	12035.18	1741.278	3940.219
Stddev	11.642	238.49	49.44	6.100	14.405
%RSD	.4567674	.3827854	.4107984	.3503347	.3656000
#1	2545.134	62031.27	12067.62	1735.179	3933.095
#2	2561.718	62400.89	12059.65	1741.274	3956.798
#3	2539.273	62477.16	11978.28	1747.380	3930.763

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CRI01 Acquired: 5/14/2025 13:43:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198731	.0391039	.0110613	.0226224	.0505877	.0911462	.0858834
Stddev	.0017474	.0013241	.0003337	.0040470	.0013865	.0026141	.0006777
%RSD	8.792687	3.386207	3.016653	17.88954	2.740701	2.868043	.7890408
#1	.0187018	.0406072	.0114156	.0254837	.0521652	.0882006	.0854303
#2	.0218816	.0381105	.0107530	.0243914	.0495626	.0920477	.0866624
#3	.0190360	.0385942	.0110154	.0179920	.0500354	.0931901	.0855574

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058018	.0060138	1.906489	.0090466	.0289688	.0223447	.0933217
Stddev	.0002555	.0002006	.018209	.0001811	.0003636	.0003539	.0053441
%RSD	4.403983	3.335853	.9551184	2.002304	1.255174	1.583908	5.726568
#1	.0056140	.0058388	1.894198	.0092391	.0287626	.0226864	.0879854
#2	.0056985	.0062327	1.927409	.0090214	.0293886	.0219797	.0933059
#3	.0060927	.0059700	1.897861	.0088794	.0287552	.0223680	.0986737

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193841	1.965995	.0388038	.0094918	1.889845	.0384340	.0422155
Stddev	.0002572	.024411	.0007504	.0004195	.068669	.0013817	.0007052
%RSD	1.326707	1.241646	1.933868	4.419687	3.633575	3.595001	1.670421
#1	.0194763	1.943541	.0386642	.0095787	1.816763	.0383754	.0414392
#2	.0190936	1.991978	.0396142	.0098611	1.899745	.0370825	.0428164
#3	.0195825	1.962465	.0381330	.0090357	1.953026	.0398441	.0423909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.915965	.1007741	.2063710	.0450833	.0395787	.3871310	.0200546
Stddev	.027262	.0013499	.0013429	.0006692	.0010256	.0143990	.0015241
%RSD	1.422881	1.339506	.6507177	1.484293	2.591258	3.719419	7.599689
#1	1.889214	.1002144	.2070351	.0443241	.0403168	.3718340	.0216711
#2	1.914971	.0997940	.2048254	.0455875	.0400117	.3891375	.0198488
#3	1.943710	.1023138	.2072524	.0453382	.0384077	.4004215	.0186439

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CRI01 Acquired: 5/14/2025 13:43:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0202978	.0205160	.0187312
Stddev	.0009774	.0016406	.0000532
%RSD	4.815150	7.996840	.2839614
#1	.0195635	.0218161	.0187919
#2	.0214071	.0210594	.0187089
#3	.0199227	.0186727	.0186927

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.397	61264.12	11931.86	1769.085	4049.344
Stddev	75.280	1321.29	63.90	50.746	67.267
%RSD	2.863020	2.156710	.5355072	2.868508	1.661176
#1	2586.233	62572.20	11887.64	1761.413	4007.057
#2	2716.323	61290.15	12005.12	1722.611	4126.911
#3	2585.635	59930.01	11902.81	1823.230	4014.063

Sample Name: ICSA01 Acquired: 5/14/2025 14:09:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048501	.0068292	.0002556	-.003161	-.003069	234.0351	.0017628
Stddev	.0025363	.0007365	.0015510	.001527	.003269	1.6123	.0006937
%RSD	52.29456	10.78394	606.9482	48.29574	106.4903	.6889157	39.35053
#1	.0028009	.0075808	.0020379	-.001506	.000424	232.3208	.0013508
#2	.0076868	.0061089	-.000788	-.004514	-.003579	234.2636	.0025637
#3	.0040626	.0067979	-.000483	-.003463	-.006053	235.5211	.0013740

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011234	-.003094	217.5451	.0521620	.0003095	.0005841	93.28635
Stddev	.0000898	.000104	1.1739	.0007618	.0000898	.0005215	.48728
%RSD	7.993341	3.356557	.5396316	1.460392	29.02322	89.28999	.5223499
#1	.0012270	-.002996	216.2471	.0516555	.0002224	.0008228	92.72675
#2	.0010712	-.003203	217.8555	.0530381	.0004018	-.000014	93.61689
#3	.0010719	-.003083	218.5325	.0517925	.0003041	.000943	93.51542

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030760	228.1421	.0012032	.0009476	.0718488	.0009673	.0037476
Stddev	.0002514	1.3902	.0004965	.0005780	.0007000	.0002776	.0003166
%RSD	8.173611	.6093418	41.26220	60.99488	.9742943	28.69480	8.446904
#1	.0028534	226.5916	.0007695	.0007824	.0711630	.0007222	.0035102
#2	.0030261	228.5576	.0017448	.0004702	.0718213	.0009109	.0041070
#3	.0033487	229.2772	.0010954	.0015902	.0725622	.0012687	.0036256

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0223679	.0167883	-.000241	-.001232	-.001931	.0210322	.0010466
Stddev	.0273161	.0000623	.000431	.001659	.000474	.0083659	.0033853
%RSD	122.1219	.3712235	178.7994	134.6346	24.54852	39.77666	323.4698
#1	-.008127	.0168601	.000257	-.002303	-.001714	.0137175	-.002724
#2	.030637	.0167570	-.000498	.000679	-.001605	.0192252	.002039
#3	.044594	.0167478	-.000482	-.002073	-.002475	.0301540	.003825

Sample Name: ICSA01 Acquired: 5/14/2025 14:09:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.015408	.0047482	-.000132
Stddev	.007572	.0006872	.000167
%RSD	49.14050	14.47238	126.7458
#1	-.012349	.0039575	-.000080
#2	-.009844	.0052013	-.000319
#3	-.024030	.0050859	.000003

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2361.451	56259.71	11885.99	1562.343	3480.921
Stddev	8.137	237.99	23.15	13.630	12.328
%RSD	.3445636	.4230132	.1947629	.8723877	.3541461
#1	2354.142	56335.07	11906.79	1570.310	3470.022
#2	2359.993	55993.16	11861.05	1546.605	3478.440
#3	2370.218	56450.88	11890.14	1570.114	3494.300

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICSAB01 Acquired: 5/14/2025 14:16:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1075735	.1035787	.0460542	.0406920	.5920620	235.7108
Stddev	.0007944	.0006489	.0012073	.0027898	.0028174	.4213
%RSD	.7384555	.6264539	2.621523	6.855961	.4758621	.1787533
#1	.1082883	.1042523	.0456725	.0392039	.5908598	235.4090
#2	.1067183	.1029577	.0474062	.0439104	.5900451	236.1922
#3	.1077140	.1035262	.0450838	.0389618	.5952810	235.5311

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4415871	.4456486	.9325599	218.8348	.5250324	.4634577
Stddev	.0032668	.0008250	.0022304	.6239	.0007504	.0017733
%RSD	.7397957	.1851181	.2391705	.2850917	.1429287	.3826194
#1	.4378966	.4446960	.9305120	218.1196	.5251052	.4618515
#2	.4441087	.4461234	.9322312	219.1177	.5242482	.4631610
#3	.4427559	.4461264	.9349364	219.2672	.5257437	.4653606

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4683523	94.54675	.4462674	229.8615	.9162578	.2033884
Stddev	.0014502	.38416	.0019478	.4973	.0026623	.0006438
%RSD	.3096457	.4063178	.4364633	.2163692	.2905647	.3165238
#1	.4674124	94.24102	.4440361	229.3237	.9149692	.2030055
#2	.4676220	94.42128	.4476281	230.3049	.9144849	.2041317
#3	.4700225	94.97796	.4471379	229.9559	.9193192	.2030281

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.147269	.4454130	.9810775	-.047861	F .8473705	.9280827
Stddev	.007174	.0009589	.0019965	.056612	.0024915	.0017000
%RSD	4.871167	.2152756	.2034963	118.2839	.2940274	.1831775
#1	-.155535	.4465122	.9821873	-.072478	.8481170	.9286887
#2	-.143605	.4447483	.9822725	.016892	.8494035	.9261627
#3	-.142667	.4449785	.9787727	-.087998	.8445911	.9293966

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICSAB01 Acquired: 5/14/2025 14:16:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8912625	.8775449	.8733394	F .0002094	F -.021078	F .0043106
Stddev	.0033478	.0035262	.0074945	.0045496	.006213	.0007841
%RSD	.3756266	.4018238	.8581384	2172.294	29.47664	18.18872
#1	.8885992	.8740208	.8647981	.0054116	-.013911	.0050882
#2	.8901677	.8775407	.8788149	-.003025	-.024937	.0043234
#3	.8950206	.8810732	.8764052	-.001758	-.024386	.0035203

Elem	Sr4077
Units	ppm
Avg	F -.000279
Stddev	.000273
%RSD	97.59666
#1	-.000264
#2	-.000015
#3	-.000560

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2364.426	56155.45	11884.46	1570.776	3492.587
Stddev	4.747	74.37	25.06	3.316	8.566
%RSD	.2007724	.1324444	.2108657	.2111137	.2452602
#1	2367.288	56237.73	11910.58	1570.581	3498.390
#2	2367.044	56135.60	11860.62	1567.562	3496.622
#3	2358.946	56093.01	11882.18	1574.185	3482.749

Sample Name: ICSADLX20 Acquired: 5/14/2025 14:43:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0021632	-.001178	.0002402	.0038796	-.003226	11.08640	-.003953
Stddev	.0010357	.001033	.0015001	.0008166	.000954	.01352	.000336
%RSD	47.88006	87.73379	624.5235	21.04966	29.56487	.1219379	8.499955
#1	.0031300	-.002327	.0000972	.0029913	-.002129	11.08849	-.003570
#2	.0010701	-.000323	.0018067	.0045979	-.003857	11.07196	-.004091
#3	.0022893	-.000884	-.001183	.0040496	-.003691	11.09875	-.004199

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001031	-.000144	10.77294	.0023614	-.000237	.0001393	4.399694
Stddev	.0000215	.000144	.03578	.0005562	.000161	.0000183	.055024
%RSD	20.88845	100.1340	.3321571	23.55451	67.69954	13.13092	1.250632
#1	.0000910	.000022	10.73872	.0018254	-.000287	.0001495	4.349611
#2	.0000904	-.000236	10.76999	.0023229	-.000058	.0001502	4.458594
#3	.0001280	-.000219	10.81011	.0029358	-.000368	.0001182	4.390876

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000066	11.02691	.0000697	.0000164	-.169561	-.000084	.0010545
Stddev	.000349	.02437	.0002137	.0001825	.007342	.001356	.0004039
%RSD	532.0139	.2209907	306.4144	1110.804	4.330126	1614.984	38.30798
#1	.000274	11.02125	.0001704	.0001817	-.167935	.001266	.0008814
#2	-.000424	11.00588	.0002145	.0000471	-.177580	-.000071	.0007659
#3	-.000048	11.05362	-.000176	-.000180	-.163169	-.001447	.0015161

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018780	-.003612	-.000103	.0046541	.0002354	.0104247	-.002541
Stddev	.016184	.000261	.000256	.0008668	.0003756	.0063829	.001240
%RSD	86.17734	7.227340	248.1801	18.62482	159.5323	61.22838	48.78236
#1	-.024564	-.003912	-.000329	.0037839	-.000065	.0165161	-.001155
#2	-.031278	-.003433	-.000155	.0055175	.000115	.0109726	-.002925
#3	-.000499	-.003492	.000175	.0046609	.000656	.0037856	-.003544

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICSADLX20 Acquired: 5/14/2025 14:43:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002232	-.000604	.0001978
Stddev	.002338	.000508	.0000593
%RSD	104.7527	84.21121	29.99693
#1	-.004931	-.001152	.0002633
#2	-.000853	-.000148	.0001475
#3	-.000911	-.000511	.0001827

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2618.342	63366.31	12314.39	1762.713	4018.083
Stddev	8.810	589.79	20.52	11.940	15.615
%RSD	.3364899	.9307558	.1666169	.6773872	.3886282
#1	2608.900	63689.20	12294.62	1770.854	4001.155
#2	2619.782	62685.58	12335.58	1749.006	4021.167
#3	2626.344	63724.14	12312.97	1768.279	4031.926

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICSABDLX20 Acquired: 5/14/2025 14:47:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049288	.0067987	.0011893	.0040288	.0280603	11.96276	.0201643
Stddev	.0018675	.0025722	.0009272	.0013945	.0026257	.02534	.0003627
%RSD	37.88848	37.83429	77.95827	34.61186	9.357384	.2118490	1.798860
#1	.0052131	.0039586	.0017203	.0049659	.0302205	11.97448	.0198189
#2	.0029355	.0089716	.0017289	.0024263	.0251378	11.93368	.0201317
#3	.0066378	.0074658	.0001187	.0046943	.0288226	11.98012	.0205422

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0231203	.0499219	11.67853	.0276529	.0243520	.0258105	4.912261
Stddev	.0001481	.0002133	.01047	.0001884	.0003807	.0005569	.016918
%RSD	.6404238	.4273047	.0896795	.6812656	1.563497	2.157567	.3443964
#1	.0232892	.0496876	11.68735	.0276706	.0239187	.0262079	4.893308
#2	.0230132	.0501049	11.66696	.0278317	.0246330	.0260496	4.917640
#3	.0230583	.0499732	11.68129	.0274562	.0245043	.0251740	4.925836

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0241501	11.62651	.0491666	.0098116	-.174320	.0238841	.0500408
Stddev	.0002945	.01460	.0001684	.0003066	.006640	.0017465	.0005572
%RSD	1.219396	.1255623	.3425218	3.124722	3.809213	7.312384	1.113438
#1	.0240540	11.63769	.0491695	.0095050	-.178784	.0258756	.0496454
#2	.0239157	11.60999	.0489967	.0101181	-.166689	.0231639	.0506781
#3	.0244807	11.63185	.0493335	.0098118	-.177486	.0226129	.0497991

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001899	.0397299	.0492115	.0513375	.0460552	.0408008	.0015665
Stddev	.005812	.0002369	.0001197	.0022476	.0003541	.0039683	.0043288
%RSD	305.9864	.5961642	.2431590	4.378038	.7688105	9.726108	276.3407
#1	-.005424	.0394657	.0490831	.0509052	.0461561	.0418909	.0060525
#2	.004809	.0398008	.0493199	.0493374	.0456616	.0364014	.0012328
#3	-.005083	.0399232	.0492314	.0537697	.0463479	.0441102	-.002586

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: ICSABDLX20 Acquired: 5/14/2025 14:47:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004598	-.000428	.0000260
Stddev	.003596	.000862	.0000494
%RSD	78.22074	201.4518	189.7876
#1	-.002533	-.001333	.0000555
#2	-.002510	.000384	.0000536
#3	-.008751	-.000335	-.000031

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.399	62702.61	12568.60	1766.609	3951.377
Stddev	4.765	235.06	52.85	13.516	9.653
%RSD	.1842171	.3748833	.4204791	.7650684	.2443011
#1	2586.251	62860.73	12515.50	1770.126	3953.696
#2	2591.236	62432.49	12569.12	1751.683	3959.660
#3	2581.710	62814.60	12621.19	1778.019	3940.776

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV01 Acquired: 5/14/2025 14:51:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.863273	5.036782	4.841903	4.899146	4.930103	9.981299	9.636989
Stddev	.017149	.032592	.017751	.016529	.016807	.397396	.420803
%RSD	.3526203	.6470834	.3666048	.3373796	.3408980	3.981410	4.366543
#1	4.850259	5.053986	4.825775	4.903396	4.924565	9.764748	9.487756
#2	4.856855	4.999192	4.839015	4.880908	4.916764	9.739212	9.311140
#3	4.882705	5.057167	4.860921	4.913136	4.948979	10.43994	10.11207

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2434791	2.413265	24.44091	.9793394	2.425383	1.232028	4.835064
Stddev	.0085502	.010754	1.00441	.0030075	.011517	.004789	.055689
%RSD	3.511675	.4456402	4.109550	.3070930	.4748598	.3886780	1.151776
#1	.2392141	2.404447	23.83861	.9770230	2.418643	1.228243	4.784364
#2	.2379003	2.410101	23.88370	.9827383	2.418824	1.230429	4.826160
#3	.2533228	2.425247	25.60041	.9782569	2.438682	1.237411	4.894669

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.446205	23.96586	2.428182	1.217406	24.83058	2.465385	2.446671
Stddev	.100224	.98120	.008868	.003090	.17176	.095699	.010022
%RSD	4.097134	4.094139	.3652001	.2538116	.6917361	3.881699	.4096163
#1	2.391092	23.37822	2.420625	1.213858	24.64632	2.406480	2.435640
#2	2.385632	23.42078	2.425978	1.218854	24.85916	2.413868	2.455215
#3	2.561891	25.09858	2.437945	1.219505	24.98626	2.575806	2.449158

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.35465	4.865380	4.960017	4.855325	4.940889	4.796362	4.862585
Stddev	.24189	.175923	.016115	.023311	.200171	.030457	.008437
%RSD	.9931881	3.615804	.3249026	.4801134	4.051313	.6349983	.1735074
#1	24.14284	4.778043	4.952601	4.839799	4.820549	4.761579	4.862124
#2	24.30287	4.750216	4.948945	4.844045	4.830159	4.809256	4.854389
#3	24.61823	5.067882	4.978505	4.882130	5.171960	4.818251	4.871244

Sample Name: CCV01 Acquired: 5/14/2025 14:51:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.799599	5.072132	4.796848
Stddev	.015675	.205150	.197412
%RSD	.3265946	4.044644	4.115454
#1	4.801488	4.945108	4.697347
#2	4.783065	4.962481	4.668985
#3	4.814244	5.308805	5.024210

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.662	61491.11	11599.19	1724.260	3824.547
Stddev	8.833	112.53	405.46	6.325	12.574
%RSD	.3450894	.1830026	3.495574	.3668293	.3287699
#1	2565.806	61619.17	11794.49	1731.563	3834.164
#2	2563.640	61446.18	11870.04	1720.688	3829.159
#3	2549.539	61408.00	11133.04	1720.529	3810.318

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB01 Acquired: 5/14/2025 14:56:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001390	.0014616	.0011331	.0040065	-.000346	.0001668	-.003510
Stddev	.003745	.0008604	.0005073	.0015030	.000850	.0026463	.000561
%RSD	269.3074	58.86574	44.76842	37.51265	245.9040	1586.508	15.97937
#1	-.000022	.0017132	.0005638	.0037851	-.000395	.0028839	-.003915
#2	.001478	.0005035	.0012986	.0056079	.000528	.0000189	-.003744
#3	-.005627	.0021681	.0015370	.0026266	-.001170	-.002402	-.002870

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000002	.0001087	.0015944	.0001183	-.000049	-.000026	-.000002
Stddev	.000032	.0001046	.0021841	.0000996	.000146	.000048	.002392
%RSD	1307.056	96.24159	136.9868	84.24892	297.1171	188.1306	122927.7
#1	-.000000	.0000233	.0009810	.0001955	.000119	-.000028	-.002106
#2	-.000036	.0000774	-.000217	.0000058	-.000121	.000024	-.000500
#3	.000029	.0002253	.004020	.0001536	-.000146	-.000073	.002600

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002542	-.006828	-.000071	-.000129	-.283446	.0012298	.0000330
Stddev	.0001336	.018240	.000148	.000292	.004849	.0015966	.0001679
%RSD	52.53487	267.1135	209.2665	226.8634	1.710594	129.8289	509.1663
#1	.0003816	-.009034	-.000189	-.000223	-.283953	.0029611	-.000109
#2	.0001153	.012414	-.000119	.000199	-.278364	-.000184	-.000010
#3	.0002659	-.023865	.000095	-.000362	-.288021	.000913	.000218

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.026749	.0014698	.0005341	-.000560	.0007421	.0051178	.0014974
Stddev	.028290	.0001374	.0000779	.000753	.0007259	.0084209	.0018645
%RSD	105.7631	9.346552	14.58024	134.3170	97.81999	164.5411	124.5145
#1	-.055309	.0013133	.0004470	-.001407	-.000069	-.000980	.0026971
#2	.001264	.0015252	.0005969	-.000308	.000965	.014726	-.000651
#3	-.026202	.0015708	.0005585	.000034	.001331	.001607	.002446

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB01 Acquired: 5/14/2025 14:56:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002446	-.000736	.0001562
Stddev	.003805	.000165	.0000720
%RSD	155.5336	22.34533	46.08100
#1	-.005554	-.000893	.0002362
#2	.001797	-.000565	.0001356
#3	-.003581	-.000752	.0000967

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.156	64625.42	12848.02	1774.395	4130.306
Stddev	6.812	165.18	298.42	6.532	1.801
%RSD	.2569596	.2555939	2.322661	.3681437	.0436018
#1	2657.476	64461.58	13043.75	1781.558	4130.170
#2	2652.051	64791.91	12995.75	1772.861	4132.171
#3	2643.940	64622.78	12504.55	1768.766	4128.577

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2025-01 Acquired: 5/14/2025 15:01:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012680	-.004741	.1040444	.0035704	.0038691	7.006387
Stddev	.0044722	.002257	.0006550	.0009210	.0017188	.025265
%RSD	352.6850	47.59835	.6295349	25.79664	44.42246	.3606055
#1	.0020214	-.007341	.1035226	.0036886	.0050520	7.034582
#2	-.003533	-.003287	.1038312	.0044266	.0018976	6.985800
#3	.005316	-.003596	.1047795	.0025959	.0046577	6.998778

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1433990	.0004696	.0001800	93.54430	.0248329	.0063879
Stddev	.0004067	.0000310	.0001097	.14796	.0005109	.0003746
%RSD	.2835950	6.600373	60.95728	.1581692	2.057180	5.863756
#1	.1430970	.0004568	.0002398	93.71394	.0244537	.0066727
#2	.1438615	.0004470	.0000534	93.47702	.0246313	.0059636
#3	.1432386	.0005049	.0002467	93.44194	.0254138	.0065275

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0953931	19.19463	.3243511	26.42774	.0292367	.0018239
Stddev	.0002361	.09369	.0004613	.01844	.0001968	.0002982
%RSD	.2475544	.4880957	.1422214	.0697934	.6729456	16.34793
#1	.0954407	19.28881	.3238370	26.40801	.0291277	.0016404
#2	.0951367	19.19364	.3244875	26.43065	.0291186	.0021680
#3	.0956018	19.10145	.3247289	26.44455	.0294639	.0016635

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	118.0392	.0200331	.9945321	10.36389	.0864711	.0117539
Stddev	.5346	.0009959	.0053025	.06824	.0010908	.0004871
%RSD	.4528699	4.971057	.5331704	.6584774	1.261441	4.143864
#1	118.5969	.0191310	.9915819	10.44238	.0854962	.0119262
#2	117.9894	.0198665	.9913608	10.33069	.0862678	.0112041
#3	117.5313	.0211017	1.000654	10.31860	.0876492	.0121315

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2025-01 Acquired: 5/14/2025 15:01:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002228	.3138837	F 22.34553	3.535468	8.101144	.0059222
Stddev	.001570	.0023692	.09022	.026129	.048765	.0009105
%RSD	70.44019	.7547854	.4037649	.7390410	.6019478	15.37524
#1	-.001633	.3165628	22.41154	3.511349	8.046782	.0058156
#2	-.004008	.3130234	22.38232	3.531830	8.115614	.0068814
#3	-.001043	.3120650	22.24272	3.563225	8.141037	.0050697

Elem	Sr4077
Units	ppm
Avg	.2907736
Stddev	.0011830
%RSD	.4068590
#1	.2920576
#2	.2897277
#3	.2905356

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2486.367	60865.61	12134.70	1665.537	3730.620
Stddev	14.333	91.78	12.92	9.219	12.643
%RSD	.5764624	.1507853	.1064353	.5535234	.3388928
#1	2470.002	60823.61	12144.69	1668.296	3716.634
#2	2492.410	60802.36	12139.29	1673.061	3733.988
#3	2496.689	60970.87	12120.11	1655.253	3741.238

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2025-02 Acquired: 5/14/2025 15:05:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013552	-.004570	.0935350	.0037324	.0010251	5.927367
Stddev	.0008349	.002360	.0029441	.0030466	.0017290	.025677
%RSD	61.60782	51.64808	3.147638	81.62408	168.6736	.4331975
#1	.0021660	-.002974	.0968363	.0003105	.0022672	5.919027
#2	.0014013	-.007281	.0925872	.0047369	-.000950	5.906896
#3	.0004982	-.003454	.0911815	.0061499	.001758	5.956177

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1279101	.0003575	-.000209	84.68975	.0216646	.0051526
Stddev	.0007335	.0000570	.000045	.17490	.0003151	.0004988
%RSD	.5734235	15.94912	21.65125	.2065148	1.454322	9.680330
#1	.1271355	.0003158	-.000242	84.57742	.0217836	.0046284
#2	.1285940	.0004225	-.000157	84.60057	.0219029	.0056213
#3	.1280009	.0003342	-.000227	84.89126	.0213074	.0052080

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0830548	17.45955	.3093160	25.00173	.0272492	.0009940
Stddev	.0002378	.16948	.0007211	.12267	.0003620	.0001559
%RSD	.2863397	.9706864	.2331279	.4906333	1.328348	15.68197
#1	.0828954	17.38365	.3100555	24.90148	.0268482	.0010086
#2	.0833282	17.65372	.3086148	24.96519	.0275519	.0008314
#3	.0829408	17.34130	.3092779	25.13851	.0273473	.0011421

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.5409	.0163764	.7573423	9.698009	.0787769	.0103224
Stddev	.8509	.0010652	.0037333	.109104	.0005658	.0003010
%RSD	.7000567	6.504323	.4929512	1.125011	.7181798	2.915847
#1	121.5224	.0157797	.7532668	9.679901	.0787211	.0099907
#2	122.4008	.0176062	.7605967	9.815034	.0793685	.0105782
#3	120.6994	.0157434	.7581635	9.599092	.0782411	.0103982

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2025-02 Acquired: 5/14/2025 15:05:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000565	.2836463	F 21.60448	3.157825	7.602881	.0028953
Stddev	.000476	.0073016	.15487	.008516	.007924	.0010511
%RSD	84.34519	2.574208	.7168644	.2696850	.1042240	36.30464
#1	-.000925	.2792965	21.50194	3.148042	7.608943	.0018905
#2	-.000025	.2920761	21.78263	3.163585	7.593915	.0028081
#3	-.000745	.2795664	21.52886	3.161848	7.605786	.0039874

Elem	Sr4077
Units	ppm
Avg	.2693080
Stddev	.0008626
%RSD	.3203197
#1	.2702353
#2	.2691592
#3	.2685294

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2540.599	61404.20	12914.02	1720.679	3771.540
Stddev	6.773	400.30	35.97	18.788	6.721
%RSD	.2665922	.6519061	.2784994	1.091870	.1782026
#1	2542.157	61372.66	12883.98	1709.431	3777.162
#2	2546.458	61020.60	12953.87	1710.238	3773.362
#3	2533.183	61819.33	12904.21	1742.368	3764.096

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2008-01 Acquired: 5/14/2025 15:09:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053121	.0100441	-.000134	-.016813	-.004036	10.89931
Stddev	.0028352	.0024214	.001783	.004020	.001085	.01002
%RSD	53.37249	24.10716	1334.838	23.90975	26.89287	.0919305
#1	.0021782	.0086111	.001875	-.013199	-.003341	10.90674
#2	.0076990	.0128397	-.001532	-.016097	-.003481	10.90327
#3	.0060592	.0086814	-.000744	-.021143	-.005287	10.88792

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2086537	.0048404	-.006148	128.2360	.1003052	.0908694
Stddev	.0004143	.0001217	.000853	.3921	.0004614	.0015178
%RSD	.1985674	2.513908	13.87519	.3057794	.4599438	1.670310
#1	.2087769	.0049807	-.006926	128.6650	.0998329	.0893685
#2	.2089924	.0047636	-.006282	128.1470	.1007548	.0908360
#3	.2081917	.0047769	-.005236	127.8960	.1003280	.0924036

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3114151	236.2857	15.66521	32.10851	.1977615	.0038305
Stddev	.0076973	1.1288	.04813	.11684	.0029794	.0003908
%RSD	2.471706	.4777340	.3072706	.3638943	1.506553	10.20230
#1	.3031250	237.1031	15.72079	32.23115	.1943426	.0034086
#2	.3127848	236.7563	15.63654	32.09589	.1991395	.0039027
#3	.3183356	234.9977	15.63831	31.99850	.1998024	.0041801

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2204.099	.1476455	1.036754	64.37495	.1470124	.0380109
Stddev	6.587	.0010589	.008977	.20770	.0015796	.0006772
%RSD	.2988591	.7171858	.8659072	.3226472	1.074486	1.781617
#1	2198.240	.1486205	1.047120	64.40944	.1464833	.0373438
#2	2202.829	.1465190	1.031598	64.56324	.1487886	.0379912
#3	2211.229	.1477970	1.031543	64.15215	.1457652	.0386978

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2008-01 Acquired: 5/14/2025 15:09:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003358	.2121212	F 28.86993	2.428542	F 1853.595	.0952899
Stddev	.000454	.0025904	.11234	.044083	30.677	.0006323
%RSD	13.51225	1.221211	.3891243	1.815202	1.654999	.6635511
#1	-.003879	.2150689	28.94097	2.378566	1820.157	.0950936
#2	-.003148	.2102073	28.92840	2.445158	1860.189	.0959970
#3	-.003047	.2110873	28.74041	2.461902	1880.439	.0947790

Elem	Sr4077
Units	ppm
Avg	1.070604
Stddev	.002387
%RSD	.2229429
#1	1.072670
#2	1.067991
#3	1.071150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2313.016	54569.75	11764.57	1534.386	3080.204
Stddev	28.499	98.45	15.48	11.777	42.274
%RSD	1.232099	.1804041	.1315691	.7675281	1.372446
#1	2343.345	54545.57	11752.33	1520.987	3124.469
#2	2308.909	54485.65	11781.97	1539.075	3075.892
#3	2286.794	54678.03	11759.41	1543.095	3040.251

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-06 Acquired: 5/14/2025 15:13:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004118	-.003560	.0018249	.0041625	-.000044	.8869124	.1624730
Stddev	.002539	.002309	.0013413	.0045173	.002867	.0016105	.0012503
%RSD	61.65290	64.84269	73.50217	108.5235	6536.848	.1815815	.7695132
#1	-.004393	-.000941	.0021815	.0068200	.002079	.8857921	.1631329
#2	-.006509	-.004443	.0003413	-.001053	-.003305	.8887580	.1610311
#3	-.001453	-.005297	.0029519	.006721	.001094	.8861870	.1632551

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000001	-.000005	1.553509	.0007052	.0003754	.0150748	.2206867
Stddev	.000043	.000079	.017805	.0002707	.0001732	.0002746	.0028325
%RSD	5977.069	1623.014	1.146122	38.38385	46.13522	1.821526	1.283487
#1	-.000050	-.000027	1.537616	.0005770	.0002888	.0153275	.2222420
#2	.000032	.000083	1.550159	.0005224	.0002627	.0151142	.2174173
#3	.000016	-.000071	1.572751	.0010162	.0005749	.0147826	.2224007

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0547141	.3153987	.0009349	.0000077	349.0409	.0009186	.0424402
Stddev	.0001823	.0040213	.0001514	.0000967	3.5182	.0008324	.0003344
%RSD	.3332770	1.274981	16.19732	1258.869	1.007955	90.61463	.7878227
#1	.0548320	.3191469	.0009466	-.000009	346.0905	.0000325	.0420710
#2	.0548062	.3158981	.0007780	-.000079	352.9346	.0016842	.0425269
#3	.0545041	.3111510	.0010802	.000112	348.0977	.0010392	.0427227

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5410807	.0183845	.0000049	.0000696	.0098686	1.005932	.0234683
Stddev	.0209608	.0009116	.0002074	.0006659	.0004785	.011216	.0010629
%RSD	3.873884	4.958406	4219.052	956.1359	4.849032	1.115023	4.529160
#1	.5585271	.0191585	.0000862	.0007181	.0094717	1.004300	.0242870
#2	.5178291	.0186154	-.000231	-.000612	.0104000	1.017875	.0222670
#3	.5468859	.0173797	.000159	.000103	.0097341	.995621	.0238509

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-06 Acquired: 5/14/2025 15:13:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3763520	-.001538	.0132467
Stddev	.0081321	.000662	.0000409
%RSD	2.160772	43.02904	.3089814
#1	.3787532	-.001393	.0132931
#2	.3830133	-.000961	.0132315
#3	.3672897	-.002260	.0132155

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2536.016	61562.23	11938.45	1698.841	3765.527
Stddev	7.129	85.05	25.50	.812	14.607
%RSD	.2811088	.1381546	.2135669	.0477752	.3879205
#1	2538.866	61601.10	11942.23	1698.642	3780.026
#2	2527.903	61464.69	11961.84	1698.147	3750.814
#3	2541.280	61620.90	11911.27	1699.734	3765.742

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-12 Acquired: 5/14/2025 15:18:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046348	-.005211	.0041515	.0021352	-.001326	.7157699	.1326675
Stddev	.0018297	.000441	.0011499	.0034325	.002807	.0284414	.0070287
%RSD	39.47773	8.460401	27.69898	160.7612	211.6852	3.973541	5.297951
#1	.0042222	-.005132	.0031061	-.001682	-.002108	.7481877	.1407702
#2	.0030466	-.005685	.0053832	.003119	-.003660	.7041133	.1290196
#3	.0066356	-.004814	.0039652	.004969	.001789	.6950085	.1282128

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000108	.0001699	9.951925	.0005450	.0089749	.0115124	.5303238
Stddev	.000075	.0000492	.412503	.0002524	.0004092	.0003458	.0011153
%RSD	69.38467	28.93300	4.144956	46.30670	4.559828	3.003789	.2103117
#1	-.000172	.0001518	10.42756	.0002599	.0094438	.0111810	.5291048
#2	-.000128	.0002256	9.73613	.0007399	.0087915	.0114852	.5312930
#3	-.000025	.0001324	9.69208	.0006352	.0086894	.0118710	.5305738

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7530989	1.468680	.0024269	-.000338	294.5298	.0016552	.0643674
Stddev	.0318814	.077155	.0001863	.000313	1.6676	.0020477	.0004688
%RSD	4.233366	5.253377	7.674494	92.68694	.5662007	123.7157	.7282671
#1	.7898994	1.557607	.0022174	-.000075	293.7441	.0004556	.0645301
#2	.7355458	1.428905	.0025736	-.000254	296.4452	.0040196	.0647331
#3	.7338515	1.419529	.0024897	-.000684	293.4002	.0004904	.0638389

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.100234	.0176679	-.000087	-.000538	.0105740	1.074987	.0693558
Stddev	.035700	.0005591	.000239	.000226	.0010684	.012950	.0017635
%RSD	3.244799	3.164689	274.3131	42.05571	10.10383	1.204640	2.542664
#1	1.131361	.0183122	-.000310	-.000391	.0117343	1.060691	.0673453
#2	1.108076	.0173813	.000165	-.000425	.0103569	1.085932	.0706410
#3	1.061264	.0173102	-.000115	-.000799	.0096309	1.078338	.0700810

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-12 Acquired: 5/14/2025 15:18:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2840982	-.003768	.0450452
Stddev	.0014773	.000503	.0021959
%RSD	.5199964	13.34361	4.874916
#1	.2846238	-.003659	.0475792
#2	.2824300	-.004316	.0438572
#3	.2852408	-.003329	.0436993

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2546.316	60776.28	12449.48	1690.702	3807.696
Stddev	5.342	28.61	419.65	8.723	6.094
%RSD	.2097959	.0470783	3.370822	.5159582	.1600539
#1	2552.304	60790.98	11965.22	1693.890	3812.784
#2	2544.606	60794.55	12706.71	1680.834	3809.363
#3	2542.038	60743.30	12676.50	1697.384	3800.942

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-18 Acquired: 5/14/2025 15:22:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001071	-.003567	.0011848	.0058369	-.000632	.8583605	.2394475
Stddev	.003531	.001352	.0015328	.0028760	.002679	.0046155	.0016993
%RSD	329.8298	37.90120	129.3679	49.27273	423.8944	.5377148	.7096850
#1	-.000393	-.002007	.0018187	.0075818	.000119	.8636833	.2382606
#2	.002073	-.004380	-.000563	.0025175	.001591	.8554671	.2386877
#3	-.004892	-.004316	.002299	.0074115	-.003606	.8559311	.2413941

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000022	.0001089	5.861354	.0015887	.0011762	.0147916	.8271590
Stddev	.000032	.0001054	.030456	.0001106	.0004971	.0004868	.0016411
%RSD	146.6659	96.78603	.5196042	6.962722	42.26408	3.290817	.1983982
#1	.000003	.0001951	5.833463	.0014995	.0006432	.0147868	.8254092
#2	-.000010	-.000009	5.893850	.0015541	.0016273	.0143072	.8274040
#3	-.000059	.000140	5.856750	.0017124	.0012581	.0152807	.8286638

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4507177	1.296033	.0018593	-.000079	337.0990	.0014419	.0516817
Stddev	.0013081	.018583	.0002977	.000162	1.3469	.0006850	.0010855
%RSD	.2902177	1.433844	16.01255	203.2763	.3995508	47.50476	2.100327
#1	.4494905	1.288046	.0019165	-.000182	336.2839	.0021947	.0514154
#2	.4505687	1.317274	.0021243	.000107	336.3596	.0008554	.0507542
#3	.4520938	1.282779	.0015371	-.000163	338.6537	.0012756	.0528756

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9278452	.0217961	.0000109	.0005031	.0212305	2.045439	.0276523
Stddev	.0186925	.0005175	.0001028	.0008936	.0009162	.011848	.0025122
%RSD	2.014614	2.374258	945.9684	177.6068	4.315419	.5792503	9.084918
#1	.9413124	.0212476	-.000074	-.000469	.0203340	2.032405	.0304929
#2	.9357192	.0222756	-.000019	.001289	.0211923	2.055557	.0257226
#3	.9065039	.0218651	.000125	.000690	.0221652	2.048355	.0267414

Sample Name: Q2007-18 Acquired: 5/14/2025 15:22:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3836570	-.001624	.0351503
Stddev	.0043996	.001664	.0001130
%RSD	1.146745	102.4760	.3214525
#1	.3883559	-.001436	.0350452
#2	.3829800	-.000062	.0351359
#3	.3796352	-.003375	.0352698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2554.663	63082.34	12966.56	1715.344	3804.301
Stddev	21.124	78.71	25.74	11.708	27.094
%RSD	.8268958	.1247760	.1985035	.6825344	.7121992
#1	2570.296	62999.23	12944.79	1709.972	3820.339
#2	2563.061	63155.76	12959.93	1728.774	3819.546
#3	2530.631	63092.02	12994.97	1707.286	3773.019

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-24 Acquired: 5/14/2025 15:27:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004542	-.002862	.0005298	.0053333	-.000622	.2098703	.2203618
Stddev	.0042896	.001381	.0005207	.0010664	.002486	.0077942	.0003196
%RSD	944.3451	48.26354	98.29232	19.99588	399.7185	3.713831	.1450275
#1	.0040472	-.001703	.0006664	.0041996	-.003288	.2010552	.2205390
#2	.0016105	-.004390	.0009686	.0054838	.001632	.2158496	.2199929
#3	-.004295	-.002492	-.000046	.0063165	-.000210	.2127062	.2205535

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000496	.0001299	4.534972	.0007969	.0000220	.0143266	.0021983
Stddev	.0000280	.0000519	.003220	.0004317	.0000947	.0002747	.0026964
%RSD	56.47333	39.92856	.0710122	54.17642	430.3585	1.917243	122.6615
#1	.0000514	.0001175	4.534160	.0003887	.0001257	.0140104	-.000915
#2	.0000766	.0000853	4.538521	.0007531	-.000060	.0144633	.003722
#3	.0000207	.0001868	4.532235	.0012489	.000000	.0145062	.003788

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1359125	.7695247	.0010624	-.000548	360.9433	-.000595	.0872642
Stddev	.0003938	.0012048	.0004373	.000193	2.9881	.000750	.0009275
%RSD	.2897384	.1565684	41.16200	35.22058	.8278544	126.1632	1.062827
#1	.1356276	.7707062	.0005659	-.000619	358.6156	.000134	.0861932
#2	.1357481	.7695701	.0012308	-.000695	364.3129	-.001365	.0878071
#3	.1363619	.7682978	.0013904	-.000330	359.9016	-.000553	.0877921

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9998459	.0160032	-.000098	-.001418	.0005835	.9109822	.0139719
Stddev	.0067436	.0006524	.000107	.002089	.0001499	.0142938	.0052860
%RSD	.6744607	4.076568	108.3123	147.3320	25.69467	1.569055	37.83277
#1	.9920681	.0152599	-.000129	-.000695	.0004422	.8966932	.0088762
#2	1.004059	.0164808	.000020	.000214	.0005676	.9109727	.0136100
#3	1.003411	.0162689	-.000186	-.003773	.0007408	.9252808	.0194295

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-24 Acquired: 5/14/2025 15:27:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2738448	-.002667	.0279706
Stddev	.0044077	.000274	.0002014
%RSD	1.609556	10.28726	.7200364
#1	.2755996	-.002927	.0278296
#2	.2771049	-.002693	.0278809
#3	.2688300	-.002381	.0282012

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2528.000	60584.70	12009.97	1690.223	3731.681
Stddev	7.519	59.68	12.39	4.992	14.926
%RSD	.2974458	.0985098	.1031991	.2953253	.3999790
#1	2532.174	60624.48	11995.76	1686.921	3744.570
#2	2532.508	60516.07	12018.56	1687.782	3735.146
#3	2519.320	60613.54	12015.58	1695.965	3715.328

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-30 Acquired: 5/14/2025 15:31:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003331	-.003635	.0008820	.0061830	-.002111	.0904903	.3707257
Stddev	.001398	.000845	.0012947	.0015428	.000378	.0048804	.0018480
%RSD	41.96984	23.26086	146.7948	24.95202	17.89327	5.393293	.4984785
#1	-.002258	-.003446	.0016527	.0079358	-.002375	.0917140	.3688214
#2	-.004912	-.002899	-.000613	.0050311	-.002279	.0851145	.3708440
#3	-.002824	-.004558	.001606	.0055820	-.001678	.0946424	.3725116

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000473	.0003260	7.419768	.0012029	.0076649	.0182005	.0428018
Stddev	.0000380	.0001342	.006518	.0001820	.0001140	.0002739	.0041143
%RSD	80.28982	41.17218	.0878471	15.13117	1.486877	1.505094	9.612333
#1	.0000083	.0001961	7.423838	.0012625	.0076232	.0178849	.0430385
#2	.0000842	.0003178	7.412250	.0009985	.0075776	.0183764	.0467927
#3	.0000494	.0004641	7.423217	.0013476	.0077938	.0183403	.0385744

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.868346	.9535975	.0055742	-.000193	319.6552	.0003985	.0774858
Stddev	.001471	.0122527	.0003885	.000261	.8100	.0010014	.0003604
%RSD	.0787574	1.284892	6.969262	135.6878	.2533971	251.2772	.4651752
#1	1.867477	.9665748	.0056448	.000021	320.2019	-.000608	.0778056
#2	1.867516	.9519895	.0051553	-.000115	318.7246	.001395	.0770953
#3	1.870045	.9422282	.0059226	-.000484	320.0391	.000409	.0775566

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7307415	.0338157	-.000239	-.000416	.0001534	.8432436	.0105130
Stddev	.0262458	.0004147	.000158	.000697	.0003356	.0080733	.0034117
%RSD	3.591668	1.226323	66.16001	167.7432	218.7821	.9574109	32.45214
#1	.7435243	.0342448	-.000097	-.000380	.0001159	.8514412	.0096648
#2	.7481470	.0334171	-.000210	.000263	-.000162	.8353006	.0076054
#3	.7005532	.0337851	-.000409	-.001130	.000506	.8429890	.0142687

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-30 Acquired: 5/14/2025 15:31:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2805956	-.002325	.0288140
Stddev	.0078537	.000990	.0000483
%RSD	2.798935	42.56369	.1675687
#1	.2896600	-.001340	.0287729
#2	.2758212	-.003319	.0288672
#3	.2763058	-.002317	.0288020

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2556.637	60713.55	12386.11	1688.367	3801.465
Stddev	11.010	213.29	26.00	10.723	17.502
%RSD	.4306438	.3513130	.2099134	.6351073	.4603913
#1	2567.491	60697.63	12359.54	1687.507	3816.550
#2	2556.943	60508.65	12387.27	1678.100	3805.570
#3	2545.477	60934.35	12411.51	1699.494	3782.276

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36 Acquired: 5/14/2025 15:35:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001010	-.003970	.0007418	.0047187	-.001751	.2089095	.2118982
Stddev	.003083	.001336	.0009108	.0027033	.002074	.0050024	.0003567
%RSD	305.4045	33.65376	122.7828	57.28999	118.4731	2.394521	.1683490
#1	-.002754	-.004130	.0008814	.0036520	.000635	.2037864	.2115324
#2	.002550	-.005219	-.000231	.0077926	-.003127	.2091604	.2122451
#3	-.002825	-.002562	.001575	.0027114	-.002761	.2137817	.2119172

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000980	.0000026	6.101374	.0001260	-.000251	.0118751	.0021378
Stddev	.0000835	.0000304	.015194	.0001815	.000032	.0005913	.0018077
%RSD	85.16263	1174.833	.2490236	144.0086	12.80705	4.979453	84.56021
#1	.0001250	-.000009	6.103871	.0002973	-.000251	.0125557	.0005618
#2	.0001646	-.000020	6.115165	-.000064	-.000283	.0115826	.0017405
#3	.0000044	.000037	6.085087	.000145	-.000218	.0114871	.0041112

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2039572	.9366925	.0014668	-.000166	396.9702	-.001176	.0609960
Stddev	.0005265	.0090294	.0003993	.000365	1.6784	.001476	.0004358
%RSD	.2581325	.9639635	27.22160	220.2026	.4228138	125.5345	.7145235
#1	.2043026	.9398445	.0016293	.000224	397.4238	-.002611	.0607921
#2	.2042178	.9265097	.0010118	-.000499	395.1116	.000338	.0606996
#3	.2033513	.9437235	.0017591	-.000222	398.3753	-.001254	.0614965

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5030064	.0180450	-.000194	.0082578	.0004233	1.152945	.0090710
Stddev	.0175486	.0008203	.000308	.0007520	.0003145	.021866	.0048499
%RSD	3.488732	4.545654	158.7156	9.107064	74.31407	1.896515	53.46666
#1	.4881699	.0185603	.000156	.0086371	.0003485	1.156473	.0111571
#2	.5223771	.0184756	-.000316	.0073916	.0007685	1.129529	.0125289
#3	.4984724	.0170991	-.000422	.0087447	.0001528	1.172832	.0035270

Sample Name: Q2007-36 Acquired: 5/14/2025 15:35:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4739864	-.002590	.0467792
Stddev	.0034122	.000430	.0000775
%RSD	.7198897	16.61636	.1657016
#1	.4723980	-.002712	.0467922
#2	.4716579	-.002947	.0466960
#3	.4779032	-.002112	.0468494

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2510.422	60581.67	12245.37	1681.828	3696.639
Stddev	4.958	432.30	63.31	16.017	4.755
%RSD	.1974941	.7135779	.5170356	.9523845	.1286185
#1	2506.423	60476.82	12193.07	1685.237	3694.702
#2	2515.969	61056.75	12227.30	1695.867	3702.057
#3	2508.874	60211.45	12315.76	1664.381	3693.159

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2001-07 Acquired: 5/14/2025 15:40:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004272	-.004408	-.000153	.0004091	.0013491	.0006188	.0636206
Stddev	.002269	.000637	.001089	.0019843	.0014281	.0036092	.0005254
%RSD	53.10143	14.45120	710.3194	485.0128	105.8581	583.2689	.8257851
#1	-.002553	-.004154	.001061	.0001383	.0010042	.0039991	.0631469
#2	-.003420	-.005133	-.000478	-.001426	.0029180	-.003182	.0635292
#3	-.006843	-.003938	-.001043	.002515	.0001250	.001040	.0641857

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000179	-.000047	230.8283	.0022104	-.000629	.0029861	.0183638
Stddev	.000038	.000074	.3809	.0002666	.000302	.0002047	.0025509
%RSD	21.14376	159.4554	.1649948	12.06104	48.09472	6.854312	13.89073
#1	-.000197	-.000090	230.8360	.0021000	-.000472	.0031843	.0208245
#2	-.000136	-.000088	230.4437	.0020168	-.000977	.0029983	.0185355
#3	-.000204	.000039	231.2053	.0025145	-.000437	.0027755	.0157314

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006605	.5592925	.0024822	-.000204	452.8650	.0118440	.0035249
Stddev	.0004516	.0202297	.0002973	.000463	2.5869	.0013986	.0004581
%RSD	68.36603	3.617016	11.97677	226.6255	.5712233	11.80838	12.99573
#1	.0008710	.5589802	.0028253	.000294	450.1944	.0109734	.0036525
#2	.0009684	.5796765	.0023212	-.000621	453.0416	.0111015	.0030166
#3	.0001421	.5392207	.0023002	-.000285	455.3591	.0134573	.0039057

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.841625	.0277093	.0071619	-.004144	-.004827	3.978801	.0101062
Stddev	.028933	.0007318	.0004087	.001199	.000617	.015033	.0022796
%RSD	.4952882	2.640889	5.706295	28.94077	12.78909	.3778354	22.55679
#1	5.828905	.0278238	.0068387	-.003620	-.005369	3.961625	.0127177
#2	5.821232	.0283771	.0076213	-.005516	-.004155	3.989562	.0085148
#3	5.874739	.0269270	.0070258	-.003296	-.004956	3.985217	.0090859

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2001-07 Acquired: 5/14/2025 15:40:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	12.04548	-.026281	1.044750
Stddev	.06742	.000695	.003552
%RSD	.5597520	2.644979	.3399933
#1	12.00219	-.025633	1.047861
#2	12.01109	-.027015	1.040879
#3	12.12317	-.026194	1.045510

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2386.489	58124.99	11633.07	1588.360	3489.179
Stddev	6.272	122.54	28.74	3.998	8.788
%RSD	.2628184	.2108214	.2470808	.2517342	.2518678
#1	2390.460	58139.06	11600.13	1583.766	3496.447
#2	2389.748	58239.88	11653.03	1591.053	3491.677
#3	2379.258	57996.02	11646.06	1590.261	3479.412

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV02 Acquired: 5/14/2025 15:53:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.982749	5.077147	4.875337	5.014365	5.021516	9.705807	9.413045
Stddev	.020054	.039102	.021468	.013962	.017286	.021171	.148078
%RSD	.4024667	.7701534	.4403326	.2784355	.3442327	.2181237	1.573112
#1	4.968838	5.078932	4.862163	5.011836	5.021319	9.705072	9.493920
#2	4.973674	5.037183	4.863740	5.001841	5.004329	9.685013	9.503073
#3	5.005737	5.115325	4.900109	5.029418	5.038899	9.727335	9.242141

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2286895	2.429715	23.70061	.9769876	2.442445	1.251383	5.006722
Stddev	.0011798	.010211	.05880	.0025762	.010106	.003014	.009773
%RSD	.5158925	.4202677	.2480907	.2636838	.4137659	.2408553	.1951999
#1	.2287914	2.426180	23.73414	.9799436	2.438368	1.248840	5.017552
#2	.2298150	2.421741	23.73498	.9757984	2.435013	1.250596	5.004054
#3	.2274620	2.441224	23.63272	.9752210	2.453952	1.254712	4.998559

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.361159	23.17434	2.440287	1.208814	26.15145	2.407079	2.446073
Stddev	.009054	.03586	.010595	.000964	.14835	.007406	.006303
%RSD	.3834428	.1547548	.4341888	.0797812	.5672727	.3076824	.2576682
#1	2.364930	23.21397	2.437248	1.209911	26.18860	2.406742	2.438801
#2	2.367718	23.14411	2.431543	1.208433	25.98805	2.414647	2.449967
#3	2.350829	23.16494	2.452070	1.208098	26.27769	2.399846	2.449451

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.34693	4.503048	4.999092	4.889468	4.811145	5.014772	4.875561
Stddev	.16248	.021640	.016122	.036219	.005619	.011182	.039175
%RSD	.6410052	.4805557	.3224983	.7407529	.1167946	.2229838	.8034869
#1	25.40607	4.503436	4.998689	4.878646	4.809629	5.018963	4.858441
#2	25.16316	4.524491	4.983175	4.859893	4.806439	5.002100	4.847861
#3	25.47155	4.481217	5.015412	4.929864	4.817367	5.023254	4.920382

Sample Name: CCV02 Acquired: 5/14/2025 15:53:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.927841	4.887363	4.709544
Stddev	.003830	.008797	.057016
%RSD	.0777146	.1800013	1.210652
#1	4.923568	4.882616	4.756740
#2	4.930963	4.881959	4.725699
#3	4.928993	4.897514	4.646194

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2524.021	61829.84	12533.07	1697.630	3786.586
Stddev	5.880	168.97	50.31	3.469	11.960
%RSD	.2329708	.2732815	.4014519	.2043520	.3158476
#1	2526.878	61647.70	12521.39	1701.134	3789.589
#2	2527.926	61981.49	12489.62	1694.197	3796.759
#3	2517.258	61860.32	12588.20	1697.560	3773.412

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB02 Acquired: 5/14/2025 15:57:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013484	-.000249	.0005988	.0037890	-.001419	.0075317
Stddev	.0030218	.000714	.0009889	.0043807	.001667	.0034261
%RSD	224.1023	286.8272	165.1354	115.6157	117.4919	45.48937
#1	.0010257	.000162	-.000407	.0006207	-.003032	.0045000
#2	-.001499	-.001074	.001570	.0019583	-.001522	.0068465
#3	.004519	.000165	.000634	.0087881	.000298	.0112487

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001929	.0000410	.0001201	.0003584	.0001167	-.000001
Stddev	.000320	.0000362	.0000714	.0111054	.0001532	.000111
%RSD	16.59426	88.28365	59.44101	3098.628	131.2854	15198.83
#1	-.002240	.0000827	.0001200	-.005358	.0000531	-.000057
#2	-.001601	.0000204	.0001916	-.006724	.0000055	.000127
#3	-.001948	.0000197	.0000488	.013158	.0002915	-.000072

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000012	-.000262	.0002574	-.005824	.0001485	-.000171
Stddev	.000214	.004274	.0003884	.004987	.0004257	.000179
%RSD	1822.442	1632.178	150.8825	85.62961	286.6010	104.9100
#1	-.000092	-.000987	.0004597	-.001287	-.000228	-.000192
#2	-.000174	-.004127	.0005029	-.005022	.000610	.000018
#3	.000231	.004328	-.000190	-.011163	.000063	-.000339

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.064066	.0008534	.0043514	.0136700	.0060801	.0004924
Stddev	.038737	.0008289	.0003717	.0175214	.0004501	.0001715
%RSD	60.46345	97.12667	8.541546	128.1739	7.403534	34.83755
#1	-.088305	.0008127	.0039562	.0311400	.0060881	.0006904
#2	-.084503	.0017019	.0044042	-.003902	.0056260	.0003971
#3	-.019391	.0000456	.0046939	.013772	.0065262	.0003896

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB02 Acquired: 5/14/2025 15:57:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000371	.0004530	.0046573	.0019382	F .0101735	.0004376
Stddev	.0006243	.0002820	.0041254	.0023506	.0047418	.0003771
%RSD	1684.573	62.26173	88.57783	121.2771	46.60882	86.17873
#1	.0006625	.0007342	.0025201	.0012771	.0047028	.0007436
#2	-.000586	.0004546	.0020391	-.000011	.0131035	.0005531
#3	.000035	.0001701	.0094128	.004549	.0127142	.0000163

Elem	Sr4077
Units	ppm
Avg	.0001298
Stddev	.0000794
%RSD	61.18463
#1	.0002057
#2	.0001363
#3	.0000473

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2623.621	60817.93	12767.36	1705.583	4029.514
Stddev	12.041	3491.94	35.08	88.269	11.651
%RSD	.4589569	5.741622	.2747790	5.175313	.2891435
#1	2630.044	63084.89	12738.97	1763.481	4035.059
#2	2631.089	62572.24	12756.52	1749.280	4037.358
#3	2609.730	56796.67	12806.58	1603.989	4016.126

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36DUP Acquired: 5/14/2025 16:01:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001583	-.003739	.0001975	.0065311	.0000618	.1936717	.1890431
Stddev	.001188	.001926	.0013085	.0032141	.0011720	.0080039	.0015092
%RSD	75.05476	51.52394	662.3978	49.21303	1896.363	4.132735	.7983602
#1	-.000260	-.002658	-.000210	.0058270	-.000903	.2016666	.1902828
#2	-.002560	-.005963	-.000859	.0100389	-.000277	.1936897	.1873625
#3	-.001929	-.002596	.001661	.0037274	.001366	.1856587	.1894839

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000110	.0001272	5.532639	.0002450	.0000643	.0106727	-.000272
Stddev	.0000190	.0000177	.002474	.0002653	.0001078	.0002888	.005628
%RSD	171.7053	13.90685	.0447222	108.2884	167.6113	2.705874	2067.495
#1	.0000301	.0001068	5.530404	.0002897	.0000594	.0103401	.005818
#2	-.000008	.0001366	5.535298	.0004851	.0001744	.0108599	-.001354
#3	.000011	.0001380	5.532217	-.000040	-.000041	.0108181	-.005281

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1914992	.8583209	.0011002	-.000078	354.3179	-.001396	.0409108
Stddev	.0009247	.0025625	.0000311	.000180	3.7315	.000703	.0005418
%RSD	.4828815	.2985528	2.830213	229.6247	1.053143	50.33197	1.324440
#1	.1906067	.8612741	.0010890	-.000100	358.5568	-.001551	.0410577
#2	.1924530	.8566854	.0010762	.000111	352.8673	-.000629	.0403107
#3	.1914377	.8570031	.0011354	-.000246	351.5296	-.002009	.0413641

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4616955	.0231282	.0000237	.0001496	.0014470	1.022688	.0143950
Stddev	.0312101	.0010605	.0005181	.0005887	.0007019	.002383	.0002552
%RSD	6.759896	4.585114	2183.882	393.5238	48.51000	.2329837	1.773035
#1	.4272071	.0219392	-.000509	.0006815	.0010882	1.025350	.0145309
#2	.4879944	.0234694	.000054	-.000483	.0009970	1.021958	.0145536
#3	.4698850	.0239761	.000526	.000250	.0022558	1.020755	.0141006

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36DUP Acquired: 5/14/2025 16:01:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5740393	-.001539	.0422162
Stddev	.0060230	.000713	.0001819
%RSD	1.049229	46.36179	.4308132
#1	.5762625	-.000873	.0420908
#2	.5672207	-.002291	.0424248
#3	.5786346	-.001451	.0421331

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2515.961	60399.79	11940.86	1673.049	3739.048
Stddev	3.704	345.94	33.82	3.308	4.021
%RSD	.1472385	.5727477	.2831997	.1977022	.1075353
#1	2518.158	60127.89	11944.63	1669.268	3734.692
#2	2518.042	60282.30	11905.31	1674.477	3742.619
#3	2511.684	60789.17	11972.63	1675.404	3739.832

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36LX5 Acquired: 5/14/2025 16:06:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001255	-.001041	.0378973	.0045448	.0006366	.0701026	.0414616
Stddev	.004398	.002568	.0008188	.0013553	.0017160	.0047435	.0007889
%RSD	350.5482	246.8106	2.160447	29.82109	269.5455	6.766565	1.902769
#1	.000807	-.000798	.0386772	.0030080	-.001247	.0690380	.0423256
#2	.001734	-.003721	.0379702	.0050570	.002112	.0752880	.0407796
#3	-.006305	.001398	.0370446	.0055694	.001045	.0659818	.0412796

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000520	.0000999	1.281672	.0003668	-.000043	.0032064	.0056487
Stddev	.0000080	.0000274	.013408	.0003925	.000170	.0002079	.0041350
%RSD	15.36355	27.38968	1.046154	107.0053	397.8089	6.482543	73.20147
#1	.0000523	.0000785	1.272432	.0007319	.000075	.0032568	.0021763
#2	.0000439	.0000905	1.297050	-.000048	.000034	.0033845	.0102230
#3	.0000599	.0001307	1.275532	.000417	-.000238	.0029780	.0045469

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0416606	.2053165	.0093189	.0005988	77.12563	.0009339	.4195118
Stddev	.0000501	.0087708	.0002737	.0002543	.14837	.0013020	.0014529
%RSD	.1203183	4.271861	2.937220	42.46362	.1923796	139.4204	.3463248
#1	.0416831	.1951909	.0092847	.0004837	77.17155	.0021182	.4193475
#2	.0416955	.2105535	.0090638	.0008903	76.95973	-.000460	.4210399
#3	.0416031	.2102053	.0096080	.0004225	77.24561	.001144	.4181481

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1664282	.0058972	.0000203	.0046448	.0009498	.2259242	.0208266
Stddev	.0250940	.0003767	.0001571	.0006473	.0005212	.0158781	.0021252
%RSD	15.07798	6.386985	772.3269	13.93571	54.86821	7.028041	10.20445
#1	.1395883	.0057910	-.000145	.0039044	.0006544	.2402987	.0219515
#2	.1703916	.0055851	.000168	.0049272	.0015516	.2285930	.0221529
#3	.1893047	.0063156	.000037	.0051030	.0006435	.2088809	.0183753

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36LX5 Acquired: 5/14/2025 16:06:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1118548	-.000021	.0096714
Stddev	.0058275	.001095	.0000486
%RSD	5.209856	5140.468	.5026312
#1	.1105399	-.001092	.0096996
#2	.1182274	-.000069	.0096153
#3	.1067971	.001097	.0096994

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.671	63392.13	12403.78	1747.739	3897.387
Stddev	8.572	106.60	90.18	12.066	16.331
%RSD	.3321521	.1681550	.7270656	.6903566	.4190176
#1	2574.712	63296.87	12372.23	1745.654	3882.831
#2	2590.495	63372.26	12333.61	1736.852	3915.047
#3	2576.806	63507.27	12505.50	1760.712	3894.283

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36MS Acquired: 5/14/2025 16:10:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7856342	1.878206	.9168782	1.919313	.7684169	2.033307	.3805556
Stddev	.0068364	.021207	.0033147	.007040	.0047251	.009680	.0004071
%RSD	.8701741	1.129104	.3615208	.3668131	.6149108	.4760617	.1069672
#1	.7796170	1.901524	.9172550	1.922271	.7684937	2.032144	.3804968
#2	.7842177	1.873024	.9133912	1.911276	.7636538	2.043515	.3809889
#3	.7930678	1.860071	.9199884	1.924391	.7731031	2.024261	.3801812

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1644078	.1920836	6.886436	.3765378	.1888184	.2886792	2.952128
Stddev	.0003656	.0003710	.021377	.0022084	.0003452	.0006785	.010916
%RSD	.2223952	.1931377	.3104201	.5864996	.1827957	.2350469	.3697822
#1	.1647878	.1921650	6.891804	.3789445	.1890994	.2882891	2.953113
#2	.1643772	.1916786	6.904617	.3760645	.1889226	.2882857	2.962517
#3	.1640584	.1924071	6.862886	.3746045	.1884331	.2894626	2.940752

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9926442	2.582300	.4712013	.0689244	399.9384	.2762000	.2344202
Stddev	.0017929	.009388	.0015560	.0003679	.8223	.0024811	.0000462
%RSD	.1806187	.3635490	.3302188	.5337545	.2056158	.8982824	.0197239
#1	.9933155	2.580260	.4706742	.0691104	400.4696	.2751440	.2344167
#2	.9940046	2.592540	.4699774	.0691622	398.9912	.2790343	.2343759
#3	.9906125	2.574099	.4729524	.0685007	400.3544	.2744216	.2344681

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.23710	.2581022	.3934912	.6640885	.1853839	1.999724	5.992269
Stddev	.02766	.0008211	.0011483	.0020400	.0011126	.006763	.022864
%RSD	.2461323	.3181106	.2918129	.3071898	.6001822	.3382070	.3815546
#1	11.21568	.2586104	.3933839	.6617454	.1852392	2.002679	6.011382
#2	11.26832	.2585414	.3924003	.6654699	.1865618	2.004506	5.966940
#3	11.22729	.2571550	.3946893	.6650502	.1843507	1.991986	5.998484

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36MS Acquired: 5/14/2025 16:10:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6238491	.1971580	.2225053
Stddev	.0028705	.0003050	.0006427
%RSD	.4601231	.1546705	.2888348
#1	.6206368	.1975005	.2228439
#2	.6261627	.1969159	.2229078
#3	.6247478	.1970577	.2217641

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.367	60720.09	12814.74	1672.454	3640.593
Stddev	9.409	171.64	47.18	3.751	13.370
%RSD	.3808854	.2826791	.3681782	.2242834	.3672376
#1	2478.217	60542.37	12762.27	1668.383	3651.750
#2	2472.948	60732.97	12828.30	1675.770	3644.254
#3	2459.937	60884.93	12853.66	1673.209	3625.774

Sample Name: Q2007-36MSD Acquired: 5/14/2025 16:14:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7814409	1.868154	.9121291	1.919274	.7737392	2.008286	.3730040
Stddev	.0132987	.033827	.0140298	.019669	.0108071	.009558	.0008617
%RSD	1.701821	1.810734	1.538139	1.024820	1.396735	.4759448	.2310213
#1	.7712642	1.836289	.9026125	1.899000	.7629748	2.019168	.3738213
#2	.7964882	1.903651	.9282413	1.938277	.7845885	2.001251	.3730869
#3	.7765703	1.864524	.9055333	1.920544	.7736543	2.004438	.3721039

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1707911	.1904538	6.907682	.3703861	.1873632	.2881228	2.737306
Stddev	.0009204	.0022245	.025574	.0007823	.0025953	.0026323	.008260
%RSD	.5388809	1.168007	.3702214	.2112043	1.385165	.9135953	.3017704
#1	.1698192	.1884454	6.922961	.3697175	.1852070	.2855965	2.745606
#2	.1716494	.1928448	6.878158	.3701944	.1902437	.2908496	2.729086
#3	.1709046	.1900713	6.921927	.3712464	.1866391	.2879221	2.737227

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3791099	2.612196	.4670673	.0684741	389.9604	.2699175	.2302946
Stddev	.0014923	.016116	.0059513	.0004915	3.5028	.0015189	.0012376
%RSD	.3936338	.6169574	1.274181	.7177791	.8982474	.5627245	.5373804
#1	.3788008	2.595085	.4621996	.0680999	385.9205	.2685129	.2302021
#2	.3777963	2.614417	.4737020	.0690307	391.8093	.2697102	.2315759
#3	.3807326	2.627087	.4653003	.0682917	392.1513	.2715293	.2291059

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.33577	.2669913	.3993743	.6695285	.1823632	1.916347	5.961716
Stddev	.02548	.0013530	.0050441	.0083604	.0010862	.025416	.090225
%RSD	.2465588	.5067412	1.263000	1.248702	.5956104	1.326268	1.513410
#1	10.35299	.2660365	.3952574	.6634716	.1836120	1.913465	5.888567
#2	10.30650	.2685396	.4050009	.6790671	.1816386	1.892495	6.062536
#3	10.34782	.2663979	.3978648	.6660468	.1818388	1.943082	5.934044

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36MSD Acquired: 5/14/2025 16:14:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4883858	.1944196	.2167178
Stddev	.0052849	.0024921	.0008091
%RSD	1.082110	1.281792	.3733310
#1	.4825925	.1947748	.2171204
#2	.4896218	.1917690	.2157864
#3	.4929432	.1967150	.2172465

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.342	61166.90	12217.20	1685.289	3638.326
Stddev	28.187	56.96	22.72	8.033	44.258
%RSD	1.141021	.0931203	.1860077	.4766252	1.216450
#1	2489.454	61192.07	12232.27	1679.162	3670.989
#2	2437.970	61101.69	12191.06	1682.321	3587.956
#3	2483.601	61206.93	12228.26	1694.383	3656.033

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-36A Acquired: 5/14/2025 16:18:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8301610	2.021517	1.107593	2.049697	.8324676	2.204119	.3898205
Stddev	.0030133	.015060	.001612	.001929	.0034997	.010180	.0011077
%RSD	.3629794	.7449830	.1455708	.0940980	.4203972	.4618603	.2841503
#1	.8290882	2.037179	1.109237	2.048566	.8335871	2.196879	.3902446
#2	.8278308	2.007141	1.107528	2.048601	.8285451	2.199719	.3906534
#3	.8335639	2.020231	1.106014	2.051924	.8352705	2.215759	.3885634

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1820522	.2065411	6.765279	.4131410	.2033622	.3083040	3.209607
Stddev	.0004887	.0005438	.008031	.0008162	.0007779	.0004403	.009353
%RSD	.2684514	.2632850	.1187020	.1975616	.3825410	.1428216	.2913918
#1	.1819535	.2060537	6.756271	.4133964	.2026742	.3078295	3.198897
#2	.1825827	.2071276	6.767876	.4137990	.2042064	.3083831	3.213758
#3	.1816203	.2064419	6.771689	.4122276	.2032060	.3086994	3.216165

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3907762	2.786002	.5367075	.0770818	382.8718	.3017614	1.612950
Stddev	.0009666	.010622	.0007510	.0001996	3.5928	.0014555	.000933
%RSD	.2473519	.3812559	.1399286	.2589946	.9383892	.4823357	.0578357
#1	.3918259	2.774668	.5361493	.0770328	381.7382	.3001692	1.613332
#2	.3899229	2.795729	.5364120	.0773014	386.8947	.3020917	1.613632
#3	.3905797	2.787608	.5375614	.0769112	379.9825	.3030234	1.611887

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.99524	.2854331	.4342617	.7209797	.2028453	2.048831	6.381855
Stddev	.09069	.0009504	.0004455	.0023940	.0005865	.018102	.021499
%RSD	.7560124	.3329756	.1025894	.3320426	.2891353	.8835405	.3368710
#1	12.08936	.2863088	.4347565	.7182548	.2023062	2.065292	6.406666
#2	11.90843	.2855681	.4338924	.7227450	.2034698	2.029444	6.370170
#3	11.98794	.2844224	.4341362	.7219393	.2027599	2.051755	6.368729

Sample Name: Q2007-36A Acquired: 5/14/2025 16:18:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5093138	.2154203	.2366588
Stddev	.0091532	.0013522	.0005310
%RSD	1.797155	.6277023	.2243660
#1	.5101806	.2163189	.2369871
#2	.4997581	.2138652	.2360462
#3	.5180027	.2160768	.2369430

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2540.565	60500.61	12658.78	1684.653	3754.496
Stddev	6.173	47.33	43.23	.953	1.059
%RSD	.2429777	.0782291	.3415048	.0565485	.0281948
#1	2535.144	60485.20	12699.30	1683.825	3753.329
#2	2547.284	60462.90	12613.27	1684.439	3754.765
#3	2539.267	60553.72	12663.77	1685.694	3755.394

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-01 Acquired: 5/14/2025 16:23:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0174872	.0071621	.0405230	-.010880	-.003829	73.91430	.0944115
Stddev	.0020488	.0008323	.0019438	.005341	.000610	.05112	.0008183
%RSD	11.71599	11.62083	4.796783	49.09295	15.92134	.0691594	.8667721
#1	.0160926	.0078553	.0385848	-.014378	-.003154	73.88125	.0939015
#2	.0165297	.0062390	.0424723	-.004732	-.004340	73.88846	.0939777
#3	.0198395	.0073921	.0405117	-.013530	-.003993	73.97318	.0953555

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047975	-.007495	4.199370	.1109790	.0571364	.1466651	169.5292
Stddev	.0000984	.000138	.016720	.0007803	.0002064	.0007317	1.0491
%RSD	2.050358	1.840295	.3981668	.7030896	.3611545	.4988553	.6188069
#1	.0046869	-.007510	4.188155	.1118513	.0568987	.1458356	170.3130
#2	.0048305	-.007350	4.191368	.1103475	.0572414	.1472187	168.3374
#3	.0048752	-.007625	4.218588	.1107383	.0572691	.1469410	169.9371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.592565	21.70563	.1145509	.0030512	.4556512	.1771607	.3019111
Stddev	.009367	.11502	.0005629	.0004477	.0064612	.0008433	.0011313
%RSD	.5881999	.5299048	.4913716	14.67307	1.418006	.4760075	.3747085
#1	1.587452	21.63142	.1149354	.0035372	.4629353	.1775912	.3010851
#2	1.586867	21.64733	.1139048	.0029611	.4506114	.1777017	.3032006
#3	1.603376	21.83812	.1148125	.0026554	.4534071	.1761890	.3014478

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.159884	.0498605	-.000089	.0005237	2.426515	5.140561	3.321785
Stddev	.021152	.0022067	.000272	.0008939	.008865	.015971	.008892
%RSD	.5084859	4.425846	304.6519	170.6859	.3653290	.3106951	.2676839
#1	4.138137	.0520592	.000210	.0012316	2.429309	5.153073	3.321862
#2	4.180387	.0476458	-.000157	.0008203	2.416590	5.122571	3.312855
#3	4.161128	.0498763	-.000321	-.000481	2.433647	5.146039	3.330639

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-01 Acquired: 5/14/2025 16:23:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1045081	.1624173	-.138057
Stddev	.0103807	.0021368	.001060
%RSD	9.932889	1.315617	.7675165
#1	.0951157	.1648593	-.138775
#2	.1027550	.1615016	-.136840
#3	.1156538	.1608909	-.138557

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.114	65516.89	13518.09	1844.340	3955.773
Stddev	4.865	178.54	101.32	6.469	9.925
%RSD	.1756939	.2725138	.7495466	.3507595	.2508901
#1	2769.220	65532.35	13628.51	1850.874	3952.263
#2	2773.925	65687.20	13496.37	1837.938	3966.976
#3	2764.196	65331.12	13429.38	1844.206	3948.080

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-07 Acquired: 5/14/2025 16:27:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1022015	.0158351	.4979990	-.008999	-.005051	171.4940
Stddev	.0078738	.0039603	.0026343	.000805	.005519	.3202
%RSD	7.704225	25.00992	.5289737	8.948760	109.2558	.1867065
#1	.0931177	.0203739	.4992661	-.008530	-.008667	171.1615
#2	.1064112	.0130822	.4949706	-.008537	.001301	171.8002
#3	.1070757	.0140492	.4997604	-.009928	-.007788	171.5202

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6545235	.0083356	-.003790	23.57571	.2059792	.1046088
Stddev	.0022834	.0001031	.000282	.02751	.0011868	.0003791
%RSD	.3488707	1.237370	7.429905	.1166697	.5761523	.3623524
#1	.6524543	.0082600	-.003555	23.54531	.2051133	.1049206
#2	.6569734	.0084531	-.004102	23.59887	.2073320	.1041869
#3	.6541429	.0082938	-.003712	23.58296	.2054925	.1047188

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2805145	246.9820	2.600496	30.97541	.1913384	.0058316
Stddev	.0003762	.6198	.005054	.06572	.0005650	.0002304
%RSD	.1340993	.2509656	.1943580	.2121597	.2952616	3.951069
#1	.2802648	246.9640	2.594660	31.05130	.1916016	.0060780
#2	.2803315	247.6106	2.603487	30.93787	.1906899	.0056216
#3	.2809471	246.3713	2.603341	30.93707	.1917238	.0057952

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.865414	.2789085	.8711081	6.555456	.0846907	.0051598
Stddev	.014076	.0014019	.0008719	.029952	.0019108	.0004422
%RSD	.2893059	.5026315	.1000918	.4568960	2.256174	8.569995
#1	4.851313	.2789879	.8704042	6.540081	.0829844	.0056072
#2	4.879464	.2802691	.8720834	6.589973	.0867552	.0051492
#3	4.865466	.2774686	.8708366	6.536315	.0843325	.0047230

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-07 Acquired: 5/14/2025 16:27:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0175557	1.384894	4.150311	F 22.85393	4.015475	.2650309
Stddev	.0022711	.000607	.005324	.10220	.007089	.0015091
%RSD	12.93677	.0438350	.1282784	.4471712	.1765540	.5694145
#1	.0150725	1.384374	4.150277	22.92567	4.008098	.2632904
#2	.0195276	1.384747	4.155651	22.89921	4.022236	.2659756
#3	.0180671	1.385561	4.145004	22.73692	4.016092	.2658266

Elem	Sr4077
Units	ppm
Avg	-.118982
Stddev	.000570
%RSD	.4792974
#1	-.119290
#2	-.119332
#3	-.118324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3095.908	72302.04	15437.65	2037.345	3926.958
Stddev	5.581	153.56	13.81	6.452	7.986
%RSD	.1802566	.2123935	.0894426	.3166625	.2033755
#1	3089.917	72215.01	15426.46	2030.472	3917.739
#2	3100.958	72211.77	15453.08	2038.295	3931.780
#3	3096.850	72479.36	15433.41	2043.270	3931.354

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-13 Acquired: 5/14/2025 16:31:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0588638	.0124553	.1461322	-.020452	-.004437	115.0903	.3232722
Stddev	.0020801	.0011132	.0003167	.001131	.001113	.2744	.0017511
%RSD	3.533740	8.937623	.2167110	5.530388	25.09042	.2383870	.5416703
#1	.0609153	.0123643	.1461965	-.020573	-.003278	114.9466	.3252591
#2	.0589199	.0136112	.1457884	-.021518	-.005498	114.9176	.3219539
#3	.0567562	.0113904	.1464119	-.019266	-.004536	115.4067	.3226038

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085818	-.006080	11.43875	.1806313	.0921161	.1990766	251.7826
Stddev	.0001551	.000192	.06379	.0004961	.0001668	.0007112	1.0411
%RSD	1.807503	3.158519	.5576895	.2746232	.1810872	.3572580	.4135067
#1	.0084282	-.005867	11.43206	.1801190	.0922451	.1998783	250.8311
#2	.0085788	-.006241	11.37856	.1806655	.0921755	.1985214	252.8947
#3	.0087384	-.006131	11.50562	.1811093	.0919278	.1988301	251.6221

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.349749	29.98033	.1654215	.0023414	1.474968	.2869103	.4012491
Stddev	.012161	.22765	.0003706	.0003445	.019869	.0004828	.0018943
%RSD	.3630531	.7593450	.2240430	14.71226	1.347109	.1682658	.4721105
#1	3.348217	29.94600	.1650456	.0021552	1.466476	.2874509	.3990738
#2	3.338427	29.77179	.1654321	.0027389	1.497672	.2865220	.4025359
#3	3.362604	30.22320	.1657866	.0021301	1.460755	.2867581	.4021374

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.267866	.0514300	.0016827	.0055321	2.603539	8.532443	5.460276
Stddev	.052473	.0016478	.0007297	.0014705	.007777	.052490	.032859
%RSD	.9960889	3.203962	43.36324	26.58198	.2987031	.6151814	.6017900
#1	5.219908	.0504770	.0009497	.0069658	2.602686	8.503323	5.444932
#2	5.323914	.0533327	.0016894	.0040273	2.596223	8.593038	5.498000
#3	5.259776	.0504802	.0024090	.0056031	2.611706	8.500969	5.437895

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-13 Acquired: 5/14/2025 16:31:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4765283	.2368121	-.185972
Stddev	.0075975	.0015230	.001305
%RSD	1.594340	.6431272	.7018080
#1	.4682265	.2363960	-.184655
#2	.4831352	.2384999	-.187265
#3	.4782230	.2355404	-.185996

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.861	66797.79	13044.68	1874.523	3792.609
Stddev	6.194	142.71	77.22	7.440	7.906
%RSD	.2241026	.2136431	.5919978	.3968932	.2084640
#1	2762.411	66915.85	13029.95	1880.980	3790.826
#2	2770.651	66639.20	13128.20	1866.387	3801.255
#3	2758.521	66838.32	12975.88	1876.203	3785.747

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-19 Acquired: 5/14/2025 16:35:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0307465	.0062067	.1012590	-.014934	-.004392	141.5494	.4032084
Stddev	.0034077	.0006425	.0025655	.003934	.002477	.3460	.0014477
%RSD	11.08322	10.35171	2.533610	26.34623	56.39482	.2444577	.3590324
#1	.0294017	.0055094	.1000108	-.011233	-.001575	141.9486	.4047734
#2	.0346213	.0067748	.1042098	-.014501	-.005370	141.3356	.4019172
#3	.0282163	.0063358	.0995565	-.019066	-.006230	141.3640	.4029347

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072819	-.003321	7.545834	.1664499	.0876593	.1478753	187.2170
Stddev	.0000937	.000111	.025028	.0015540	.0006055	.0003216	.9529
%RSD	1.286258	3.350612	.3316815	.9335922	.6907683	.2174797	.5090002
#1	.0072590	-.003195	7.568274	.1656078	.0869603	.1480931	186.9892
#2	.0073848	-.003404	7.550386	.1654987	.0880216	.1475059	186.3987
#3	.0072017	-.003365	7.518842	.1682431	.0879961	.1480269	188.2632

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.895347	28.52880	.1653147	-.000079	2.285245	.2715196	.3562377
Stddev	.010811	.13608	.0000702	.000127	.021747	.0014204	.0035887
%RSD	.2208468	.4769874	.0424513	161.9003	.9516358	.5231289	1.007400
#1	4.906071	28.44522	.1652337	.000042	2.278256	.2703491	.3538108
#2	4.895520	28.68582	.1653572	-.000211	2.267852	.2711099	.3545423
#3	4.884451	28.45536	.1653533	-.000067	2.309628	.2730998	.3603601

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.397244	.0305482	.0008591	.0010156	2.737231	8.450291	3.486444
Stddev	.047454	.0012557	.0000601	.0014479	.009444	.062647	.009845
%RSD	.8792267	4.110420	6.989936	142.5753	.3450345	.7413600	.2823763
#1	5.397291	.0313841	.0008152	.0005420	2.747289	8.463208	3.483102
#2	5.349766	.0291042	.0009276	.0026410	2.735855	8.382192	3.478705
#3	5.444674	.0311562	.0008347	-.000136	2.728551	8.505472	3.497524

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-19 Acquired: 5/14/2025 16:35:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2331755	.2202882	-.137914
Stddev	.0015337	.0002512	.001140
%RSD	.6577331	.1140447	.8265142
#1	.2319115	.2205427	-.137490
#2	.2327333	.2200404	-.137048
#3	.2348817	.2202817	-.139206

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2817.310	68812.22	12740.16	1901.569	3868.005
Stddev	4.176	447.76	41.16	11.323	3.469
%RSD	.1482315	.6507043	.3230339	.5954630	.0896718
#1	2820.538	69142.51	12764.20	1909.619	3864.010
#2	2818.798	68991.56	12692.64	1906.466	3870.249
#3	2812.594	68302.59	12763.64	1888.621	3869.756

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2001-11 Acquired: 5/14/2025 16:39:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002380	-.008073	.0006767	.0023287	-.000098	.0825549	.0694959
Stddev	.003144	.002072	.0027506	.0014837	.001825	.0045625	.0014318
%RSD	132.0617	25.66181	406.4857	63.71212	1868.807	5.526659	2.060213
#1	.000054	-.008937	.0027336	.0032032	-.001785	.0869941	.0703137
#2	-.001266	-.009573	-.002448	.0031673	-.000347	.0778783	.0678427
#3	-.005929	-.005709	.001744	.0006156	.001839	.0827924	.0703313

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000175	.0000014	226.0821	.0075161	-.000522	.0032506	.0300695
Stddev	.000031	.0000422	.7815	.0005583	.000141	.0000699	.0058824
%RSD	17.69229	3014.479	.3456626	7.427782	27.00275	2.150114	19.56253
#1	-.000145	-.000005	225.3789	.0071735	-.000530	.0032003	.0366206
#2	-.000207	.000047	225.9439	.0072144	-.000659	.0032211	.0283480
#3	-.000172	-.000037	226.9234	.0081603	-.000378	.0033304	.0252400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001859	.1282854	.0002210	-.000355	466.7302	.0037150	.0044536
Stddev	.0004876	.0083476	.0000510	.000138	4.3422	.0005673	.0002461
%RSD	262.2561	6.507051	23.07932	38.82045	.9303516	15.27146	5.525077
#1	.0001132	.1200142	.0002423	-.000400	463.2720	.0043696	.0046017
#2	.0007059	.1281348	.0002579	-.000200	465.3150	.0034096	.0045896
#3	-.000261	.1367073	.0001628	-.000464	471.6034	.0033658	.0041696

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.338615	.0096668	.0088590	-.004489	-.004651	3.739152	.0057093
Stddev	.038115	.0005143	.0004069	.001322	.000479	.025190	.0012071
%RSD	.5193828	5.319859	4.592934	29.44209	10.30341	.6736912	21.14336
#1	7.303201	.0092821	.0084232	-.004896	-.005119	3.710782	.0070911
#2	7.333689	.0094672	.0092290	-.003012	-.004161	3.747777	.0048598
#3	7.378953	.0102509	.0089247	-.005560	-.004671	3.758897	.0051770

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2001-11 Acquired: 5/14/2025 16:39:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	9.894115	-.028707	1.066094
Stddev	.034831	.000980	.003879
%RSD	.3520391	3.413770	.3638744
#1	9.854082	-.028885	1.061622
#2	9.910787	-.029585	1.068113
#3	9.917478	-.027650	1.068548

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2415.711	59363.13	12872.99	1597.839	3563.275
Stddev	3.381	132.24	74.17	7.716	3.516
%RSD	.1399545	.2227603	.5761571	.4829111	.0986841
#1	2419.494	59310.71	12838.60	1594.430	3567.307
#2	2414.652	59513.54	12958.12	1606.673	3560.843
#3	2412.986	59265.13	12822.27	1592.415	3561.676

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV03 Acquired: 5/14/2025 16:44:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.823118	4.970903	4.796267	4.842272	4.906694	9.750703	9.257680
Stddev	.021602	.079637	.016324	.036068	.032656	.013188	.050028
%RSD	.4478793	1.602068	.3403542	.7448660	.6655433	.1352497	.5403995
#1	4.824532	5.038410	4.793126	4.849754	4.918934	9.765056	9.307751
#2	4.800844	4.883073	4.781742	4.803050	4.869686	9.747932	9.207694
#3	4.843978	4.991225	4.813934	4.874013	4.931462	9.739121	9.257594

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2395578	2.387322	23.71388	.9879382	2.404858	1.222632	4.816252
Stddev	.0007284	.004882	.14238	.0017166	.003929	.007329	.027499
%RSD	.3040665	.2045106	.6004195	.1737551	.1633719	.5994385	.5709586
#1	.2400526	2.386186	23.78775	.9891205	2.403577	1.225859	4.836462
#2	.2398995	2.383107	23.80414	.9859693	2.401730	1.214244	4.827358
#3	.2387214	2.392672	23.54974	.9887249	2.409268	1.227794	4.784938

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.354633	23.43826	2.401116	1.211030	25.19801	2.403727	2.451428
Stddev	.015261	.08247	.006610	.002317	.05121	.004080	.006423
%RSD	.6481159	.3518438	.2752924	.1913521	.2032446	.1697261	.2620246
#1	2.360951	23.45080	2.396386	1.212944	25.14288	2.403548	2.445166
#2	2.365721	23.51373	2.398293	1.211692	25.24411	2.407894	2.451116
#3	2.337228	23.35024	2.408669	1.208453	25.20705	2.399740	2.458001

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.37070	4.679924	4.953995	4.799492	4.784507	4.862260	4.715844
Stddev	.08123	.015265	.023267	.016844	.018408	.025859	.026925
%RSD	.3332947	.3261901	.4696607	.3509452	.3847521	.5318230	.5709492
#1	24.31163	4.690248	4.959147	4.802565	4.792293	4.848815	4.723910
#2	24.46333	4.687135	4.928584	4.781323	4.797743	4.845894	4.685808
#3	24.33714	4.662389	4.974254	4.814587	4.763485	4.892072	4.737813

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV03 Acquired: 5/14/2025 16:44:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.684280	4.890208	4.628085
Stddev	.015636	.017099	.036637
%RSD	.3337911	.3496650	.7916260
#1	4.697293	4.892157	4.627096
#2	4.666935	4.906249	4.665207
#3	4.688611	4.872217	4.591952

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2592.700	61434.96	11992.02	1694.621	3904.903
Stddev	8.215	130.55	58.91	5.268	4.366
%RSD	.3168514	.2124991	.4912287	.3108861	.1118113
#1	2591.521	61328.63	11952.39	1700.700	3908.285
#2	2601.441	61395.59	11963.96	1691.793	3906.451
#3	2585.139	61580.66	12059.71	1691.371	3899.975

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB03 Acquired: 5/14/2025 16:48:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000951	-.001820	.0010232	.0040136	-.002072	.0154067	-.001970
Stddev	.000441	.001263	.0008600	.0014891	.002116	.0026452	.000553
%RSD	46.37771	69.42212	84.05132	37.10089	102.1424	17.16897	28.08306
#1	-.000460	-.000771	.0020019	.0045760	.000358	.0162523	-.001968
#2	-.001314	-.003222	.0003887	.0051397	-.003514	.0124421	-.002524
#3	-.001077	-.001467	.0006789	.0023253	-.003060	.0175257	-.001417

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000077	.0000217	-.017047	-.000307	-.000441	.0001429	-.009212
Stddev	.000011	.0000923	.001362	.000352	.000254	.0000950	.004000
%RSD	14.64048	426.2853	7.991153	114.7153	57.71557	66.49934	43.42252
#1	-.000067	.0001144	-.016224	-.000122	-.000444	.0002166	-.005609
#2	-.000074	.0000208	-.018619	-.000714	-.000693	.0001765	-.008511
#3	-.000089	-.000070	-.016297	-.000086	-.000185	.0000356	-.013517

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000522	-.011668	-.000327	-.000280	-.456282	-.000004	.0004353
Stddev	.000165	.009050	.000196	.000186	.003577	.001187	.0003299
%RSD	31.59042	77.56579	59.97764	66.31164	.7840226	28513.49	75.77510
#1	-.000396	-.012704	-.000135	-.000468	-.460058	.000400	.0008068
#2	-.000709	-.020155	-.000528	-.000097	-.455845	.000928	.0003228
#3	-.000462	-.002144	-.000319	-.000274	-.452944	-.001340	.0001765

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.052636	.0006620	.0002808	-.000240	.0011108	-.005134	.0017242
Stddev	.045660	.0005086	.0001823	.000460	.0011568	.002904	.0020857
%RSD	86.74569	76.82502	64.90946	191.2371	104.1482	56.56056	120.9680
#1	-.022418	.0012127	.0000953	-.000109	.0005590	-.008425	.0010772
#2	-.030329	.0002098	.0004596	.000139	.0024401	-.002932	.0040567
#3	-.105162	.0005636	.0002875	-.000752	.0003331	-.004046	.0000386

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB03 Acquired: 5/14/2025 16:48:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005889	-.002199	.0000361
Stddev	.003195	.001423	.0000193
%RSD	54.24751	64.69472	53.52136
#1	-.009227	-.002245	.0000555
#2	-.002860	-.003599	.0000358
#3	-.005580	-.000754	.0000169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2702.503	64841.59	13083.77	1813.163	4211.665
Stddev	12.286	138.73	57.06	11.265	17.578
%RSD	.4545982	.2139461	.4361302	.6212678	.4173741
#1	2705.830	64861.94	13063.64	1803.035	4224.030
#2	2712.782	64693.81	13148.17	1825.295	4219.423
#3	2688.896	64969.01	13039.50	1811.159	4191.542

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-25 Acquired: 5/14/2025 16:52:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195778	.0054779	.1232527	-.012836	-.004490	77.31594	.7510573
Stddev	.0010230	.0014404	.0019356	.001248	.000508	.19562	.0024149
%RSD	5.225431	26.29431	1.570422	9.719371	11.32142	.2530077	.3215306
#1	.0207500	.0049649	.1254206	-.013555	-.005070	77.53665	.7517670
#2	.0188656	.0071046	.1226394	-.013557	-.004120	77.24720	.7530378
#3	.0191177	.0043643	.1216981	-.011395	-.004281	77.16397	.7483671

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066519	-.002904	21.11914	.1478114	.0791991	.1370923	174.4222
Stddev	.0000791	.000610	.14793	.0002793	.0011045	.0024921	.7651
%RSD	1.188881	21.00616	.7004324	.1889746	1.394648	1.817859	.4386511
#1	.0066890	-.002212	21.27436	.1474961	.0804455	.1398226	173.8626
#2	.0067056	-.003365	21.10327	.1480279	.0783413	.1349398	174.1100
#3	.0065611	-.003136	20.97978	.1479100	.0788106	.1365144	175.2940

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.218516	26.15655	.1478530	.0021156	1.169230	.2312223	.3118270
Stddev	.026872	.15653	.0020062	.0002846	.013953	.0009017	.0008524
%RSD	.6370017	.5984499	1.356867	13.45015	1.193390	.3899937	.2733591
#1	4.247127	26.27734	.1499575	.0018400	1.153755	.2321538	.3120255
#2	4.214611	26.21260	.1459623	.0020986	1.173085	.2311596	.3125626
#3	4.193810	25.97971	.1476393	.0024083	1.180852	.2303536	.3108928

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.83351	.0655518	.0003220	-.000684	2.820178	3.066123	5.419179
Stddev	.07306	.0009898	.0005313	.001372	.007088	.021875	.060797
%RSD	.5281585	1.509978	164.9903	200.6206	.2513284	.7134412	1.121886
#1	13.80313	.0650026	.0009239	-.001612	2.826449	3.043770	5.485145
#2	13.78054	.0649583	-.000082	-.001332	2.821597	3.067111	5.365396
#3	13.91686	.0666945	.000124	.000892	2.812488	3.087487	5.406996

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-25 Acquired: 5/14/2025 16:52:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4246123	.1745708	-.097482
Stddev	.0145430	.0007233	.000810
%RSD	3.425010	.4143268	.8313986
#1	.4393299	.1741911	-.096798
#2	.4102504	.1741165	-.097271
#3	.4242566	.1754049	-.098377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2897.591	70569.15	14107.26	1981.881	3805.070
Stddev	30.029	308.06	103.56	3.439	57.508
%RSD	1.036334	.4365311	.7340774	.1735296	1.511359
#1	2863.751	70686.40	13991.89	1982.639	3741.849
#2	2921.058	70801.38	14137.71	1984.877	3854.273
#3	2907.964	70219.69	14192.18	1978.126	3819.090

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2001-15 Acquired: 5/14/2025 16:56:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006733	-.005327	.0015786	.0038279	.0010804	.2290489	.0782593
Stddev	.006068	.003037	.0005879	.0044229	.0002557	.0038727	.0010393
%RSD	90.13508	57.00914	37.24557	115.5427	23.67179	1.690764	1.328058
#1	-.002616	-.003387	.0009415	.0041372	.0012629	.2334496	.0786559
#2	-.003880	-.008827	.0021003	-.000741	.0007880	.2261607	.0790420
#3	-.013702	-.003768	.0016940	.008088	.0011902	.2275364	.0770801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000114	.0000323	236.4385	.0039240	-.000391	.0026906	.0165619
Stddev	.000021	.0001090	.4189	.0003764	.000126	.0002871	.0017916
%RSD	18.36338	337.1279	.1771551	9.591271	32.32408	10.66926	10.81763
#1	-.000100	-.000069	236.8738	.0038462	-.000269	.0027210	.0157288
#2	-.000104	.000019	236.0383	.0035927	-.000383	.0023896	.0186184
#3	-.000139	.000147	236.4033	.0043332	-.000521	.0029613	.0153385

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000321	.0416564	.0010833	-.000473	476.0843	.0018561	.0050314
Stddev	.000295	.0108881	.0002286	.000345	3.7937	.0005623	.0001278
%RSD	92.01690	26.13798	21.09747	73.03243	.7968472	30.29598	2.540044
#1	-.000017	.0483121	.0008199	-.000801	472.1562	.0024171	.0050716
#2	-.000338	.0290912	.0012020	-.000504	476.3693	.0018586	.0048884
#3	-.000608	.0475657	.0012282	-.000113	479.7274	.0012925	.0051343

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.938703	-.000349	.0105721	-.005798	-.005116	1.732022	.0069448
Stddev	.066032	.000283	.0001764	.000524	.000441	.017839	.0023651
%RSD	.7387212	81.06889	1.668969	9.042124	8.618046	1.029946	34.05600
#1	8.882916	-.000166	.0103704	-.005821	-.005196	1.729697	.0077936
#2	9.011608	-.000674	.0106982	-.005263	-.005511	1.750909	.0042724
#3	8.921584	-.000206	.0106475	-.006310	-.004640	1.715459	.0087684

Sample Name: Q2001-15 Acquired: 5/14/2025 16:56:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.733118	-.030390	1.231069
Stddev	.015917	.000374	.003524
%RSD	.2058300	1.232244	.2862670
#1	7.719080	-.030814	1.234550
#2	7.729862	-.030253	1.231154
#3	7.750411	-.030104	1.227503

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2379.752	58597.02	12663.88	1616.595	3472.888
Stddev	10.694	156.39	79.50	1.759	10.258
%RSD	.4493706	.2668832	.6277930	.1088018	.2953645
#1	2375.231	58737.08	12604.92	1615.370	3475.831
#2	2391.964	58428.28	12754.30	1615.804	3481.352
#3	2372.061	58625.70	12632.42	1618.610	3461.480

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31 Acquired: 5/14/2025 17:01:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0450378	.0112820	.1441081	-.017030	-.008456	128.5427	.5868697
Stddev	.0014607	.0028037	.0023110	.001371	.000690	.1244	.0010768
%RSD	3.243375	24.85119	1.603627	8.053367	8.160424	.0967561	.1834827
#1	.0433861	.0144839	.1455789	-.015581	-.008071	128.4278	.5881035
#2	.0461600	.0100957	.1414445	-.017200	-.009253	128.5254	.5861197
#3	.0455671	.0092665	.1453010	-.018308	-.008045	128.6747	.5863858

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086945	-.007497	13.19143	.1989920	.1039777	.1747912	273.1521
Stddev	.0000846	.000547	.02904	.0011319	.0004336	.0019129	1.7995
%RSD	.9730690	7.300238	.2201387	.5687959	.4169749	1.094400	.6587833
#1	.0087403	-.008019	13.20184	.1985281	.1038513	.1733272	274.8240
#2	.0085969	-.007546	13.15862	.2002821	.1036215	.1740907	273.3847
#3	.0087463	-.006928	13.21383	.1981658	.1044605	.1769556	271.2477

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.818494	30.02772	.1801563	.0049708	3.129073	.3280246	.3963394
Stddev	.008739	.05135	.0004631	.0003721	.029625	.0009852	.0015328
%RSD	.1813692	.1710142	.2570731	7.486091	.9467558	.3003529	.3867256
#1	4.825023	30.02982	.1799235	.0053445	3.135146	.3271262	.3954244
#2	4.808566	29.97535	.1806897	.0046003	3.155191	.3290783	.3981089
#3	4.821892	30.07799	.1798558	.0049677	3.096883	.3278695	.3954849

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.697316	.0941497	.0022710	.0052208	3.061755	10.31640	5.250971
Stddev	.017040	.0029690	.0007814	.0018419	.007092	.05672	.049690
%RSD	.2213751	3.153509	34.40745	35.27984	.2316365	.5498053	.9462932
#1	7.709099	.0964729	.0013717	.0071826	3.069933	10.31024	5.201766
#2	7.705072	.0951715	.0026573	.0049515	3.058022	10.37595	5.250015
#3	7.677778	.0908048	.0027841	.0035284	3.057308	10.26301	5.301131

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31 Acquired: 5/14/2025 17:01:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5180972	.2469569	-.184488
Stddev	.0088140	.0018816	.001458
%RSD	1.701222	.7619197	.7901632
#1	.5083120	.2480385	-.185770
#2	.5205663	.2480479	-.184791
#3	.5254134	.2447842	-.182902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2915.334	70275.96	14744.73	1999.974	3749.356
Stddev	4.135	153.18	62.69	4.477	4.563
%RSD	.1418329	.2179652	.4251730	.2238522	.1217021
#1	2918.251	70222.75	14786.75	1999.174	3753.939
#2	2917.148	70156.49	14774.78	1995.950	3749.317
#3	2910.602	70448.65	14672.67	2004.797	3744.813

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31DUP Acquired: 5/14/2025 17:05:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0457157	.0122406	.1408232	-.016636	-.004976	121.6423	.6744329
Stddev	.0014697	.0008949	.0003408	.004056	.002910	.2459	.0005464
%RSD	3.214946	7.310767	.2419839	24.37934	58.49018	.2021657	.0810214
#1	.0450589	.0113629	.1411892	-.016210	-.008012	121.4021	.6738022
#2	.0446888	.0122071	.1405150	-.020888	-.004706	121.6314	.6747635
#3	.0473993	.0131517	.1407656	-.012810	-.002210	121.8936	.6747331

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086194	-.006920	13.77996	.1822753	.1123463	.1633105	271.3329
Stddev	.0001338	.000323	.02677	.0003530	.0004098	.0005663	1.0829
%RSD	1.552739	4.660294	.1942974	.1936509	.3647339	.3467322	.3991068
#1	.0085683	-.007293	13.75675	.1826539	.1118809	.1633931	272.5725
#2	.0085186	-.006730	13.77388	.1822166	.1125052	.1627075	270.5707
#3	.0087712	-.006739	13.80925	.1819553	.1126529	.1638309	270.8555

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.507330	27.08459	.1641217	.0041647	13.01112	.3185634	.3604516
Stddev	.003737	.11964	.0010397	.0003100	.06263	.0022519	.0011832
%RSD	.0829000	.4417325	.6334853	7.442525	.4813260	.7068769	.3282523
#1	4.503052	26.97714	.1629908	.0044199	13.07854	.3159962	.3618176
#2	4.509958	27.21351	.1643380	.0042545	12.95476	.3202044	.3597454
#3	4.508979	27.06311	.1650362	.0038198	13.00008	.3194897	.3597919

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.487647	.0924504	.0013435	.0081696	2.495685	1.455994	5.069660
Stddev	.035344	.0025326	.0001957	.0024630	.003532	.015777	.036761
%RSD	.4164154	2.739460	14.56803	30.14868	.1415270	1.083588	.7251203
#1	8.527861	.0948158	.0011176	.0089359	2.491613	1.460043	5.042267
#2	8.461514	.0897784	.0014640	.0054145	2.497515	1.438587	5.055275
#3	8.473567	.0927570	.0014487	.0101583	2.497926	1.469352	5.111439

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31DUP Acquired: 5/14/2025 17:05:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.236445	.2332208	-.181800
Stddev	.017492	.0005056	.001006
%RSD	.7821477	.2168137	.5534320
#1	2.217475	.2337988	-.182936
#2	2.239926	.2328601	-.181022
#3	2.251936	.2330035	-.181443

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.631	71198.32	14718.23	1994.684	3748.053
Stddev	6.222	178.71	42.36	15.720	11.404
%RSD	.2148082	.2509983	.2877867	.7880915	.3042597
#1	2897.667	71026.18	14766.00	1981.264	3753.441
#2	2902.271	71382.93	14703.47	2011.979	3755.765
#3	2889.956	71185.85	14685.23	1990.808	3734.954

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31LX5 Acquired: 5/14/2025 17:09:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080264	.0042395	.0285309	-.001530	-.000988	27.68349	.1265029
Stddev	.0021396	.0009956	.0009320	.000650	.003077	.06052	.0009450
%RSD	26.65699	23.48388	3.266758	42.50015	311.5642	.2186219	.7470353
#1	.0056172	.0049277	.0286634	-.001440	-.001363	27.63347	.1275330
#2	.0087572	.0046930	.0293896	-.000929	.002260	27.75077	.1262994
#3	.0097050	.0030979	.0275397	-.002220	-.003860	27.66625	.1256761

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019057	-.003505	2.901318	.0436227	.0196836	.0392393	61.10397
Stddev	.0000645	.000091	.007879	.0001693	.0000658	.0004655	.28638
%RSD	3.386170	2.595667	.2715744	.3880633	.3340923	1.186256	.4686780
#1	.0018747	-.003604	2.906118	.0437976	.0196604	.0387829	61.26066
#2	.0019799	-.003424	2.905612	.0434596	.0196325	.0392217	60.77343
#3	.0018625	-.003488	2.892225	.0436109	.0197578	.0397134	61.27781

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.068360	6.491852	.0347916	.0011032	.6798294	.0718701	.0875954
Stddev	.003389	.001494	.0003734	.0003608	.0070303	.0020918	.0001577
%RSD	.3171984	.0230204	1.073150	32.70345	1.034120	2.910499	.1799891
#1	1.070304	6.490561	.0351389	.0006868	.6860966	.0708784	.0877390
#2	1.070329	6.491507	.0343968	.0013001	.6722275	.0704587	.0874267
#3	1.064447	6.493489	.0348391	.0013227	.6811641	.0742733	.0876206

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.699956	.0201509	.0001427	.0056997	.6770363	2.300694	.9988294
Stddev	.025835	.0006018	.0000539	.0007133	.0021924	.003773	.0015359
%RSD	1.519742	2.986471	37.81936	12.51375	.3238241	.1639867	.1537705
#1	1.729788	.0195358	.0001572	.0055638	.6778559	2.303077	1.000262
#2	1.685092	.0201784	.0000829	.0064711	.6787009	2.296344	.997208
#3	1.684990	.0207385	.0001878	.0050642	.6745522	2.302661	.999018

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31LX5 Acquired: 5/14/2025 17:09:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0954438	.0542328	-.041376
Stddev	.0026777	.0003202	.000338
%RSD	2.805552	.5904793	.8163201
#1	.0926022	.0541155	-.041484
#2	.0979201	.0539877	-.040997
#3	.0958091	.0545951	-.041646

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2703.438	62922.95	13421.36	1789.116	3995.344
Stddev	5.650	116.12	59.70	9.489	2.400
%RSD	.2090046	.1845410	.4448376	.5303652	.0600811
#1	2703.381	62821.09	13397.38	1779.374	3993.267
#2	2709.117	63049.39	13377.37	1798.330	3997.972
#3	2697.816	62898.38	13489.32	1789.643	3994.793

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31MS Acquired: 5/14/2025 17:13:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6847715	1.888208	1.073909	1.495934	.2873544	141.2126	.7736480
Stddev	.0023619	.006440	.005075	.005714	.0027479	.2372	.0033362
%RSD	.3449164	.3410394	.4725525	.3819987	.9562574	.1679531	.4312254
#1	.6836715	1.894385	1.072161	1.491673	.2881599	141.4631	.7774711
#2	.6831603	1.881534	1.069940	1.493702	.2842939	141.1834	.7721461
#3	.6874828	1.888706	1.079627	1.502428	.2896095	140.9914	.7713268

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1530557	.1795327	14.99434	.5384995	.3029887	.4275998	285.3897
Stddev	.0004917	.0009294	.05511	.0002660	.0009562	.0007314	.5224
%RSD	.3212325	.5176601	.3675618	.0493906	.3156040	.1710401	.1830377
#1	.1536214	.1798086	15.05769	.5387938	.3031584	.4276363	285.6503
#2	.1528149	.1784966	14.96789	.5384284	.3019590	.4268508	284.7883
#3	.1527309	.1802928	14.95744	.5382763	.3038488	.4283122	285.7304

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.663690	33.07199	.6527236	.0680384	6.274092	.5757820	.5832777
Stddev	.019689	.05375	.0021157	.0001213	.006536	.0020741	.0021079
%RSD	.4221759	.1625107	.3241269	.1782116	.1041786	.3602283	.3613957
#1	4.686341	33.10532	.6521841	.0681018	6.279149	.5751322	.5854473
#2	4.650678	33.00999	.6509299	.0681148	6.276414	.5741105	.5831484
#3	4.654050	33.10066	.6550567	.0678986	6.266711	.5781032	.5812373

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.71136	.2692604	.3335573	.6314041	3.014571	2.905881	11.47814
Stddev	.06699	.0011983	.0010672	.0014471	.011213	.005234	.02449
%RSD	.4008944	.4450522	.3199333	.2291953	.3719521	.1801073	.2133406
#1	16.75822	.2706016	.3325734	.6327342	3.025807	2.903879	11.49050
#2	16.63463	.2682951	.3334069	.6298630	3.014524	2.911820	11.44994
#3	16.74124	.2688844	.3346917	.6316152	3.003382	2.901944	11.49398

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31MS Acquired: 5/14/2025 17:13:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8496029	.4389057	-.030069
Stddev	.0089557	.0020700	.001123
%RSD	1.054100	.4716150	3.734999
#1	.8409295	.4397371	-.029117
#2	.8588164	.4404306	-.029784
#3	.8490628	.4365493	-.031308

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3005.300	70963.21	15034.18	2001.365	3855.784
Stddev	5.194	170.37	51.04	10.160	10.042
%RSD	.1728344	.2400787	.3394984	.5076376	.2604522
#1	3009.265	70769.64	14976.33	1993.765	3860.148
#2	3007.216	71090.41	15053.37	1997.426	3862.905
#3	2999.421	71029.57	15072.86	2012.905	3844.297

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31A Acquired: 5/14/2025 17:21:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6848291	1.853061	1.039037	1.535365	.6521651	129.9726	.7336750
Stddev	.0043538	.016677	.001228	.006687	.0016480	.1643	.0020283
%RSD	.6357503	.8999527	.1182215	.4355193	.2526932	.1264306	.2764557
#1	.6860571	1.866307	1.040340	1.540379	.6504479	130.0024	.7331683
#2	.6799931	1.858543	1.037900	1.537944	.6537338	129.7954	.7319481
#3	.6884370	1.834334	1.038870	1.527773	.6523136	130.1200	.7359086

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1588191	.1772929	14.03912	.5178656	.2833389	.4047920	265.3383
Stddev	.0006435	.0003074	.04271	.0005349	.0004100	.0002493	.8285
%RSD	.4051688	.1733780	.3042362	.1032919	.1447181	.0615955	.3122374
#1	.1581347	.1769555	13.98986	.5179680	.2828789	.4046454	266.2752
#2	.1589108	.1775572	14.06584	.5172868	.2834716	.4046507	264.7025
#3	.1594119	.1773659	14.06166	.5183418	.2836662	.4050799	265.0371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.956190	31.40904	.6282435	.0650554	5.552036	.5529049	.5477668
Stddev	.010034	.12759	.0005367	.0006922	.034992	.0023004	.0035235
%RSD	.2024613	.4062270	.0854222	1.064002	.6302466	.4160610	.6432534
#1	4.950606	31.27473	.6288128	.0658214	5.591735	.5506454	.5454822
#2	4.950189	31.42376	.6277469	.0644748	5.538699	.5528250	.5459935
#3	4.967774	31.52864	.6281708	.0648700	5.525674	.5552442	.5518247

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.78330	.2980196	.3405313	.6595456	3.207497	10.79971	10.60996
Stddev	.07894	.0008513	.0005909	.0010517	.005531	.02735	.04608
%RSD	.5001718	.2856630	.1735159	.1594599	.1724288	.2532164	.4342630
#1	15.87290	.2989670	.3411699	.6584806	3.201213	10.83083	10.64496
#2	15.75303	.2973188	.3404201	.6595729	3.209656	10.77952	10.62716
#3	15.72397	.2977730	.3400039	.6605835	3.211623	10.78877	10.55776

Sample Name: Q2007-31A Acquired: 5/14/2025 17:21:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4684179	.4150106	-.023893
Stddev	.0078693	.0014827	.000475
%RSD	1.679979	.3572696	1.988358
#1	.4774602	.4166752	-.024441
#2	.4646742	.4145255	-.023631
#3	.4631194	.4138313	-.023605

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2945.165	69911.66	14184.27	1986.722	3804.789
Stddev	1.721	167.19	97.28	11.949	4.161
%RSD	.0584471	.2391390	.6858628	.6014540	.1093601
#1	2946.300	70084.74	14292.38	1994.600	3800.022
#2	2946.010	69899.18	14156.67	1992.594	3807.691
#3	2943.184	69751.07	14103.77	1972.973	3806.654

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31MSD Acquired: 5/14/2025 17:31:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6848268	1.849438	1.051527	1.533382	.5669732	129.5148	.7503998
Stddev	.0038912	.034283	.015318	.011046	.0053971	.2312	.0042784
%RSD	.5681988	1.853677	1.456763	.7203370	.9519174	.1785212	.5701481
#1	.6836195	1.887101	1.068130	1.545376	.5723482	129.2994	.7476948
#2	.6891785	1.841163	1.037943	1.531145	.5615542	129.7591	.7553323
#3	.6816824	1.820050	1.048508	1.523627	.5670171	129.4859	.7481722

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1474229	.1757337	14.02403	.5214432	.2885169	.4046137	285.1769
Stddev	.0003813	.0031599	.04009	.0014638	.0034452	.0050909	.9762
%RSD	.2586621	1.798093	.2858833	.2807206	1.194120	1.258219	.3423228
#1	.1474574	.1793533	14.00341	.5223090	.2924499	.4104485	285.1855
#2	.1470256	.1735252	14.07024	.5197532	.2860321	.4010771	286.1487
#3	.1477859	.1743227	13.99844	.5222676	.2870689	.4023154	284.1964

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.830803	31.11328	.6348357	.0686782	6.003411	.5570935	.5563879
Stddev	.020009	.02367	.0081840	.0002767	.023094	.0024955	.0018642
%RSD	.4141889	.0760651	1.289157	.4028529	.3846773	.4479525	.3350499
#1	4.811907	31.10882	.6442295	.0689695	6.014437	.5553112	.5576122
#2	4.851764	31.13886	.6292469	.0684190	6.018925	.5599455	.5542425
#3	4.828738	31.09217	.6310307	.0686462	5.976871	.5560237	.5573090

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.81395	.3053943	.3395928	.6572005	3.137295	9.408865	10.83728
Stddev	.07771	.0017857	.0042759	.0110461	.009145	.034740	.17013
%RSD	.4621902	.5847120	1.259129	1.680777	.2915070	.3692281	1.569872
#1	16.75102	.3041200	.3444204	.6699118	3.127281	9.431777	11.03280
#2	16.90081	.3074353	.3362824	.6499322	3.145206	9.425925	10.75607
#3	16.79001	.3046276	.3380755	.6517575	3.139396	9.368893	10.72296

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2007-31MSD Acquired: 5/14/2025 17:31:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5643478	.4166521	-.039083
Stddev	.0167564	.0021916	.000818
%RSD	2.969157	.5259964	2.093344
#1	.5836430	.4145415	-.039955
#2	.5534556	.4189165	-.038964
#3	.5559449	.4164984	-.038332

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2962.759	69894.49	15374.51	1977.891	3810.408
Stddev	27.023	201.76	18.52	6.871	45.128
%RSD	.9120859	.2886594	.1204515	.3473725	1.184341
#1	2931.844	69661.58	15368.43	1970.025	3758.539
#2	2981.880	70015.47	15395.31	1980.928	3840.667
#3	2974.554	70006.41	15359.81	1982.720	3832.019

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q1974-02 Acquired: 5/14/2025 17:36:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004962	-.004956	.0005438	.0070966	-.000921	.0185429	.7668485
Stddev	.003488	.000545	.0010912	.0025147	.001400	.0054408	.0066241
%RSD	70.29951	11.00692	200.6834	35.43557	152.1268	29.34175	.8638063
#1	-.006266	-.004716	.0007943	.0091173	.000688	.0138367	.7598531
#2	-.001010	-.004571	.0014879	.0042803	-.001586	.0245004	.7730251
#3	-.007610	-.005580	-.000651	.0078920	-.001864	.0172916	.7676673

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003736	.0012118	70.89881	.0000755	.0081886	.0096936	.0939217
Stddev	.0000420	.0000200	.32803	.0004395	.0001680	.0001718	.0044369
%RSD	11.23821	1.647279	.4626675	582.4340	2.051807	1.772365	4.723991
#1	.0003266	.0011916	70.52038	.0005727	.0083316	.0097076	.0988207
#2	.0003869	.0012315	71.10198	-.000085	.0082307	.0095151	.0901738
#3	.0004074	.0012124	71.07407	-.000261	.0080036	.0098579	.0927708

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5585675	8.400889	.0113311	.0000316	945.1928	.0017508	.6694813
Stddev	.0045412	.039567	.0002633	.0003828	7.8112	.0009561	.0002568
%RSD	.8130015	.4709889	2.323371	1212.144	.8264127	54.61087	.0383516
#1	.5533278	8.360270	.0112752	-.000407	936.6252	.0009661	.6694469
#2	.5613640	8.439313	.0116177	.000202	951.9184	.0014706	.6692434
#3	.5610108	8.403085	.0111002	.000299	947.0349	.0028157	.6697535

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.693047	.2293611	.0008953	-.003913	-.001526	4.236207	.0248618
Stddev	.055353	.0016294	.0004081	.000168	.000522	.018781	.0014762
%RSD	.9722958	.7103906	45.58341	4.295154	34.22225	.4433367	5.937789
#1	5.701487	.2277605	.0005169	-.004061	-.001709	4.242393	.0264574
#2	5.743695	.2293049	.0013277	-.003730	-.000937	4.251114	.0245835
#3	5.633958	.2310178	.0008412	-.003949	-.001933	4.215114	.0235445

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q1974-02 Acquired: 5/14/2025 17:36:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.133758	-.004569	.2480751
Stddev	.009484	.000669	.0018371
%RSD	.2294249	14.65098	.7405402
#1	4.139487	-.004650	.2461760
#2	4.122811	-.005195	.2498431
#3	4.138977	-.003863	.2482062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2383.005	58278.07	12501.18	1632.352	3409.362
Stddev	6.058	178.47	50.10	1.874	7.793
%RSD	.2542068	.3062316	.4007698	.1147942	.2285653
#1	2383.948	58076.62	12527.57	1632.245	3409.864
#2	2388.537	58416.39	12532.57	1630.534	3416.891
#3	2376.532	58341.20	12443.40	1634.277	3401.330

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q1974-04 Acquired: 5/14/2025 17:40:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003666	-.002876	.0036983	.0058772	-.000126	.2528843	.1589865
Stddev	.000705	.002423	.0017182	.0025068	.000969	.0046180	.0007109
%RSD	19.22976	84.25973	46.45942	42.65326	771.1871	1.826136	.4471500
#1	-.004465	-.000124	.0038287	.0085747	-.001239	.2477564	.1597994
#2	-.003403	-.004693	.0019186	.0054380	.000531	.2567149	.1586786
#3	-.003130	-.003811	.0053475	.0036190	.000330	.2541818	.1584814

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002981	.0001673	4.217961	-.000428	.0039945	.0267652	.0411924
Stddev	.0000568	.0001123	.013780	.000136	.0002737	.0001793	.0016352
%RSD	19.06581	67.12896	.3267082	31.82245	6.852304	.6698320	3.969570
#1	.0003195	.0000989	4.233538	-.000307	.0040278	.0267864	.0395875
#2	.0003411	.0002968	4.207358	-.000575	.0037057	.0265762	.0428562
#3	.0002336	.0001061	4.212987	-.000401	.0042501	.0269329	.0411336

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2169204	1.931705	.0068997	-.000216	399.2541	.0015173	.0737116
Stddev	.0021238	.011985	.0002219	.000265	2.0549	.0008671	.0004461
%RSD	.9790741	.6204196	3.216327	122.3628	.5146927	57.14905	.6051608
#1	.2193672	1.943058	.0069737	-.000485	399.9455	.0023080	.0739535
#2	.2155543	1.919175	.0066502	.000044	396.9427	.0005900	.0739844
#3	.2158397	1.932881	.0070751	-.000208	400.8742	.0016538	.0731968

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3148819	.0181955	-.000293	.0002671	.0009647	.4551804	.0149182
Stddev	.0181807	.0001972	.000329	.0006415	.0000637	.0067426	.0041463
%RSD	5.773817	1.083992	112.4064	240.1948	6.599993	1.481293	27.79340
#1	.3270958	.0182209	-.000068	-.000369	.0009404	.4497891	.0102948
#2	.2939880	.0179868	-.000140	.000914	.0010369	.4530115	.0183066
#3	.3235618	.0183788	-.000670	.000257	.0009167	.4627405	.0161533

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q1974-04 Acquired: 5/14/2025 17:40:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.650432	-.001141	.0295808
Stddev	.002801	.001086	.0000870
%RSD	.1696923	95.21298	.2940808
#1	1.647794	-.000513	.0294956
#2	1.650130	-.002395	.0295773
#3	1.653371	-.000514	.0296695

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2551.437	61956.63	12504.87	1725.710	3717.814
Stddev	3.826	25.79	153.12	9.360	5.928
%RSD	.1499625	.0416210	1.224489	.5423734	.1594384
#1	2547.420	61952.64	12329.34	1716.844	3710.987
#2	2555.039	61933.06	12574.28	1724.789	3721.661
#3	2551.852	61984.17	12611.00	1735.496	3720.792

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV04 Acquired: 5/14/2025 18:08:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.829616	4.909715	4.840101	4.863850	4.880788	9.662920	9.333792
Stddev	.017338	.024449	.009917	.019407	.011277	.017651	.043181
%RSD	.3589949	.4979634	.2048929	.3990132	.2310450	.1826638	.4626350
#1	4.809815	4.897365	4.829507	4.846826	4.868556	9.646982	9.376565
#2	4.842076	4.937875	4.849163	4.859741	4.883037	9.659888	9.334597
#3	4.836956	4.893905	4.841633	4.884983	4.890771	9.681890	9.290213

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2311706	2.418740	23.82577	.9945523	2.423883	1.223416	4.991662
Stddev	.0006856	.001872	.03280	.0021487	.001911	.003639	.013616
%RSD	.2965725	.0774111	.1376539	.2160420	.0788409	.2974072	.2727671
#1	.2304188	2.417480	23.79995	.9951129	2.421972	1.219776	5.003603
#2	.2317614	2.417848	23.81469	.9963652	2.423881	1.223419	4.994548
#3	.2313317	2.420892	23.86267	.9921790	2.425794	1.227053	4.976835

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.366146	23.44819	2.431276	1.219384	25.62395	2.404081	2.460949
Stddev	.004462	.13147	.004724	.002316	.03864	.004710	.001617
%RSD	.1885655	.5606832	.1942908	.1898983	.1508113	.1959008	.0657088
#1	2.369291	23.32515	2.426941	1.216930	25.66622	2.399230	2.459085
#2	2.361040	23.43270	2.430577	1.219690	25.61518	2.408636	2.461780
#3	2.368107	23.58672	2.436310	1.221531	25.59044	2.404377	2.461981

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.02084	4.605505	4.933196	4.847723	4.803522	5.035142	4.771579
Stddev	.12739	.019049	.010507	.004546	.010398	.027878	.008624
%RSD	.5091244	.4136056	.2129851	.0937695	.2164674	.5536623	.1807352
#1	25.16460	4.583711	4.921657	4.846728	4.811201	5.020776	4.770918
#2	24.97594	4.613830	4.935720	4.843757	4.791689	5.017377	4.780514
#3	24.92198	4.618974	4.942210	4.852684	4.807675	5.067272	4.763304

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV04 Acquired: 5/14/2025 18:08:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.752132	4.853871	4.672094
Stddev	.010640	.007028	.039768
%RSD	.2239077	.1447931	.8511795
#1	4.742349	4.861986	4.666916
#2	4.750586	4.849876	4.714198
#3	4.763461	4.849751	4.635169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2585.098	60688.15	12150.18	1702.089	3856.421
Stddev	5.514	148.39	44.60	5.251	10.850
%RSD	.2132836	.2445118	.3670763	.3085014	.2813398
#1	2578.782	60704.94	12198.79	1707.125	3844.234
#2	2587.563	60532.07	12111.14	1696.647	3859.999
#3	2588.949	60827.43	12140.61	1702.495	3865.029

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB04 Acquired: 5/14/2025 18:12:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005881	-.000017	.0016410	.0064912	-.000743	.0022928	-.001015
Stddev	.0024142	.001948	.0016263	.0025052	.001844	.0038273	.001074
%RSD	410.4898	11293.67	99.10446	38.59386	248.1303	166.9313	105.8427
#1	.0020761	.000349	.0009342	.0037212	.000391	-.000047	-.000212
#2	.0018856	.001722	.0035012	.0071540	-.002870	.000215	-.002236
#3	-.002197	-.002123	.0004877	.0085983	.000250	.006710	-.000598

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000284	.0001518	-.001208	.0004960	-.000104	.0043815	.0001073
Stddev	.0000781	.0000659	.009397	.0002266	.000300	.0001004	.0025851
%RSD	275.0259	43.37594	777.5999	45.67432	288.4188	2.292267	2409.097
#1	-.000022	.0001523	.008990	.0003764	-.000011	.0044724	-.002766
#2	-.000011	.0000857	-.003099	.0003544	.000138	.0043983	.000844
#3	.000118	.0002174	-.009517	.0007573	-.000440	.0042737	.002244

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010929	-.000204	.0003936	-.000324	-.235973	.0001655	.0055998
Stddev	.0002877	.002854	.0002056	.000259	.001836	.0024698	.0005567
%RSD	26.32585	1400.523	52.24231	79.82458	.7782492	1492.752	9.941375
#1	.0011392	.001793	.0003621	-.000126	-.237589	-.002626	.0049593
#2	.0013547	.001068	.0002055	-.000617	-.236354	.001057	.0059673
#3	.0007849	-.003472	.0006132	-.000229	-.233976	.002066	.0058727

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082054	.0045684	.0006957	-.000467	.0013680	.0009787	.0048849
Stddev	.0071437	.0003989	.0000541	.001172	.0002045	.0075964	.0001041
%RSD	87.06129	8.732722	7.782169	251.0573	14.94518	776.1763	2.131437
#1	.0015629	.0050162	.0007469	.000859	.0012815	-.007783	.0049235
#2	.0157624	.0044382	.0006390	-.000896	.0016015	.005715	.0047670
#3	.0072910	.0042508	.0007013	-.001365	.0012211	.005004	.0049641

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB04 Acquired: 5/14/2025 18:12:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001184	-.000008	.0002229
Stddev	.002772	.000492	.0000290
%RSD	234.1787	5997.848	13.00404
#1	-.000436	-.000001	.0002527
#2	.001138	.000480	.0001948
#3	-.004253	-.000504	.0002212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2697.264	63837.71	13192.01	1791.051	4162.677
Stddev	3.755	133.91	366.50	9.302	3.242
%RSD	.1392083	.2097645	2.778182	.5193375	.0778847
#1	2693.260	63987.82	12773.87	1801.714	4159.017
#2	2700.707	63730.51	13344.63	1786.835	4165.188
#3	2697.825	63794.81	13457.54	1784.603	4163.825

Sample Name: PB167961BL Acquired: 5/14/2025 18:17:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027392	-.001088	-.000384	.0035011	-.000402	-.002796	-.000909
Stddev	.0021067	.001229	.001533	.0026654	.000836	.004962	.001012
%RSD	76.90760	113.0064	399.5276	76.13084	207.9878	177.4365	111.2763
#1	.0032447	.000006	.001377	.0048222	-.001367	.001343	-.002061
#2	.0045472	-.000851	-.001105	.0004332	.000081	-.001435	-.000163
#3	.0004258	-.002418	-.001424	.0052480	.000080	-.008296	-.000504

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000017	.0000057	-.003370	-.000032	-.000065	.0002172	-.001846
Stddev	.000023	.0001374	.008202	.000287	.000095	.0003768	.001839
%RSD	136.3907	2416.240	243.4034	908.6974	147.6592	173.4894	99.60286
#1	.000001	-.000062	-.009800	.000055	-.000052	.0001029	-.001527
#2	-.000043	.000164	.005867	.000202	.000024	-.000089	-.000188
#3	-.000009	-.000084	-.006175	-.000352	-.000166	.000638	-.003825

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000232	-.007281	.0000164	-.000421	-.157768	.0001511	.0003358
Stddev	.000295	.011622	.0001589	.000106	.005217	.0021961	.0001787
%RSD	127.1112	159.6268	967.3764	25.17660	3.306771	1452.912	53.21522
#1	.000086	-.015426	.0000892	-.000418	-.153170	.0001990	.0005331
#2	-.000497	.006029	.0001259	-.000317	-.163438	.0023229	.0001850
#3	-.000284	-.012445	-.000166	-.000530	-.156696	-.002068	.0002892

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0528877	.0019896	-.000093	.0058073	.0003936	.0127068	.0013924
Stddev	.0354115	.0003984	.000458	.0003273	.0002002	.0052863	.0015841
%RSD	66.95611	20.02204	490.5437	5.636127	50.85236	41.60203	113.7696
#1	.0120319	.0015558	-.000459	.0061756	.0006216	.0148609	-.000275
#2	.0747589	.0020741	-.000242	.0056970	.0002464	.0165760	.002878
#3	.0718722	.0023389	.000421	.0055495	.0003130	.0066836	.001574

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167961BL Acquired: 5/14/2025 18:17:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0038585	.0004487	-.000016
Stddev	.0027551	.0014142	.000059
%RSD	71.40409	315.1588	367.6741
#1	.0016447	-.000537	-.000082
#2	.0069440	-.000185	.000032
#3	.0029867	.002069	.000001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2630.412	64112.83	12397.51	1770.108	4016.246
Stddev	17.250	367.45	36.85	9.713	27.662
%RSD	.6558090	.5731264	.2972576	.5487418	.6887451
#1	2638.973	63691.59	12407.35	1759.736	4038.066
#2	2610.556	64367.43	12356.73	1771.599	3985.135
#3	2641.708	64279.48	12428.43	1778.991	4025.536

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167961BS Acquired: 5/14/2025 18:21:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7456556	1.867169	.9205731	1.872807	.7328132	1.778341
Stddev	.0038286	.014799	.0034494	.005442	.0032111	.004702
%RSD	.5134523	.7925751	.3747054	.2905863	.4381906	.2644200
#1	.7433263	1.884044	.9178466	1.878320	.7313072	1.773077
#2	.7500743	1.861063	.9194219	1.867439	.7306319	1.779824
#3	.7435662	1.856400	.9244510	1.872663	.7365005	1.782124

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1687605	.1682296	.1889869	.9097807	.3785621	.1834973
Stddev	.0005986	.0005648	.0005961	.0100864	.0004657	.0005515
%RSD	.3546787	.3357099	.3154214	1.108658	.1230158	.3005523
#1	.1680777	.1687592	.1884217	.9078079	.3786109	.1830711
#2	.1691947	.1676352	.1889294	.9207077	.3790015	.1833006
#3	.1690091	.1682944	.1896097	.9008265	.3780739	.1841202

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2838226	2.880516	.1795950	1.711006	.4649671	.0687041
Stddev	.0010596	.017146	.0007672	.015053	.0019731	.0002534
%RSD	.3733262	.5952400	.4271981	.8797701	.4243590	.3687754
#1	.2828403	2.897744	.1804362	1.694847	.4634751	.0686296
#2	.2836820	2.880351	.1794151	1.724631	.4642220	.0689864
#3	.2849455	2.863453	.1789338	1.713539	.4672043	.0684964

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.763346	.2704879	.1863471	9.339085	.2575987	.3755663
Stddev	.010003	.0007441	.0014421	.071725	.0020377	.0003163
%RSD	.3619768	.2751142	.7738789	.7680082	.7910393	.0842184
#1	2.756867	.2696738	.1851834	9.368200	.2580742	.3752059
#2	2.774866	.2706569	.1858976	9.391674	.2553653	.3756952
#3	2.758305	.2711331	.1879605	9.257381	.2593566	.3757977

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167961BS Acquired: 5/14/2025 18:21:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6432318	.1783829	.8185077	5.519855	F -.010943	.1889619
Stddev	.0027607	.0008798	.0148787	.005848	.002038	.0010857
%RSD	.4291882	.4932080	1.817782	.1059527	18.62318	.5745411
#1	.6413448	.1793903	.8108625	5.526521	-.009804	.1880474
#2	.6464003	.1779926	.8356547	5.517463	-.013296	.1886766
#3	.6419504	.1777657	.8090060	5.515582	-.009730	.1901617

Elem	Sr4077
Units	ppm
Avg	.1735016
Stddev	.0004203
%RSD	.2422342
#1	.1733711
#2	.1739716
#3	.1731620

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2648.198	62650.19	12925.51	1765.485	4039.528
Stddev	2.681	359.72	51.94	11.227	1.783
%RSD	.1012465	.5741651	.4018082	.6359372	.0441440
#1	2650.288	62530.97	12897.14	1764.833	4041.485
#2	2649.130	62365.21	12893.94	1754.598	4039.101
#3	2645.175	63054.37	12985.45	1777.024	4037.996

Sample Name: PB167955BL Acquired: 5/14/2025 18:25:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025903	-.000885	-.000394	.0044222	-.000176	-.006537	-.003337
Stddev	.0007548	.000855	.001261	.0009298	.000921	.007156	.000576
%RSD	29.14033	96.58595	320.2562	21.02481	523.5186	109.4700	17.25458
#1	.0025395	-.000333	-.000605	.0033759	.000754	-.005817	-.003256
#2	.0018622	-.001871	.000959	.0047371	-.000194	-.014025	-.003948
#3	.0033693	-.000452	-.001535	.0051535	-.001088	.000232	-.002805

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000049	-.000040	.0114112	.0000888	-.000225	.0005021	-.003723
Stddev	.0000348	.000028	.0028837	.0001181	.000293	.0001857	.006951
%RSD	707.7068	70.39298	25.27043	133.0254	130.2117	36.98091	186.7221
#1	-.000031	-.000027	.0144837	.0002247	.000102	.0003049	-.000198
#2	.000039	-.000072	.0087635	.0000306	-.000313	.0005277	-.011730
#3	.000007	-.000020	.0109865	.0000110	-.000465	.0006736	.000760

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000417	-.012625	-.000227	-.000214	-.183628	.0009488	.0003720
Stddev	.000474	.008992	.000176	.000376	.009571	.0013666	.0000484
%RSD	113.7548	71.22390	77.29371	175.8940	5.212398	144.0369	13.01367
#1	-.000836	-.002635	-.000422	-.000179	-.190437	.0016687	.0003845
#2	-.000513	-.020071	-.000179	.000144	-.187762	-.000627	.0003185
#3	.000098	-.015168	-.000081	-.000606	-.172684	.001805	.0004129

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189172	-.000445	-.000189	.0060983	.0003363	.0012231	.0017516
Stddev	.0149167	.000123	.000192	.0002631	.0006989	.0075773	.0013795
%RSD	78.85259	27.61432	101.6197	4.314128	207.8206	619.4995	78.75395
#1	.0164903	-.000351	-.000383	.0063697	-.000269	.0046693	.0025474
#2	.0053628	-.000401	-.000186	.0058444	.000177	.0064649	.0025487
#3	.0348986	-.000584	.000002	.0060807	.001101	-.007465	.0001588

Sample Name: PB167955BL Acquired: 5/14/2025 18:25:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005580	-.000089	.0000010
Stddev	.0012611	.000943	.0000765
%RSD	225.9829	1055.167	7412.197
#1	.0017040	.000028	.0000815
#2	-.000793	-.001085	-.000008
#3	.000763	.000790	-.000071

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2722.972	63819.41	13229.24	1792.334	4178.289
Stddev	7.486	185.23	7.55	3.483	4.741
%RSD	.2749268	.2902377	.0571076	.1943111	.1134755
#1	2723.307	63949.24	13223.93	1791.985	4176.982
#2	2730.285	63901.69	13225.90	1795.977	4183.547
#3	2715.324	63607.30	13237.89	1789.038	4174.338

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167985BL Acquired: 5/14/2025 18:33:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019650	-.001867	.0000375	.0045686	-.001324	-.002890	-.001965
Stddev	.0019108	.002629	.0002521	.0035637	.000839	.002444	.000345
%RSD	97.24240	140.8528	672.9056	78.00297	63.33847	84.56795	17.55839
#1	-.000241	.001105	.0001057	.0060149	-.000830	-.002490	-.002258
#2	.003017	-.003890	.0002484	.0005092	-.000851	-.000670	-.001585
#3	.003118	-.002815	-.000242	.0071818	-.002293	-.005508	-.002053

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000153	-.000008	.0021790	.0003937	-.000089	.0004241	-.003974
Stddev	.0000835	.000073	.0132540	.0003326	.000264	.0003209	.001989
%RSD	545.3716	873.7585	608.2564	84.47794	297.0350	75.66509	50.05474
#1	.0000778	.000012	.0174089	.0003224	-.000380	.0003785	-.004672
#2	.0000477	.000052	-.004130	.0007562	-.000022	.0007653	-.005520
#3	-.000080	-.000089	-.006742	.0001026	.000135	.0001284	-.001730

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000106	-.007661	.0000968	-.000317	-.208219	.0002089	.0013558
Stddev	.000147	.004583	.0003233	.000324	.005720	.0011036	.0002251
%RSD	138.5873	59.81707	334.1209	102.1565	2.747293	528.1853	16.60590
#1	-.000132	-.007632	-.000117	-.000153	-.214392	.0013633	.0016069
#2	-.000237	-.003093	-.000062	-.000108	-.207169	.0000991	.0011720
#3	.000052	-.012258	.000469	-.000691	-.203096	-.000836	.0012884

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0329104	-.001177	.0001221	.0048957	.0013356	.0061649	.0036274
Stddev	.0062177	.000456	.0003987	.0004717	.0007051	.0126095	.0041262
%RSD	18.89285	38.76500	326.4991	9.635452	52.79309	204.5385	113.7525
#1	.0380159	-.000699	-.000114	.0054404	.0008035	.0054248	-.000985
#2	.0347293	-.001609	-.000102	.0046168	.0010679	-.006058	.004898
#3	.0259861	-.001224	.000582	.0046300	.0021354	.019128	.006969

Sample Name: PB167985BL Acquired: 5/14/2025 18:33:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002275	-.000510	-.000053
Stddev	.003755	.001038	.000051
%RSD	165.0395	203.6177	94.93727
#1	-.003520	.000073	-.000101
#2	.001944	.000106	-.000058
#3	-.005250	-.001708	-.000000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2692.580	63655.83	12465.21	1767.478	4139.707
Stddev	9.440	325.01	35.46	13.702	8.693
%RSD	.3506055	.5105715	.2844554	.7752395	.2100007
#1	2700.582	63378.02	12480.35	1752.867	4149.637
#2	2694.989	64013.25	12490.59	1780.041	4136.013
#3	2682.168	63576.24	12424.70	1769.525	4133.470

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167985BS Acquired: 5/14/2025 18:38:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7385157	1.887062	.9188390	1.881686	.7380422	1.761253
Stddev	.0047667	.012409	.0023224	.005795	.0044006	.005979
%RSD	.6454412	.6575687	.2527556	.3079899	.5962487	.3394951
#1	.7338416	1.873121	.9191647	1.881221	.7367844	1.760606
#2	.7383356	1.891169	.9163709	1.876137	.7344074	1.767530
#3	.7433698	1.896897	.9209814	1.887700	.7429347	1.755624

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .1699346	F .1688871	.1891616	.9094026	.3722692	.1837123
Stddev	.0009216	.0008392	.0003481	.0062765	.0007355	.0007469
%RSD	.5423168	.4969146	.1840218	.6901771	.1975710	.4065783
#1	.1688787	.1697363	.1892663	.9139190	.3715755	.1832661
#2	.1703485	.1688668	.1887731	.9022357	.3721918	.1832962
#3	.1705767	.1680583	.1894453	.9120532	.3730403	.1845746

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2813000	2.813190	.1788401	F 1.690510	.4653767	.0672885
Stddev	.0014196	.017454	.0007418	.023053	.0010553	.0000958
%RSD	.5046563	.6204235	.4147912	1.363652	.2267669	.1423105
#1	.2818408	2.804631	.1793418	1.675767	.4659263	.0672283
#2	.2796895	2.801667	.1779880	1.678687	.4641600	.0673990
#3	.2823697	2.833271	.1791905	1.717075	.4660438	.0672383

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.622975	.2696261	.1853905	9.085928	.2575564	.3798980
Stddev	.019254	.0011224	.0021714	.048560	.0016570	.0015793
%RSD	.7340543	.4162710	1.171236	.5344537	.6433606	.4157284
#1	2.603667	.2704150	.1874399	9.030811	.2587697	.3784115
#2	2.623082	.2683412	.1831149	9.104556	.2582311	.3797263
#3	2.642175	.2701222	.1856169	9.122415	.2556685	.3815562

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167985BS Acquired: 5/14/2025 18:38:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6527715	.1817448	.8063483	5.485027	F -.010935	.1893992
Stddev	.0014396	.0009345	.0067663	.020988	.001395	.0016345
%RSD	.2205363	.5141840	.8391338	.3826495	12.75841	.8629938
#1	.6511361	.1821181	.8110031	5.470572	-.009761	.1887006
#2	.6533316	.1824350	.7985865	5.475408	-.010568	.1912669
#3	.6538469	.1806813	.8094553	5.509101	-.012477	.1882301

Elem	Sr4077
Units	ppm
Avg	.1735154
Stddev	.0007469
%RSD	.4304538
#1	.1735465
#2	.1742463
#3	.1727535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.784	64391.66	12897.58	1814.062	4054.905
Stddev	11.515	142.61	65.49	5.796	13.097
%RSD	.4304889	.2214715	.5077398	.3194878	.3229894
#1	2684.821	64322.06	12824.37	1812.333	4063.317
#2	2677.318	64555.70	12917.77	1820.525	4061.583
#3	2662.213	64297.21	12950.59	1809.327	4039.815

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167955BS Acquired: 5/14/2025 19:04:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7635001	1.936719	.9469133	1.946606	.7630176	1.828832
Stddev	.0024656	.019822	.0071768	.002781	.0039204	.003479
%RSD	.3229391	1.023468	.7579180	.1428787	.5138061	.1902193
#1	.7658257	1.958172	.9398862	1.946811	.7609364	1.825788
#2	.7609149	1.932901	.9466229	1.943728	.7605766	1.832624
#3	.7637596	1.919084	.9542310	1.949279	.7675398	1.828084

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2144379	.1930831	.1950862	.9227057	.3792676	.1890863
Stddev	.0011511	.0013337	.0007105	.0103367	.0016932	.0009389
%RSD	.5368086	.6907316	.3641962	1.120257	.4464319	.4965303
#1	.2133834	.1918181	.1945494	.9154800	.3803259	.1884678
#2	.2156659	.1929550	.1948172	.9180913	.3773147	.1886245
#3	.2142644	.1944762	.1958919	.9345459	.3801620	.1901667

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2895254	2.790661	.1846170	1.743721	.4799310	.0686676
Stddev	.0026278	.022892	.0010688	.013059	.0018031	.0003846
%RSD	.9076232	.8203027	.5789264	.7489211	.3756933	.5600343
#1	.2891970	2.814786	.1843170	1.732313	.4785693	.0688813
#2	.2870772	2.769243	.1837303	1.757965	.4792479	.0682237
#3	.2923019	2.787954	.1858037	1.740884	.4819758	.0688979

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.650882	.2778947	.1891568	9.094046	.2657746	.3906472
Stddev	.028264	.0019099	.0006604	.064135	.0024461	.0017947
%RSD	1.066196	.6872908	.3491199	.7052394	.9203610	.4594230
#1	2.683517	.2787379	.1891400	9.164598	.2629745	.3900377
#2	2.634764	.2757082	.1885050	9.039274	.2674954	.3892365
#3	2.634366	.2792379	.1898254	9.078265	.2668540	.3926672

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: PB167955BS Acquired: 5/14/2025 19:04:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6705552	.1867623	.7944753	5.641099	F -.012605	.1960688
Stddev	.0021572	.0012188	.0073733	.013981	.002822	.0002563
%RSD	.3216993	.6525813	.9280695	.2478385	22.38345	.1307342
#1	.6682314	.1865982	.8020153	5.626462	-.015737	.1962980
#2	.6709405	.1880548	.7941298	5.642519	-.011819	.1961162
#3	.6724938	.1856338	.7872809	5.654315	-.010260	.1957920

Elem	Sr4077
Units	ppm
Avg	.1792774
Stddev	.0005054
%RSD	.2818805
#1	.1798602
#2	.1790120
#3	.1789601

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2649.363	65285.48	12633.02	1818.587	4009.487
Stddev	9.315	351.57	47.00	12.422	9.513
%RSD	.3516004	.5385170	.3720160	.6830788	.2372547
#1	2643.234	64891.58	12686.05	1804.308	4001.467
#2	2660.083	65567.50	12616.45	1824.554	4019.997
#3	2644.773	65397.36	12596.55	1826.901	4006.996

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02 Acquired: 5/14/2025 19:08:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002506	-.005453	.0023747	.0069380	.0009166	.0866847	.0125915
Stddev	.001910	.002456	.0004692	.0033228	.0022013	.0028516	.0015955
%RSD	76.20496	45.03534	19.75886	47.89269	240.1694	3.289661	12.67147
#1	-.004356	-.003152	.0026538	.0104029	.0004417	.0898581	.0126924
#2	-.000542	-.005170	.0026373	.0037784	-.001009	.0858591	.0141342
#3	-.002620	-.008039	.0018330	.0066326	.003317	.0843370	.0109479

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000074	.0000028	27.44507	.0011657	-.000130	.1739484	.8182234
Stddev	.000042	.0000837	.07746	.0003144	.000506	.0006609	.0065151
%RSD	57.22437	2969.100	.2822377	26.96607	390.0926	.3799628	.7962534
#1	-.000064	.0000995	27.43804	.0015198	-.000361	.1737633	.8138736
#2	-.000037	-.000046	27.52581	.0010579	-.000479	.1733998	.8257140
#3	-.000120	-.000045	27.37137	.0009195	.000450	.1746822	.8150826

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0554643	5.843733	.0027028	-.000382	1180.046	.0013106	.6439639
Stddev	.0003626	.049646	.0003844	.000353	4.396	.0013517	.0016556
%RSD	.6536932	.8495590	14.22272	92.57952	.3725510	103.1354	.2571018
#1	.0558758	5.815437	.0022601	-.000007	1184.322	-.000247	.6421781
#2	.0553251	5.901058	.0028960	-.000429	1180.277	.002009	.6442657
#3	.0551919	5.814704	.0029522	-.000709	1175.538	.002170	.6454479

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.734454	.0185950	.0010055	-.000300	.0013676	3.568302	5.106442
Stddev	.030516	.0006760	.0003291	.000657	.0004442	.019731	.013584
%RSD	.8171425	3.635337	32.73043	218.6537	32.48308	.5529530	.2660137
#1	3.768153	.0180431	.0013820	.000458	.0018326	3.585368	5.115006
#2	3.726520	.0193490	.0007726	-.000706	.0009476	3.572840	5.113540
#3	3.708689	.0183930	.0008620	-.000653	.0013226	3.546697	5.090780

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02 Acquired: 5/14/2025 19:08:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	13.63182	-.000043	.1406615
Stddev	.02762	.000610	.0005065
%RSD	.2026131	1414.488	.3600710
#1	13.65687	.000615	.1411888
#2	13.63640	-.000156	.1406170
#3	13.60220	-.000589	.1401788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2447.135	58494.39	12958.13	1644.966	3459.962
Stddev	16.231	56.84	21.87	8.541	18.232
%RSD	.6632693	.0971643	.1687531	.5192050	.5269402
#1	2440.886	58458.97	12963.01	1654.828	3450.570
#2	2465.562	58464.25	12934.23	1640.061	3480.975
#3	2434.958	58559.95	12977.14	1640.009	3448.342

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02DUP Acquired: 5/14/2025 19:12:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002253	-.006603	.0046572	.0059590	.0009948	.0790013	.0121530
Stddev	.002146	.001247	.0004725	.0002172	.0032417	.0042103	.0004576
%RSD	95.24463	18.88821	10.14628	3.644890	325.8538	5.329364	3.765408
#1	-.004720	-.007908	.0050831	.0058408	.0010356	.0804312	.0125315
#2	-.000824	-.006479	.0047397	.0062097	-.002267	.0742623	.0116444
#3	-.001215	-.005422	.0041489	.0058266	.004216	.0823103	.0122831

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000041	-.000044	28.46468	.0003564	-.000114	.1807630	.8838094
Stddev	.000033	.000052	.03324	.0003812	.000225	.0006195	.0045675
%RSD	80.46649	117.2292	.1167851	106.9598	197.5759	.3426982	.5168002
#1	-.000052	-.000086	28.43079	.0006183	-.000090	.1812378	.8825907
#2	-.000067	-.000061	28.46599	.0005318	-.000349	.1800623	.8888627
#3	-.000004	.000014	28.49724	-.000081	.000098	.1809889	.8799748

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0649799	6.265561	.0015732	-.000516	1291.040	.0005566	.3155771
Stddev	.0008605	.003077	.0000702	.000121	17.999	.0011347	.0015773
%RSD	1.324198	.0491066	4.460964	23.48801	1.394173	203.8695	.4998316
#1	.0640009	6.265064	.0016526	-.000643	1294.596	.0016943	.3138949
#2	.0656165	6.262763	.0015193	-.000504	1271.527	.0005505	.3158137
#3	.0653221	6.268857	.0015478	-.000402	1306.995	-.000575	.3170228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.080349	.0190052	.0009493	-.000675	.0013863	3.898372	5.417491
Stddev	.027331	.0003256	.0001843	.000966	.0005893	.018047	.025717
%RSD	.6698098	1.713293	19.41141	143.0306	42.50731	.4629400	.4747084
#1	4.073436	.0190045	.0011620	-.001160	.0018161	3.919155	5.398857
#2	4.057139	.0186799	.0008426	.000437	.0016283	3.886659	5.406783
#3	4.110473	.0193311	.0008431	-.001302	.0007146	3.889301	5.446832

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02DUP Acquired: 5/14/2025 19:12:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	14.26621	-.000788	.1501265
Stddev	.03255	.000522	.0002053
%RSD	.2281468	66.21787	.1367715
#1	14.26100	-.000188	.1503077
#2	14.23658	-.001135	.1501682
#3	14.30105	-.001040	.1499035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2443.031	58161.99	13154.99	1637.746	3456.612
Stddev	9.097	165.16	60.27	2.158	8.446
%RSD	.3723585	.2839635	.4581785	.1317744	.2443401
#1	2437.531	58031.46	13192.21	1639.649	3454.676
#2	2453.531	58347.67	13187.31	1638.188	3465.858
#3	2438.031	58106.83	13085.45	1635.401	3449.302

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02LX5 Acquired: 5/14/2025 19:17:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011995	-.000695	.0011375	.0052518	-.000934	.0149535	.0023557
Stddev	.0031923	.001297	.0016856	.0035089	.001355	.0024224	.0007552
%RSD	266.1222	186.7388	148.1843	66.81442	145.0110	16.19981	32.05637
#1	-.001010	-.001181	.0013223	.0021015	-.002064	.0162154	.0015394
#2	.004859	-.001678	-.000633	.0090336	-.001307	.0121606	.0030294
#3	-.000251	.000776	.002723	.0046201	.000568	.0164844	.0024984

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	.0000501	5.412376	.0003518	-.000284	.0347083	.1458109
Stddev	.000067	.0000762	.031426	.0002835	.000146	.0002198	.0089792
%RSD	318.3481	152.2423	.5806322	80.57560	51.47380	.6331691	6.158101
#1	-.000093	-.000034	5.377382	.0006022	-.000340	.0347816	.1387668
#2	-.000008	.000116	5.438189	.0004092	-.000118	.0344612	.1559217
#3	.000038	.000068	5.421558	.0000440	-.000394	.0348820	.1427443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106070	1.180517	.0004672	-.000518	214.2673	.0004929	.1163004
Stddev	.0000708	.028402	.0001437	.000170	6.4795	.0010041	.0036749
%RSD	.6672113	2.405924	30.75936	32.76633	3.024045	203.7048	3.159845
#1	.0106873	1.155859	.0003014	-.000606	210.7287	.0014385	.1142782
#2	.0105797	1.174120	.0005547	-.000322	221.7457	.0006013	.1205423
#3	.0105539	1.211573	.0005456	-.000626	210.3277	-.000561	.1140808

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7016071	.0006333	.0001916	.0050217	.0008727	.6471499	.9571812
Stddev	.0083487	.0006779	.0001811	.0000867	.0011879	.0228146	.0059023
%RSD	1.189939	107.0304	94.53176	1.727452	136.1156	3.525392	.6166381
#1	.6995500	.0013423	.0001630	.0049580	.0016326	.6281855	.9603316
#2	.7107921	-.000008	.0003853	.0051205	.0014816	.6724677	.9608399
#3	.6944793	.000566	.0000264	.0049866	-.000496	.6407964	.9503721

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: Q2006-02LX5 Acquired: 5/14/2025 19:17:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.484817	.0017574	.0268080
Stddev	.011289	.0009049	.0000559
%RSD	.4543186	51.48751	.2086451
#1	2.495664	.0017730	.0268724
#2	2.485654	.0008449	.0267795
#3	2.473132	.0026544	.0267721

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2650.517	61481.47	12717.13	1732.980	3866.277
Stddev	11.268	1591.83	12.47	43.997	11.407
%RSD	.4251238	2.589115	.0980184	2.538782	.2950451
#1	2646.902	62814.87	12726.19	1767.854	3864.091
#2	2641.499	59719.12	12702.91	1683.550	3856.121
#3	2663.148	61910.41	12722.28	1747.535	3878.619

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV05 Acquired: 5/14/2025 19:21:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.791900	4.955158	4.825307	4.854094	4.828686	9.537200
Stddev	.023047	.048756	.020706	.028044	.020195	.029984
%RSD	.4809627	.9839413	.4291171	.5777490	.4182325	.3143925
#1	4.774340	4.902320	4.835722	4.827574	4.806504	9.514949
#2	4.783361	4.964750	4.801461	4.851260	4.833550	9.571298
#3	4.817998	4.998406	4.838738	4.883448	4.846006	9.525353

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.045871	.2325169	2.427266	23.45136	.9922500	2.413995
Stddev	.064989	.0018719	.006490	.03047	.0051990	.007043
%RSD	.7184387	.8050498	.2673745	.1299132	.5239619	.2917718
#1	8.984437	.2339748	2.433104	23.44609	.9980931	2.417771
#2	9.113911	.2331700	2.420278	23.48411	.9881355	2.405869
#3	9.039266	.2304060	2.428417	23.42386	.9905214	2.418345

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.201098	4.829365	2.309845	23.25021	2.438545	1.208886
Stddev	.003040	.042331	.001165	.04295	.008669	.006041
%RSD	.2531297	.8765330	.0504318	.1847359	.3555104	.4996837
#1	1.197888	4.834040	2.310074	23.22902	2.445047	1.215859
#2	1.201471	4.784891	2.310879	23.29964	2.428702	1.205533
#3	1.203935	4.869164	2.308583	23.22196	2.441887	1.205265

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.04479	2.382405	2.424892	24.21816	4.599142	4.906037
Stddev	.13643	.002844	.022054	.19856	.031642	.014736
%RSD	.5447553	.1193831	.9094931	.8198920	.6880043	.3003604
#1	25.05926	2.383830	2.440679	24.27637	4.615832	4.893636
#2	24.90170	2.384255	2.434304	23.99699	4.618945	4.902147
#3	25.17341	2.379130	2.399694	24.38111	4.562649	4.922327

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCV05 Acquired: 5/14/2025 19:21:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.854991	4.712749	4.858793	4.732594	4.716218	4.727100
Stddev	.014434	.003342	.046060	.012305	.019697	.003894
%RSD	.2973053	.0709104	.9479713	.2600061	.4176478	.0823831
#1	4.860841	4.713602	4.842052	4.731813	4.694100	4.726402
#2	4.838551	4.715582	4.823444	4.720698	4.722686	4.723603
#3	4.865583	4.709063	4.910882	4.745271	4.731868	4.731297

Elem	Sr4077
Units	ppm
Avg	F 4.476916
Stddev	.044007
%RSD	.9829809
#1	4.430905
#2	4.518600
#3	4.481243

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2635.151	61465.58	12156.90	1710.546	3901.718
Stddev	4.336	266.45	66.97	9.499	10.661
%RSD	.1645416	.4335015	.5508800	.5552966	.2732317
#1	2638.867	61190.74	12111.59	1699.727	3894.178
#2	2636.197	61722.78	12125.28	1714.392	3913.915
#3	2630.387	61483.21	12233.82	1717.518	3897.062

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB05 Acquired: 5/14/2025 19:25:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019418	.0018944	.0004693	.0039152	-.002510	.0051174	-.000731
Stddev	.0015525	.0030499	.0007428	.0021046	.000974	.0039322	.000990
%RSD	79.94987	160.9961	158.2887	53.75466	38.81777	76.83994	135.3126
#1	.0017170	-.000137	.0011927	.0048674	-.001407	.0009555	-.001872
#2	.0005140	.005401	-.000291	.0015028	-.002872	.0087704	-.000099
#3	.0035944	.000419	.000507	.0053753	-.003252	.0056264	-.000223

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000493	.0003085	.0032798	.0007210	.0001230	.0003003	.0178212
Stddev	.0000470	.0001073	.0126098	.0001649	.0003369	.0000766	.0062158
%RSD	95.28851	34.77644	384.4738	22.87324	273.8808	25.48870	34.87894
#1	.0000019	.0002331	.0024864	.0005310	-.000218	.0002164	.0106521
#2	.0000502	.0002611	.0162675	.0008277	.000131	.0003183	.0217054
#3	.0000958	.0004314	-.008915	.0008042	.000456	.0003663	.0211061

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023866	.0055964	.0005435	-.000251	-.158558	.0010102	.0029166
Stddev	.0004005	.0002958	.0001035	.000045	.006601	.0000728	.0002075
%RSD	16.78098	5.284992	19.03901	17.82848	4.162906	7.207632	7.115261
#1	.0022487	.0053586	.0005590	-.000207	-.154212	.0009870	.0028911
#2	.0028378	.0059276	.0006384	-.000248	-.155309	.0009518	.0031358
#3	.0020733	.0055030	.0004332	-.000297	-.166154	.0010918	.0027231

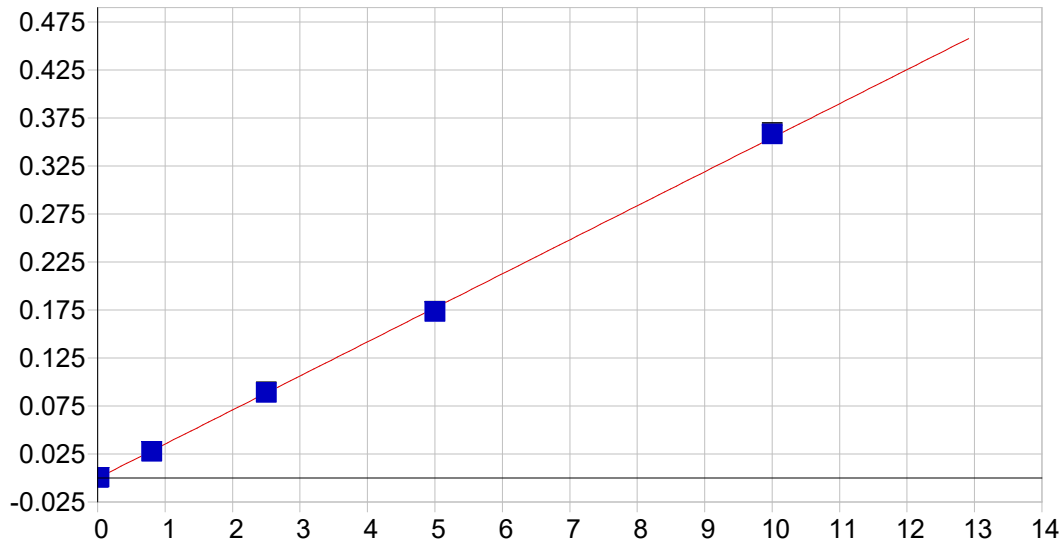
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050704	.0018420	.0006307	.0018176	.0009120	.0083582	.0044978
Stddev	.0290263	.0007050	.0000885	.0007244	.0007636	.0031297	.0026728
%RSD	572.4605	38.27505	14.03421	39.85268	83.73669	37.44393	59.42487
#1	-.026654	.0011222	.0005767	.0013808	.0016498	.0090961	.0018051
#2	.030298	.0025312	.0007329	.0014182	.0009612	.0049256	.0045380
#3	.011567	.0018725	.0005826	.0026537	.0001249	.0110530	.0071502

Reviewed By:jaswal
On:5/15/2025 1:41:56 PM
Inst Id :P4
LB :LB135778

Sample Name: CCB05 Acquired: 5/14/2025 19:25:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v43) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0029761	.0000676	.0003384
Stddev	.0036528	.0006640	.0000657
%RSD	122.7381	982.7038	19.41235
#1	-.001108	-.000391	.0003817
#2	.005930	-.000235	.0002628
#3	.004106	.000829	.0003706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.981	65536.09	13581.17	1846.814	4238.706
Stddev	9.981	389.15	62.20	18.929	14.250
%RSD	.3601842	.5937987	.4579617	1.024941	.3361873
#1	2774.423	65087.11	13536.99	1826.358	4242.188
#2	2759.735	65744.59	13554.21	1850.375	4223.037
#3	2778.786	65776.57	13652.29	1863.710	4250.891

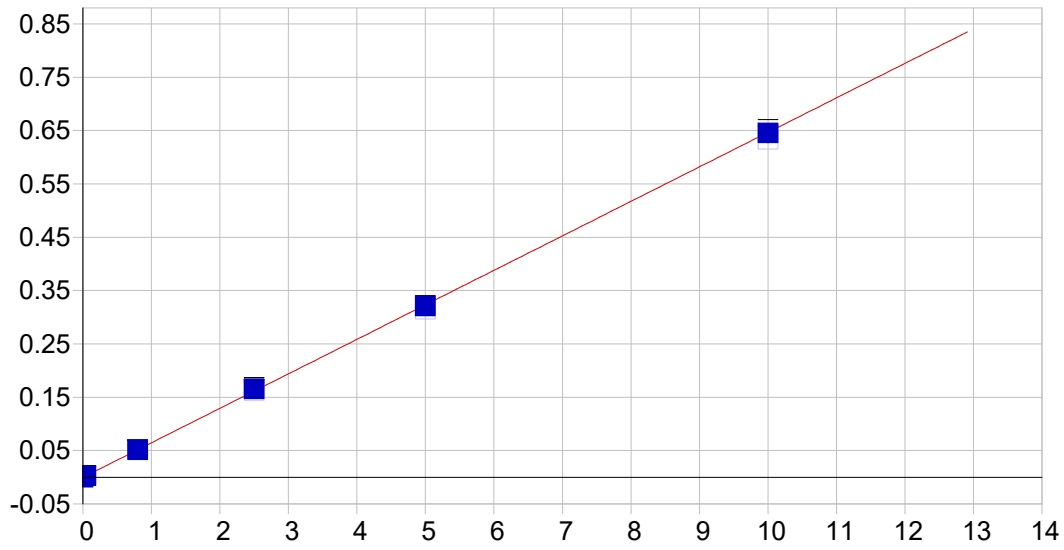


As 189.042 {479}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000103	Re-Slope:	1.000000
A1 (Gain):	0.035457	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999883	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.003862		
Predicted MQL:	0.012872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00010	.000	1
S1	.02000	.02024	.000	1.21	.00061	.000	1
S3	2.5000	2.5163	.016	.652	.08902	.000	1
S4	5.0000	4.8906	-.109	-2.19	.17311	.000	1
S5	10.000	10.113	.113	1.13	.35808	.001	1
S2	.80000	.78013	-.020	-2.48	.02753	.000	1

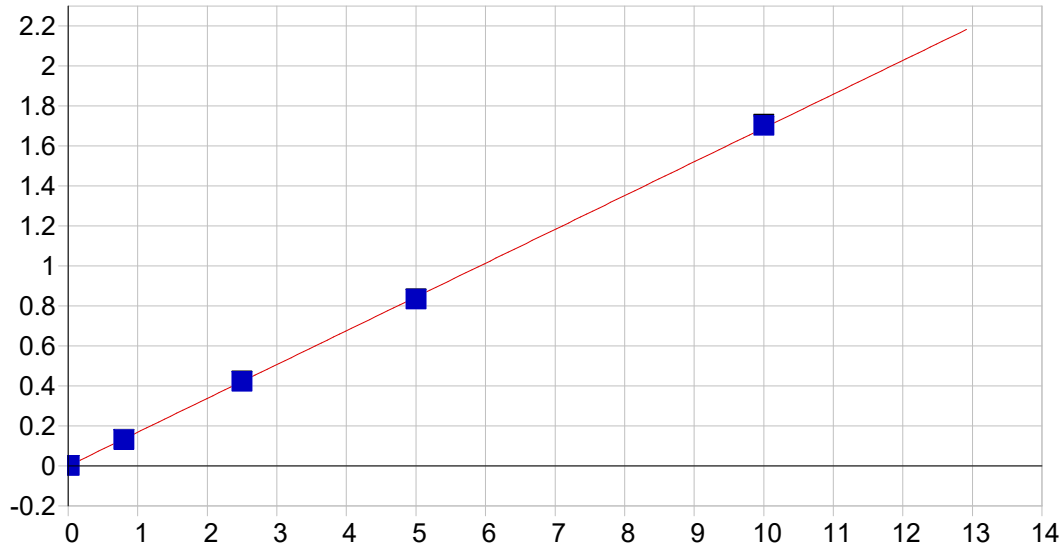


Tl 190.856 {477}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000149	Re-Slope:	1.000000
A1 (Gain):	0.064674	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.002078		
Predicted MQL:	0.006928		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00015	.000	1
S1	.04000	.04204	.002	5.09	.00240	.000	1
S3	2.5000	2.5565	.057	2.26	.16221	.003	1
S4	5.0000	4.9636	-.036	-.729	.31491	.001	1
S5	10.000	9.9789	-.021	-.211	.63332	.007	1
S2	.80000	.79908	-.001	-.115	.05058	.001	1

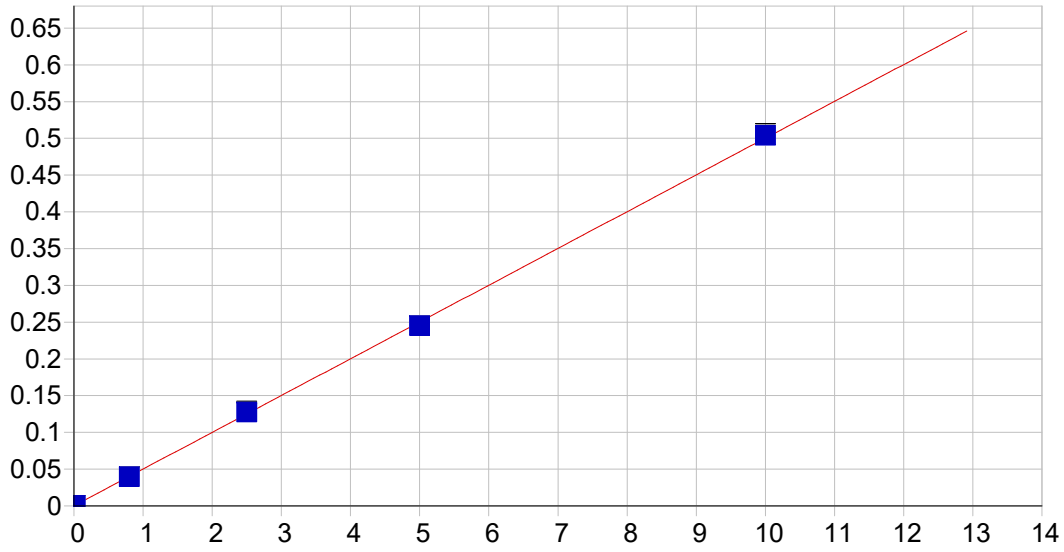


Pb 220.353 {453}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000231	Re-Slope:	1.000000
A1 (Gain):	0.169020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.001828		
Predicted MQL:	0.006094		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00023	.000	1
S1	.01200	.01140	-.001	-5.03	.00166	.000	1
S3	2.5000	2.5021	.002	.086	.42225	.002	1
S4	5.0000	4.9361	-.064	-1.28	.83320	.001	1
S5	10.000	10.082	.082	.819	1.7021	.006	1
S2	.80000	.78051	-.019	-2.44	.13155	.001	1

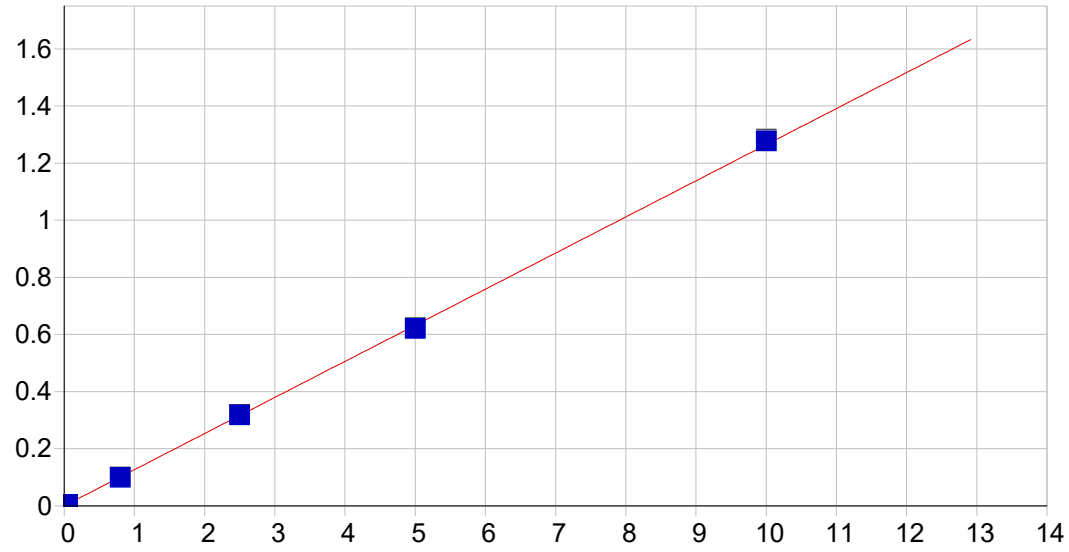


Se 196.090 {472}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000088	Re-Slope:	1.000000
A1 (Gain):	0.050024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999898	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.003957		
Predicted MQL:	0.013191		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.02000	.01947	-.001	-2.66	.00106	.000	1
S3	2.5000	2.5455	.045	1.82	.12738	.001	1
S4	5.0000	4.8955	-.105	-2.09	.24489	.001	1
S5	10.000	10.072	.072	.722	.50376	.003	1
S2	.80000	.78735	-.013	-1.58	.03946	.000	1

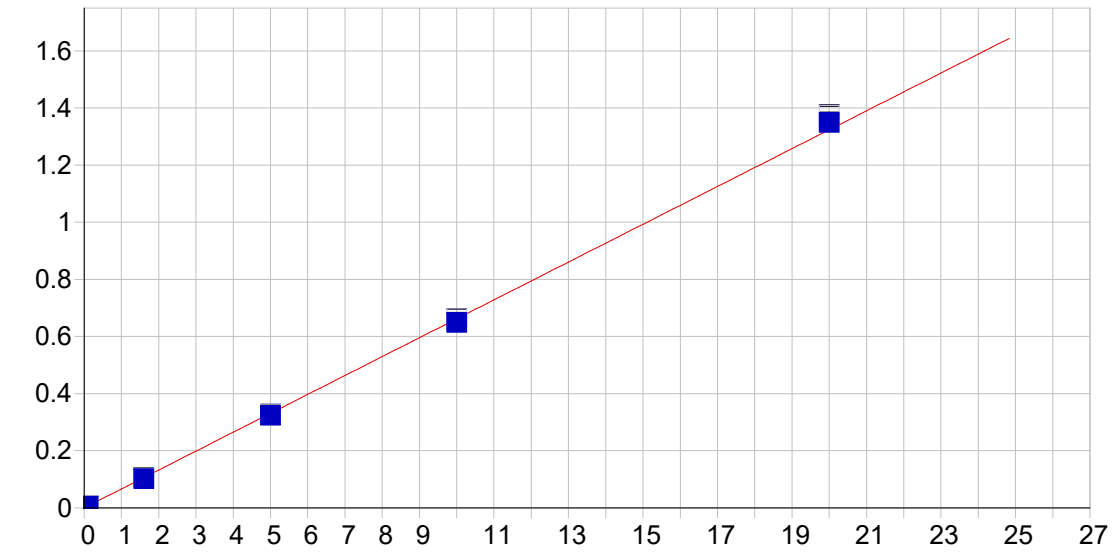


Sb 206.833 {463}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000376	Re-Slope:	1.000000
A1 (Gain):	0.126414	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.002192		
Predicted MQL:	0.007307		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00038	.000	1
S1	.05000	.05281	.003	5.62	.00707	.000	1
S3	2.5000	2.5112	.011	.446	.31868	.002	1
S4	5.0000	4.9068	-.093	-1.86	.62238	.001	1
S5	10.000	10.097	.097	.970	1.2802	.003	1
S2	.80000	.78222	-.018	-2.22	.09953	.001	1

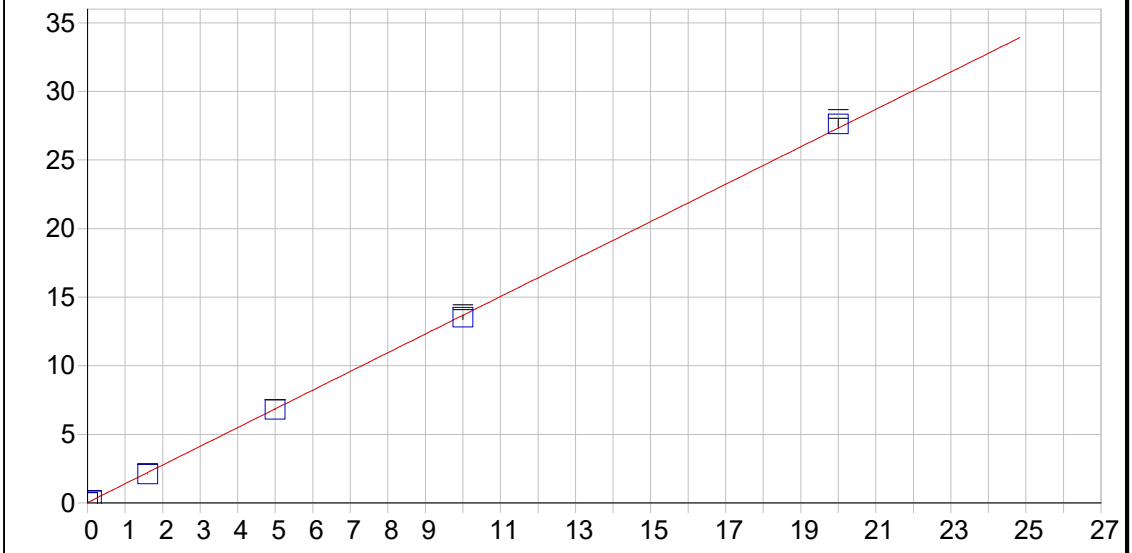


Al 396.152 { 85}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000248	Re-Slope:	1.000000
A1 (Gain):	0.066186	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999797	Status:	OK.
Std Error of Est:	0.000101		
Predicted MDL:	0.006433		
Predicted MQL:	0.021444		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00025	.000	1
S1	.10000	.09953	-.000	-.472	.00735	.000	1
S3	5.0000	4.8855	-.115	-2.29	.33002	.000	1
S4	10.000	9.7989	-.201	-2.01	.66164	.001	1
S5	20.000	20.371	.371	1.86	1.3742	.003	1
S2	1.6000	1.5447	-.055	-3.45	.10454	.000	1

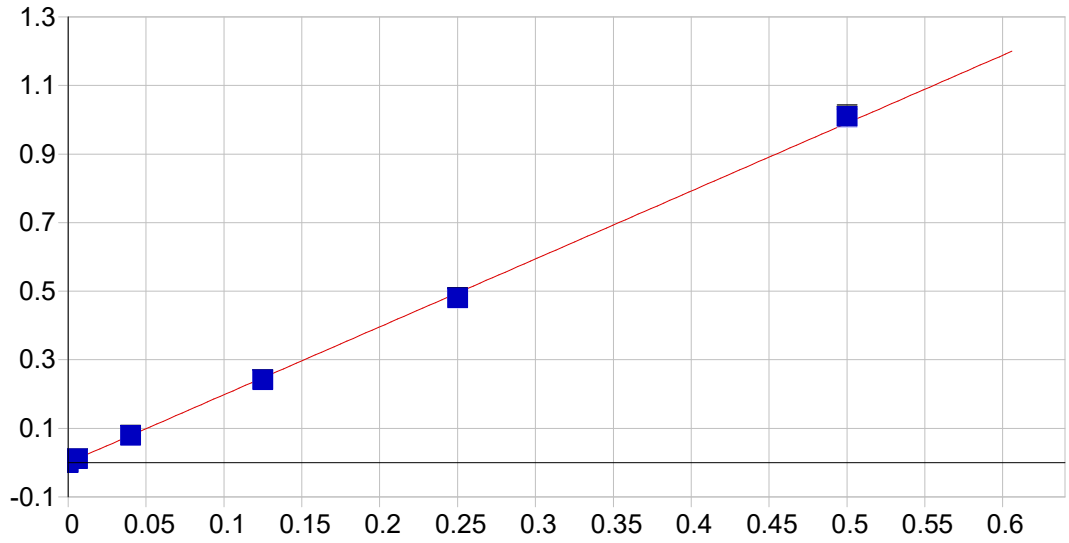


Ba 493.409 { 68}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.033783	Re-Slope:	1.000000
A1 (Gain):	1.364667	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.001483		
Predicted MDL:	0.001074		
Predicted MQL:	0.003581		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.03379	.002	1
S1	.10000	.09797	-.002	-2.03	.16748	.000	1
S3	5.0000	4.9646	-.035	-.708	6.8088	.012	1
S4	10.000	9.8976	-.102	-1.02	13.541	.170	1
S5	20.000	20.221	.221	1.10	27.629	.316	1
S2	1.6000	1.5190	-.081	-5.06	2.1067	.007	1

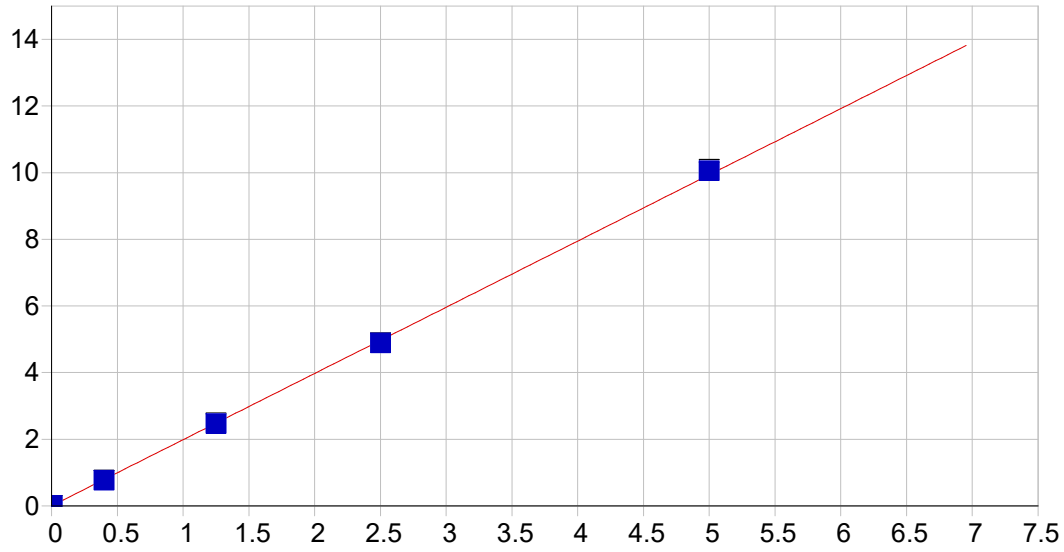


Be 234.861 {144}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000063	Re-Slope:	1.000000
A1 (Gain):	1.980191	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999734	Status:	OK.
Std Error of Est:	0.000131		
Predicted MDL:	0.000068		
Predicted MQL:	0.000228		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00006	.000	1
S1	.00600	.00580	-.000	-3.36	.01133	.000	1
S3	.12500	.12213	-.003	-2.30	.24066	.001	1
S4	.25000	.24279	-.007	-2.88	.47850	.001	1
S5	.50000	.51010	.010	2.02	1.0056	.005	1
S2	.04000	.04018	.000	.444	.07914	.000	1

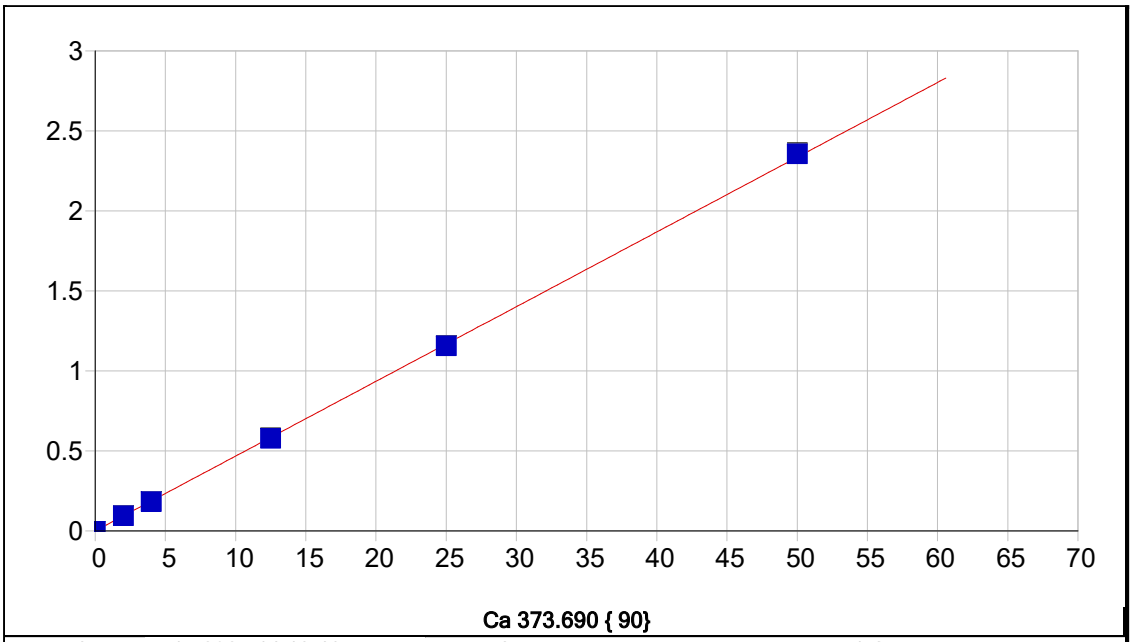


Cd 226.502 {449}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000086	Re-Slope:	1.000000
A1 (Gain):	1.987108	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	0.000249		
Predicted MDL:	0.000106		
Predicted MQL:	0.000355		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.00600	.00611	.000	1.81	.01229	.000	1
S3	1.2500	1.2444	-.006	-.451	2.4749	.011	1
S4	2.5000	2.4599	-.040	-1.60	4.8925	.004	1
S5	5.0000	5.0583	.058	1.17	10.060	.040	1
S2	.40000	.38738	-.013	-3.16	.77055	.002	1

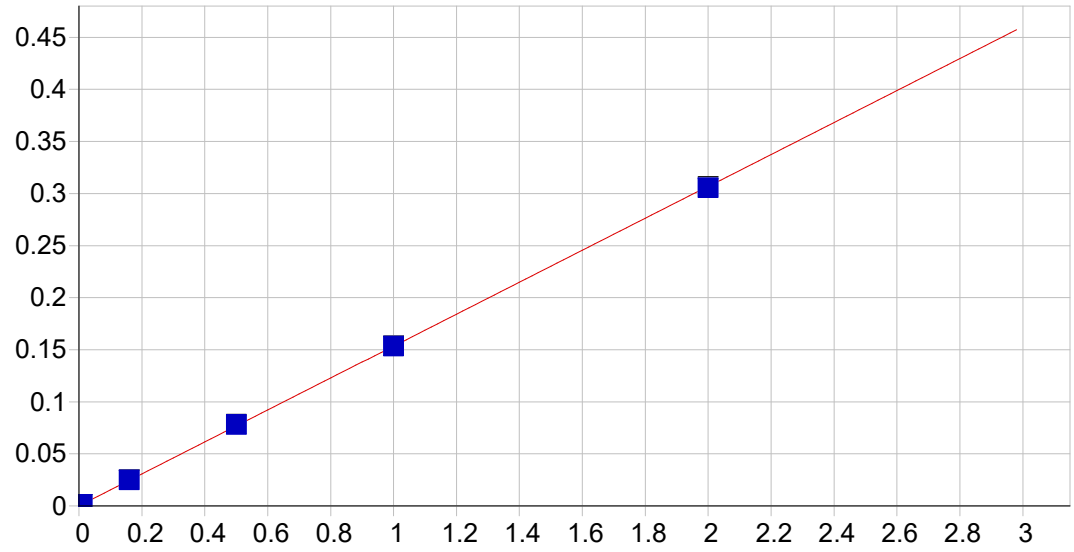


Ca 373.690 { 90}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000375	Re-Slope:	1.000000
A1 (Gain):	0.046708	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.000257		
Predicted MDL:	0.008064		
Predicted MQL:	0.026881		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00038	.000	1
S2	4.0000	3.9026	-.097	-2.44	.18266	.001	1
S3	12.500	12.386	-.114	-.913	.57889	.000	1
S4	25.000	24.748	-.252	-1.01	1.1563	.002	1
S5	50.000	50.452	.452	.905	2.3569	.005	1
S1	2.0000	2.0109	.011	.547	.09430	.000	1

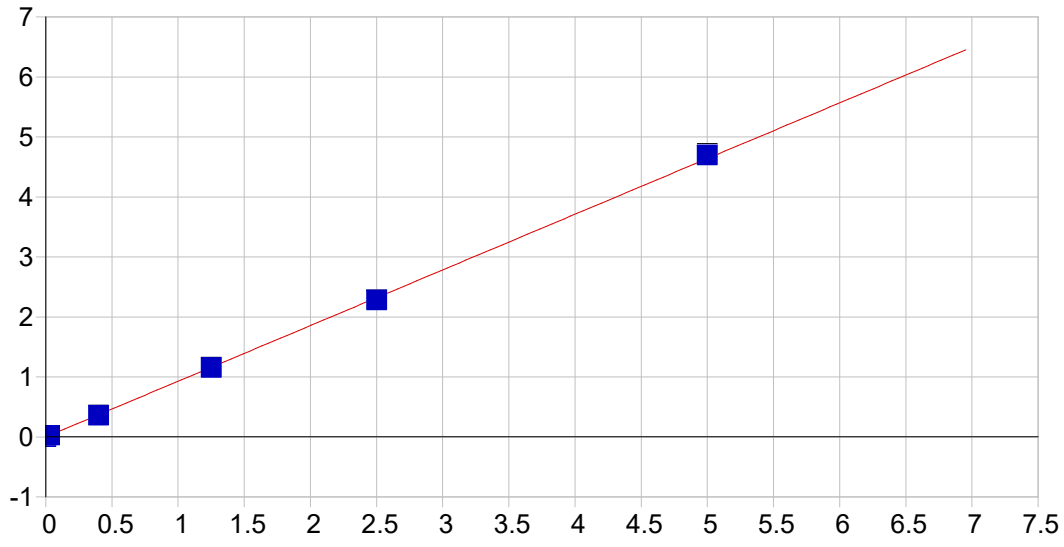


Cr 267.716 {126}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000102	Re-Slope:	1.000000
A1 (Gain):	0.153381	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.000452		
Predicted MQL:	0.001508		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00010	.000	1
S1	.01000	.00992	-.000	-.818	.00162	.000	1
S3	.50000	.50767	.008	1.53	.07799	.000	1
S4	1.0000	.99987	-.000	-.013	.15351	.000	1
S5	2.0000	1.9910	-.009	-.451	.30557	.001	1
S2	.16000	.16157	.002	.981	.02489	.000	1

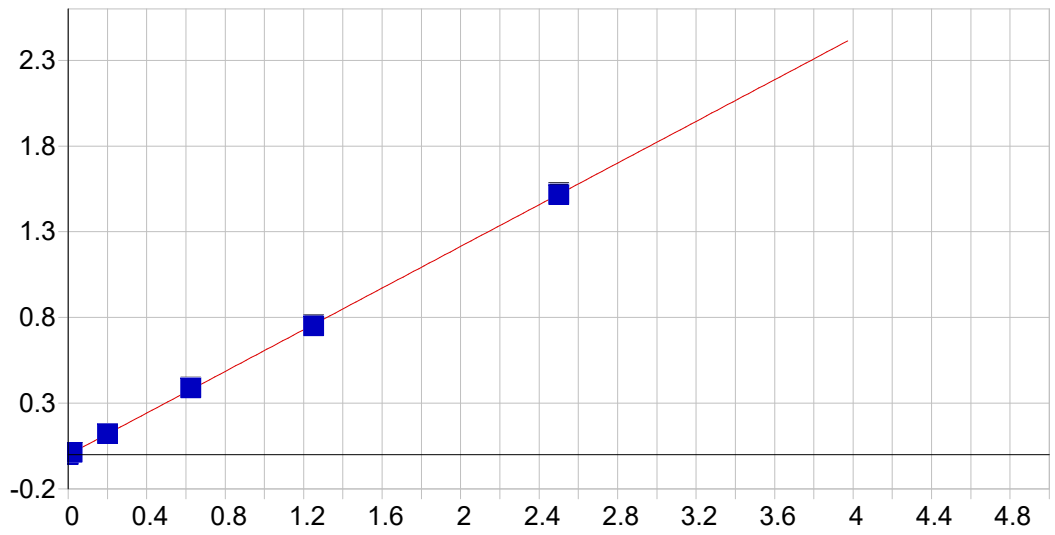


Co 228.616 {448}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000097	Re-Slope:	1.000000
A1 (Gain):	0.927777	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000273		
Predicted MDL:	0.000262		
Predicted MQL:	0.000873		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00010	.000	1
S1	.03000	.02936	-.001	-2.13	.02722	.000	1
S3	1.2500	1.2426	-.007	-.591	1.1549	.005	1
S4	2.5000	2.4601	-.040	-1.59	2.2865	.002	1
S5	5.0000	5.0616	.062	1.23	4.7040	.017	1
S2	.40000	.38625	-.014	-3.44	.35908	.001	1

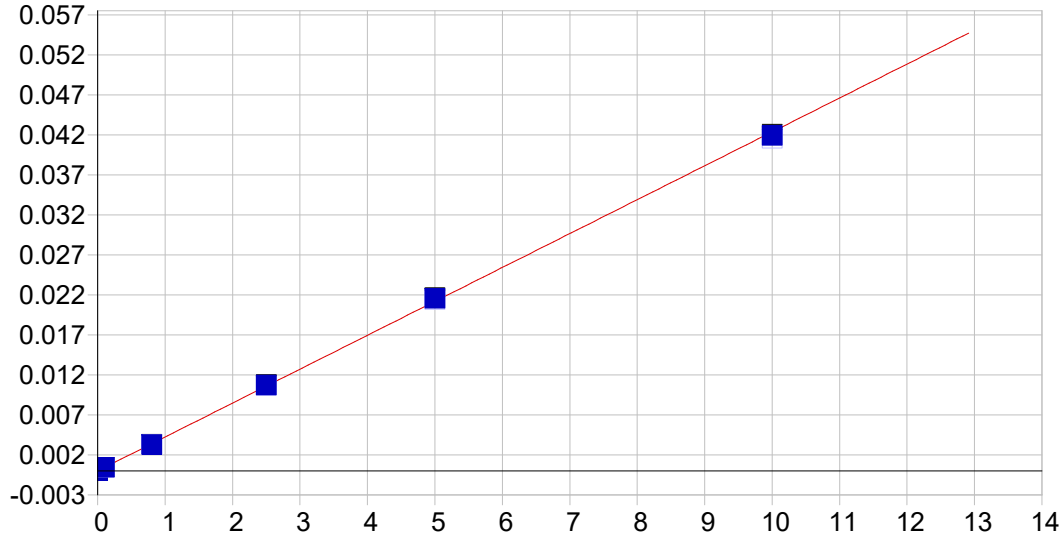


Cu 224.700 {450}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000820	Re-Slope:	1.000000
A1 (Gain):	0.607712	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000096		
Predicted MDL:	0.000503		
Predicted MQL:	0.001678		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00082	.000	1
S1	.02000	.02226	.002	11.3	.01283	.000	1
S3	.62500	.64071	.016	2.51	.39131	.002	1
S4	1.2500	1.2364	-.014	-1.09	.75609	.002	1
S5	2.5000	2.4937	-.006	-.250	1.5257	.002	1
S2	.20000	.20191	.002	.954	.12277	.001	1

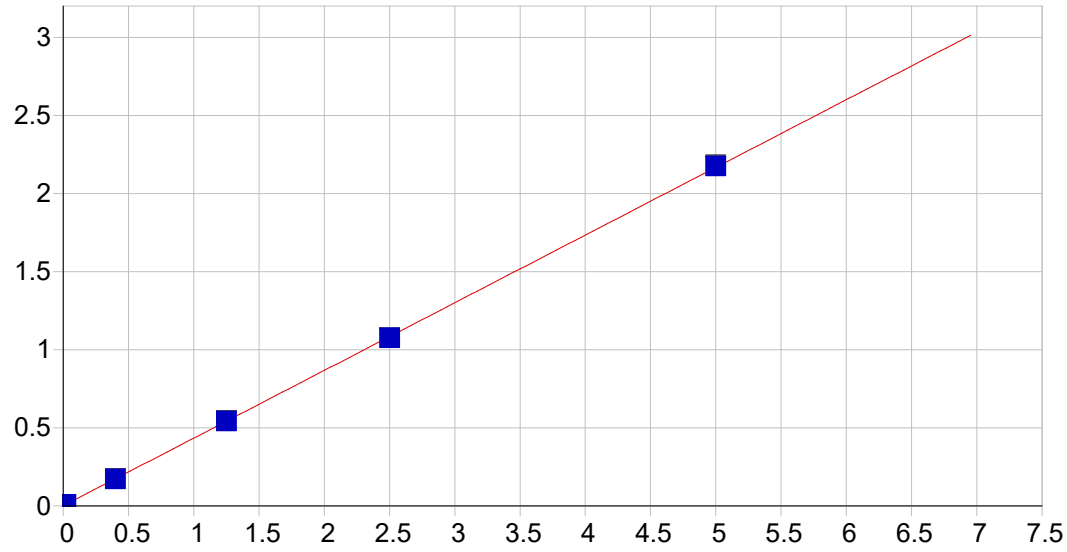


Fe 240.488 {140}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.004236	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999892	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.005547		
Predicted MQL:	0.018491		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00000	.000	1
S1	.10000	.10197	.002	1.97	.00043	.000	1
S3	2.5000	2.5339	.034	1.35	.01064	.000	1
S4	5.0000	5.0914	.091	1.83	.02139	.000	1
S5	10.000	9.8959	-.104	-1.04	.04156	.000	1
S2	.80000	.77684	-.023	-2.90	.00326	.000	1

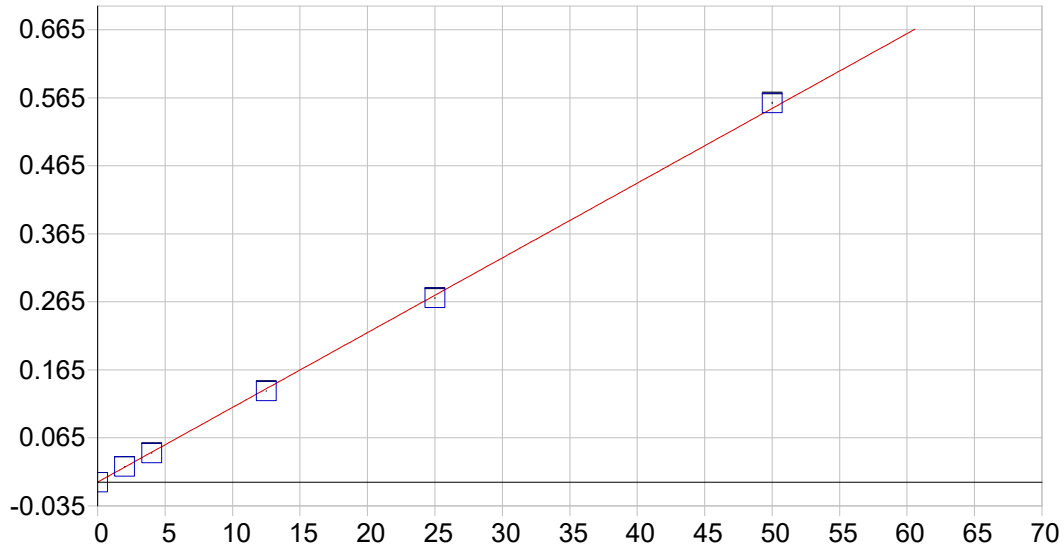


Mn 257.610 {131}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000574	Re-Slope:	1.000000
A1 (Gain):	0.433300	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.000325		
Predicted MQL:	0.001082		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00057	.000	1
S1	.02000	.02053	.001	2.67	.00947	.000	1
S3	1.2500	1.2518	.002	.142	.54307	.001	1
S4	2.5000	2.4807	-.019	-.770	1.0757	.001	1
S5	5.0000	5.0190	.019	.380	2.1757	.006	1
S2	.40000	.39793	-.002	-.517	.17303	.001	1

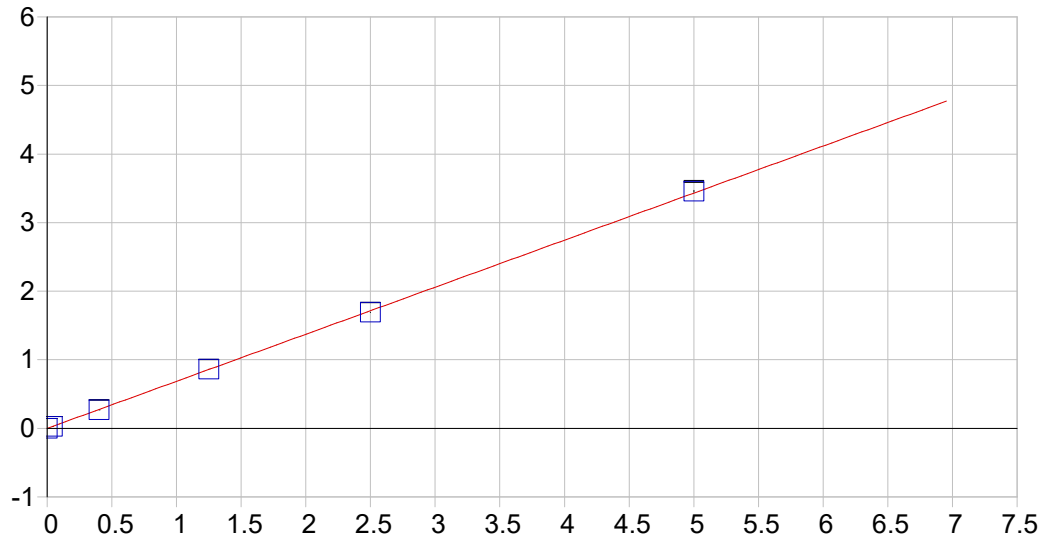


Mg 279.079 {121}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.010991	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999837	Status:	OK.
Std Error of Est:	0.000105		
Predicted MDL:	0.014267		
Predicted MQL:	0.047555		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00000	.000	1
S2	4.0000	3.8849	-.115	-2.88	.04270	.001	1
S3	12.500	12.182	-.318	-2.55	.13389	.000	1
S4	25.000	24.626	-.374	-1.50	.27068	.001	1
S5	50.000	50.733	.733	1.47	.55763	.001	1
S1	2.0000	2.0742	.074	3.71	.02280	.000	1

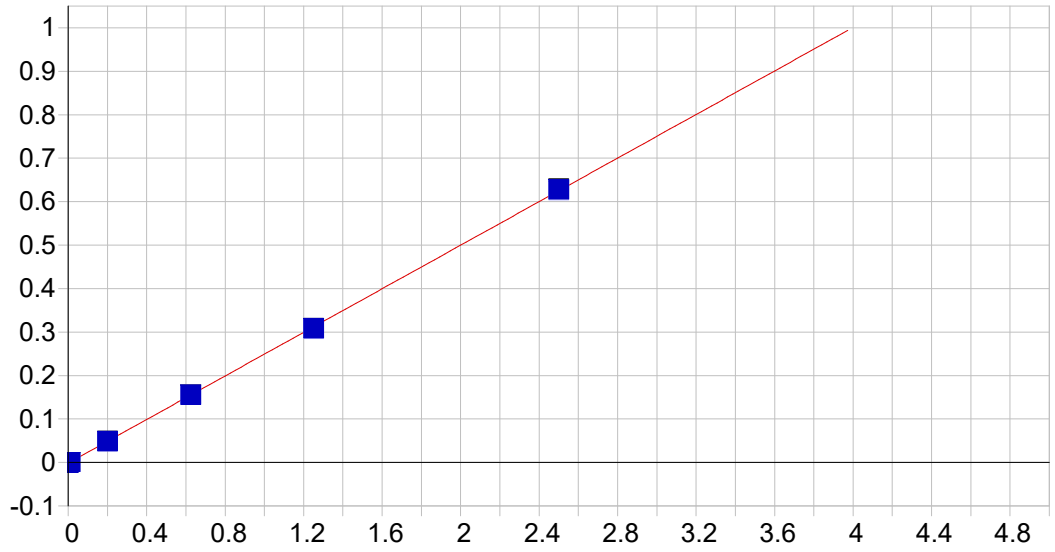


Ni 231.604 {446}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000145	Re-Slope:	1.000000
A1 (Gain):	0.686139	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000170		
Predicted MDL:	0.000340		
Predicted MQL:	0.001133		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.04000	.03925	-.001	-1.89	.02678	.000	1
S3	1.2500	1.2538	.004	.307	.86016	.003	1
S4	2.5000	2.4665	-.034	-1.34	1.6922	.002	1
S5	5.0000	5.0399	.040	.799	3.4579	.015	1
S2	.40000	.39054	-.009	-2.37	.26782	.001	1

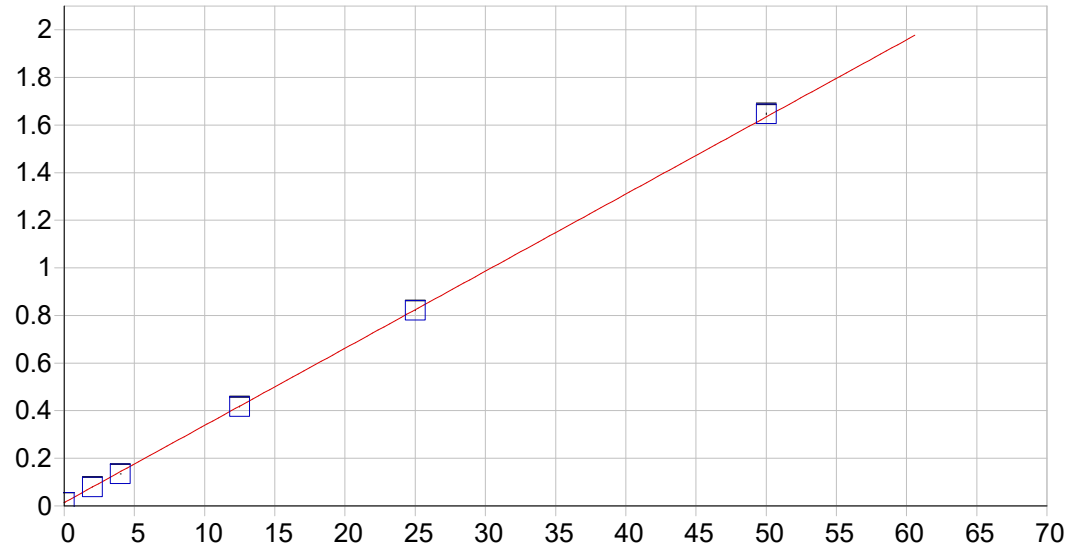


Ag 328.068 {103}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001373	Re-Slope:	1.000000
A1 (Gain):	0.250581	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000397		
Predicted MQL:	0.001324		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00137	.000	1
S1	.01000	.01011	.000	1.10	.00114	.000	1
S3	.62500	.62708	.002	.333	.15514	.000	1
S4	1.2500	1.2356	-.014	-1.15	.30700	.001	1
S5	2.5000	2.5128	.013	.513	.62581	.002	1
S2	.20000	.19937	-.001	-.315	.04839	.000	1

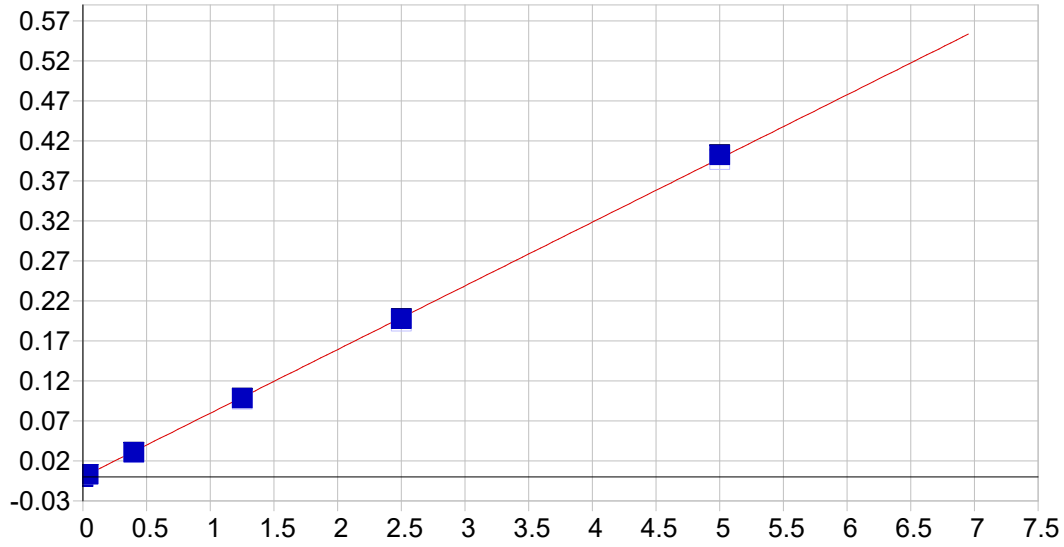


Na 589.592 { 57}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014147	Re-Slope:	1.000000
A1 (Gain):	0.032399	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999862	Status:	OK.
Std Error of Est:	0.000285		
Predicted MDL:	0.007636		
Predicted MQL:	0.025452		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00012	.000	.000	.01415	.000	1
S2	4.0000	3.7072	-.293	-7.32	.13426	.000	1
S3	12.500	12.438	-.062	-.500	.41712	.002	1
S4	25.000	24.917	-.083	-.330	.82145	.001	1
S5	50.000	50.411	.411	.821	1.6474	.004	1
S1	2.0000	2.0271	.027	1.35	.07982	.000	1

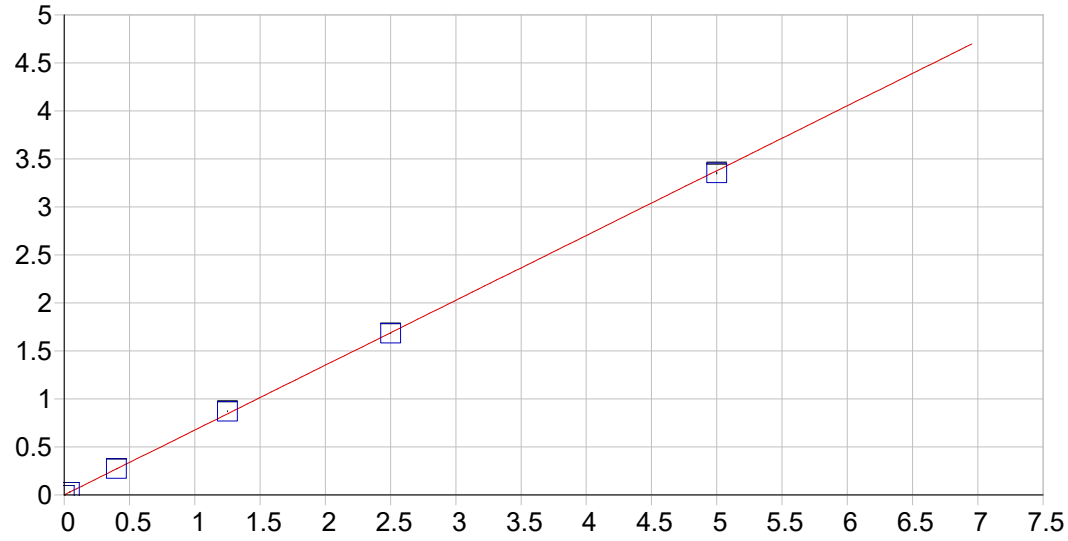


V 292.402 {115}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.079602	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.001847		
Predicted MQL:	0.006156		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.04000	.03911	-.001	-2.22	.00303	.000	1
S3	1.2500	1.2334	-.017	-1.33	.09677	.000	1
S4	2.5000	2.4796	-.020	-.817	.19451	.001	1
S5	5.0000	5.0538	.054	1.08	.39652	.001	1
S2	.40000	.38415	-.016	-3.96	.03015	.000	1

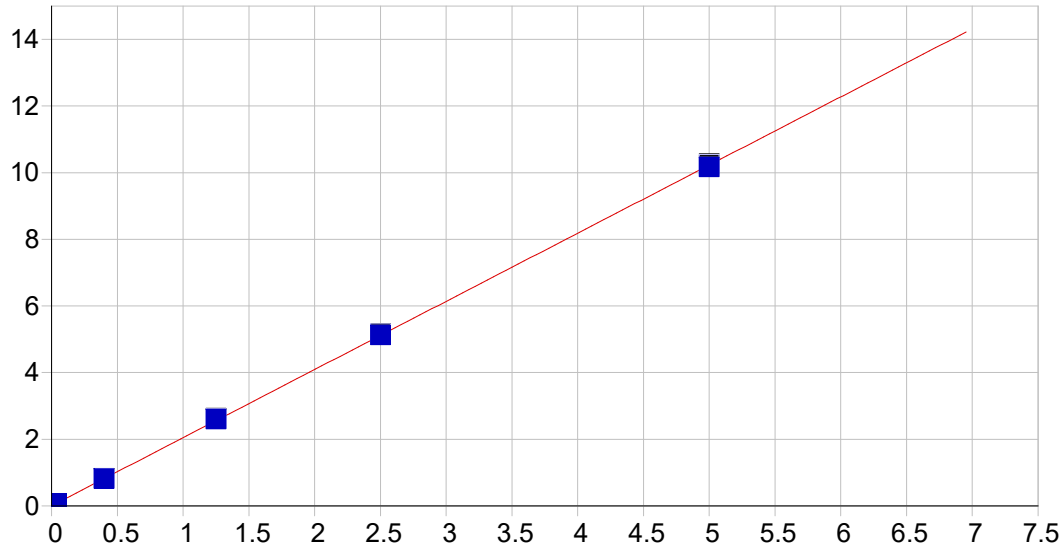


Zn 206.200 {464}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000200	Re-Slope:	1.000000
A1 (Gain):	0.675528	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000215		
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	.00020	.000	1
S1	.04000	.04193	.002	4.82	.02852	.000	1
S3	1.2500	1.2895	.040	3.16	.87133	.005	1
S4	2.5000	2.4903	-.010	-.386	1.6825	.003	1
S5	5.0000	4.9636	-.036	-.727	3.3533	.011	1
S2	.40000	.40453	.005	1.13	.27347	.001	1

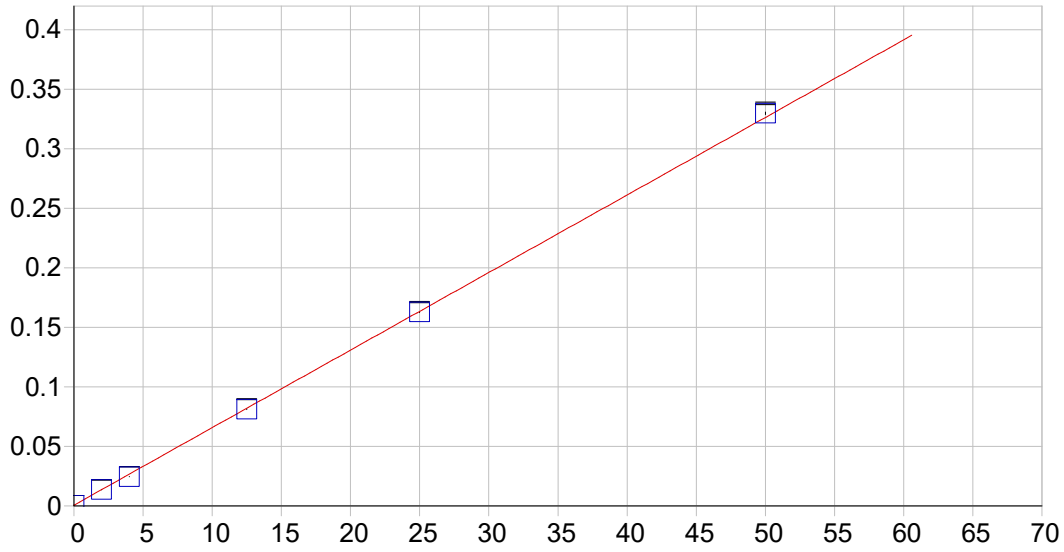


Zn 213.856 {158}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002156	Re-Slope:	1.000000
A1 (Gain):	2.045475	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999965	Status:	OK.
Std Error of Est:	0.000402		
Predicted MDL:	0.000336		
Predicted MQL:	0.001119		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00215	.001	1
S1	.04000	.04174	.002	4.36	.08811	.000	1
S3	1.2500	1.2724	.022	1.79	2.6226	.010	1
S4	2.5000	2.5051	.005	.206	5.1619	.004	1
S5	5.0000	4.9731	-.027	-.539	10.246	.024	1
S2	.40000	.39767	-.002	-.583	.82127	.001	1

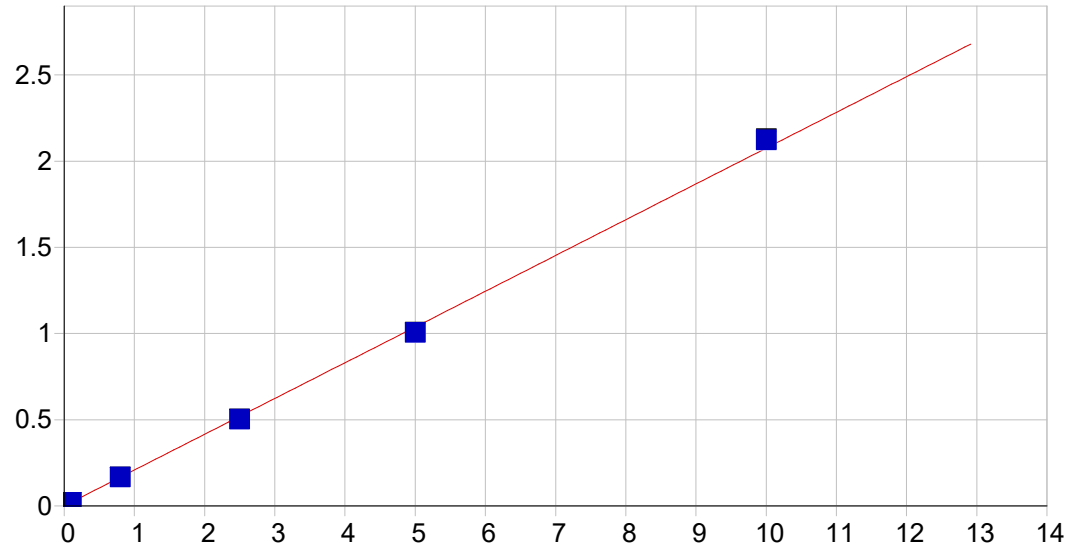


K 766.490 { 44}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000629	Re-Slope:	1.000000
A1 (Gain):	0.006516	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999820	Status:	OK.
Std Error of Est:	0.000065		
Predicted MDL:	0.034351		
Predicted MQL:	0.114505		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	.00063	.000	1
S2	4.0000	3.6739	-.326	-8.15	.02457	.000	1
S3	12.500	12.386	-.114	-.914	.08133	.000	1
S4	25.000	24.908	-.092	-.367	.16292	.000	1
S5	50.000	50.535	.535	1.07	.32989	.001	1
S1	2.0000	1.9972	-.003	-.142	.01364	.000	1

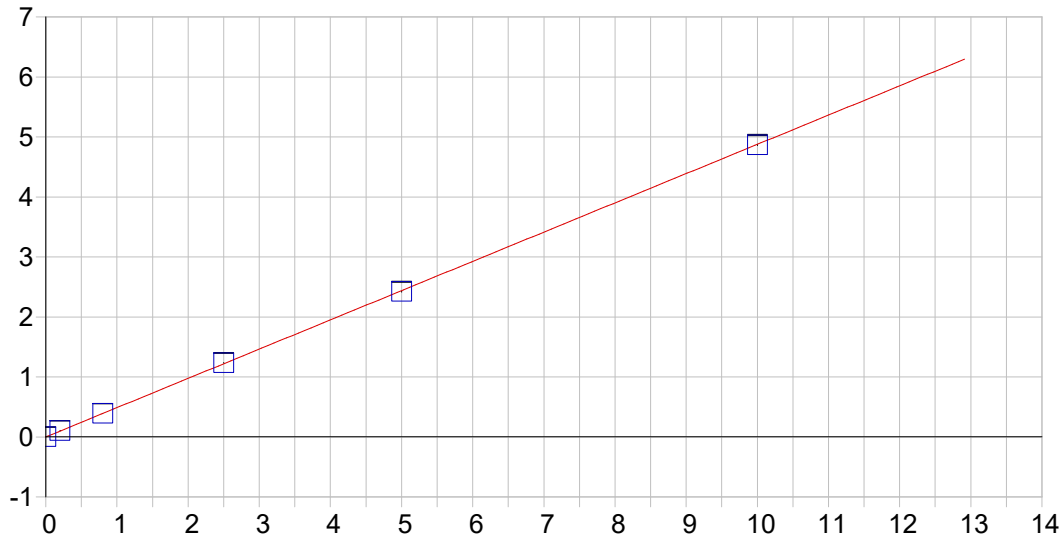


B 249.678 {135}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000669	Re-Slope:	1.000000
A1 (Gain):	0.207479	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999660	Status:	OK.
Std Error of Est:	0.000284		
Predicted MDL:	0.000839		
Predicted MQL:	0.002795		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00067	.000	1
S1	.10000	.10145	.001	1.45	.02163	.000	1
S3	2.5000	2.4209	-.079	-3.17	.50206	.001	1
S4	5.0000	4.8470	-.153	-3.06	1.0045	.002	1
S5	10.000	10.230	.230	2.30	2.1195	.007	1
S2	.80000	.80106	.001	.132	.16659	.001	1

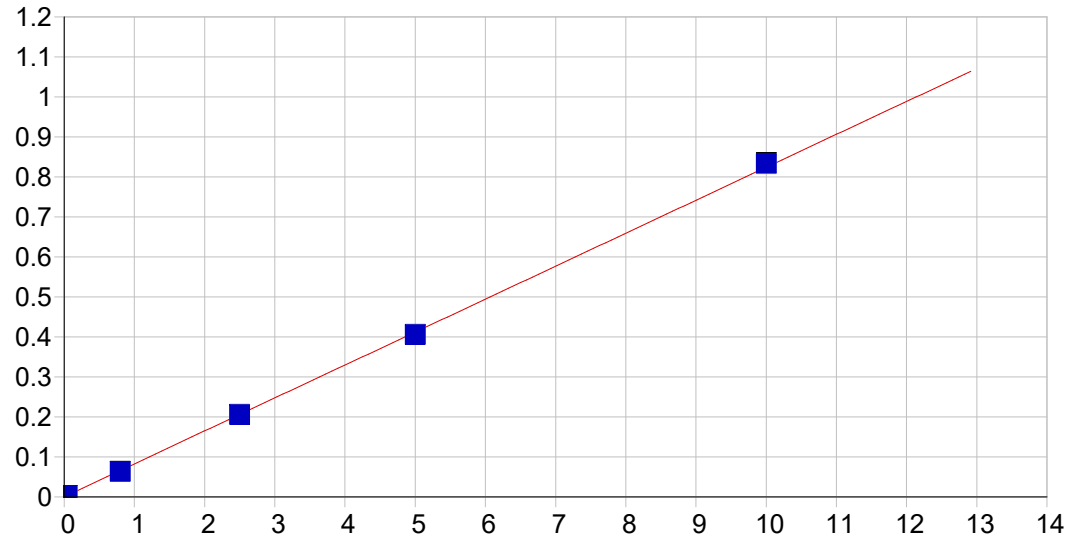


Mo 202.030 {467}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000040	Re-Slope:	1.000000
A1 (Gain):	0.487578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000306		
Predicted MDL:	0.000381		
Predicted MQL:	0.001271		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00003	.000	1
S1	.20000	.21149	.011	5.75	.10316	.000	1
S3	2.5000	2.5331	.033	1.32	1.2351	.005	1
S4	5.0000	4.9701	-.030	-.598	2.4234	.008	1
S5	10.000	9.9828	-.017	-.172	4.8674	.012	1
S2	.80000	.80255	.003	.319	.39135	.002	1

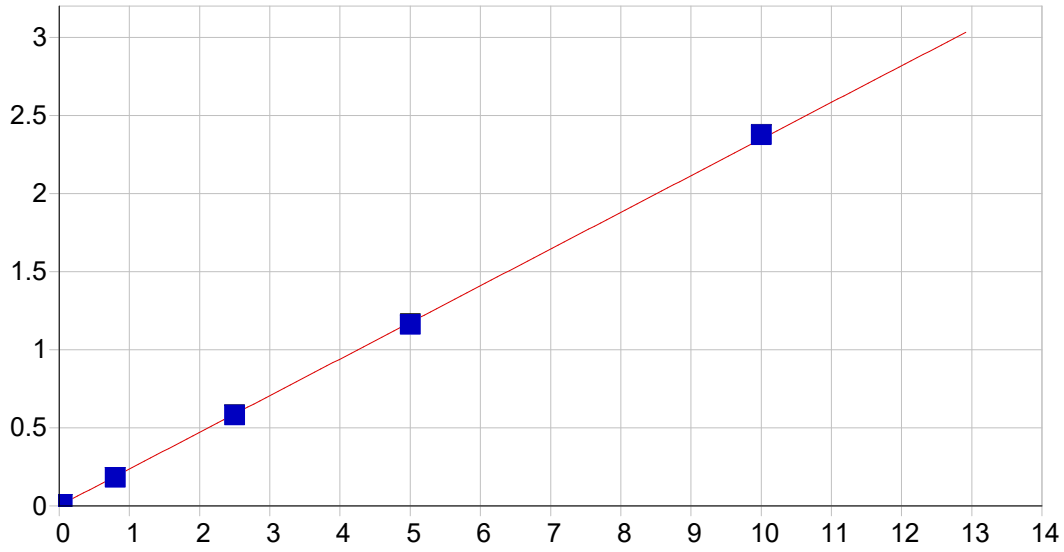


Sn 189.989 {478}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000243	Re-Slope:	1.000000
A1 (Gain):	0.082369	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.001150		
Predicted MQL:	0.003832		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00024	.000	1
S1	.04000	.04349	.003	8.72	.00382	.000	1
S3	2.5000	2.4923	-.008	-.308	.20532	.001	1
S4	5.0000	4.9236	-.076	-1.53	.40537	.001	1
S5	10.000	10.113	.113	1.13	.83239	.003	1
S2	.80000	.76769	-.032	-4.04	.06341	.000	1

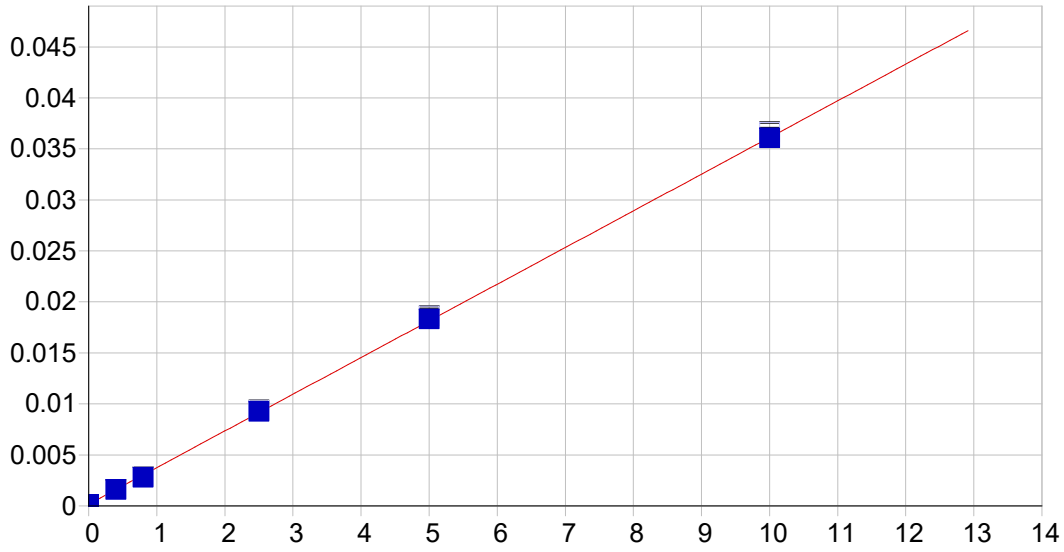


Ti 336.121 {100}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001620	Re-Slope:	1.000000
A1 (Gain):	0.234680	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000106		
Predicted MDL:	0.000907		
Predicted MQL:	0.003023		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00162	.000	1
S1	.04000	.04062	.001	1.56	.01115	.000	1
S3	2.5000	2.4682	-.032	-1.27	.58063	.001	1
S4	5.0000	4.9417	-.058	-1.17	1.1609	.004	1
S5	10.000	10.117	.117	1.17	2.3750	.003	1
S2	.80000	.77266	-.027	-3.42	.18288	.000	1

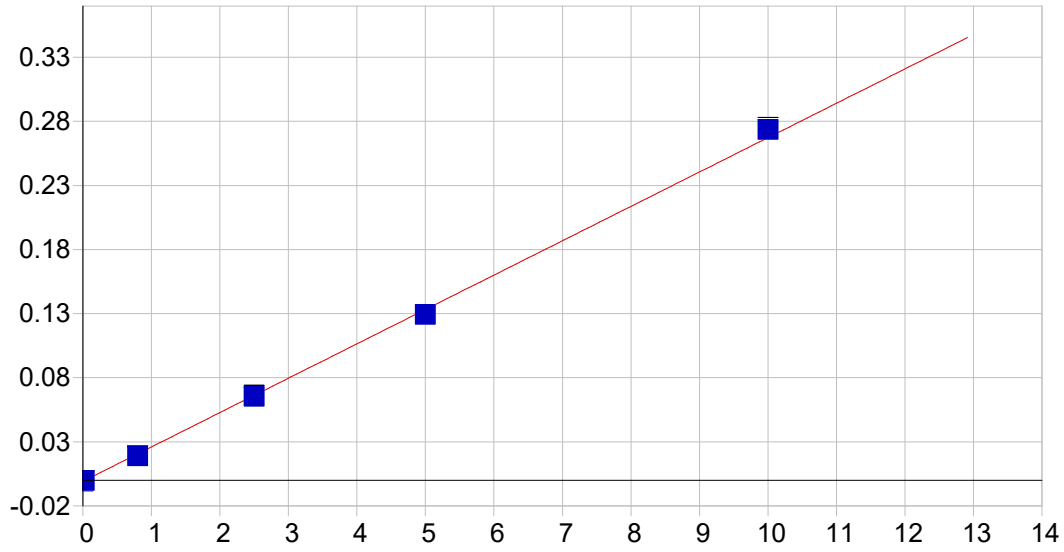


Si 288.158 {117}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000158	Re-Slope:	1.000000
A1 (Gain):	0.003596	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999843	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.011352		
Predicted MQL:	0.037841		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00016	.000	1
S1	.40000	.39800	-.002	-.500	.00159	.000	1
S3	2.5000	2.5256	.026	1.02	.00937	.000	1
S4	5.0000	5.0503	.050	1.01	.01859	.000	1
S5	10.000	9.9910	-.009	-.090	.03662	.000	1
S2	.80000	.73511	-.065	-8.11	.00284	.000	1

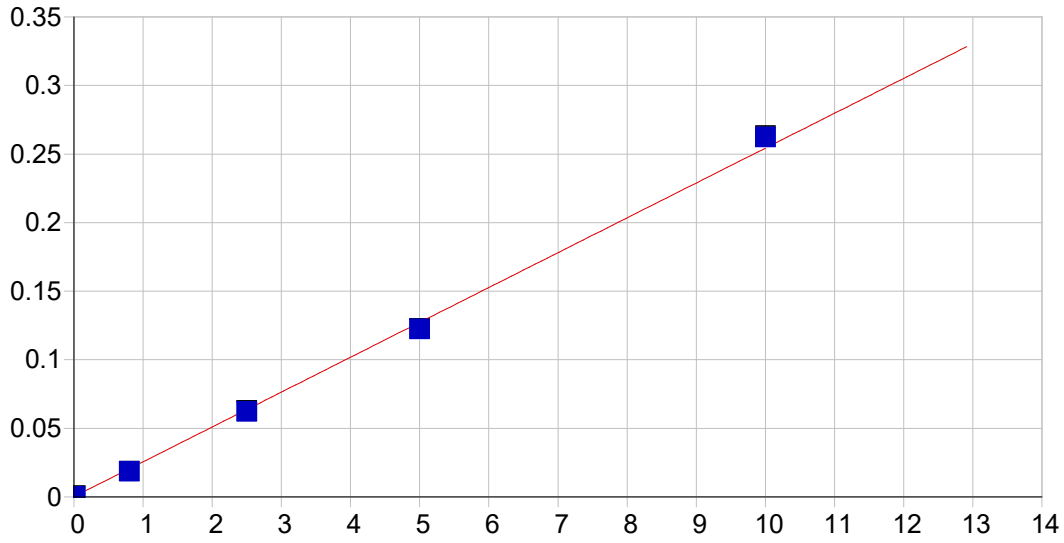


P 177.495 {490}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000814	Re-Slope:	1.000000
A1 (Gain):	0.026815	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999599	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.003787		
Predicted MQL:	0.012622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00081	.000	1
S1	.02000	.01980	-.000	-1.01	-.00028	.000	1
S3	2.5000	2.4732	-.027	-1.07	.06549	.001	1
S4	5.0000	4.8500	-.150	-3.00	.12922	.000	1
S5	10.000	10.236	.236	2.36	.27362	.002	1
S2	.80000	.74115	-.059	-7.36	.01906	.000	1

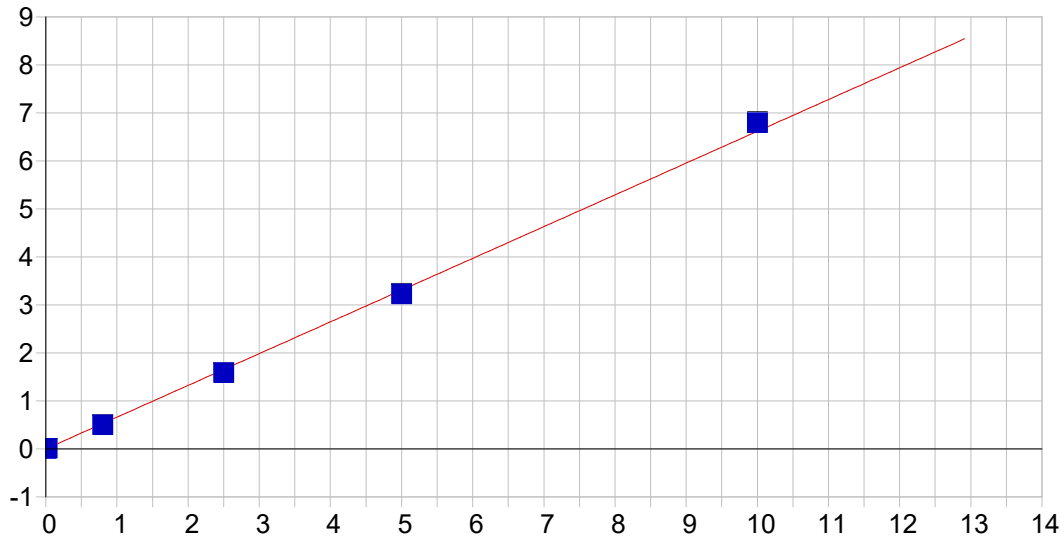


S 182.034 {485}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000181	Re-Slope:	1.000000
A1 (Gain):	0.025414	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999290	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.004018		
Predicted MQL:	0.013393		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00018	.000	1
S1	.02000	.02241	.002	12.0	.00073	.000	1
S3	2.5000	2.4452	-.055	-2.19	.06216	.001	1
S4	5.0000	4.8089	-.191	-3.82	.12206	.000	1
S5	10.000	10.318	.318	3.18	.26175	.001	1
S2	.80000	.72527	-.075	-9.34	.01856	.000	1

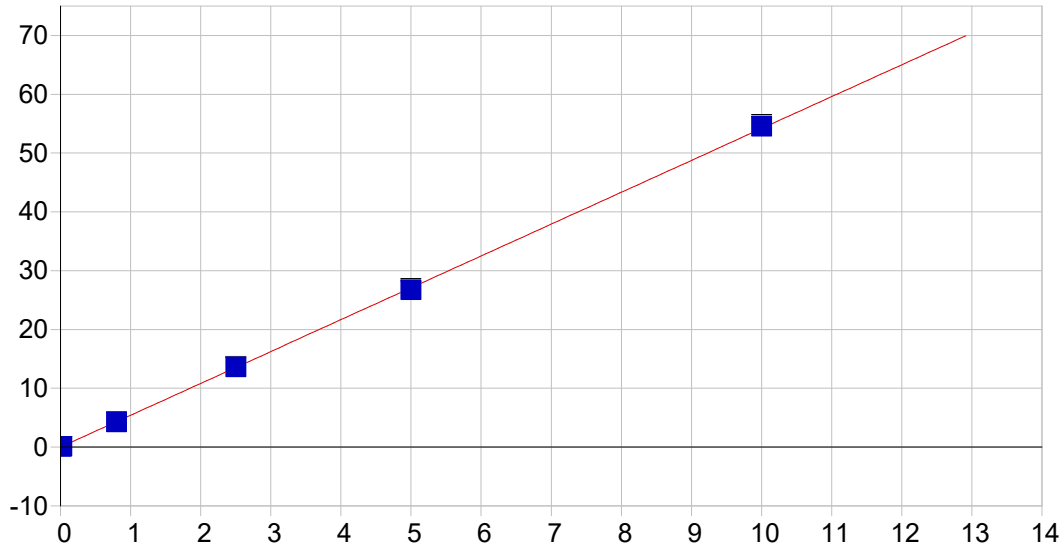


Li 670.784 { 50}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000341	Re-Slope:	1.000000
A1 (Gain):	0.661650	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999534	Status:	OK.
Std Error of Est:	0.000474		
Predicted MDL:	0.001219		
Predicted MQL:	0.004065		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00034	.000	1
S5	10.000	10.272	.272	2.72	6.7992	.012	1
S4	5.0000	4.8747	-.125	-2.51	3.2267	.015	1
S3	2.5000	2.3987	-.101	-4.05	1.5876	.004	1
S1	.02000	.01882	-.001	-5.88	.01233	.000	1
S2	.80000	.75608	-.044	-5.49	.50018	.002	1

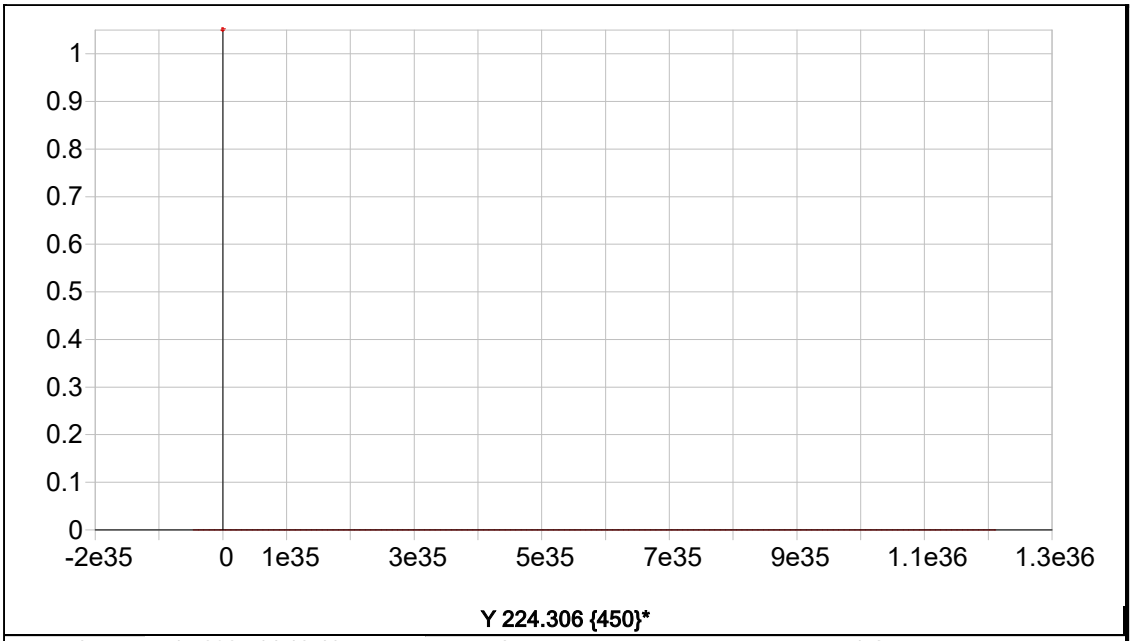


Sr 407.771 { 83}

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000010	Re-Slope:	1.000000
A1 (Gain):	5.417486	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.001183		
Predicted MDL:	0.000081		
Predicted MQL:	0.000271		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00001	.000	1
S1	.02000	.02024	.000	1.18	.11014	.001	1
S3	2.5000	2.5144	.014	.574	13.634	.104	1
S4	5.0000	4.9320	-.068	-1.36	26.745	.220	1
S5	10.000	10.065	.065	.648	54.578	.272	1
S2	.80000	.78866	-.011	-1.42	4.2767	.008	1

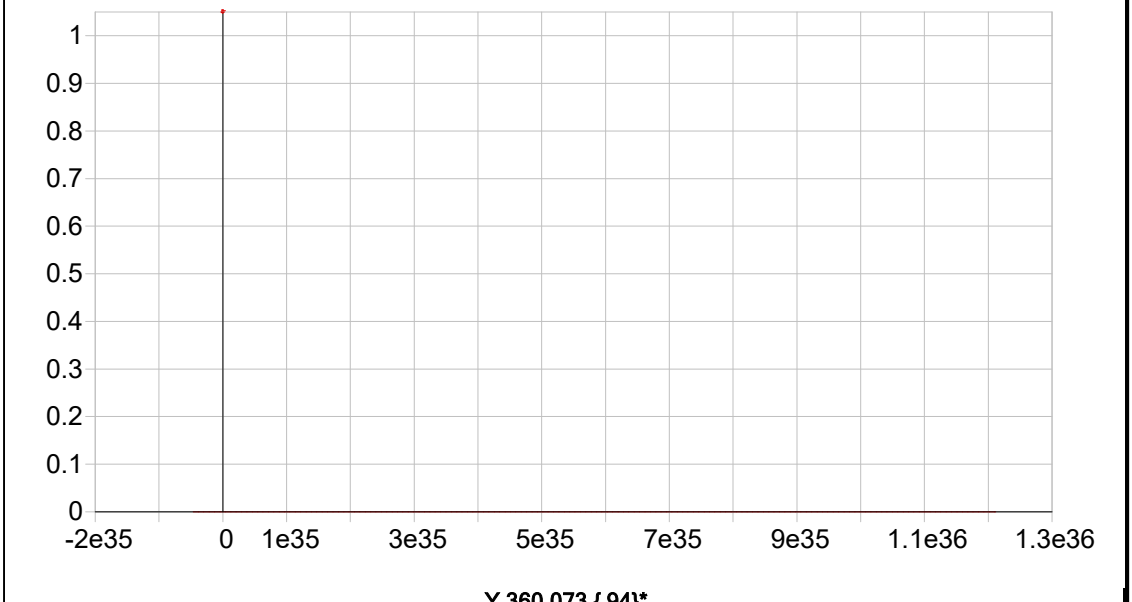


Y 224.306 {450}*

Date of Fit:	5/15/2025 14:18:46	Type of Fit:	Linear	Weighting:	1/Conc

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

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



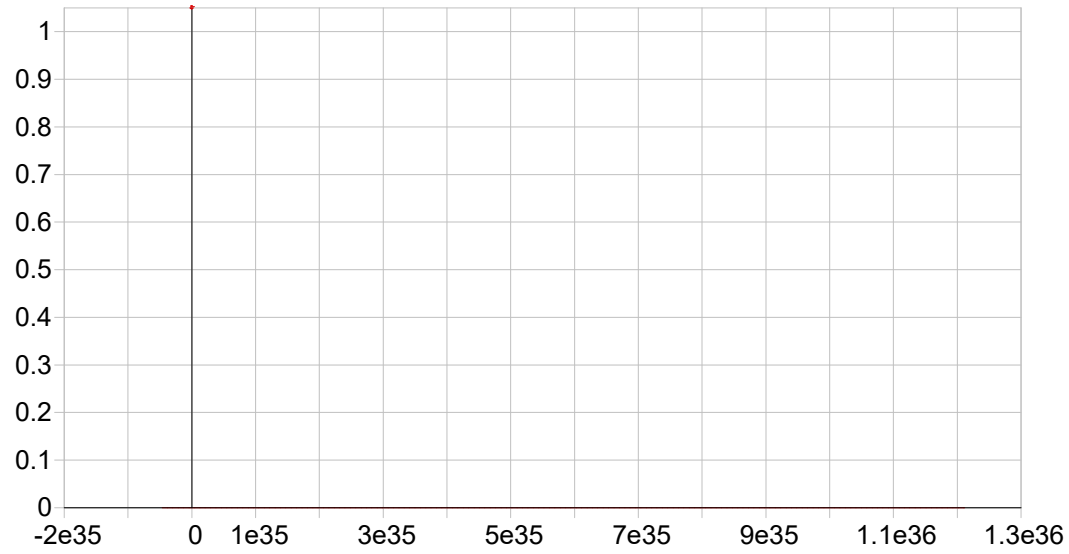
Y 360.073 { 94}*

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

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

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

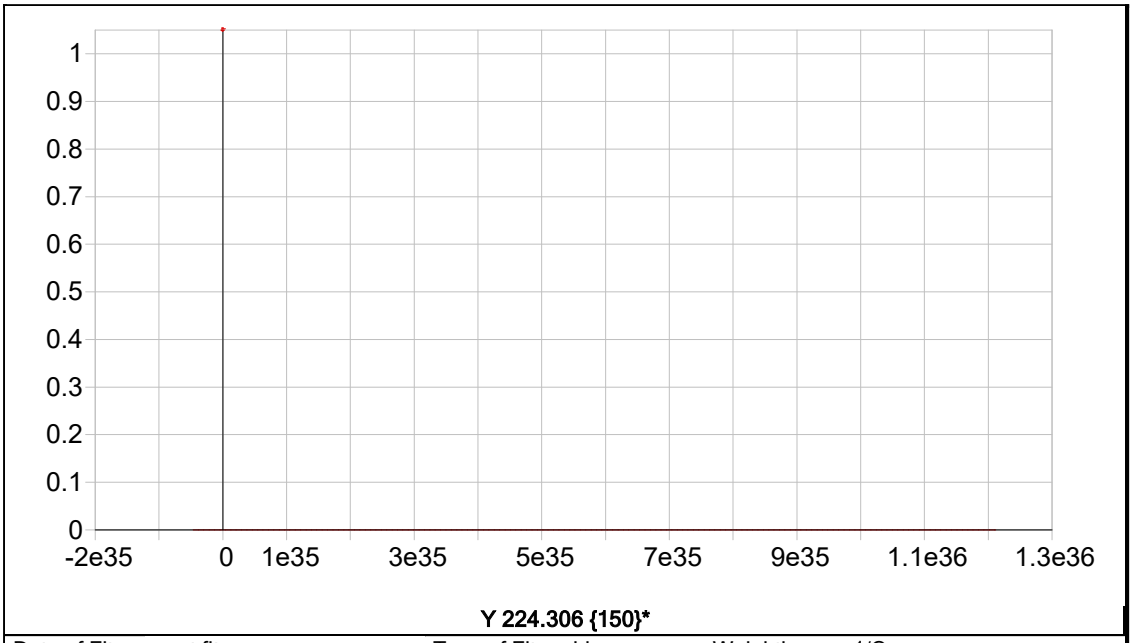
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 371.030 { 91}*

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

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

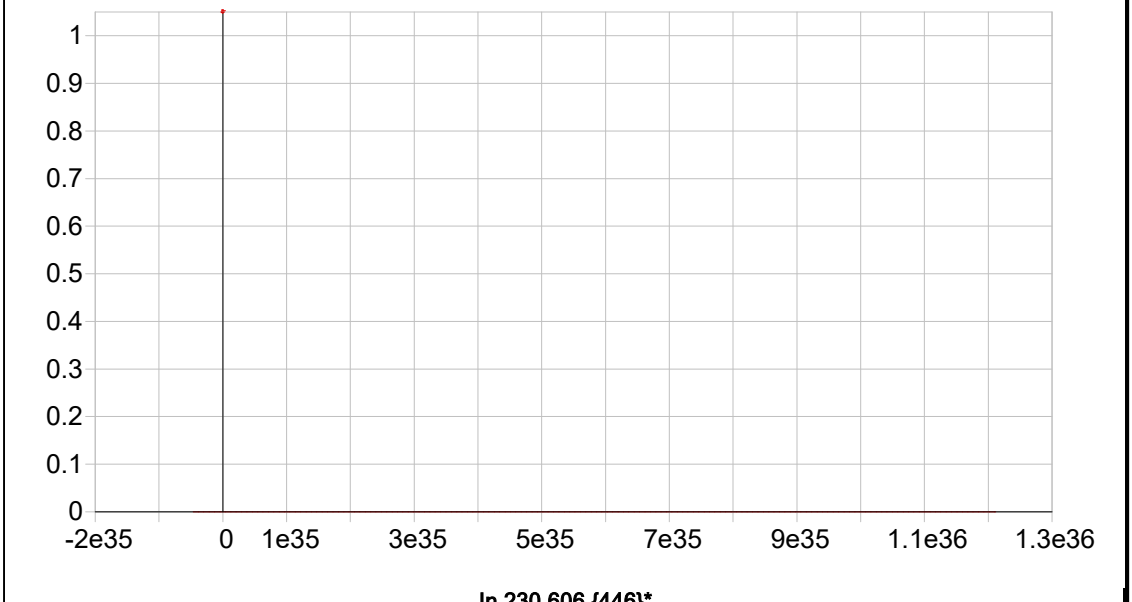


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

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

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

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					
Std. Name	**Stated Conc.**	**Found Conc.**	**Difference**	**% Diff.**	**(S)IR**	**Std Dev**	**Emphasis**

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S0 Acquired: 5/15/2025 13:12:07 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00010	-.00015	-.00023	.00009	.00038	.00025	.03379	-.00006
Stddev	.00007	.00003	.00023	.00008	.00015	.00020	.00151	.00014
%RSD	63.637	21.164	99.567	94.693	38.937	82.259	4.4789	227.93
#1	-.00014	-.00016	-.00050	.00018	.00021	.00007	.03554	.00008
#2	-.00014	-.00011	-.00011	.00002	.00047	.00021	.03293	-.00006
#3	-.00003	-.00017	-.00008	.00006	.00045	.00047	.03291	-.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	.00009	.00038	.00010	.00010	-.00082	-.00000	.00057	.00000
Stddev	.00005	.00014	.00004	.00025	.00021	.00002	.00010	.00007
%RSD	61.498	37.656	34.417	250.81	25.392	2873.9	18.168	2321.9
#1	.00013	.00025	.00008	-.00004	-.00059	.00001	.00063	.00006
#2	.00003	.00053	.00014	-.00004	-.00087	-.00002	.00064	-.00007
#3	.00010	.00036	.00009	.00038	-.00100	.00001	.00045	.00001

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	-.00014	-.00137	.01415	.00004	.00215	.00063	.00067	.00003
Stddev	.00018	.00006	.00017	.00018	.00076	.00014	.00017	.00003
%RSD	125.36	4.4559	1.1729	495.41	35.367	22.771	25.935	104.79
#1	-.00004	-.00132	.01432	-.00017	.00180	.00048	.00067	.00007
#2	-.00035	-.00136	.01414	.00016	.00303	.00065	.00084	.00002
#3	-.00004	-.00144	.01399	.00012	.00163	.00076	.00049	.00000

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	.00024	.00162	.00016	-.00081	.00018	-.00034	-.00001
Stddev	.00005	.00027	.00001	.00005	.00013	.00047	.00040
%RSD	21.441	16.572	8.3161	6.4825	71.206	137.39	4110.8
#1	.00018	.00161	.00016	-.00075	.00012	-.00074	-.00015
#2	.00027	.00136	.00017	-.00085	.00009	-.00045	-.00032
#3	.00027	.00189	.00015	-.00084	.00033	.00017	.00044

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S0 Acquired: 5/15/2025 13:12:07 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.5	68649.	18967.	2668.5	4380.8
Stddev	12.0	259.	65.	1.3	17.7
%RSD	.40776	.37655	.34066	.05013	.40504
#1	2949.3	68395.	18954.	2668.9	4374.2
#2	2942.4	68640.	19037.	2669.5	4367.3
#3	2965.8	68912.	18910.	2667.0	4400.9

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S1 Acquired: 5/15/2025 13:16:29 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00061	.00240	.00166	.00106	.00707	.00735	.16748	.01133
Stddev	.00002	.00012	.00023	.00016	.00007	.00024	.00035	.00021
%RSD	3.9515	4.9416	14.061	14.730	.96352	3.2028	.20728	1.8608
#1	.00059	.00235	.00170	.00124	.00699	.00708	.16775	.01111
#2	.00060	.00232	.00141	.00096	.00713	.00751	.16709	.01136
#3	.00064	.00254	.00187	.00098	.00707	.00745	.16759	.01153

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	.01229	.09430	.00162	.02722	.01283	.00043	.00947	.02280
Stddev	.00013	.00011	.00005	.00017	.00014	.00001	.00011	.00005
%RSD	1.0906	.12183	3.3311	.61351	1.1256	2.3799	1.1838	.21217
#1	.01228	.09443	.00157	.02718	.01279	.00042	.00935	.02280
#2	.01215	.09422	.00168	.02740	.01270	.00042	.00957	.02285
#3	.01242	.09425	.00163	.02708	.01298	.00044	.00950	.02275

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	.02678	.00114	.07982	.00303	.08811	.01364	.02163	.10316
Stddev	.00027	.00003	.00034	.00009	.00036	.00015	.00017	.00020
%RSD	1.0058	2.7004	.42791	3.0853	.41329	1.1093	.79322	.18916
#1	.02709	.00117	.07965	.00292	.08806	.01371	.02171	.10328
#2	.02668	.00111	.08022	.00308	.08850	.01375	.02144	.10326
#3	.02658	.00114	.07961	.00309	.08778	.01347	.02176	.10293

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	.00382	.01115	.00159	-.00028	.00073	.01233	.11014
Stddev	.00005	.00008	.00002	.00010	.00007	.00036	.00088
%RSD	1.3022	.75592	1.3587	33.769	10.255	2.8926	.80330
#1	.00381	.01119	.00158	-.00022	.00073	.01191	.10915
#2	.00378	.01105	.00162	-.00039	.00065	.01254	.11086
#3	.00388	.01120	.00158	-.00023	.00080	.01252	.11041

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S1 Acquired: 5/15/2025 13:16:29 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2928.9	66160.	18770.	2622.1	4280.9
Stddev	10.6	271.	40.	11.3	13.8
%RSD	.36067	.40922	.21346	.43059	.32207
#1	2919.1	65857.	18727.	2609.9	4266.3
#2	2940.1	66246.	18806.	2624.0	4293.6
#3	2927.5	66378.	18778.	2632.3	4282.9

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S2 Acquired: 5/15/2025 13:20:49 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02753	.05058	.13155	.03946	.09953	.10454	2.1067	.07914
Stddev	.00017	.00064	.00065	.00042	.00080	.00043	.0073	.00027
%RSD	.60376	1.2623	.49614	1.0622	.79934	.40768	.34907	.33650
#1	.02762	.05075	.13219	.03978	.10019	.10410	2.1054	.07888
#2	.02763	.05111	.13159	.03962	.09977	.10458	2.1001	.07913
#3	.02734	.04987	.13088	.03898	.09865	.10495	2.1146	.07941

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	.77055	.18266	.02489	.35908	.12277	.00326	.17303	.04270
Stddev	.00189	.00050	.00006	.00118	.00058	.00001	.00098	.00054
%RSD	.24530	.27466	.24670	.32998	.47551	.32381	.56774	1.2701
#1	.77018	.18285	.02482	.35898	.12308	.00326	.17231	.04315
#2	.77260	.18209	.02491	.36032	.12313	.00327	.17264	.04210
#3	.76887	.18303	.02494	.35795	.12209	.00325	.17415	.04286

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	.26782	.04839	.13426	.03015	.82127	.02457	.16659	.39135
Stddev	.00075	.00012	.00037	.00028	.00110	.00018	.00102	.00204
%RSD	.28188	.25385	.27710	.94412	.13336	.74529	.61358	.52214
#1	.26767	.04825	.13438	.02984	.82106	.02476	.16551	.39131
#2	.26864	.04848	.13384	.03040	.82245	.02440	.16754	.39341
#3	.26715	.04844	.13456	.03021	.82029	.02454	.16671	.38932

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	.06341	.18288	.00284	.01906	.01856	.50018	4.2767
Stddev	.00029	.00032	.00002	.00004	.00012	.00156	.0083
%RSD	.45051	.17360	.79008	.22310	.63265	.31182	.19317
#1	.06350	.18255	.00282	.01906	.01848	.49876	4.2679
#2	.06363	.18289	.00284	.01910	.01869	.49994	4.2779
#3	.06309	.18319	.00287	.01901	.01851	.50185	4.2843

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S2 Acquired: 5/15/2025 13:20:49 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2955.9	66514.	17821.	2672.2	4251.2
Stddev	10.2	117.	59.	3.2	13.5
%RSD	.34655	.17593	.32988	.11817	.31749
#1	2950.8	66644.	17889.	2675.6	4241.0
#2	2949.1	66477.	17790.	2669.4	4246.1
#3	2967.6	66419.	17784.	2671.5	4266.5

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S3 Acquired: 5/15/2025 13:24:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08902	.16221	.42225	.12738	.31868	.33002	6.8088	.24066
Stddev	.00047	.00302	.00150	.00131	.00177	.00045	.0116	.00107
%RSD	.53281	1.8595	.35597	1.0307	.55574	.13647	.16971	.44421
#1	.08849	.15874	.42063	.12641	.31697	.32951	6.8040	.24094
#2	.08918	.16371	.42249	.12684	.31857	.33036	6.8220	.23948
#3	.08939	.16419	.42361	.12887	.32051	.33019	6.8005	.24157

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4749	.57889	.07799	1.1549	.39131	.01064	.54307	.13389
Stddev	.0108	.00031	.00032	.0048	.00199	.00003	.00145	.00045
%RSD	.43805	.05377	.40542	.41410	.50806	.29772	.26648	.33845
#1	2.4629	.57890	.07834	1.1494	.38924	.01068	.54271	.13391
#2	2.4838	.57857	.07773	1.1579	.39150	.01064	.54185	.13343
#3	2.4782	.57920	.07791	1.1575	.39320	.01062	.54467	.13434

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	.86016	.15514	.41712	.09677	2.6226	.08133	.50206	1.2351
Stddev	.00309	.00017	.00212	.00018	.0097	.00046	.00091	.0046
%RSD	.35924	.11245	.50709	.18758	.36887	.57132	.18035	.37662
#1	.85660	.15517	.41698	.09677	2.6280	.08138	.50132	1.2299
#2	.86205	.15495	.41929	.09694	2.6114	.08177	.50179	1.2366
#3	.86183	.15530	.41507	.09658	2.6282	.08084	.50307	1.2388

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	.20532	.58063	.00937	.06549	.06216	1.5876	13.634
Stddev	.00109	.00119	.00004	.00088	.00061	.0041	.104
%RSD	.52912	.20474	.40800	1.3495	.97619	.25877	.76522
#1	.20410	.58114	.00938	.06449	.06148	1.5855	13.568
#2	.20570	.58148	.00933	.06586	.06234	1.5923	13.580
#3	.20617	.57927	.00941	.06614	.06265	1.5850	13.755

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S3 Acquired: 5/15/2025 13:24:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2850.1	64806.	18392.	2596.4	4004.6
Stddev	8.2	118.	77.	4.4	16.8
%RSD	.28874	.18168	.41782	.17023	.41870
#1	2858.9	64671.	18374.	2598.6	4024.0
#2	2848.6	64864.	18476.	2599.3	3994.9
#3	2842.7	64884.	18326.	2591.3	3994.9

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S4 Acquired: 5/15/2025 13:29:07 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.17311	.31491	.83320	.24489	.62238	.66164	13.541	.47850
Stddev	.00033	.00141	.00129	.00064	.00147	.00130	.170	.00119
%RSD	.19261	.44924	.15478	.26150	.23669	.19595	1.2536	.24963
#1	.17336	.31643	.83336	.24541	.62402	.66313	13.402	.47941
#2	.17273	.31467	.83440	.24417	.62116	.66102	13.730	.47715
#3	.17324	.31363	.83183	.24508	.62196	.66077	13.489	.47894

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8925	1.1563	.15351	2.2865	.75609	.02139	1.0757	.27068
Stddev	.0042	.0022	.00031	.0018	.00235	.00007	.0015	.00061
%RSD	.08636	.19366	.20175	.07636	.31079	.31440	.13648	.22453
#1	4.8911	1.1589	.15387	2.2882	.75831	.02131	1.0755	.27081
#2	4.8973	1.1554	.15332	2.2865	.75363	.02142	1.0772	.27120
#3	4.8892	1.1547	.15334	2.2848	.75632	.02143	1.0743	.27001

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	1.6922	.30700	.82145	.19451	5.1619	.16292	1.0045	2.4234
Stddev	.0019	.00052	.00103	.00052	.0039	.00048	.0018	.0076
%RSD	.10959	.16873	.12571	.26585	.07468	.29744	.18204	.31456
#1	1.6931	.30663	.82229	.19503	5.1580	.16340	1.0052	2.4309
#2	1.6934	.30679	.82030	.19451	5.1657	.16244	1.0025	2.4156
#3	1.6901	.30760	.82178	.19400	5.1621	.16293	1.0059	2.4236

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	.40537	1.1609	.01859	.12922	.12206	3.2267	26.745
Stddev	.00086	.0036	.00005	.00019	.00038	.0150	.220
%RSD	.21327	.31153	.25199	.15029	.31147	.46336	.82074
#1	.40613	1.1651	.01863	.12932	.12250	3.2412	26.985
#2	.40555	1.1585	.01859	.12933	.12178	3.2113	26.555
#3	.40443	1.1591	.01854	.12899	.12191	3.2275	26.694

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S4 Acquired: 5/15/2025 13:29:07 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2880.9	64014.	18055.	2550.6	3987.7
Stddev	13.1	28.	22.	3.1	8.8
%RSD	.45308	.04353	.12428	.12055	.22042
#1	2867.7	64039.	18029.	2551.3	3977.7
#2	2893.8	64018.	18071.	2547.2	3991.8
#3	2881.2	63984.	18065.	2553.3	3993.8

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: S5 Acquired: 5/15/2025 13:33:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.35808	.63332	1.7021	.50376	1.2802	1.3742	27.629	1.0056
Stddev	.00118	.00668	.0062	.00269	.0032	.0029	.316	.0047
%RSD	.33057	1.0547	.36126	.53445	.25061	.21292	1.1434	.46855
#1	.35781	.63461	1.7056	.50413	1.2814	1.3752	27.954	1.0032
#2	.35705	.62609	1.6950	.50090	1.2766	1.3766	27.607	1.0110
#3	.35937	.63926	1.7056	.50625	1.2827	1.3710	27.324	1.0025

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	10.060	2.3569	.30557	4.7040	1.5257	.04156	2.1757	.55763
Stddev	.040	.0054	.00084	.0166	.0023	.00013	.0061	.00121
%RSD	.39718	.22733	.27518	.35304	.15170	.30905	.28169	.21785
#1	10.057	2.3590	.30546	4.7074	1.5255	.04169	2.1708	.55801
#2	10.022	2.3609	.30646	4.6860	1.5235	.04144	2.1826	.55861
#3	10.102	2.3508	.30479	4.7187	1.5281	.04155	2.1738	.55627

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	3.4579	.62581	1.6474	.39652	10.246	.32989	2.1195	4.8674
Stddev	.0147	.00164	.0039	.00061	.024	.00107	.0072	.0118
%RSD	.42397	.26142	.23344	.15382	.23137	.32473	.34148	.24196
#1	3.4587	.62574	1.6518	.39655	10.238	.33098	2.1199	4.8722
#2	3.4429	.62748	1.6447	.39712	10.272	.32884	2.1266	4.8540
#3	3.4722	.62421	1.6458	.39590	10.227	.32986	2.1121	4.8761

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	.83239	2.3750	.03662	.27362	.26175	6.7992	54.578
Stddev	.00297	.0031	.00006	.00183	.00109	.0125	.272
%RSD	.35632	.12964	.16555	.66916	.41489	.18352	.49785
#1	.83262	2.3786	.03656	.27408	.26132	6.8136	54.743
#2	.82932	2.3732	.03662	.27160	.26094	6.7914	54.726
#3	.83524	2.3732	.03668	.27518	.26298	6.7927	54.264

Sample Name: S5 Acquired: 5/15/2025 13:33:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.4	62969.	17062.	2493.2	3741.7
Stddev	1.5	117.	71.	2.8	9.1
%RSD	.05441	.18635	.41838	.11311	.24300
#1	2766.7	63087.	17122.	2496.2	3740.2
#2	2769.2	62853.	16983.	2492.7	3751.5
#3	2766.4	62966.	17079.	2490.6	3733.5

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICV01 Acquired: 5/15/2025 13:37:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9971889	1.032316	.9890815	1.020727	.9908780	2.431232
Stddev	.0060121	.010475	.0031859	.004494	.0007468	.001087
%RSD	.6029012	1.014745	.3221048	.4402504	.0753664	.0446952
#1	.9996470	1.020521	.9877196	1.017708	.9907922	2.431728
#2	.9903373	1.035889	.9927220	1.018582	.9901778	2.431982
#3	1.001583	1.040537	.9868030	1.025892	.9916640	2.429986

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5154770	.4800815	.5003861	9.527015	.5057412	.4920410
Stddev	.0015282	.0046172	.0010816	.021818	.0021344	.0011622
%RSD	.2964570	.9617642	.2161574	.2290125	.4220316	.2361926
#1	.5171205	.4749139	.4992702	9.508585	.5032845	.4911191
#2	.5152117	.4815292	.5004584	9.551105	.5067989	.4916575
#3	.5140989	.4838014	.5014298	9.521355	.5071402	.4933465

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5081491	9.531655	.4915034	5.580950	.4941152	.2366688
Stddev	.0006513	.041641	.0016477	.033699	.0006566	.0014554
%RSD	.1281675	.4368749	.3352397	.6038280	.1328769	.6149485
#1	.5086067	9.553706	.4907669	5.564076	.4933873	.2349885
#2	.5074035	9.557633	.4903525	5.559021	.4946628	.2375350
#3	.5084372	9.483625	.4933909	5.619753	.4942954	.2374828

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.882084	.4743860	1.002250	9.271963	2.392812	2.497662
Stddev	.047991	.0005260	.004636	.069517	.026386	.005642
%RSD	.4856359	.1108749	.4625108	.7497516	1.102702	.2259070
#1	9.928109	.4746672	.997829	9.346376	2.364960	2.496482
#2	9.885798	.4737792	1.001848	9.208688	2.396043	2.492703
#3	9.832343	.4747116	1.007074	9.260825	2.417434	2.503801

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICV01 Acquired: 5/15/2025 13:37:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.396248	2.407189	F 2.230760	F .0067973	F .0039944	F .0015718
Stddev	.008455	.006253	.009199	.0034662	.0024331	.0001562
%RSD	.3528337	.2597586	.4123633	50.99396	60.91168	9.936508
#1	2.386504	2.411508	2.241381	.0066495	.0017380	.0017521
#2	2.400594	2.400019	2.225453	.0034074	.0065722	.0014802
#3	2.401646	2.410040	2.225444	.0103351	.0036731	.0014830

Elem	Sr4077
Units	ppm
Avg	F -.007314
Stddev	.000009
%RSD	.1163000
#1	-.007307
#2	-.007324
#3	-.007312

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2927.726	65843.51	18262.25	2611.726	4200.614
Stddev	9.349	98.69	57.69	3.787	11.030
%RSD	.3193394	.1498808	.3158875	.1450103	.2625786
#1	2916.975	65729.76	18294.46	2611.596	4187.997
#2	2933.952	65894.58	18296.64	2615.576	4205.419
#3	2932.250	65906.21	18195.65	2608.005	4208.426

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: LLICV01 Acquired: 5/15/2025 13:42:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0231548	.0425708	.0122279	.0200541	.0536969	.1039232	.0957261
Stddev	.0016829	.0008327	.0007783	.0033994	.0008044	.0035653	.0008367
%RSD	7.268214	1.956034	6.364905	16.95126	1.498037	3.430701	.8740689
#1	.0247978	.0416100	.0124802	.0238764	.0542252	.1079399	.0959619
#2	.0232320	.0430832	.0128488	.0189166	.0540943	.1026968	.0947968
#3	.0214346	.0430192	.0113548	.0173692	.0527712	.1011330	.0964197

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059830	.0060805	2.010184	.0096592	.0291602	.0226107	.0984862
Stddev	.0000333	.0000422	.001891	.0005202	.0002651	.0000941	.0039778
%RSD	.5567319	.6949028	.0940812	5.385262	.9090774	.4162520	4.038954
#1	.0059572	.0060591	2.012146	.0091819	.0288705	.0226104	.0980597
#2	.0059712	.0060532	2.008373	.0095819	.0293908	.0227050	.0947388
#3	.0060206	.0061291	2.010031	.0102136	.0292192	.0225167	.1026601

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205518	2.067498	.0395659	.0101898	1.886169	.0383506	.0428197
Stddev	.0001242	.020819	.0002571	.0004032	.012067	.0016407	.0003607
%RSD	.6044044	1.006973	.6499351	3.956480	.6397572	4.278207	.8424529
#1	.0204555	2.045011	.0398608	.0103747	1.872853	.0394010	.0429066
#2	.0206920	2.086102	.0394486	.0097274	1.889273	.0391908	.0431291
#3	.0205079	2.071381	.0393884	.0104674	1.896381	.0364599	.0424235

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.960116	.1183229	.2119717	.0441889	.0402979	.3880392	.0198568
Stddev	.010797	.0009551	.0005724	.0005588	.0003737	.0031913	.0023324
%RSD	.5508324	.8071782	.2700515	1.264510	.9274163	.8224091	11.74626
#1	1.958380	.1194227	.2113795	.0448306	.0399667	.3916221	.0181610
#2	1.971675	.1177021	.2120135	.0438100	.0402240	.3855018	.0225167
#3	1.950292	.1178439	.2125221	.0439261	.0407031	.3869938	.0188927

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: LLICV01 Acquired: 5/15/2025 13:42:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0196009	.0177889	.0203556
Stddev	.0035383	.0005379	.0000601
%RSD	18.05174	3.023630	.2953202
#1	.0178793	.0184044	.0203795
#2	.0172529	.0174093	.0204002
#3	.0236706	.0175529	.0202873

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.655	66508.14	18369.88	2651.269	4258.852
Stddev	3.422	129.76	68.04	3.122	7.477
%RSD	.1172690	.1951027	.3703746	.1177628	.1755750
#1	2916.218	66648.88	18371.45	2653.186	4258.336
#2	2921.560	66482.28	18437.13	2647.667	4266.574
#3	2915.186	66393.26	18301.08	2652.956	4251.646

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICB01 Acquired: 5/15/2025 13:47:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000922	.0006148	.0004247	.0018563	.0009790	.0086115	-.000429
Stddev	.002537	.0013679	.0007660	.0031445	.0004250	.0020672	.000524
%RSD	275.0495	222.5044	180.3575	169.3920	43.41190	24.00489	122.0320
#1	.000723	-.000950	.0013049	.0044903	.0005189	.0066705	.000037
#2	-.003844	.001208	.0000598	.0027037	.0013569	.0107852	-.000329
#3	.000354	.001586	-.000091	-.001625	.0010613	.0083790	-.000996

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000986	.0000872	.0052000	-.000149	.0000785	-.000082	.0085952
Stddev	.0000404	.0001127	.0064989	.000245	.0002386	.000639	.0025617
%RSD	40.92692	129.2739	124.9783	163.9179	303.9460	776.1995	29.80385
#1	.0001101	.0000522	.0102428	.000092	.0003526	-.000501	.0088773
#2	.0000538	-.000004	-.002134	-.000143	-.000082	-.000399	.0059042
#3	.0001321	.000213	.007491	-.000398	-.000035	.000654	.0110042

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002595	.0043364	.0000628	.0000059	-.138890	-.000596	.0009787
Stddev	.0000822	.0097815	.0003337	.0006043	.005080	.001325	.0001559
%RSD	31.66008	225.5695	531.1960	10281.96	3.657288	222.3527	15.92763
#1	.0002816	.0146838	.0001329	-.000686	-.144368	-.002037	.0008055
#2	.0001686	-.004759	.0003559	.000433	-.134335	.000570	.0011078
#3	.0003285	.003084	-.000300	.000270	-.137968	-.000320	.0010227

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.011577	.0056284	.0004057	-.000868	.0001049	-.011669	-.003634
Stddev	.019106	.0000752	.0001014	.000724	.0008392	.009088	.001627
%RSD	165.0298	1.336200	24.98970	83.31113	799.6850	77.88280	44.77946
#1	.007906	.0055940	.0004765	-.000630	.0003855	-.003811	-.005072
#2	-.012356	.0055766	.0002895	-.000294	.0007679	-.009574	-.001868
#3	-.030281	.0057146	.0004510	-.001681	-.000839	-.021622	-.003961

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICB01 Acquired: 5/15/2025 13:47:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0018419	-.001331	.0000840
Stddev	.0030814	.000527	.0000834
%RSD	167.2966	39.55940	99.31073
#1	.0053791	-.001229	.0000795
#2	.0004060	-.000863	.0001696
#3	-.000260	-.001901	.0000029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2951.157	67646.29	18634.89	2689.889	4355.110
Stddev	6.183	216.72	47.84	8.595	14.419
%RSD	.2095205	.3203724	.2567279	.3195253	.3310860
#1	2955.874	67821.42	18582.57	2699.435	4368.328
#2	2953.440	67713.53	18645.70	2687.469	4357.269
#3	2944.157	67403.92	18676.40	2682.764	4339.733

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CRI01 Acquired: 5/15/2025 13:51:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214498	.0424735	.0122566	.0224102	.0527695	.1023677	.0943298
Stddev	.0024816	.0006003	.0016141	.0040755	.0022609	.0035057	.0001484
%RSD	11.56950	1.413271	13.16945	18.18590	4.284405	3.424591	.1572912
#1	.0242843	.0421014	.0118781	.0270341	.0547199	.1028977	.0944755
#2	.0196684	.0421532	.0140263	.0208557	.0502915	.0986271	.0941789
#3	.0203965	.0431660	.0108653	.0193407	.0532970	.1055781	.0943350

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058114	.0060460	2.007636	.0097839	.0292037	.0222087	.1035126
Stddev	.0000771	.0000692	.013679	.0004462	.0002360	.0002821	.0013034
%RSD	1.325948	1.144667	.6813731	4.560233	.8079775	1.270127	1.259118
#1	.0058772	.0061245	2.020089	.0101656	.0291982	.0218849	.1032621
#2	.0058304	.0060194	1.992994	.0098927	.0294424	.0223404	.1049231
#3	.0057267	.0059940	2.009824	.0092934	.0289706	.0224009	.1023528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204318	2.058639	.0390676	.0101074	1.875909	.0381500	.0425005
Stddev	.0002603	.016026	.0003374	.0001333	.009335	.0003953	.0003230
%RSD	1.273785	.7784700	.8636075	1.318880	.4976400	1.036136	.7599006
#1	.0201590	2.073897	.0389641	.0101788	1.871510	.0382035	.0426793
#2	.0206773	2.041942	.0394446	.0101897	1.869587	.0385158	.0421277
#3	.0204590	2.060079	.0387941	.0099536	1.886632	.0377306	.0426946

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.924445	.1046046	.2104345	.0450343	.0395191	.3906956	.0196209
Stddev	.030334	.0003855	.0001014	.0007780	.0008829	.0118317	.0020309
%RSD	1.576250	.3685532	.0481610	1.727490	2.234224	3.028366	10.35054
#1	1.890022	.1048336	.2103262	.0447185	.0405325	.3815137	.0174770
#2	1.936049	.1041595	.2105271	.0459205	.0391090	.3865252	.0198699
#3	1.947264	.1048208	.2104502	.0444640	.0389158	.4040477	.0215158

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CRI01 Acquired: 5/15/2025 13:51:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0193690	.0190596	.0200341
Stddev	.0031635	.0008692	.0000733
%RSD	16.33260	4.560459	.3660606
#1	.0192961	.0193255	.0201163
#2	.0162426	.0180885	.0200110
#3	.0225683	.0197647	.0199752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2928.197	66570.27	18814.66	2660.539	4279.540
Stddev	4.107	193.26	87.70	13.129	9.274
%RSD	.1402561	.2903069	.4661461	.4934565	.2167086
#1	2923.797	66391.21	18739.47	2654.540	4272.751
#2	2928.866	66775.13	18793.51	2675.595	4275.761
#3	2931.929	66544.48	18911.01	2651.482	4290.106

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSA01 Acquired: 5/15/2025 14:01:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055955	.0063954	.0012989	-.005775	-.002733	232.1862	.0027114
Stddev	.0009209	.0018615	.0013299	.002044	.001310	.8824	.0008514
%RSD	16.45716	29.10617	102.3818	35.39635	47.93507	.3800471	31.40162
#1	.0065122	.0085300	-.000050	-.006884	-.003960	231.6059	.0018077
#2	.0046705	.0051094	.001338	-.003416	-.001353	233.2016	.0028282
#3	.0056038	.0055469	.002609	-.007026	-.002887	231.7509	.0034985

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013039	-.003021	219.6478	.0522663	.0012348	-.002098	93.29191
Stddev	.0000475	.000485	1.0183	.0005001	.0001242	.000683	1.15461
%RSD	3.646487	16.05705	.4636012	.9568337	10.05577	32.56833	1.237629
#1	.0013536	-.002984	219.5432	.0528427	.0013319	-.001574	93.79916
#2	.0012588	-.003523	220.7144	.0520084	.0012776	-.002870	94.10607
#3	.0012992	-.002555	218.6859	.0519478	.0010949	-.001848	91.97051

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073851	230.6050	.0013131	-.000091	-.005990	.0014905	.0033340
Stddev	.0003617	.8625	.0006912	.000090	.007289	.0001940	.0001901
%RSD	4.897369	.3740139	52.63649	98.92378	121.7019	13.01598	5.700451
#1	.0071304	230.0987	.0006505	.000007	-.006930	.0016877	.0032064
#2	.0072258	231.6009	.0020297	-.000170	.001725	.0014840	.0032432
#3	.0077991	230.1155	.0012592	-.000111	-.012763	.0012998	.0035524

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036519	.0291658	.0003796	-.006021	-.001717	.0167349	.0001885
Stddev	.0060217	.0018261	.0008593	.002105	.001432	.0041542	.0039264
%RSD	164.8919	6.261039	226.3715	34.96146	83.42516	24.82350	2083.132
#1	.0102370	.0303233	.0005606	-.008403	-.003050	.0207013	.0016128
#2	.0022930	.0301134	-.000556	-.004412	-.000202	.0170880	.0032039
#3	-.001574	.0270607	.001134	-.005248	-.001899	.0124155	-.004251

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSA01 Acquired: 5/15/2025 14:01:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.010795	.0028680	.0043472
Stddev	.005290	.0003406	.0009957
%RSD	49.00872	11.87547	22.90345
#1	-.012422	.0032219	.0036688
#2	-.015081	.0025425	.0038825
#3	-.004882	.0028397	.0054902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2701.663	60389.86	18348.31	2422.648	3588.356
Stddev	6.671	488.26	35.63	15.414	10.147
%RSD	.2469176	.8085081	.1941647	.6362646	.2827699
#1	2695.744	60232.52	18387.04	2420.034	3576.938
#2	2700.352	59999.68	18316.94	2408.707	3591.789
#3	2708.892	60937.39	18340.96	2439.202	3596.342

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSAB01 Acquired: 5/15/2025 14:05:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1067879	.1039933	.0454062	.0375690	.5743353	231.4854
Stddev	.0033226	.0012389	.0030710	.0048332	.0017150	.7793
%RSD	3.111441	1.191286	6.763472	12.86499	.2986121	.3366565
#1	.1103886	.1052799	.0453223	.0349214	.5723816	231.7885
#2	.1038404	.1038915	.0423779	.0431476	.5750318	232.0676
#3	.1061346	.1028085	.0485183	.0346381	.5755925	230.6001

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4489496	.4482907	.9505305	219.5954	.5245347	.4696641
Stddev	.0020015	.0005267	.0010301	.4695	.0008411	.0008495
%RSD	.4458105	.1174885	.1083757	.2137862	.1603468	.1808835
#1	.4511994	.4488138	.9501458	220.0985	.5250984	.4687452
#2	.4482825	.4477605	.9497481	219.5186	.5249378	.4698263
#3	.4473668	.4482980	.9516976	219.1691	.5235680	.4704209

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4528685	93.79372	.4538676	230.5298	.9243391	.2135671
Stddev	.0006042	.27623	.0022249	.9012	.0007693	.0010086
%RSD	.1334132	.2945038	.4902150	.3909222	.0832277	.4722562
#1	.4535522	94.01868	.4561520	231.5655	.9240668	.2140254
#2	.4526473	93.87705	.4537432	230.0996	.9252075	.2142651
#3	.4524062	93.48542	.4517074	229.9244	.9237430	.2124107

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.057944	.4422710	.9650436	-.015496	.9093648	.9674462
Stddev	.007837	.0031343	.0021761	.012576	.0012019	.0001985
%RSD	13.52582	.7086773	.2254870	81.15681	.1321733	.0205209
#1	-.066969	.4436808	.9630730	-.000978	.9105089	.9676418
#2	-.052855	.4444528	.9673790	-.022459	.9081123	.9674518
#3	-.054008	.4386794	.9646787	-.023051	.9094732	.9672449

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSAB01 Acquired: 5/15/2025 14:05:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9648708	.9251911	.9199577	F .0012057	F -.015063	F .0027472
Stddev	.0026083	.0023101	.0125277	.0029985	.002899	.0005593
%RSD	.2703303	.2496936	1.361773	248.7035	19.24433	20.35745
#1	.9618676	.9262999	.9118268	-.000907	-.014456	.0032740
#2	.9665700	.9267378	.9136616	.004638	-.012516	.0028074
#3	.9661749	.9225356	.9343847	-.000113	-.018218	.0021603

Elem	Sr4077
Units	ppm
Avg	F .0037968
Stddev	.0002251
%RSD	5.928189
#1	.0038028
#2	.0040188
#3	.0035687

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2694.414	59912.23	18307.66	2409.702	3597.166
Stddev	8.109	356.99	91.14	6.906	8.244
%RSD	.3009402	.5958506	.4978236	.2866074	.2291740
#1	2685.445	59583.98	18210.52	2405.570	3587.961
#2	2696.573	59860.40	18321.17	2405.860	3603.869
#3	2701.225	60292.29	18391.30	2417.675	3599.669

Sample Name: ICSADLX20 Acquired: 5/15/2025 14:09:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.000696	.0019307	-.000131	.0059290	.0009135	11.47077	-.001177
Stddev	.004521	.0022688	.001401	.0013244	.0032334	.03220	.000455
%RSD	649.0819	117.5160	1069.195	22.33674	353.9516	.2807108	38.62011
#1	.000574	.0044892	.001335	.0074410	-.000701	11.43570	-.001214
#2	.003053	.0011393	-.000270	.0049750	-.001195	11.49900	-.000705
#3	-.005717	.0001635	-.001458	.0053710	.004636	11.47760	-.001613

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002145	-.000135	11.20448	.0021774	.0000078	-.000199	4.302369
Stddev	.0000452	.000049	.04709	.0005838	.0000817	.000156	.020822
%RSD	21.07705	36.17227	.4202512	26.81108	1052.570	78.07024	.4839606
#1	.0002666	-.000152	11.19872	.0028274	.0000205	-.000261	4.280950
#2	.0001867	-.000173	11.16054	.0016977	-.000080	-.000022	4.303618
#3	.0001901	-.000080	11.25419	.0020072	.000082	-.000315	4.322537

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001984	11.32072	.0000762	.0000109	-.153966	-.000738	.0007874
Stddev	.0001428	.03880	.0001340	.0003380	.007390	.001663	.0001361
%RSD	71.94859	.3427733	175.7816	3107.264	4.800054	225.2206	17.28681
#1	.0000637	11.31831	.0002208	-.000304	-.161065	-.002400	.0007829
#2	.0001835	11.28317	-.000044	.000368	-.146315	-.000741	.0009257
#3	.0003480	11.36067	.000052	-.000031	-.154518	.000926	.0006536

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.027484	.0029604	.0001204	.0011138	.0005271	-.008352	-.005062
Stddev	.030646	.0005732	.0002366	.0014636	.0007002	.011192	.002421
%RSD	111.5034	19.36112	196.4746	131.4065	132.8303	134.0014	47.82746
#1	-.016279	.0023443	.0001712	-.000570	.0006353	.004369	-.003101
#2	-.004018	.0030592	-.000137	.001832	.0011669	-.012742	-.004317
#3	-.062155	.0034778	.000328	.002080	-.000221	-.016684	-.007769

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSADLX20 Acquired: 5/15/2025 14:09:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001503	-.001215	.0006483
Stddev	.001519	.001143	.0000290
%RSD	101.0633	94.12741	4.475026
#1	-.003022	-.001976	.0006150
#2	-.001506	-.001768	.0006621
#3	.000017	.000100	.0006679

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2932.647	66556.97	17845.24	2659.598	4233.494
Stddev	14.019	311.94	13.89	10.917	11.901
%RSD	.4780466	.4686778	.0778624	.4104699	.2811183
#1	2919.849	66868.59	17856.89	2671.702	4221.824
#2	2930.460	66244.72	17829.86	2650.497	4233.043
#3	2947.631	66557.60	17848.96	2656.594	4245.614

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSABDLX20 Acquired: 5/15/2025 14:14:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040435	.0048410	.0032607	.0028741	.0296033	11.51133	.0210950
Stddev	.0014451	.0021823	.0015690	.0011477	.0018937	.02708	.0008030
%RSD	35.73825	45.07961	48.11732	39.93221	6.396801	.2352585	3.806628
#1	.0057112	.0023795	.0046270	.0016117	.0279961	11.52490	.0202452
#2	.0031623	.0065388	.0015472	.0038546	.0316909	11.52895	.0218412
#3	.0032570	.0056047	.0036080	.0031559	.0291230	11.48015	.0211985

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0242724	.0466083	11.21934	.0260815	.0231527	.0235624	4.265337
Stddev	.0001298	.0000637	.01386	.0003985	.0001879	.0006810	.038361
%RSD	.5347861	.1366421	.1235527	1.527973	.8116170	2.890265	.8993568
#1	.0241921	.0465380	11.21964	.0256668	.0233254	.0239714	4.261784
#2	.0244222	.0466247	11.23306	.0261162	.0229526	.0227763	4.228876
#3	.0242031	.0466622	11.20534	.0264616	.0231802	.0239396	4.305350

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0234937	11.31869	.0455295	.0102628	-.163890	.0216467	.0485129
Stddev	.0001777	.04611	.0002676	.0003013	.002216	.0009930	.0002165
%RSD	.7564845	.4073601	.5876919	2.935550	1.352184	4.587439	.4462311
#1	.0235007	11.27591	.0454057	.0099176	-.165141	.0211593	.0483348
#2	.0236679	11.36753	.0458366	.0104728	-.161332	.0227892	.0484502
#3	.0233126	11.31263	.0453463	.0103980	-.165198	.0209915	.0487539

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030792	.0491060	.0484791	.0478812	.0462372	.0335264	-.002929
Stddev	.017437	.0008425	.0002996	.0007363	.0003186	.0031019	.002693
%RSD	56.62631	1.715749	.6179484	1.537865	.6891461	9.252031	91.92527
#1	-.018953	.0495919	.0481352	.0481810	.0458693	.0332756	-.005865
#2	-.050815	.0495931	.0486185	.0470422	.0464140	.0305575	-.002349
#3	-.022609	.0481331	.0486836	.0484203	.0464281	.0367460	-.000574

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: ICSABDLX20 Acquired: 5/15/2025 14:14:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001920	-.000981	.0006998
Stddev	.004599	.000109	.0000283
%RSD	239.5967	11.06706	4.047981
#1	.000271	-.000908	.0007325
#2	-.007205	-.001106	.0006825
#3	.001175	-.000929	.0006844

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2924.708	66591.02	17658.49	2665.792	4224.920
Stddev	.971	318.01	124.18	6.900	7.662
%RSD	.0331921	.4775627	.7032378	.2588474	.1813588
#1	2924.175	66291.04	17645.31	2660.964	4216.444
#2	2925.829	66924.43	17541.43	2673.695	4231.355
#3	2924.121	66557.61	17788.74	2662.717	4226.962

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV01 Acquired: 5/15/2025 14:18:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.987951	4.968034	4.989322	4.937494	4.916915	9.925802	9.621466
Stddev	.012697	.004119	.013399	.012222	.012290	.040509	.057072
%RSD	.2545616	.0829134	.2685496	.2475325	.2499454	.4081172	.5931772
#1	4.989744	4.971377	4.988809	4.941815	4.911053	9.940497	9.588953
#2	4.974453	4.969293	4.976186	4.923699	4.908653	9.956913	9.588080
#3	4.999657	4.963432	5.002969	4.946969	4.931038	9.879997	9.687366

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2517522	2.467423	24.68403	1.006647	2.487124	1.249480	4.868137
Stddev	.0005931	.004297	.08856	.000742	.006505	.002023	.016205
%RSD	.2355902	.1741672	.3587561	.0736927	.2615275	.1619155	.3328807
#1	.2517323	2.465848	24.72657	1.007137	2.487167	1.247363	4.878063
#2	.2523550	2.464134	24.74329	1.007010	2.480597	1.249684	4.876911
#3	.2511693	2.472285	24.58223	1.005793	2.493606	1.251394	4.849437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.445343	24.14362	2.467511	1.243772	24.32072	2.433769	2.533907
Stddev	.012706	.09205	.005313	.002233	.09506	.008162	.003901
%RSD	.5196016	.3812582	.2153223	.1795084	.3908523	.3353503	.1539568
#1	2.449034	24.18168	2.467145	1.243457	24.35128	2.435681	2.537933
#2	2.455795	24.21053	2.462390	1.246146	24.39674	2.440805	2.533643
#3	2.431200	24.03864	2.472997	1.241714	24.21414	2.424821	2.530144

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.16579	4.984502	5.001366	4.963936	4.868480	4.854201	4.979119
Stddev	.11989	.012872	.004497	.012323	.019554	.019025	.014298
%RSD	.4961097	.2582340	.0899217	.2482589	.4016380	.3919338	.2871691
#1	24.22921	4.985722	4.996186	4.959587	4.874686	4.837203	4.967528
#2	24.24064	4.996720	5.004264	4.954376	4.884177	4.874752	4.974732
#3	24.02751	4.971064	5.003649	4.977844	4.846576	4.850647	4.995097

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV01 Acquired: 5/15/2025 14:18:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.944078	4.901662	4.955687
Stddev	.007265	.016105	.023515
%RSD	.1469506	.3285547	.4744996
#1	4.942004	4.909967	4.950107
#2	4.938076	4.911919	4.981489
#3	4.952155	4.883100	4.935464

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2842.567	64049.52	17642.78	2563.394	3953.400
Stddev	8.947	74.84	25.73	5.013	11.831
%RSD	.3147370	.1168433	.1458255	.1955559	.2992679
#1	2852.883	63983.86	17618.97	2564.870	3965.540
#2	2837.888	64033.70	17639.31	2557.809	3952.755
#3	2836.930	64131.01	17670.07	2567.503	3941.904

Sample Name: CCB01 Acquired: 5/15/2025 14:22:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001903	.0011260	-.000038	.0007811	.0024539	.0065823	-.000283
Stddev	.002554	.0022525	.001049	.0034776	.0018578	.0006453	.000855
%RSD	134.1935	200.0373	2731.810	445.2214	75.70537	9.803807	301.7781
#1	-.000481	.0019757	-.001111	-.002703	.0005909	.0063676	.000445
#2	-.000377	-.001428	.000009	.004252	.0024646	.0073075	-.001224
#3	-.004852	.002830	.000987	.000794	.0043064	.0060716	-.000071

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001273	-.000021	.0122921	-.000170	.0000116	.0001853	.0007898
Stddev	.0001003	.000048	.0000786	.000389	.0001029	.0003166	.0029244
%RSD	78.77597	234.0127	.6393124	228.2237	887.4815	170.8390	370.2530
#1	.0002110	.000024	.0123206	-.000604	.0000054	.0005190	.0041499
#2	.0001549	-.000013	.0122032	.000148	.0001174	.0001477	-.000599
#3	.0000161	-.000073	.0123524	-.000056	-.000088	-.000111	-.001181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001660	-.018024	-.000109	.0002586	-.167215	-.000421	.0012676
Stddev	.0002285	.008252	.000169	.0002339	.008643	.000690	.0001638
%RSD	137.6447	45.78586	154.7408	90.44749	5.168899	163.7983	12.91905
#1	-.000044	-.022462	-.000157	.0005244	-.171720	.000209	.0013313
#2	.000409	-.008502	-.000248	.0000845	-.157250	-.000314	.0013900
#3	.000132	-.023107	.000079	.0001668	-.172674	-.001159	.0010816

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.035452	.0119157	.0005524	.0032794	-.000137	-.011422	-.003803
Stddev	.014866	.0008949	.0001864	.0001047	.000308	.009636	.001053
%RSD	41.93155	7.510396	33.75070	3.193959	225.5243	84.36424	27.69850
#1	-.024106	.0127529	.0007456	.0032481	.000028	-.012426	-.002642
#2	-.029971	.0120216	.0005380	.0031939	.000054	-.020517	-.004068
#3	-.052281	.0109725	.0003736	.0033962	-.000493	-.001323	-.004699

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB01 Acquired: 5/15/2025 14:22:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0027766	-.002194	.0001466
Stddev	.0015728	.001311	.0000410
%RSD	56.64289	59.74595	28.00191
#1	.0045694	-.002566	.0001891
#2	.0021314	-.003279	.0001434
#3	.0016291	-.000737	.0001072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2919.775	67496.59	18148.69	2701.103	4292.685
Stddev	16.886	387.75	39.37	20.383	18.434
%RSD	.5783356	.5744710	.2169245	.7546110	.4294277
#1	2904.598	67931.28	18136.86	2723.876	4276.822
#2	2937.965	67186.34	18192.62	2684.568	4312.908
#3	2916.761	67372.16	18116.60	2694.865	4288.325

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-01 Acquired: 5/15/2025 14:26:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0463713	.0050399	.0955451	-.008285	-.002691	110.9910	.1476463
Stddev	.0061368	.0033577	.0008916	.001616	.003369	.0895	.0006113
%RSD	13.23412	66.62204	.9331836	19.51015	125.1816	.0806294	.4140169
#1	.0526527	.0088829	.0952739	-.008301	-.004245	111.0521	.1470381
#2	.0403900	.0035638	.0965408	-.006661	.001174	110.8883	.1476400
#3	.0460714	.0026732	.0948205	-.009894	-.005002	111.0326	.1482606

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034875	-.004766	65.82923	.1852757	.0108562	.0622933	133.3157
Stddev	.0001601	.000061	.07461	.0002455	.0000985	.0005695	.3897
%RSD	4.590791	1.279396	.1133441	.1325126	.9073201	.9141902	.2923432
#1	.0036222	-.004764	65.83626	.1850191	.0107521	.0622302	132.8664
#2	.0033105	-.004827	65.75134	.1855084	.0109479	.0628917	133.5187
#3	.0035298	-.004705	65.90007	.1852995	.0108688	.0617580	133.5621

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2537862	38.37407	.0386842	.0012750	-.086593	.3091519	.0733307
Stddev	.0014516	.16652	.0006990	.0002370	.001788	.0016437	.0003754
%RSD	.5719779	.4339450	1.806934	18.58639	2.065305	.5316897	.5119529
#1	.2547108	38.31137	.0391783	.0012568	-.086736	.3100101	.0735785
#2	.2521131	38.24800	.0389898	.0015205	-.084737	.3101889	.0728987
#3	.2545347	38.56284	.0378844	.0010476	-.088305	.3072567	.0735148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.856827	.0364499	.0060515	.0002776	.8801701	8.193414	1.281194
Stddev	.021055	.0010532	.0002140	.0013000	.0009440	.028742	.007253
%RSD	1.133943	2.889428	3.536496	468.3392	.1072572	.3507922	.5661350
#1	1.843409	.0355444	.0062346	-.000987	.8811971	8.173704	1.273842
#2	1.881094	.0376057	.0058162	.000209	.8793401	8.180145	1.281395
#3	1.845978	.0361995	.0061036	.001610	.8799732	8.226393	1.288344

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-01 Acquired: 5/15/2025 14:26:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.452152	.0669588	-.100689
Stddev	.002056	.0006228	.000406
%RSD	.1415822	.9301163	.4028991
#1	1.453324	.0674246	-.100222
#2	1.453354	.0672004	-.100882
#3	1.449778	.0662514	-.100961

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3004.476	68721.06	19669.13	2750.920	3928.818
Stddev	6.089	171.31	47.33	7.749	8.555
%RSD	.2026774	.2492855	.2406261	.2816694	.2177611
#1	3011.078	68879.86	19650.66	2752.458	3938.484
#2	3003.272	68743.80	19722.91	2757.784	3925.751
#3	2999.079	68539.51	19633.82	2742.518	3922.219

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-03 Acquired: 5/15/2025 14:31:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0488721	.0032965	.0940619	-.012633	-.004088	103.3727	.1434114
Stddev	.0011286	.0020816	.0010651	.003186	.001513	.0745	.0007835
%RSD	2.309227	63.14460	1.132378	25.21999	37.00947	.0720563	.5463349
#1	.0493306	.0026285	.0939025	-.008957	-.002689	103.2932	.1429556
#2	.0475864	.0016309	.0930854	-.014587	-.005693	103.4409	.1443162
#3	.0496993	.0056300	.0951977	-.014356	-.003881	103.3840	.1429626

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034051	-.004424	44.71567	.1786922	.0100878	.0528853	129.9839
Stddev	.0000652	.000140	.06649	.0012513	.0000605	.0001872	.2429
%RSD	1.915510	3.168219	.1487028	.7002793	.5999955	.3540565	.1868536
#1	.0034281	-.004575	44.70554	.1781970	.0101323	.0529291	129.7297
#2	.0033315	-.004396	44.78665	.1801153	.0100189	.0526800	130.2137
#3	.0034557	-.004299	44.65483	.1777642	.0101122	.0530468	130.0082

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2106571	25.83997	.0364697	.0013390	-.142306	.2995294	.0503753
Stddev	.0001005	.04856	.0004302	.0001423	.005305	.0035874	.0011058
%RSD	.0476833	.1879223	1.179523	10.62426	3.728162	1.197687	2.195172
#1	.2107598	25.84122	.0360824	.0014041	-.136199	.2973770	.0514777
#2	.2105591	25.88789	.0369327	.0014370	-.145776	.3036707	.0492661
#3	.2106525	25.79080	.0363940	.0011758	-.144943	.2975404	.0503822

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.688257	.0310139	.0067503	.0006564	.8714612	4.640988	1.205133
Stddev	.035869	.0006634	.0002512	.0012720	.0014121	.006100	.007483
%RSD	2.124621	2.139171	3.721598	193.7792	.1620379	.1314339	.6209261
#1	1.683596	.0302479	.0069162	.0006222	.8701774	4.637120	1.208539
#2	1.726228	.0313891	.0064613	-.000598	.8712325	4.637823	1.196553
#3	1.654946	.0314048	.0068734	.001945	.8729737	4.648020	1.210307

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-03 Acquired: 5/15/2025 14:31:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.216023	.0641477	-.105763
Stddev	.009697	.0007889	.000150
%RSD	.7974167	1.229742	.1419498
#1	1.205308	.0632408	-.105605
#2	1.218566	.0646742	-.105904
#3	1.224194	.0645283	-.105781

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2995.398	70125.05	19970.73	2789.686	3943.746
Stddev	9.069	45.30	8.72	11.937	6.816
%RSD	.3027584	.0646044	.0436485	.4279054	.1728280
#1	2987.045	70165.55	19975.88	2778.992	3940.892
#2	3005.044	70133.46	19960.67	2802.565	3951.525
#3	2994.105	70076.13	19975.65	2787.502	3938.820

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-05 Acquired: 5/15/2025 14:35:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0410943	.0044197	.0875031	-.008467	-.000835	100.7672	.1394297
Stddev	.0011848	.0029295	.0016914	.006312	.000796	.1852	.0004244
%RSD	2.883206	66.28222	1.932904	74.55285	95.28369	.1837585	.3043688
#1	.0397382	.0047345	.0871403	-.015501	-.001677	100.6435	.1395733
#2	.0416158	.0071790	.0893464	-.006604	-.000733	100.9801	.1397636
#3	.0419290	.0013455	.0860226	-.003295	-.000095	100.6781	.1389521

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031340	-.004633	69.93471	.1787925	.0113909	.0573282	123.7680
Stddev	.0001402	.000186	.16522	.0003381	.0003884	.0003912	.9813
%RSD	4.474530	4.016063	.2362525	.1891066	3.409937	.6823250	.7928466
#1	.0031405	-.004596	69.93136	.1785298	.0118144	.0569170	123.4479
#2	.0029906	-.004468	70.10159	.1786737	.0113073	.0576956	122.9868
#3	.0032708	-.004835	69.77119	.1791740	.0110512	.0573720	124.8694

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3453993	40.08739	.0377418	.0014392	-.073774	.2797977	.0698873
Stddev	.0006361	.15276	.0000484	.0000223	.002102	.0016184	.0005771
%RSD	.1841632	.3810770	.1282169	1.550543	2.848907	.5784029	.8258142
#1	.3447263	40.00945	.0377746	.0014486	-.072427	.2779411	.0692359
#2	.3454812	40.26341	.0377647	.0014137	-.076195	.2809101	.0703349
#3	.3459906	39.98933	.0376862	.0014552	-.072699	.2805418	.0700909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.932620	.0328614	.0065264	.0001340	.8754462	5.662532	1.220278
Stddev	.024237	.0017145	.0003545	.0016423	.0015586	.070399	.010951
%RSD	1.254075	5.217325	5.431278	1226.075	.1780360	1.243244	.8974065
#1	1.924588	.0323966	.0068858	-.001154	.8769290	5.620522	1.221197
#2	1.913420	.0314272	.0061771	.001983	.8755882	5.623268	1.208896
#3	1.959853	.0347603	.0065162	-.000428	.8738215	5.743807	1.230740

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-05 Acquired: 5/15/2025 14:35:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.367091	.0597719	-.079172
Stddev	.003517	.0012728	.001002
%RSD	.1485948	2.129460	1.265904
#1	2.364676	.0608814	-.078888
#2	2.365470	.0583824	-.078342
#3	2.371126	.0600518	-.080285

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2990.836	69421.34	20053.54	2762.943	3941.261
Stddev	4.360	314.75	108.12	8.928	4.344
%RSD	.1457743	.4533980	.5391779	.3231334	.1102200
#1	2986.520	69592.93	20029.31	2773.244	3937.587
#2	2995.238	69613.01	19959.59	2757.431	3940.141
#3	2990.749	69058.07	20171.72	2758.155	3946.055

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-07 Acquired: 5/15/2025 14:39:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0441820	.0071617	.0923614	-.011105	-.001269	111.1250	.1434756
Stddev	.0018237	.0013303	.0018487	.002048	.001844	.0507	.0008142
%RSD	4.127782	18.57571	2.001584	18.43832	145.3025	.0456481	.5675031
#1	.0459328	.0067688	.0904261	-.012655	-.003008	111.1750	.1444137
#2	.0443202	.0060721	.0925490	-.008784	.000665	111.1265	.1430596
#3	.0422931	.0086442	.0941092	-.011877	-.001465	111.0736	.1429533

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032971	-.005206	38.22989	.1882375	.0096831	.0558711	130.4996
Stddev	.0001083	.000061	.05246	.0007937	.0001692	.0006360	.7427
%RSD	3.285905	1.169393	.1372236	.4216772	1.747438	1.138395	.5691077
#1	.0031858	-.005277	38.24261	.1885486	.0095142	.0561284	131.2896
#2	.0034022	-.005171	38.27483	.1888286	.0096824	.0551467	130.3937
#3	.0033033	-.005171	38.17224	.1873353	.0098526	.0563381	129.8156

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1896080	22.44552	.0370634	.0013630	-.139524	.2977706	.0520810
Stddev	.0007133	.07071	.0006305	.0002654	.004229	.0009433	.0002154
%RSD	.3762159	.3150408	1.701021	19.47359	3.030724	.3167741	.4135207
#1	.1900564	22.52691	.0363908	.0016385	-.137772	.2984903	.0522135
#2	.1899822	22.39922	.0376409	.0013416	-.136452	.2967028	.0518325
#3	.1887854	22.41043	.0371586	.0011090	-.144347	.2981189	.0521970

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.809808	.0335319	.0054905	-.000583	.9359936	9.323297	1.197742
Stddev	.023795	.0012046	.0003990	.001737	.0008757	.053326	.002636
%RSD	1.314797	3.592481	7.267635	298.1185	.0935572	.5719694	.2200831
#1	1.808824	.0336345	.0058604	.001182	.9369163	9.383246	1.194882
#2	1.786521	.0346820	.0050677	-.002290	.9358904	9.305499	1.200074
#3	1.834081	.0322793	.0055434	-.000640	.9351741	9.281146	1.198270

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-07 Acquired: 5/15/2025 14:39:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.221602	.0682502	-.108656
Stddev	.002638	.0001380	.000804
%RSD	.2159274	.2022638	.7397017
#1	1.219184	.0682534	-.109475
#2	1.221208	.0683866	-.108623
#3	1.224415	.0681106	-.107868

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3001.507	67726.82	19706.88	2729.332	3973.819
Stddev	10.331	209.62	34.89	8.689	5.323
%RSD	.3441926	.3095135	.1770490	.3183610	.1339463
#1	2989.638	67509.88	19732.11	2719.332	3968.867
#2	3006.407	67742.29	19667.07	2735.034	3973.143
#3	3008.477	67928.27	19721.47	2733.631	3979.448

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-09 Acquired: 5/15/2025 14:43:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0444962	.0058039	.0878886	-.009258	-.002759	87.12764	.1413171
Stddev	.0007984	.0004729	.0011468	.000903	.001843	.07951	.0008942
%RSD	1.794390	8.148421	1.304817	9.756109	66.77808	.0912536	.6327630
#1	.0438317	.0057938	.0890590	-.008296	-.001537	87.20234	.1408094
#2	.0453819	.0053362	.0867670	-.009389	-.001862	87.13649	.1423496
#3	.0442750	.0062819	.0878399	-.010088	-.004879	87.04407	.1407923

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035592	-.004169	39.49306	.1640645	.0141948	.0736560	123.9896
Stddev	.0000958	.000122	.11893	.0005459	.0001118	.0002245	.6112
%RSD	2.691415	2.931528	.3011344	.3327091	.7875466	.3047500	.4929285
#1	.0036642	-.004291	39.63018	.1638871	.0142830	.0736690	123.7539
#2	.0034766	-.004046	39.43097	.1636294	.0140691	.0734253	123.5313
#3	.0035368	-.004170	39.41803	.1646770	.0142324	.0738736	124.6835

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6434239	23.71889	.0352315	.0006263	1.830394	.2761851	.1260248
Stddev	.0004848	.09116	.0004080	.0002679	.012563	.0027188	.0000815
%RSD	.0753475	.3843493	1.157989	42.77568	.6863745	.9844000	.0647004
#1	.6430132	23.75913	.0347680	.0009207	1.822221	.2792385	.1260943
#2	.6432999	23.78301	.0355365	.0003970	1.824101	.2740265	.1260452
#3	.6439587	23.61453	.0353899	.0005610	1.844861	.2752903	.1259350

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.407802	.0278739	.0064310	.0003838	.9209344	6.567484	1.281786
Stddev	.035386	.0020688	.0004706	.0002183	.0041117	.049634	.006282
%RSD	1.038393	7.422072	7.317527	56.89155	.4464709	.7557524	.4901047
#1	3.370687	.0259144	.0068109	.0006195	.9248352	6.534377	1.283793
#2	3.411560	.0276704	.0065775	.0001886	.9213278	6.543522	1.274745
#3	3.441160	.0300370	.0059046	.0003432	.9166401	6.624552	1.286819

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-09 Acquired: 5/15/2025 14:43:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.018982	.0760508	-.036940
Stddev	.005003	.0002496	.000737
%RSD	.2478156	.3282129	1.995794
#1	2.013246	.0759897	-.036545
#2	2.021251	.0758374	-.036484
#3	2.022448	.0763252	-.037791

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3010.594	68100.36	19193.68	2735.965	3985.083
Stddev	3.479	299.46	71.42	2.822	8.147
%RSD	.1155717	.4397300	.3721000	.1031293	.2044440
#1	3007.419	68409.18	19153.08	2738.837	3978.727
#2	3014.313	68080.67	19151.81	2735.859	3994.268
#3	3010.051	67811.24	19276.14	2733.197	3982.255

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-11 Acquired: 5/15/2025 14:48:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081700	.0008023	.0087733	.0000434	-.002939	148.4485	.1341870
Stddev	.0062802	.0004055	.0018257	.0026528	.002040	.2916	.0011765
%RSD	76.86900	50.54760	20.80984	6110.411	69.40089	.1964386	.8767867
#1	.0099380	.0004457	.0076636	.0022292	-.005283	148.7776	.1349025
#2	.0011953	.0012434	.0108805	-.002908	-.001975	148.3459	.1348294
#3	.0133767	.0007177	.0077758	.000809	-.001561	148.2221	.1328292

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018127	-.002661	95.46958	.1356323	.0654639	1.083099	80.09944
Stddev	.0001214	.000072	.26243	.0006194	.0002633	.001252	.23653
%RSD	6.696260	2.704042	.2748857	.4566741	.4021827	.1155635	.2952917
#1	.0019423	-.002580	95.76311	.1349562	.0656388	1.082569	79.89134
#2	.0017941	-.002717	95.25760	.1357685	.0651611	1.082199	80.05030
#3	.0017017	-.002685	95.38805	.1361723	.0655918	1.084528	80.35668

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6525819	40.50170	.1584234	.0011609	20.16771	.2103104	.1205406
Stddev	.0015388	.08307	.0008385	.0002916	.03770	.0010850	.0003379
%RSD	.2357948	.2051073	.5292929	25.11409	.1869556	.5159213	.2803502
#1	.6525867	40.59737	.1585643	.0009793	20.13076	.2092746	.1201543
#2	.6541182	40.45992	.1575233	.0014972	20.16626	.2114387	.1207817
#3	.6510407	40.44782	.1591825	.0010063	20.20613	.2102179	.1206858

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.25284	.0359873	.0020174	-.005934	2.405437	2.536993	6.921086
Stddev	.02367	.0004580	.0003565	.001685	.007307	.007037	.015508
%RSD	.2103672	1.272817	17.67303	28.39137	.3037906	.2773870	.2240715
#1	11.23120	.0358822	.0023923	-.003997	2.411150	2.543907	6.937432
#2	11.27812	.0355910	.0019774	-.007061	2.397203	2.537234	6.906580
#3	11.24920	.0364888	.0016826	-.006745	2.407958	2.529838	6.919246

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-11 Acquired: 5/15/2025 14:48:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.232287	.0539115	.2370683
Stddev	.001020	.0010620	.0008448
%RSD	.0827680	1.969943	.3563349
#1	1.233042	.0551026	.2373056
#2	1.231127	.0530632	.2377691
#3	1.232692	.0535686	.2361303

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2874.579	64162.88	18680.46	2590.825	3855.800
Stddev	4.070	57.33	65.33	15.821	6.012
%RSD	.1415939	.0893559	.3497131	.6106401	.1559143
#1	2869.915	64190.80	18605.73	2607.270	3852.884
#2	2876.406	64200.90	18708.97	2589.490	3862.714
#3	2877.415	64096.93	18726.69	2575.714	3851.802

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-02 Acquired: 5/15/2025 14:52:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002265	-.002862	.0039360	.0032890	.0001208	.3638676	.2118594
Stddev	.003087	.002197	.0023078	.0019685	.0006787	.0051410	.0001498
%RSD	136.3108	76.76488	58.63335	59.85019	561.8489	1.412888	.0707221
#1	-.005042	-.003914	.0033465	.0011486	.0007076	.3686633	.2119804
#2	-.002812	-.004335	.0064813	.0036966	-.000622	.3644998	.2119059
#3	.001059	-.000337	.0019801	.0050217	.000277	.3584397	.2116918

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000015	.0000309	65.57591	-.000489	.0004936	.0051287	.3015476
Stddev	.000017	.0000646	.10588	.000214	.0002216	.0004383	.0033670
%RSD	112.2462	208.6741	.1614612	43.70229	44.88980	8.545893	1.116580
#1	.000003	-.000039	65.47645	-.000689	.0005491	.0047880	.3053671
#2	-.000030	.000045	65.56407	-.000264	.0002495	.0049750	.2990093
#3	-.000018	.000088	65.68721	-.000514	.0006821	.0056232	.3002663

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1698728	36.92115	.0022764	-.000045	392.4633	.0006674	.0551519
Stddev	.0007078	.11784	.0001196	.000052	1.2092	.0013461	.0008017
%RSD	.4166508	.3191572	5.254830	114.6599	.3080942	201.7031	1.453626
#1	.1690965	36.78956	.0021575	-.000047	393.4675	.0016480	.0551382
#2	.1704822	37.01691	.0022752	.000008	392.8013	.0012215	.0559604
#3	.1700399	36.95698	.0023967	-.000096	391.1211	-.000867	.0543572

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6293182	.0280146	.0005144	-.005431	.0047631	1.201683	.0078005
Stddev	.0039196	.0004739	.0003715	.000667	.0008704	.011452	.0014917
%RSD	.6228349	1.691674	72.22581	12.28325	18.27290	.9529850	19.12358
#1	.6265418	.0284201	.0008409	-.005595	.0052668	1.200187	.0070036
#2	.6276108	.0274936	.0001101	-.006002	.0052645	1.191053	.0068765
#3	.6338019	.0281302	.0005923	-.004698	.0037581	1.213809	.0095215

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-02 Acquired: 5/15/2025 14:52:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.400506	-.012798	.0309650
Stddev	.009634	.000294	.0001044
%RSD	.6878948	2.296575	.3370333
#1	1.402235	-.012558	.0310180
#2	1.390124	-.013126	.0308448
#3	1.409158	-.012711	.0310322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.392	60387.44	18215.07	2426.091	3693.520
Stddev	3.414	110.61	64.05	5.186	5.216
%RSD	.1251802	.1831607	.3516480	.2137680	.1412164
#1	2726.229	60504.20	18283.77	2431.147	3687.572
#2	2731.235	60373.90	18204.45	2420.784	3695.673
#3	2724.711	60284.24	18157.00	2426.342	3697.314

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-04 Acquired: 5/15/2025 14:56:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003148	-.003116	.0031185	.0037364	.0002644	.3558662	.1711720
Stddev	.005090	.000546	.0006140	.0012636	.0012176	.0043410	.0011355
%RSD	161.6946	17.53367	19.68716	33.81865	460.4991	1.219829	.6633965
#1	-.001984	-.003630	.0036106	.0045730	-.000413	.3592415	.1712689
#2	.001259	-.002542	.0033144	.0043534	.001670	.3509692	.1699912
#3	-.008719	-.003176	.0024305	.0022829	-.000464	.3573878	.1722561

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000014	-.000078	37.62555	-.000272	.0000463	.0037874	.2289363
Stddev	.000061	.000065	.05979	.000380	.0000757	.0004226	.0055773
%RSD	448.0543	84.28671	.1588991	139.5316	163.4181	11.15785	2.436196
#1	.000035	-.000035	37.65150	-.000094	.0000651	.0039243	.2228565
#2	.000006	-.000045	37.55717	-.000708	.0001108	.0041246	.2338156
#3	-.000082	-.000153	37.66798	-.000014	-.000037	.0033134	.2301369

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0691197	21.07122	.0014743	.0000806	317.5666	-.000491	.0469580
Stddev	.0003745	.05690	.0003595	.0001926	2.3934	.000145	.0008030
%RSD	.5418648	.2700399	24.38748	238.9225	.7536816	29.56295	1.709956
#1	.0691567	21.13692	.0011107	-.000059	315.4391	-.000480	.0460785
#2	.0687280	21.03785	.0018297	.000300	320.1581	-.000351	.0471433
#3	.0694743	21.03889	.0014826	.000000	317.1028	-.000641	.0476520

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4440092	.0269574	.0004853	-.004813	.0040709	1.029173	.0061604
Stddev	.0155063	.0013731	.0001466	.000994	.0010849	.005037	.0037627
%RSD	3.492339	5.093712	30.20262	20.65620	26.65093	.4893887	61.07895
#1	.4577216	.0271051	.0004689	-.005687	.0051401	1.028559	.0019866
#2	.4271819	.0282506	.0003477	-.003731	.0041018	1.034489	.0072020
#3	.4471242	.0255163	.0006394	-.005021	.0029709	1.024472	.0092927

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-04 Acquired: 5/15/2025 14:56:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.044714	-.008747	.0157293
Stddev	.003171	.000837	.0000677
%RSD	.3034822	9.563630	.4307276
#1	1.042301	-.007826	.0157181
#2	1.048305	-.008956	.0156678
#3	1.043537	-.009459	.0158019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2784.151	63531.49	18876.18	2534.814	3779.900
Stddev	.976	96.42	74.43	16.580	1.687
%RSD	.0350611	.1517750	.3943109	.6540862	.0446370
#1	2783.024	63448.05	18849.72	2536.699	3781.848
#2	2784.727	63509.37	18960.23	2550.371	3778.965
#3	2784.702	63637.05	18818.60	2517.373	3778.888

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-06 Acquired: 5/15/2025 15:01:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000130	-.003162	.0005240	.0006874	-.000242	.1532667	.1439103
Stddev	.0042470	.002144	.0028081	.0053019	.002442	.0041461	.0025429
%RSD	32676.46	67.80762	535.8728	771.2985	1007.425	2.705169	1.767017
#1	-.001337	-.005131	.0006843	.0021615	-.002761	.1497604	.1417741
#2	-.003395	-.003477	.0032486	-.005196	.002115	.1578429	.1432338
#3	.004771	-.000878	-.002361	.005096	-.000081	.1521967	.1467231

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000050	-.000057	80.37461	-.000139	-.000183	.0085651	.1144502
Stddev	.000028	.000131	.51984	.000136	.000255	.0004605	.0051158
%RSD	56.39915	228.7833	.6467667	97.90635	138.8028	5.376841	4.469922
#1	-.000060	.000059	79.87613	-.000013	-.000143	.0086644	.1156549
#2	-.000072	-.000032	80.33424	-.000121	.000049	.0089678	.1188561
#3	-.000018	-.000199	80.91345	-.000283	-.000456	.0080630	.1088395

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1841679	45.37756	.0017567	.0002548	349.6372	.0003838	.0308633
Stddev	.0008623	.36503	.0002818	.0001318	3.4147	.0010421	.0001392
%RSD	.4682302	.8044338	16.04362	51.70800	.9766492	271.5120	.4511149
#1	.1833309	44.96483	.0014362	.0002479	347.0995	.0001390	.0307358
#2	.1850535	45.50983	.0019656	.0003899	353.5195	-.000514	.0308424
#3	.1841192	45.65801	.0018684	.0001266	348.2925	.001526	.0310119

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4621662	.0110184	.0004364	-.004421	.0014072	.9360800	.0055931
Stddev	.0463836	.0008978	.0001640	.000812	.0006434	.0072727	.0028006
%RSD	10.03612	8.148534	37.56851	18.37543	45.72361	.7769283	50.07291
#1	.4180328	.0100520	.0002657	-.003504	.0021153	.9443922	.0035456
#2	.4579533	.0118267	.0005927	-.004707	.0008585	.9308884	.0087846
#3	.5105124	.0111763	.0004509	-.005052	.0012477	.9329594	.0044491

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-06 Acquired: 5/15/2025 15:01:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.728276	-.015315	.0308169
Stddev	.007130	.000693	.0001184
%RSD	.4125545	4.523083	.3840358
#1	1.720433	-.014767	.0306848
#2	1.730026	-.015083	.0309133
#3	1.734367	-.016093	.0308526

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2678.206	61308.58	18130.37	2438.289	3677.837
Stddev	7.825	222.47	158.61	4.073	16.436
%RSD	.2921913	.3628636	.8748079	.1670415	.4468943
#1	2680.098	61512.44	18309.71	2442.411	3689.081
#2	2684.912	61342.02	18072.87	2438.189	3685.457
#3	2669.608	61071.29	18008.54	2434.267	3658.974

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV02 Acquired: 5/15/2025 15:05:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.048857	4.977648	5.026835	4.981062	4.951802	9.962937	9.614080
Stddev	.019983	.037023	.014931	.021176	.029931	.025985	.082907
%RSD	.3957981	.7437801	.2970237	.4251279	.6044527	.2608212	.8623471
#1	5.043207	5.020391	5.013087	4.964074	4.931545	9.954600	9.593242
#2	5.032307	4.955568	5.024699	4.974324	4.937680	9.942143	9.543579
#3	5.071057	4.956986	5.042719	5.004786	4.986182	9.992068	9.705417

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2492248	2.484143	24.81215	1.013651	2.509394	1.261104	5.010086
Stddev	.0003684	.010369	.10716	.002835	.008692	.007274	.029484
%RSD	.1478161	.4174135	.4318727	.2797081	.3463616	.5768120	.5884955
#1	.2488746	2.475394	24.71587	1.015372	2.501408	1.254689	5.041130
#2	.2491908	2.481439	24.79299	1.010379	2.508123	1.259616	4.982460
#3	.2496091	2.495597	24.92760	1.015203	2.518651	1.269007	5.006666

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.452325	24.18744	2.484903	1.250478	25.04139	2.450846	2.532143
Stddev	.010980	.13534	.011280	.004029	.12865	.006148	.018111
%RSD	.4477367	.5595336	.4539421	.3221989	.5137419	.2508338	.7152553
#1	2.443628	24.04038	2.474937	1.253102	25.17381	2.444173	2.543145
#2	2.448685	24.21518	2.482624	1.245839	24.91687	2.452086	2.511239
#3	2.464663	24.30675	2.497149	1.252492	25.03349	2.456279	2.542043

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.73331	4.892720	5.031472	4.991600	4.886407	4.946215	5.058085
Stddev	.07158	.010532	.023858	.016715	.007986	.000571	.016486
%RSD	.2893906	.2152635	.4741805	.3348589	.1634303	.0115455	.3259386
#1	24.81152	4.881545	5.014310	4.975657	4.877411	4.946155	5.050148
#2	24.67106	4.894153	5.021389	4.990152	4.892661	4.946814	5.047069
#3	24.71735	4.902463	5.058716	5.008992	4.889148	4.945676	5.077039

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV02 Acquired: 5/15/2025 15:05:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.013194	4.898395	4.980594
Stddev	.023378	.002157	.037621
%RSD	.4663239	.0440253	.7553527
#1	4.993659	4.896751	5.004340
#2	5.006829	4.897597	4.937218
#3	5.039096	4.900836	5.000223

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2792.079	63071.40	17756.52	2535.679	3888.151
Stddev	18.165	241.82	46.42	9.773	19.644
%RSD	.6505813	.3834064	.2614116	.3854385	.5052312
#1	2805.649	62856.83	17808.94	2525.300	3904.708
#2	2799.145	63333.43	17739.97	2544.707	3893.299
#3	2771.443	63023.92	17720.64	2537.031	3866.445

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB02 Acquired: 5/15/2025 15:09:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000822	.0010328	.0004652	.0047279	-.001071	.0130104	.0012878
Stddev	.002136	.0017726	.0017174	.0020696	.001479	.0048533	.0006621
%RSD	259.9625	171.6333	369.1497	43.77531	138.0476	37.30352	51.41264
#1	.001373	.0009548	-.001413	.0036092	-.002778	.0111758	.0012019
#2	-.000945	.0028431	.001955	.0034583	-.000218	.0185136	.0019887
#3	-.002893	-.000700	.000854	.0071161	-.000216	.0093418	.0006729

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001148	-.000027	.0016154	-.000161	.0000705	.0002011	-.000538
Stddev	.0001032	.000073	.0032882	.000154	.0001773	.0004552	.006230
%RSD	89.87515	271.9605	203.5600	96.01002	251.3687	226.4107	1157.780
#1	.0000137	.000024	.0025087	.000003	.0002075	.0002997	.002146
#2	.0001109	-.000110	.0043646	-.000303	.0001338	.0005988	.003900
#3	.0002200	.000006	-.002027	-.000182	-.000130	-.000295	-.007660

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000637	-.021519	-.000225	.0003335	-.048849	-.000194	.0057976
Stddev	.0002420	.006588	.000204	.0003292	.006010	.000375	.0003588
%RSD	379.9882	30.61307	90.38461	98.70742	12.30338	193.8997	6.189001
#1	.0000264	-.024266	-.000054	.0003421	-.044717	-.000163	.0058132
#2	-.000157	-.014003	-.000450	.0006583	-.046087	.000165	.0054312
#3	.000322	-.026289	-.000171	.0000001	-.055744	-.000583	.0061483

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001535	.0105799	.0007683	.0043790	.0009917	.0045059	-.001840
Stddev	.030498	.0001099	.0000530	.0007633	.0002955	.0062720	.002966
%RSD	1987.281	1.038712	6.894962	17.42964	29.80078	139.1942	161.2027
#1	-.027122	.0105956	.0008285	.0035240	.0009008	-.001185	-.001941
#2	.032214	.0106811	.0007285	.0049915	.0007524	.003472	-.004754
#3	-.009696	.0104630	.0007480	.0046216	.0013221	.011231	.001175

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB02 Acquired: 5/15/2025 15:09:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0007687	-.000270	.0001301
Stddev	.0052065	.000527	.0000098
%RSD	677.3456	194.9612	7.516521
#1	-.004066	.000280	.0001414
#2	.006281	-.000320	.0001241
#3	.000092	-.000770	.0001249

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2890.318	63428.48	17573.63	2591.143	4266.456
Stddev	6.646	39.43	119.78	7.612	5.676
%RSD	.2299280	.0621633	.6816066	.2937683	.1330320
#1	2897.976	63398.58	17607.53	2583.730	4270.444
#2	2886.062	63473.16	17440.55	2590.760	4268.966
#3	2886.915	63413.69	17672.81	2598.939	4259.958

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-08 Acquired: 5/15/2025 15:13:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001500	-.000333	.0040716	.0045044	.0007818	.1039980	.1962841
Stddev	.001450	.003196	.0015755	.0012851	.0020614	.0054726	.0010043
%RSD	96.63590	960.3831	38.69528	28.52974	263.6653	5.262258	.5116487
#1	-.000698	.003135	.0053889	.0057182	-.001373	.1094625	.1969437
#2	-.000629	-.003158	.0044997	.0031583	.000983	.0985173	.1951283
#3	-.003174	-.000975	.0023263	.0046368	.002735	.1040141	.1967803

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000223	-.000041	34.75033	-.000698	.0001116	.0146289	.0426467
Stddev	.0000377	.000024	.05422	.000738	.0001686	.0008810	.0037621
%RSD	168.7199	57.92368	.1560172	105.7875	151.0983	6.022652	8.821574
#1	.0000410	-.000048	34.69200	-.001549	.0001938	.0149119	.0462196
#2	.0000470	-.000061	34.79918	-.000297	-.000082	.0153336	.0430000
#3	-.000021	-.000015	34.75982	-.000246	.000223	.0136411	.0387203

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0689481	19.47285	.0021836	-.000024	365.8561	-.001162	.0555614
Stddev	.0006691	.03354	.0003983	.000344	2.7631	.001492	.0003098
%RSD	.9704019	.1722196	18.24058	1412.667	.7552473	128.3369	.5575224
#1	.0690037	19.44640	.0025812	.000285	367.8072	-.002782	.0554713
#2	.0695876	19.46157	.0021849	.000037	367.0668	-.000861	.0559062
#3	.0682529	19.51057	.0017846	-.000395	362.6943	.000155	.0553067

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5305147	.0258114	.0003658	-.003572	-.000591	1.213534	.0080627
Stddev	.0208068	.0004295	.0003134	.000370	.000462	.004653	.0018051
%RSD	3.922000	1.663871	85.68219	10.36882	78.05824	.3833872	22.38889
#1	.5128300	.0262774	.0004440	-.003320	-.001124	1.213939	.0066234
#2	.5252730	.0254316	.0000207	-.003997	-.000303	1.217971	.0100880
#3	.5534411	.0257250	.0006327	-.003399	-.000347	1.208692	.0074766

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-08 Acquired: 5/15/2025 15:13:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.502261	-.007438	.0183592
Stddev	.008704	.000844	.0000545
%RSD	.5793792	11.34804	.2971528
#1	1.507855	-.006654	.0183249
#2	1.492233	-.008331	.0184221
#3	1.506696	-.007330	.0183306

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.952	61970.30	18527.79	2503.381	3674.669
Stddev	3.410	100.18	43.28	9.772	4.776
%RSD	.1243335	.1616525	.2335684	.3903696	.1299793
#1	2739.021	61871.69	18519.05	2513.926	3669.368
#2	2744.722	62071.98	18574.77	2501.589	3678.637
#3	2745.114	61967.23	18489.55	2494.629	3676.003

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-10 Acquired: 5/15/2025 15:18:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000017	-.003475	.0025408	.0012639	-.000407	.0873817	.1874735
Stddev	.004230	.001128	.0011416	.0035347	.002118	.0027711	.0007208
%RSD	24989.62	32.47458	44.92923	279.6654	519.9305	3.171239	.3844744
#1	-.000493	-.003331	.0028054	-.000970	.001269	.0841820	.1869917
#2	.004431	-.002425	.0012902	.005339	-.002788	.0889726	.1883022
#3	-.003989	-.004668	.0035269	-.000577	.000296	.0889906	.1871268

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000054	-.000052	55.25916	-.000403	.0010032	.0174508	.1815965
Stddev	.000033	.000074	.07670	.000326	.0001405	.0002989	.0062523
%RSD	61.65249	141.0452	.1388012	80.91141	14.00187	1.712943	3.442948
#1	-.000016	-.000013	55.17431	-.000780	.0011251	.0173070	.1854598
#2	-.000067	-.000007	55.27962	-.000202	.0008496	.0172509	.1743831
#3	-.000078	-.000138	55.32356	-.000228	.0010349	.0177944	.1849465

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2207647	28.32069	.0033199	-.000014	368.6465	-.000222	.0556806
Stddev	.0012192	.07341	.0004031	.000254	1.1175	.001098	.0005943
%RSD	.5522406	.2592257	12.14309	1815.844	.3031292	494.2643	1.067254
#1	.2193767	28.23593	.0031589	-.000300	368.6098	-.001425	.0558081
#2	.2216623	28.36209	.0037787	.000075	367.5478	.000726	.0550330
#3	.2212550	28.36406	.0030222	.000184	369.7819	.000033	.0562008

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.294896	.0193675	.0004859	-.004596	.0002830	1.453652	.0033919
Stddev	.055015	.0006575	.0001712	.000732	.0002947	.008786	.0020128
%RSD	4.248566	3.395047	35.23736	15.93450	104.1170	.6044169	59.34158
#1	1.280512	.0187922	.0003274	-.005415	.0000242	1.444158	.0021472
#2	1.355674	.0192261	.0004629	-.004006	.0006037	1.455299	.0023145
#3	1.248502	.0200843	.0006675	-.004366	.0002211	1.461497	.0057141

Sample Name: Q2004-10 Acquired: 5/15/2025 15:18:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.397349	-.010308	.0831778
Stddev	.006437	.001907	.0000698
%RSD	.4606909	18.49698	.0839091
#1	1.391382	-.010565	.0831000
#2	1.396493	-.012073	.0831986
#3	1.404171	-.008286	.0832348

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2721.818	60949.31	18849.84	2449.268	3697.103
Stddev	3.009	38.02	30.63	11.834	2.341
%RSD	.1105644	.0623841	.1625132	.4831821	.0633266
#1	2725.022	60963.27	18866.37	2448.764	3699.720
#2	2721.381	60906.28	18814.49	2461.347	3695.208
#3	2719.052	60978.38	18868.66	2437.694	3696.380

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-12 Acquired: 5/15/2025 15:22:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002494	-.002593	.0002678	.0011929	-.000806	-.002905	.1208255
Stddev	.002544	.003213	.0011007	.0019582	.000452	.002192	.0011015
%RSD	102.0192	123.9048	410.9668	164.1527	56.11434	75.44498	.9116233
#1	-.000840	-.004479	.0013641	-.000907	-.000434	-.005053	.1195605
#2	-.001218	-.004416	.0002768	.002969	-.001309	-.000672	.1213432
#3	-.005423	.001117	-.000837	.001518	-.000674	-.002991	.1215727

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000041	-.000100	75.52147	-.000257	.0024418	.0072094	.8342341
Stddev	.000017	.000050	.26363	.000242	.0000412	.0004633	.0067654
%RSD	41.80603	49.41549	.3490841	94.01400	1.686395	6.426284	.8109675
#1	-.000047	-.000044	75.26499	-.000469	.0024886	.0076812	.8416165
#2	-.000022	-.000119	75.50769	-.000310	.0024112	.0071917	.8327554
#3	-.000055	-.000138	75.79172	.000007	.0024256	.0067552	.8283304

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3741366	38.73642	.0077656	-.000088	347.3109	.0014435	.0384483
Stddev	.0007682	.10291	.0004195	.000195	3.1953	.0009550	.0006993
%RSD	.2053339	.2656627	5.401842	221.7991	.9200006	66.15765	1.818712
#1	.3732514	38.62518	.0078708	-.000065	344.8663	.0003935	.0376537
#2	.3745293	38.82822	.0073036	.000095	346.1400	.0022603	.0389698
#3	.3746292	38.75586	.0081225	-.000292	350.9265	.0016767	.0387213

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.185467	.0115638	.0005386	-.005353	-.001538	1.812122	.0024985
Stddev	.004346	.0009976	.0002057	.000701	.001405	.022361	.0032683
%RSD	.0702615	8.627247	38.19563	13.10272	91.36613	1.233995	130.8125
#1	6.181046	.0120881	.0007191	-.006143	-.003140	1.790892	.0011311
#2	6.185620	.0121899	.0003146	-.005110	-.000959	1.810008	.0001359
#3	6.189734	.0104133	.0005820	-.004805	-.000515	1.835465	.0062284

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2004-12 Acquired: 5/15/2025 15:22:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2279726	-.010655	.1277711
Stddev	.0059930	.000851	.0004417
%RSD	2.628801	7.983227	.3457368
#1	.2318840	-.010350	.1272997
#2	.2210731	-.011616	.1278381
#3	.2309606	-.009999	.1281756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2679.139	60140.52	17724.29	2409.612	3687.072
Stddev	2.381	170.30	12.58	8.215	11.169
%RSD	.0888666	.2831653	.0710019	.3409237	.3029140
#1	2681.715	60333.25	17733.22	2417.838	3699.922
#2	2678.683	60010.37	17729.75	2401.408	3681.604
#3	2677.019	60077.93	17709.89	2409.590	3679.691

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2001-03 Acquired: 5/15/2025 15:27:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005345	-.003841	.0002580	-.000152	.0005370	.3433960	.1156133
Stddev	.001274	.001638	.0022848	.002477	.0016557	.0061808	.0007175
%RSD	23.82839	42.64146	885.6076	1634.549	308.3053	1.799898	.6206338
#1	-.004376	-.001956	.0028368	-.002338	-.001247	.3497103	.1161234
#2	-.004872	-.004911	-.001514	.002538	.000834	.3373581	.1159236
#3	-.006787	-.004657	-.000549	-.000655	.002024	.3431195	.1147928

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000107	-.000041	276.9527	.0022047	-.000435	.0063457	.0700815
Stddev	.000081	.000119	.4678	.0003939	.000367	.0006201	.0102089
%RSD	75.55410	293.2416	.1689012	17.86510	84.35052	9.771728	14.56712
#1	-.000054	-.000172	276.7249	.0024652	-.000075	.0061480	.0818695
#2	-.000066	.000061	277.4907	.0023974	-.000808	.0058487	.0641440
#3	-.000199	-.000010	276.6425	.0017516	-.000422	.0070406	.0642308

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102569	.0133493	.0033993	-.000214	481.1979	.0010876	.0059147
Stddev	.0001246	.0035611	.0006336	.000340	3.6930	.0018399	.0001392
%RSD	1.214915	26.67606	18.64022	159.1178	.7674653	169.1588	2.353026
#1	.0101151	.0149454	.0027553	-.000360	477.1587	.0016897	.0060754
#2	.0103065	.0158332	.0034208	.000175	482.0332	.0025510	.0058384
#3	.0103491	.0092694	.0040220	-.000457	484.4017	-.000978	.0058305

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.67464	.0017644	.0151020	-.006817	-.005904	1.173605	-.000587
Stddev	.09299	.0007340	.0003451	.001277	.000146	.009146	.005631
%RSD	.7965257	41.60274	2.285419	18.73894	2.474462	.7792955	959.8340
#1	11.78061	.0011534	.0147614	-.007568	-.005964	1.172984	.002172
#2	11.63666	.0015611	.0154515	-.005342	-.005738	1.183046	.003133
#3	11.60665	.0025787	.0150932	-.007540	-.006011	1.164786	-.007065

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2001-03 Acquired: 5/15/2025 15:27:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.527324	-.040083	1.735804
Stddev	.016645	.000415	.007882
%RSD	.3011325	1.036260	.4540936
#1	5.542986	-.040549	1.727105
#2	5.509846	-.039948	1.742472
#3	5.529139	-.039752	1.737834

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2623.218	58978.40	17202.95	2344.254	3551.401
Stddev	4.253	84.24	65.75	7.573	2.506
%RSD	.1621396	.1428268	.3822036	.3230314	.0705592
#1	2621.529	58881.40	17262.70	2337.254	3551.171
#2	2628.056	59020.65	17132.51	2352.292	3554.014
#3	2620.068	59033.16	17213.65	2343.217	3549.019

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1992-01DLX5 Acquired: 5/15/2025 15:31:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0599586	.0032105	.0119868	.0880766	.0452336	.0318719	.0058645
Stddev	.0030085	.0017703	.0021100	.0055127	.0016676	.0036188	.0008922
%RSD	5.017555	55.14183	17.60263	6.258995	3.686728	11.35427	15.21360
#1	.0569971	.0017191	.0095514	.0934496	.0469586	.0278581	.0066800
#2	.0630119	.0027454	.0131434	.0824341	.0451122	.0348853	.0060021
#3	.0598668	.0051669	.0132657	.0883461	.0436299	.0328723	.0049115

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016026	-.015293	10.58827	.0009840	.0048484	.0735963	152.5680
Stddev	.0001162	.000387	.09610	.0001747	.0003914	.0008697	1.1658
%RSD	7.253049	2.530267	.9076471	17.75495	8.072216	1.181672	.7641465
#1	.0015722	-.015303	10.69169	.0007825	.0052994	.0726387	153.1904
#2	.0017311	-.015674	10.57139	.0010936	.0046492	.0743370	153.2906
#3	.0015047	-.014901	10.50171	.0010758	.0045968	.0738133	151.2230

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.062915	3.112928	.0023837	.0080538	59.34741	-.001331	.3637545
Stddev	.021043	.034275	.0005046	.0000923	.41957	.000144	.0028085
%RSD	1.020080	1.101059	21.17033	1.146708	.7069748	10.80314	.7720995
#1	2.086772	3.148676	.0023929	.0079968	59.61092	-.001483	.3665372
#2	2.054986	3.109762	.0028837	.0081604	59.56773	-.001312	.3638055
#3	2.046989	3.080345	.0018745	.0080043	58.86357	-.001197	.3609209

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.051986	.0252066	.0008382	.0679460	.0009179	.1418098	.1126509
Stddev	.068388	.0015691	.0003310	.0019709	.0000940	.0036522	.0046330
%RSD	.9697747	6.224927	39.48762	2.900682	10.24075	2.575438	4.112674
#1	7.076576	.0243725	.0004574	.0692903	.0010115	.1408365	.1104629
#2	7.104678	.0270166	.0010005	.0656836	.0009186	.1458501	.1095172
#3	6.974702	.0242307	.0010568	.0688642	.0008235	.1387429	.1179727

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1992-01DLX5 Acquired: 5/15/2025 15:31:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.707186	.0640424	-.098611
Stddev	.183041	.0014715	.000966
%RSD	2.102184	2.297743	.9798312
#1	8.629867	.0655816	-.098755
#2	8.916200	.0638961	-.099497
#3	8.575492	.0626495	-.097581

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2576.415	62536.46	20857.18	2292.117	4563.152
Stddev	90.375	66.81	78.38	6.348	78.042
%RSD	3.507767	.1068347	.3757972	.2769569	1.710266
#1	2533.454	62591.59	20781.97	2284.882	4520.324
#2	2680.257	62462.16	20938.39	2296.754	4653.231
#3	2515.535	62555.63	20851.20	2294.714	4515.901

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2005-01 Acquired: 5/15/2025 15:35:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0269821	-.002063	.0174921	.0002755	.0016161	.1216481
Stddev	.0003913	.001819	.0024200	.0017963	.0009818	.0072752
%RSD	1.450211	88.13385	13.83485	652.0558	60.75227	5.980565
#1	.0273078	-.000887	.0156430	-.000501	.0021685	.1165943
#2	.0270905	-.004158	.0166024	-.001002	.0021973	.1299865
#3	.0265480	-.001145	.0202311	.002329	.0004825	.1183635

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1204258	.0000459	.0010493	100.8803	.0165917	.0112393
Stddev	.0009200	.0000625	.0001131	.6789	.0003128	.0004134
%RSD	.7639337	135.9689	10.78141	.6729602	1.885586	3.678529
#1	.1200012	.0000149	.0009190	100.1038	.0167058	.0108235
#2	.1214814	.0001178	.0011059	101.3616	.0162378	.0112443
#3	.1197948	.0000051	.0011229	101.1756	.0168315	.0116503

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0443462	21.10096	2.205061	18.20338	.2622702	.0005462
Stddev	.0005907	.31451	.024621	.07928	.0007392	.0001210
%RSD	1.332060	1.490522	1.116586	.4355163	.2818511	22.14958
#1	.0442393	21.46063	2.176878	18.24203	.2630808	.0005197
#2	.0449831	20.87756	2.222392	18.11219	.2616333	.0006782
#3	.0438163	20.96468	2.215914	18.25592	.2620966	.0004406

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.57535	.0018710	.0250233	12.15190	.1903828	.0428642
Stddev	.14398	.0017911	.0005581	.06262	.0019633	.0001904
%RSD	.2011629	95.73059	2.230295	.5152965	1.031248	.4442677
#1	71.40939	.0028919	.0253450	12.22316	.1883239	.0427172
#2	71.64966	-.000197	.0253460	12.12688	.1922340	.0427960
#3	71.66700	.002918	.0243788	12.10566	.1905905	.0430793

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2005-01 Acquired: 5/15/2025 15:35:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000865	.0010134	4.625145	.4741249	F 96.56827	.1516037
Stddev	.001636	.0002174	.023183	.0042965	.14438	.0042869
%RSD	189.1402	21.45313	.5012460	.9062069	.1495114	2.827709
#1	-.000892	.0009922	4.648466	.4725121	96.71740	.1467324
#2	-.002487	.0012407	4.602102	.4789945	96.55825	.1548013
#3	.000784	.0008074	4.624868	.4708680	96.42916	.1532774

Elem	Sr4077
Units	ppm
Avg	.5710023
Stddev	.0132271
%RSD	2.316478
#1	.5559028
#2	.5805423
#3	.5765618

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.910	66548.13	19039.56	2575.712	4023.191
Stddev	31.310	378.05	245.19	23.373	30.527
%RSD	1.119443	.5680924	1.287797	.9074483	.7587819
#1	2833.028	66124.82	19320.95	2549.073	4058.367
#2	2777.466	66852.17	18871.80	2592.784	4007.579
#3	2780.236	66667.39	18925.93	2585.280	4003.627

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01 Acquired: 5/15/2025 15:40:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006687	-.002250	-.000050	.0056616	.0013525	.0480573
Stddev	.0019534	.001392	.002615	.0025269	.0002207	.0016819
%RSD	292.1215	61.84700	5254.246	44.63300	16.32085	3.499807
#1	-.001063	-.003042	-.000443	.0042707	.0011670	.0472924
#2	.000283	-.000643	-.002447	.0041357	.0012939	.0499858
#3	.002786	-.003066	.002740	.0085784	.0015967	.0468939

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113161	-.000006	-.000188	2.768467	.0049692	.0011430
Stddev	.0011422	.000081	.000024	.003624	.0003436	.0002862
%RSD	10.09396	1399.841	12.58668	.1309133	6.914907	25.04193
#1	.0125677	-.000032	-.000215	2.772418	.0053257	.0009885
#2	.0110508	.000085	-.000172	2.767686	.0046401	.0009672
#3	.0103299	-.000070	-.000177	2.765297	.0049418	.0014732

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010757	1.355034	.1039088	2.660857	.0010837	.0001484
Stddev	.0002159	.005050	.0003547	.024141	.0002546	.0001608
%RSD	20.07099	.3726703	.3413873	.9072464	23.49664	108.3340
#1	.0010059	1.360698	.1039238	2.685883	.0008092	.0002198
#2	.0009034	1.351002	.1035469	2.658976	.0013122	.0002613
#3	.0013179	1.353402	.1042559	2.637712	.0011296	-.000036

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	89.57457	.0014846	.0028251	666.0677	.0417327	.0026653
Stddev	.36937	.0018443	.0001718	3.9022	.0011865	.0001528
%RSD	.4123612	124.2309	6.082550	.5858554	2.843180	5.733358
#1	89.18321	.0001252	.0029892	661.6925	.0415967	.0025252
#2	89.62342	.0035840	.0026464	669.1882	.0406200	.0028283
#3	89.91709	.0007446	.0028395	667.3225	.0429814	.0026425

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01 Acquired: 5/15/2025 15:40:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103119	.0010918	F 16.48147	9.053115	F 30.29098	.0010274
Stddev	.0013397	.0014044	.03892	.037267	.15736	.0008300
%RSD	12.99149	128.6309	.2361538	.4116454	.5194807	80.78657
#1	.0087738	-.000462	16.43823	9.071560	30.45210	.0001710
#2	.0109386	.002270	16.49247	9.010223	30.13768	.0010830
#3	.0112234	.001468	16.51370	9.077562	30.28317	.0018283

Elem	Sr4077
Units	ppm
Avg	.0307871
Stddev	.0001053
%RSD	.3419869
#1	.0308181
#2	.0306697
#3	.0308733

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.016	61369.39	17674.25	2484.875	3761.992
Stddev	16.095	177.02	33.24	17.166	19.334
%RSD	.5854927	.2884443	.1880622	.6908079	.5139197
#1	2734.374	61572.31	17638.35	2504.657	3745.672
#2	2766.250	61246.67	17680.44	2473.904	3783.344
#3	2746.424	61289.18	17703.96	2476.064	3756.959

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01DUP Acquired: 5/15/2025 15:44:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011441	-.002628	.0014964	.0037952	-.001044	.0620940
Stddev	.0024600	.002339	.0020755	.0054737	.000650	.0019842
%RSD	215.0176	89.01445	138.7030	144.2265	62.24473	3.195523
#1	.0003841	-.003044	.0034617	.0097345	-.000412	.0637704
#2	-.000846	-.004731	.0017017	.0026979	-.001710	.0626083
#3	.003894	-.000109	-.000674	-.001047	-.001009	.0599032

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0104388	-.000067	-.000111	2.788722	.0049473	.0010792
Stddev	.0008973	.000078	.000065	.008720	.0004040	.0001669
%RSD	8.595312	117.2716	58.92962	.3126790	8.166061	15.46392
#1	.0096542	-.000101	-.000185	2.795278	.0053084	.0012408
#2	.0114170	.000023	-.000080	2.778826	.0045110	.0010892
#3	.0102452	-.000122	-.000066	2.792062	.0050227	.0009075

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006490	1.374475	.0374135	2.638515	.0005527	.0002598
Stddev	.0001416	.013271	.0006508	.008292	.0003347	.0001758
%RSD	21.81406	.9655586	1.739399	.3142716	60.56228	67.65887
#1	.0005953	1.378836	.0366704	2.630355	.0001665	.0000595
#2	.0005422	1.359572	.0378820	2.646933	.0007589	.0003885
#3	.0008096	1.385017	.0376880	2.638255	.0007328	.0003312

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	92.04976	-.000195	.0037434	687.3085	.0415409	.0026759
Stddev	.55179	.000622	.0003710	9.7517	.0008243	.0004099
%RSD	.5994466	318.4328	9.910211	1.418826	1.984355	15.31922
#1	92.68439	.000444	.0041542	698.0162	.0407093	.0022880
#2	91.68339	-.000798	.0034329	684.9722	.0423578	.0031048
#3	91.78150	-.000232	.0036429	678.9371	.0415556	.0026349

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01DUP Acquired: 5/15/2025 15:44:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103425	.0004890	F 16.88857	9.210770	F 31.05312	.0008999
Stddev	.0006544	.0005684	.08705	.020095	.02126	.0007266
%RSD	6.327469	116.2256	.5154439	.2181701	.0684574	80.74527
#1	.0110644	.0000079	16.98909	9.187706	31.04534	.0015894
#2	.0101749	.0011162	16.83843	9.224507	31.07717	.0001411
#3	.0097882	.0003430	16.83820	9.220096	31.03684	.0009691

Elem	Sr4077
Units	ppm
Avg	.0307707
Stddev	.0001272
%RSD	.4134072
#1	.0306241
#2	.0308365
#3	.0308515

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2680.439	60224.95	17851.26	2417.988	3652.974
Stddev	5.998	263.86	50.83	16.729	9.135
%RSD	.2237721	.4381319	.2847594	.6918643	.2500717
#1	2677.197	59920.50	17901.40	2398.975	3659.406
#2	2687.361	60366.81	17799.76	2424.541	3656.997
#3	2676.760	60387.54	17852.61	2430.449	3642.517

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01LX5 Acquired: 5/15/2025 15:48:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000909	.0005255	-.001232	.0038792	.0056847	.0191186	.0011393
Stddev	.002419	.0012314	.000734	.0023078	.0028863	.0014482	.0006963
%RSD	266.1730	234.3031	59.54199	59.49124	50.77272	7.574709	61.11266
#1	-.000500	.0005895	-.001612	.0023758	.0082429	.0182442	.0015408
#2	-.003506	-.000737	-.001698	.0065364	.0025557	.0207903	.0015417
#3	.001280	.001724	-.000386	.0027255	.0062555	.0183215	.0003353

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000061	-.000067	.5335120	.0009082	.0002012	.0004083	.2446586
Stddev	.0000625	.000095	.0027415	.0000386	.0004112	.0001035	.0057494
%RSD	1028.933	141.5985	.5138651	4.246066	204.3283	25.35299	2.349977
#1	.0000184	.000043	.5333469	.0008906	-.000152	.0005184	.2459625
#2	-.000062	-.000116	.5308567	.0008815	.000652	.0003129	.2383693
#3	.000061	-.000129	.5363324	.0009524	.000104	.0003936	.2496442

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198302	.5079550	.0000914	.0001268	16.21162	-.001123	.0017870
Stddev	.0000948	.0176312	.0003735	.0003259	.06204	.000541	.0001037
%RSD	.4782576	3.471008	408.5399	257.0149	.3826746	48.17617	5.803988
#1	.0197989	.5203930	.0004737	.0004855	16.19115	-.001533	.0016712
#2	.0197550	.5156942	-.000273	-.000151	16.16240	-.000510	.0018713
#3	.0199367	.4877779	.000073	.000046	16.28130	-.001326	.0018185

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.6934	.0082768	.0007120	.0060707	.0006211	3.001195	1.776517
Stddev	.2911	.0008009	.0000838	.0008442	.0003572	.013150	.005167
%RSD	.2392425	9.675997	11.76583	13.90641	57.50937	.4381685	.2908591
#1	121.7157	.0088406	.0006180	.0053247	.0005525	2.986050	1.771259
#2	121.3917	.0073601	.0007392	.0069871	.0010075	3.007819	1.776703
#3	121.9727	.0086298	.0007788	.0059004	.0003031	3.009716	1.781588

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01LX5 Acquired: 5/15/2025 15:48:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.962198	.0017214	.0059593
Stddev	.015327	.0005863	.0000419
%RSD	.2570711	34.05935	.7034932
#1	5.957773	.0022325	.0059140
#2	5.979251	.0010814	.0059673
#3	5.949571	.0018504	.0059967

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.586	63506.46	17491.02	2557.335	3939.703
Stddev	10.800	259.87	156.16	14.706	11.564
%RSD	.3871453	.4091973	.8927825	.5750353	.2935327
#1	2783.250	63309.61	17367.28	2542.940	3928.289
#2	2802.056	63408.76	17439.31	2556.733	3951.412
#3	2783.452	63801.02	17666.48	2572.333	3939.409

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV03 Acquired: 5/15/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.925032	4.914740	4.928566	4.863057	4.893679	9.951749	9.352309
Stddev	.016008	.024247	.006802	.004222	.008037	.022846	.086724
%RSD	.3250247	.4933475	.1380111	.0868242	.1642422	.2295628	.9272971
#1	4.916839	4.889857	4.920731	4.866790	4.892994	9.935788	9.256602
#2	4.914779	4.938297	4.932009	4.858475	4.886005	9.977919	9.425679
#3	4.943477	4.916065	4.932958	4.863906	4.902036	9.941540	9.374647

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2611276	2.431345	24.46435	.9951064	2.463273	1.239065	4.538535
Stddev	.0005144	.001590	.06163	.0019344	.000830	.002440	.009503
%RSD	.1969785	.0654126	.2519122	.1943891	.0336893	.1969265	.2093844
#1	.2608617	2.433181	24.52977	.9960521	2.464137	1.241600	4.541030
#2	.2617204	2.430384	24.45589	.9963859	2.463199	1.236733	4.546542
#3	.2608005	2.430470	24.40739	.9928811	2.462483	1.238860	4.528034

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.430969	24.08293	2.438090	1.220139	22.92098	2.412712	2.456335
Stddev	.006440	.13588	.000807	.000427	.00651	.001075	.006904
%RSD	.2649295	.5641970	.0330837	.0349777	.0284114	.0445604	.2810686
#1	2.426176	24.04888	2.437182	1.220499	22.92803	2.411699	2.449846
#2	2.438289	24.23260	2.438725	1.220249	22.91520	2.413840	2.463590
#3	2.428440	23.96732	2.438362	1.219667	22.91970	2.412598	2.455568

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.66381	5.128481	4.979928	4.893795	4.798731	4.524602	4.926974
Stddev	.02608	.014677	.005326	.007535	.003291	.022224	.019563
%RSD	.1150941	.2861902	.1069588	.1539605	.0685895	.4911846	.3970536
#1	22.65215	5.114717	4.982670	4.885112	4.800428	4.499456	4.908158
#2	22.69369	5.143926	4.973790	4.898610	4.800827	4.532737	4.925558
#3	22.64558	5.126799	4.983326	4.897663	4.794937	4.541612	4.947207

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV03 Acquired: 5/15/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.841939	4.908477	4.950852
Stddev	.003108	.007594	.013434
%RSD	.0641860	.1547213	.2713507
#1	4.845401	4.917006	4.945712
#2	4.839390	4.902446	4.966097
#3	4.841027	4.905979	4.940747

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.950	64957.55	16814.37	2590.997	3974.618
Stddev	7.766	140.62	36.21	9.322	10.798
%RSD	.2735430	.2164809	.2153450	.3598013	.2716656
#1	2830.380	65113.03	16855.28	2601.762	3962.150
#2	2845.521	64920.35	16786.44	2585.628	3980.896
#3	2840.949	64839.28	16801.38	2585.602	3980.809

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB03 Acquired: 5/15/2025 15:57:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001075	.0024939	.0012667	.0032742	.0014375	.0220810	.0002985
Stddev	.004797	.0004271	.0002212	.0003615	.0012443	.0016796	.0001655
%RSD	446.2828	17.12384	17.46411	11.03985	86.56123	7.606385	55.45776
#1	.002430	.0024368	.0011655	.0036899	.0026064	.0203743	.0004725
#2	-.006542	.0020983	.0011142	.0030991	.0001295	.0237320	.0002800
#3	.000888	.0029467	.0015204	.0030337	.0015766	.0221367	.0001430

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000244	.0001593	.0017458	-.000062	.0000819	-.000240	.0121999
Stddev	.0000092	.0000654	.0048951	.000230	.0002586	.000269	.0022444
%RSD	37.57477	41.07712	280.4012	371.6082	315.8558	112.2201	18.39653
#1	.0000349	.0002159	.0010230	.000071	.0001967	.000070	.0139039
#2	.0000197	.0000877	-.002748	-.000327	.0002632	-.000416	.0130389
#3	.0000185	.0001742	.006962	.000070	-.000214	-.000373	.0096569

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010817	-.001293	.0003320	.0003794	-.237288	-.000202	.0017419
Stddev	.0000853	.003240	.0003227	.0002609	.006021	.000374	.0005054
%RSD	7.887597	250.5097	97.19930	68.76930	2.537489	185.2152	29.01682
#1	.0011681	-.003461	.0003509	.0004251	-.231431	-.000608	.0013056
#2	.0009975	-.002850	.0000002	.0006146	-.236972	-.000123	.0016243
#3	.0010796	.002431	.0006448	.0000987	-.243461	.000126	.0022958

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028054	.0070515	.0010333	-.000927	.0014412	.0005303	-.003128
Stddev	.033692	.0000598	.0001360	.000322	.0005137	.0158677	.002552
%RSD	120.0940	.8484260	13.16047	34.72434	35.64166	2992.402	81.60172
#1	-.043120	.0070018	.0010103	-.000630	.0011542	.0144851	-.002964
#2	-.051585	.0070349	.0009103	-.000882	.0020343	-.016730	-.005758
#3	.010541	.0071179	.0011793	-.001269	.0011353	.003835	-.000661

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB03 Acquired: 5/15/2025 15:57:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0045491	-.001632	.0006766
Stddev	.0036513	.000470	.0000771
%RSD	80.26383	28.81179	11.39948
#1	.0012517	-.001280	.0007077
#2	.0039224	-.001450	.0007332
#3	.0084731	-.002166	.0005887

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.478	67116.10	19094.52	2656.923	4415.713
Stddev	4.429	193.01	58.11	13.396	3.035
%RSD	.1501583	.2875739	.3043192	.5042022	.0687240
#1	2952.824	67336.14	19093.94	2670.630	4418.786
#2	2951.155	66975.44	19036.70	2656.278	4415.636
#3	2944.456	67036.73	19152.91	2643.860	4412.718

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01MS Acquired: 5/15/2025 16:01:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7881511	1.810945	.9417415	1.832386	.7687565	1.934778
Stddev	.0026843	.011892	.0032082	.004874	.0028284	.009914
%RSD	.3405861	.6566800	.3406624	.2659790	.3679181	.5123861
#1	.7851054	1.799715	.9451086	1.837729	.7678138	1.936928
#2	.7901723	1.823404	.9387203	1.828184	.7665197	1.923966
#3	.7891756	1.809714	.9413957	1.831244	.7719358	1.943440

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1899452	.1818097	.1980466	3.768294	.3981182	.1959789
Stddev	.0006888	.0011177	.0003044	.008886	.0001065	.0006709
%RSD	.3626097	.6147650	.1536999	.2358125	.0267456	.3423143
#1	.1907405	.1812675	.1980072	3.768119	.3981195	.1964247
#2	.1895483	.1810666	.1983688	3.777266	.3982239	.1963047
#3	.1895467	.1830951	.1977638	3.759496	.3980110	.1952074

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2797551	4.331526	.3397373	4.503212	.4821230	.0597939
Stddev	.0008342	.042140	.0010429	.042745	.0011552	.0005745
%RSD	.2981819	.9728564	.3069614	.9492058	.2396160	.9608469
#1	.2794290	4.353373	.3389709	4.473362	.4831720	.0595331
#2	.2791332	4.358256	.3409249	4.552179	.4823122	.0604526
#3	.2807031	4.282949	.3393162	4.484095	.4808849	.0593960

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.07381	.2828734	.2011936	702.0022	.3054108	.4100419
Stddev	.67046	.0011885	.0007278	4.5404	.0021102	.0007284
%RSD	.6978596	.4201547	.3617470	.6467717	.6909446	.1776431
#1	96.45502	.2833411	.2007022	707.0875	.3043982	.4094208
#2	96.46674	.2815222	.2008489	698.3553	.3039977	.4108437
#3	95.29965	.2837569	.2020298	700.5638	.3078365	.4098613

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01MS Acquired: 5/15/2025 16:01:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7050514	.1916982	F 17.98260	15.44695	F 31.52717	.2071802
Stddev	.0019128	.0007250	.12143	.04409	.07865	.0010367
%RSD	.2713004	.3781720	.6752791	.2854388	.2494803	.5004092
#1	.7049066	.1915517	18.02572	15.40190	31.49641	.2080154
#2	.7070326	.1924852	18.07659	15.49001	31.61655	.2075053
#3	.7032152	.1910577	17.84549	15.44894	31.46854	.2060198

Elem	Sr4077
Units	ppm
Avg	.2209267
Stddev	.0002757
%RSD	.1248056
#1	.2206422
#2	.2211927
#3	.2209452

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.844	59638.64	17468.67	2420.429	3616.584
Stddev	4.076	168.43	69.54	2.585	1.735
%RSD	.1531800	.2824093	.3980839	.1068078	.0479672
#1	2665.023	59573.57	17492.39	2417.523	3618.490
#2	2660.629	59512.45	17523.24	2421.294	3615.098
#3	2656.880	59829.89	17390.37	2422.472	3616.164

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01MSD Acquired: 5/15/2025 16:05:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7814222	1.789179	.9370218	1.830286	.7625619	1.923547
Stddev	.0047902	.011189	.0022321	.006785	.0024400	.004243
%RSD	.6130046	.6253784	.2382150	.3707053	.3199691	.2205693
#1	.7835073	1.790984	.9381915	1.827735	.7630471	1.918659
#2	.7759429	1.777198	.9344480	1.825146	.7599158	1.926277
#3	.7848165	1.799357	.9384260	1.837977	.7647228	1.925706

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1864829	.1843587	.1965900	3.685994	.3951331	.1943850
Stddev	.0006135	.0003313	.0006484	.001093	.0011317	.0007844
%RSD	.3289950	.1797045	.3298401	.0296564	.2864010	.4035417
#1	.1861980	.1840168	.1972369	3.687125	.3946691	.1951030
#2	.1871870	.1846783	.1959400	3.684944	.3964231	.1935478
#3	.1860635	.1843810	.1965931	3.685911	.3943073	.1945041

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2765453	4.278469	.2260641	4.443497	.4769660	.0586091
Stddev	.0005831	.008380	.0006631	.010037	.0009719	.0002656
%RSD	.2108564	.1958745	.2933161	.2258755	.2037754	.4531964
#1	.2764462	4.272373	.2259546	4.445592	.4773287	.0587921
#2	.2760180	4.288025	.2254626	4.432578	.4758648	.0583044
#3	.2771715	4.275008	.2267752	4.452321	.4777044	.0587308

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	93.79721	.2781669	.2002367	686.7444	.3080190	.4029400
Stddev	.19858	.0009500	.0004379	1.9581	.0010549	.0011382
%RSD	.2117117	.3415333	.2187101	.2851323	.3424876	.2824792
#1	93.96931	.2790935	.2001707	686.4555	.3068491	.4020950
#2	93.57993	.2771950	.2007038	688.8310	.3083099	.4024908
#3	93.84240	.2782122	.1998355	684.9469	.3088979	.4042343

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01MSD Acquired: 5/15/2025 16:05:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6989516	.1886993	F 17.57086	15.35903	F 31.36461	.2040343
Stddev	.0015053	.0014926	.03173	.06185	.10574	.0012155
%RSD	.2153635	.7909671	.1805782	.4027256	.3371382	.5957552
#1	.7006460	.1891314	17.58752	15.37868	31.41531	.2034657
#2	.6977687	.1870383	17.59079	15.28974	31.24307	.2054299
#3	.6984401	.1899281	17.53427	15.40867	31.43546	.2032072

Elem	Sr4077
Units	ppm
Avg	.2178429
Stddev	.0006322
%RSD	.2902035
#1	.2176682
#2	.2173164
#3	.2185441

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.060	58519.82	16987.62	2382.501	3578.898
Stddev	9.829	71.17	27.93	1.862	10.877
%RSD	.3720149	.1216144	.1643875	.0781667	.3039186
#1	2650.224	58558.79	17019.85	2381.521	3584.149
#2	2644.806	58563.00	16972.35	2384.648	3586.152
#3	2631.150	58437.68	16970.66	2381.333	3566.391

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01A Acquired: 5/15/2025 16:10:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7766234	1.762008	.9280380	1.806595	.7661387	1.918680
Stddev	.0014359	.007726	.0026657	.005742	.0019945	.003617
%RSD	.1848948	.4384732	.2872417	.3178464	.2603290	.1885191
#1	.7782420	1.759063	.9282542	1.809118	.7661546	1.914934
#2	.7761254	1.770774	.9252707	1.800023	.7641364	1.918951
#3	.7755027	1.756188	.9305890	1.810643	.7681253	1.922153

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1906048	.1771092	.1946916	3.689958	.3981328	.1940253
Stddev	.0006449	.0013363	.0004126	.004541	.0014738	.0006727
%RSD	.3383259	.7545274	.2119474	.1230612	.3701837	.3467116
#1	.1905807	.1766401	.1947826	3.684776	.3964946	.1937828
#2	.1912613	.1786168	.1942411	3.691852	.3985529	.1935074
#3	.1899723	.1760706	.1950512	3.693244	.3993510	.1947856

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2745162	4.404381	.2796207	4.391636	.4745051	.0505537
Stddev	.0006594	.037219	.0015298	.023678	.0004263	.0004557
%RSD	.2402186	.8450525	.5470819	.5391506	.0898477	.9013584
#1	.2737701	4.403920	.2782267	4.367284	.4744072	.0506496
#2	.2747572	4.367394	.2812572	4.414576	.4741363	.0500578
#3	.2750211	4.441829	.2793780	4.393048	.4749719	.0509539

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.08963	.2826058	.1992709	694.6915	.2951264	.4113542
Stddev	.50312	.0032403	.0016031	3.8860	.0017873	.0016890
%RSD	.5291003	1.146597	.8044659	.5593888	.6055873	.4105884
#1	95.14377	.2805193	.1974261	691.1129	.2935874	.4097523
#2	94.56162	.2863388	.2003256	698.8253	.2970866	.4111919
#3	95.56348	.2809593	.2000609	694.1364	.2947051	.4131185

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q1985-01A Acquired: 5/15/2025 16:10:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7002125	.1936509	F 17.92207	14.78821	F 29.87660	.2032847
Stddev	.0018184	.0014327	.08526	.01241	.05349	.0004763
%RSD	.2596972	.7398574	.4757533	.0838900	.1790332	.2342805
#1	.7017346	.1952711	17.88876	14.78526	29.83456	.2035581
#2	.6981988	.1931304	17.85849	14.80182	29.85842	.2027348
#3	.7007042	.1925511	18.01897	14.77754	29.93681	.2035613

Elem	Sr4077
Units	ppm
Avg	.2171989
Stddev	.0001225
%RSD	.0564154
#1	.2173186
#2	.2172042
#3	.2170737

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.469	59185.84	17837.49	2413.511	3680.917
Stddev	5.601	122.87	74.10	11.715	2.780
%RSD	.2079619	.2076003	.4153987	.4854013	.0755276
#1	2699.415	59182.33	17837.83	2410.358	3680.288
#2	2692.698	59310.42	17763.22	2426.480	3683.957
#3	2688.292	59064.76	17911.41	2403.695	3678.505

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167943TB Acquired: 5/15/2025 16:14:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003014	-.001252	-.001411	.0052515	.0012596	.0092918	-.001064
Stddev	.001066	.000702	.000193	.0017515	.0018767	.0032307	.000862
%RSD	35.37620	56.04861	13.68492	33.35181	148.9896	34.76889	80.98354
#1	-.003247	-.001202	-.001634	.0057048	.0031811	.0114590	-.000460
#2	-.003944	-.001977	-.001299	.0033179	.0011664	.0108378	-.000681
#3	-.001850	-.000576	-.001300	.0067317	-.000569	.0055787	-.002052

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000041	-.000084	.0007063	.0000978	-.000411	-.000322	.0321249
Stddev	.000024	.000096	.0079308	.0002165	.000089	.000151	.0044534
%RSD	57.84555	114.8010	1122.891	221.3890	21.61259	46.98342	13.86281
#1	-.000015	-.000050	-.008342	-.000139	-.000342	-.000380	.0369244
#2	-.000061	-.000193	.004009	.000147	-.000511	-.000435	.0281263
#3	-.000046	-.000009	.006452	.000285	-.000379	-.000150	.0313241

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030303	-.010792	.0009872	.0003075	479.9505	-.001233	.0006278
Stddev	.0001690	.015386	.0002877	.0001412	6.2516	.002063	.0002371
%RSD	5.578869	142.5684	29.14301	45.90268	1.302547	167.3387	37.77056
#1	.0030573	-.026952	.0011330	.0001512	476.0621	.000612	.0006304
#2	.0031842	-.009102	.0011727	.0003457	476.6276	-.000850	.0008636
#3	.0028493	.003679	.0006557	.0004257	487.1618	-.003460	.0003894

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1398293	.0013675	.0004841	-.000141	.0006350	-.010586	.0021314
Stddev	.0179813	.0010128	.0001286	.000793	.0005870	.000312	.0027676
%RSD	12.85944	74.05994	26.56929	561.5013	92.43481	2.948271	129.8527
#1	.1603964	.0022838	.0003383	.000567	.0011405	-.010230	-.000980
#2	.1320096	.0002800	.0005816	-.000998	.0007734	-.010715	.003055
#3	.1270818	.0015388	.0005324	.000007	-.000009	-.010813	.004319

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167943TB Acquired: 5/15/2025 16:14:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0353624	-.003072	.0000018
Stddev	.0028961	.000554	.0000611
%RSD	8.189715	18.02730	3435.388
#1	.0320849	-.002706	.0000510
#2	.0375763	-.002801	-.000067
#3	.0364261	-.003710	.000021

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2687.260	60510.29	17215.88	2427.055	3715.080
Stddev	5.275	51.50	82.26	6.074	5.097
%RSD	.1962922	.0851104	.4777994	.2502769	.1371862
#1	2682.761	60526.31	17132.43	2424.602	3715.490
#2	2693.065	60551.88	17296.88	2422.591	3719.960
#3	2685.953	60452.69	17218.34	2433.972	3709.791

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167954BL Acquired: 5/15/2025 16:18:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003057	-.000362	.0010158	.0035391	.0007327	.0018392	-.001088
Stddev	.0026958	.001771	.0003391	.0031981	.0006672	.0060031	.000338
%RSD	881.9164	489.3589	33.38279	90.36411	91.06002	326.3995	31.04871
#1	-.000223	.000469	.0007434	.0000381	.0003252	.0031531	-.000884
#2	-.002087	.000841	.0009084	.0042724	.0015026	-.004712	-.000903
#3	.003227	-.002396	.0013956	.0063070	.0003702	.007077	-.001479

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000003	.0000268	.0079093	-.000212	-.000045	-.000124	.0008735
Stddev	.000047	.0000277	.0025639	.000781	.000141	.000702	.0006842
%RSD	1752.900	103.2682	32.41627	368.1459	315.3802	567.6071	78.33601
#1	-.000053	.0000287	.0108694	-.000435	-.000172	-.000693	.0005229
#2	.000040	-.000002	.0063857	.000656	-.000070	.000661	.0004356
#3	.000004	.000053	.0064728	-.000858	.000107	-.000339	.0016620

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000331	-.014845	-.000121	.0001333	.2497753	-.000909	.0007093
Stddev	.0002514	.015455	.000053	.0005463	.0187459	.001500	.0000512
%RSD	758.3669	104.1082	43.92231	409.7341	7.505115	164.9477	7.220694
#1	-.000171	-.002078	-.000065	.0006907	.2647587	-.000852	.0006691
#2	.000314	-.010430	-.000171	-.000401	.2558125	.000561	.0007670
#3	-.000044	-.032027	-.000127	.000110	.2287546	-.002437	.0006919

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3218504	.0007989	.0003772	.0044475	.0003124	-.006954	-.003795
Stddev	.0280450	.0004466	.0003891	.0004855	.0006787	.005729	.002301
%RSD	8.713678	55.89609	103.1559	10.91700	217.2724	82.37350	60.63941
#1	.3176787	.0012180	-.000071	.0044314	-.000390	-.012147	-.003523
#2	.3517476	.0008497	.000570	.0049408	.000363	-.007907	-.001642
#3	.2961249	.0003292	.000632	.0039702	.000964	-.000809	-.006220

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167954BL Acquired: 5/15/2025 16:18:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0062255	.0025574	.0000333
Stddev	.0021514	.0010696	.0000726
%RSD	34.55738	41.82564	218.2652
#1	.0067916	.0037800	.0000497
#2	.0080373	.0017942	-.000046
#3	.0038477	.0020980	.000096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.848	64217.93	17184.10	2584.990	4318.896
Stddev	.813	47.98	52.55	2.656	2.226
%RSD	.0280779	.0747074	.3057928	.1027659	.0515475
#1	2896.187	64195.55	17129.06	2587.452	4321.269
#2	2896.600	64273.00	17189.49	2582.174	4318.563
#3	2897.756	64185.23	17233.74	2585.344	4316.854

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167954BS Acquired: 5/15/2025 16:23:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7364388	1.835334	.9086216	1.814002	.7396869	1.820721
Stddev	.0040430	.002251	.0037879	.001092	.0030602	.004886
%RSD	.5489941	.1226539	.4168856	.0601979	.4137100	.2683506
#1	.7385161	1.836942	.9043339	1.813364	.7420320	1.815273
#2	.7317795	1.836299	.9100173	1.815263	.7362253	1.822177
#3	.7390210	1.832761	.9115137	1.813378	.7408034	1.824714

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1717212	.1862134	.1805746	.9314433	.3752279	.1800098
Stddev	.0018938	.0006180	.0004553	.0064001	.0006732	.0004276
%RSD	1.102860	.3319021	.2521578	.6871145	.1794059	.2375144
#1	.1735155	.1856423	.1800882	.9385728	.3745033	.1796739
#2	.1719068	.1868696	.1806447	.9295637	.3753464	.1798645
#3	.1697414	.1861284	.1809908	.9261935	.3758340	.1804911

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2829195	2.656144	.1833312	1.758116	.4463559	.0697309
Stddev	.0010594	.009090	.0011671	.020879	.0009879	.0001817
%RSD	.3744669	.3422225	.6366106	1.187552	.2213192	.2605538
#1	.2823602	2.648053	.1825842	1.780753	.4458659	.0698280
#2	.2822570	2.665980	.1846761	1.753980	.4457087	.0695213
#3	.2841414	2.654398	.1827333	1.739615	.4474930	.0698435

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.664041	.2677071	.1882663	8.620201	.2823318	.3844183
Stddev	.008357	.0027156	.0005793	.018321	.0007159	.0014626
%RSD	.3136985	1.014392	.3076981	.2125300	.2535809	.3804570
#1	2.659497	.2682478	.1881004	8.641172	.2820021	.3842077
#2	2.658941	.2701116	.1877881	8.612128	.2831532	.3830724
#3	2.673686	.2647618	.1889105	8.607304	.2818402	.3859747

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167954BS Acquired: 5/15/2025 16:23:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6363934	.1832431	.7620553	5.355405	F -.003714	.1915944
Stddev	.0018550	.0004593	.0111805	.013070	.002306	.0003569
%RSD	.2914839	.2506478	1.467153	.2440538	62.09361	.1862912
#1	.6345584	.1828438	.7724218	5.351701	-.005620	.1914858
#2	.6363541	.1837450	.7635358	5.344587	-.001150	.1913044
#3	.6382678	.1831406	.7502082	5.369927	-.004372	.1919930

Elem	Sr4077
Units	ppm
Avg	.1860388
Stddev	.0003875
%RSD	.2082618
#1	.1858091
#2	.1864861
#3	.1858212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2924.891	65539.21	17722.59	2620.847	4335.633
Stddev	10.771	235.39	26.93	8.814	9.252
%RSD	.3682483	.3591524	.1519687	.3363031	.2133988
#1	2916.051	65711.91	17747.81	2620.000	4329.593
#2	2936.887	65634.61	17694.22	2630.054	4346.284
#3	2921.735	65271.10	17725.75	2612.487	4331.021

Sample Name: PB167984BL Acquired: 5/15/2025 16:27:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021979	.0006356	.0007476	.0010712	.0011301	.0030519	-.001388
Stddev	.0051025	.0009045	.0001768	.0025207	.0015134	.0035737	.000394
%RSD	232.1532	142.3021	23.65513	235.3224	133.9212	117.0953	28.38431
#1	-.002703	-.000373	.0009518	.0025151	.0022537	-.000628	-.001125
#2	.007481	.001375	.0006457	-.001839	-.000591	.003275	-.001842
#3	.001816	.000905	.0006454	.002538	.001727	.006509	-.001198

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000511	-.000081	.0116725	-.000161	.0000204	-.000125	-.000840
Stddev	.0000702	.000037	.0012750	.000175	.0000978	.000293	.002440
%RSD	137.3125	45.66354	10.92348	108.2503	478.3077	234.2341	290.3690
#1	-.000030	-.000090	.0119891	-.000215	.0001201	-.000016	.001764
#2	.000086	-.000041	.0127594	-.000303	-.000075	.000098	-.001212
#3	.000097	-.000113	.0102690	.000034	.000017	-.000458	-.003073

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000249	-.006748	-.000112	.0003413	-.057318	.0003189	.0004817
Stddev	.000381	.008798	.000144	.0002046	.002715	.0027032	.0001344
%RSD	152.6475	130.3731	128.5829	59.95095	4.736301	847.7741	27.89436
#1	-.000564	-.014355	.000008	.0002596	-.056214	.0007022	.0006368
#2	.000174	-.008775	-.000271	.0001902	-.055330	-.002556	.0004037
#3	-.000358	.002886	-.000073	.0005742	-.060411	.002810	.0004045

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0844029	.0007355	.0004294	.0042830	.0004062	-.007786	-.002197
Stddev	.0067450	.0002959	.0002990	.0012488	.0005665	.002043	.003461
%RSD	7.991497	40.23205	69.63814	29.15749	139.4661	26.24334	157.5372
#1	.0921754	.0006210	.0002400	.0047881	-.000191	-.007190	-.001791
#2	.0800844	.0005140	.0002741	.0028607	.000475	-.010061	-.005844
#3	.0809488	.0010716	.0007741	.0052001	.000935	-.006107	.001043

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167984BL Acquired: 5/15/2025 16:27:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009932	.0001023	-.000025
Stddev	.0049576	.0002122	.000064
%RSD	499.1307	207.4792	253.4843
#1	-.004551	.0002855	-.000099
#2	.002529	-.000130	.000017
#3	.005001	.000151	.000006

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2912.210	66105.03	16685.83	2630.546	4361.254
Stddev	5.674	124.95	34.24	5.521	7.742
%RSD	.1948460	.1890175	.2051911	.2098662	.1775231
#1	2914.601	66084.05	16718.05	2631.483	4361.564
#2	2916.298	65991.90	16689.56	2624.616	4368.837
#3	2905.731	66239.15	16649.88	2635.537	4353.362

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167984BS Acquired: 5/15/2025 16:31:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7669142	1.882380	.9320669	1.886745	.7558788	1.866549
Stddev	.0038156	.016293	.0024275	.007525	.0019147	.003883
%RSD	.4975227	.8655570	.2604404	.3988516	.2533102	.2080530
#1	.7635580	1.899104	.9315590	1.894088	.7548157	1.869588
#2	.7710642	1.881479	.9347081	1.879050	.7547315	1.862174
#3	.7661205	1.866556	.9299336	1.887096	.7580892	1.867884

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1715456	.2012528	.1860564	.9378642	.3850349	.1850537
Stddev	.0012416	.0007084	.0004559	.0054808	.0011722	.0002260
%RSD	.7237979	.3520107	.2450302	.5843955	.3044450	.1221394
#1	.1725331	.2020622	.1856555	.9349326	.3862487	.1851778
#2	.1701517	.2007454	.1865523	.9441873	.3839093	.1847928
#3	.1719520	.2009507	.1859614	.9344727	.3849465	.1851905

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2912197	2.652084	.1860702	1.797813	.4587846	.0720405
Stddev	.0005761	.017852	.0009503	.011881	.0012513	.0005319
%RSD	.1978328	.6731394	.5107409	.6608703	.2727337	.7383340
#1	.2918185	2.661165	.1866196	1.808873	.4580502	.0714800
#2	.2911713	2.631517	.1866180	1.799311	.4602294	.0725382
#3	.2906693	2.663571	.1849728	1.785253	.4580743	.0721035

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.529215	.2711940	.1946316	8.465502	.3044416	.3887197
Stddev	.020903	.0009174	.0006219	.069615	.0006995	.0013852
%RSD	.8264809	.3382902	.3195392	.8223398	.2297506	.3563384
#1	2.522038	.2717233	.1945612	8.409319	.3052428	.3902246
#2	2.512847	.2701346	.1940478	8.443804	.3039529	.3884361
#3	2.552762	.2717240	.1952857	8.543382	.3041290	.3874982

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167984BS Acquired: 5/15/2025 16:31:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6509419	.1840745	.7502238	5.626835	F -.003603	.1975365
Stddev	.0005532	.0020871	.0030902	.019894	.002825	.0001604
%RSD	.0849784	1.133819	.4119096	.3535633	78.41615	.0812121
#1	.6503075	.1864219	.7466885	5.649530	-.006385	.1976631
#2	.6513233	.1824283	.7515721	5.618568	-.000736	.1973561
#3	.6511948	.1833735	.7524108	5.612407	-.003687	.1975903

Elem	Sr4077
Units	ppm
Avg	.1882333
Stddev	.0002037
%RSD	.1082052
#1	.1882853
#2	.1884060
#3	.1880087

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.785	63819.32	16758.39	2571.417	4206.700
Stddev	6.021	188.13	70.33	5.303	7.197
%RSD	.2103178	.2947783	.4196888	.2062459	.1710775
#1	2857.542	63714.50	16677.25	2565.359	4208.508
#2	2861.453	64036.50	16796.06	2575.221	4198.772
#3	2869.360	63706.95	16801.86	2573.671	4212.821

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB168012BL Acquired: 5/15/2025 16:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019814	.0006977	-.000206	.0011282	.0007126	.0271252	-.000714
Stddev	.0016014	.0004453	.000749	.0028948	.0005346	.0021145	.000584
%RSD	80.81844	63.83055	363.8332	256.5840	75.02466	7.795316	81.85734
#1	.0001333	.0003348	.000659	.0044704	.0013297	.0274256	-.000156
#2	.0029573	.0011946	-.000643	-.000589	.0004186	.0248765	-.000664
#3	.0028537	.0005636	-.000633	-.000496	.0003895	.0290733	-.001321

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000951	.0000565	-.001902	-.000087	-.000079	.0001254	.0032769
Stddev	.0000309	.0000194	.004377	.000446	.000091	.0002377	.0010283
%RSD	32.52208	34.27080	230.1579	509.8838	115.2950	189.5303	31.37887
#1	.0000595	.0000440	-.006834	-.000177	-.000083	.0003413	.0020906
#2	.0001107	.0000789	-.000391	-.000482	.000014	-.000129	.0039123
#3	.0001152	.0000468	.001520	.000396	-.000168	.000164	.0038278

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004628	.0059908	-.000127	.0002802	-.187354	-.001359	.0011690
Stddev	.0002864	.0045400	.000397	.0004206	.000744	.000661	.0001922
%RSD	61.89350	75.78301	311.8146	150.1026	.3973366	48.62601	16.43743
#1	.0004555	.0009899	-.000376	.0004662	-.187713	-.001852	.0013399
#2	.0001800	.0071293	.000330	-.000201	-.186498	-.001618	.0009610
#3	.0007527	.0098532	-.000337	.000576	-.187850	-.000608	.0012061

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198250	.0001052	.0005432	-.001992	.0002680	-.009595	-.001001
Stddev	.0022568	.0003670	.0004225	.000741	.0002914	.008892	.001781
%RSD	11.38340	348.7119	77.77282	37.21424	108.7285	92.66983	177.8715
#1	.0224294	.0005267	.0000612	-.001921	.0003164	-.005928	-.000625
#2	.0184484	-.000144	.0008494	-.001288	-.000045	-.003123	-.002940
#3	.0185970	-.000067	.0007190	-.002766	.000532	-.019734	.000562

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB168012BL Acquired: 5/15/2025 16:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0038939	-.001568	.0000644
Stddev	.0022537	.001246	.0000129
%RSD	57.87793	79.45148	20.01012
#1	.0019674	-.002116	.0000497
#2	.0063723	-.002446	.0000696
#3	.0033421	-.000142	.0000738

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2912.343	65033.31	17952.56	2611.467	4374.184
Stddev	27.644	192.13	49.54	13.310	37.349
%RSD	.9491926	.2954317	.2759409	.5096664	.8538455
#1	2880.812	65006.12	17940.07	2610.362	4331.223
#2	2923.806	64856.23	18007.15	2598.743	4392.395
#3	2932.412	65237.59	17910.47	2625.294	4398.935

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV04 Acquired: 5/15/2025 16:39:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.930794	4.891082	4.958198	4.829977	4.825897	9.915030	9.520397
Stddev	.017177	.023985	.010177	.020003	.019610	.007057	.061349
%RSD	.3483703	.4903795	.2052646	.4141372	.4063404	.0711798	.6443983
#1	4.944890	4.906277	4.965602	4.849356	4.843040	9.908269	9.577734
#2	4.911662	4.863432	4.962400	4.809404	4.804515	9.922351	9.527760
#3	4.935832	4.903537	4.946592	4.831171	4.830135	9.914471	9.455699

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2511525	2.445670	24.54886	.9982362	2.477954	1.235222	4.677596
Stddev	.0014087	.002656	.14055	.0038545	.005053	.005039	.066902
%RSD	.5608791	.1085873	.5725261	.3861299	.2039079	.4079211	1.430266
#1	.2511956	2.447461	24.40349	.9943305	2.481710	1.239920	4.652199
#2	.2525392	2.446929	24.55907	.9983408	2.479943	1.229901	4.627112
#3	.2497229	2.442619	24.68403	1.002037	2.472209	1.235845	4.753478

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.417428	23.83991	2.442337	1.220503	23.44807	2.420032	2.435178
Stddev	.002472	.15753	.004205	.002950	.06789	.007324	.003074
%RSD	.1022502	.6607671	.1721554	.2416756	.2895527	.3026467	.1262210
#1	2.415092	23.66888	2.446249	1.222956	23.43245	2.416459	2.434143
#2	2.420016	23.87181	2.442871	1.217230	23.38935	2.415180	2.432756
#3	2.417176	23.97905	2.437891	1.221323	23.52241	2.428456	2.438636

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.31300	4.983767	4.963835	4.920189	4.823574	4.655814	5.002773
Stddev	.15231	.026398	.018706	.001417	.016748	.041788	.016926
%RSD	.6533422	.5296882	.3768437	.0288070	.3472187	.8975501	.3383234
#1	23.19392	4.989178	4.981575	4.919727	4.804246	4.633352	5.002752
#2	23.26045	5.007040	4.944293	4.919060	4.832665	4.630061	5.019709
#3	23.48463	4.955082	4.965637	4.921779	4.833811	4.704030	4.985858

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV04 Acquired: 5/15/2025 16:39:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.872478	4.897282	4.945146
Stddev	.007375	.012183	.073332
%RSD	.1513527	.2487714	1.482915
#1	4.880907	4.898684	4.932471
#2	4.869315	4.908703	5.023990
#3	4.867213	4.884458	4.878978

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2812.105	64484.14	17225.29	2588.270	3923.417
Stddev	16.176	492.56	53.92	16.027	17.173
%RSD	.5752442	.7638493	.3130495	.6192120	.4377170
#1	2793.490	64731.16	17284.24	2595.734	3904.311
#2	2822.747	64804.32	17213.17	2599.204	3928.372
#3	2820.078	63916.95	17178.45	2569.872	3937.569

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB04 Acquired: 5/15/2025 16:44:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000656	.0027908	.0009518	.0023307	.0003241	.0067410	.0007707
Stddev	.0030174	.0006140	.0009042	.0018419	.0024165	.0023435	.0017594
%RSD	4596.113	21.99960	94.99455	79.02859	745.5732	34.76511	228.2800
#1	.0033516	.0022470	.0018118	.0044244	.0031044	.0077546	.0020732
#2	-.002581	.0026687	.0000091	.0009600	-.001271	.0084072	.0014698
#3	-.000574	.0034566	.0010347	.0016077	-.000861	.0040613	-.001231

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000649	.0001142	.0015493	.0003238	-.000102	.0018559	.0137866
Stddev	.0000337	.0001017	.0054889	.0002464	.000123	.0002491	.0017438
%RSD	51.95096	89.06351	354.2887	76.10209	120.5074	13.42185	12.64886
#1	.0000261	.0002309	.0076317	.0000437	-.000201	.0021127	.0141326
#2	.0000815	.0000450	-.003035	.0004207	.000035	.0016154	.0153315
#3	.0000870	.0000666	.000051	.0005070	-.000140	.0018395	.0118957

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003053	-.008816	.0002856	.0002443	-.199482	-.002205	.0032721
Stddev	.0002277	.011532	.0002332	.0000782	.003783	.000380	.0003132
%RSD	74.58952	130.8046	81.64054	31.99833	1.896398	17.21577	9.572532
#1	.0005604	.003543	.0003493	.0002222	-.195640	-.001928	.0031317
#2	.0001226	-.010704	.0004804	.0001795	-.199603	-.002048	.0036310
#3	.0002328	-.019288	.0000272	.0003311	-.203203	-.002638	.0030537

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004519	.0075053	.0007976	-.001586	.0014207	.0017135	-.004032
Stddev	.004827	.0007290	.0003413	.000365	.0002533	.0040729	.001972
%RSD	106.8095	9.712660	42.79420	22.99788	17.82796	237.7009	48.91435
#1	-.002796	.0077633	.0010368	-.002007	.0013111	.0038316	-.006207
#2	-.000790	.0066825	.0004067	-.001361	.0012407	-.002982	-.003530
#3	-.009972	.0080702	.0009493	-.001391	.0017104	.004291	-.002359

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB04 Acquired: 5/15/2025 16:44:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0022166	-.001611	.0003208
Stddev	.0030106	.001613	.0000677
%RSD	135.8213	100.1156	21.08828
#1	.0051791	-.000412	.0003986
#2	-.000840	-.000977	.0002762
#3	.002311	-.003445	.0002875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2893.684	65405.20	18343.28	2637.389	4293.140
Stddev	7.709	126.86	58.02	7.919	8.707
%RSD	.2664122	.1939532	.3163151	.3002748	.2028144
#1	2893.057	65381.85	18281.76	2632.198	4289.996
#2	2901.688	65542.10	18351.07	2646.504	4302.983
#3	2886.309	65291.63	18397.02	2633.464	4286.442

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB168012BS Acquired: 5/15/2025 16:48:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7694878	1.910852	.9472858	1.912334	.7496506	1.861023
Stddev	.0016979	.012577	.0022443	.006346	.0046514	.006404
%RSD	.2206543	.6581844	.2369152	.3318452	.6204826	.3440977
#1	.7691963	1.896825	.9460892	1.905147	.7450228	1.853977
#2	.7713126	1.914608	.9458934	1.914695	.7496038	1.866489
#3	.7679545	1.921123	.9498748	1.917162	.7543254	1.862604

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1754835	.1950454	.1898471	.9403354	.3894584	.1877863
Stddev	.0019505	.0008293	.0006716	.0080101	.0003521	.0003996
%RSD	1.111531	.4251816	.3537516	.8518317	.0904187	.2128159
#1	.1732397	.1941689	.1895667	.9320675	.3896147	.1881141
#2	.1764363	.1951495	.1893612	.9480599	.3890551	.1873411
#3	.1767746	.1958177	.1906135	.9408787	.3897053	.1879036

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2938360	2.735007	.1869719	1.808018	.4668369	.0718776
Stddev	.0007778	.015227	.0013412	.014127	.0013073	.0001879
%RSD	.2647078	.5567270	.7173031	.7813323	.2800315	.2614860
#1	.2933134	2.734532	.1856567	1.808283	.4657991	.0720053
#2	.2934647	2.750465	.1883376	1.822011	.4664066	.0716617
#3	.2947299	2.720023	.1869214	1.793761	.4683051	.0719656

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.569436	.2761861	.1933731	8.778158	.2998216	.3850374
Stddev	.012063	.0031326	.0006718	.029805	.0021882	.0014620
%RSD	.4694675	1.134231	.3474365	.3395415	.7298281	.3796944
#1	2.576282	.2727547	.1935589	8.806888	.2976579	.3844114
#2	2.576518	.2769108	.1939325	8.780204	.2997733	.3839926
#3	2.555508	.2788928	.1926279	8.747382	.3020335	.3867081

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB168012BS Acquired: 5/15/2025 16:48:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6516122	.1821644	.7478670	5.725112	F -.005402	.1956732
Stddev	.0010955	.0004218	.0055396	.015447	.003606	.0009189
%RSD	.1681196	.2315478	.7407255	.2698143	66.74752	.4696076
#1	.6518731	.1816974	.7415799	5.708581	-.006742	.1949724
#2	.6504098	.1825177	.7499902	5.727578	-.001318	.1967136
#3	.6525537	.1822781	.7520310	5.739179	-.008145	.1953337

Elem	Sr4077
Units	ppm
Avg	.1895468
Stddev	.0006116
%RSD	.3226827
#1	.1891223
#2	.1902479
#3	.1892702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2854.840	64129.61	17350.89	2589.385	4165.633
Stddev	1.612	126.98	38.18	13.066	3.922
%RSD	.0564586	.1980019	.2200311	.5046080	.0941438
#1	2852.980	63998.66	17373.36	2578.200	4161.813
#2	2855.736	64137.98	17372.50	2586.209	4165.437
#3	2855.806	64252.20	17306.81	2603.747	4169.649

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167963TB Acquired: 5/15/2025 16:52:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003562	-.001565	-.000248	.0015924	.0000459	.0025708	-.001084
Stddev	.002468	.001267	.001171	.0020850	.0014322	.0024192	.001260
%RSD	69.29644	80.99019	472.9988	130.9366	3119.574	94.10345	116.2727
#1	-.005668	-.000817	-.001535	.0027462	-.001428	.0052232	-.001069
#2	-.000846	-.003028	.000038	.0028453	.000133	.0020035	.000169
#3	-.004173	-.000849	.000754	-.000814	.001433	.0004857	-.002351

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000103	-.000001	.0000476	.0002370	-.000296	-.000169	.0017762
Stddev	.000038	.000062	.0046956	.0001389	.000199	.000330	.0029957
%RSD	36.58052	4674.035	9855.973	58.60319	67.35604	194.6660	168.6611
#1	-.000141	-.000072	-.005258	.0003615	-.000399	.000211	.0034951
#2	-.000102	.000045	.003669	.0000872	-.000423	-.000341	-.001683
#3	-.000066	.000023	.001732	.0002625	-.000066	-.000378	.003516

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025089	-.010668	.0008190	.0003882	312.6106	-.001165	.0035965
Stddev	.0003633	.016544	.0001122	.0003414	3.4707	.000953	.0001769
%RSD	14.47929	155.0845	13.69576	87.94660	1.110221	81.80746	4.919213
#1	.0029008	-.029648	.0008640	.0007769	310.9015	-.001589	.0034084
#2	.0021835	.000705	.0009018	.0001374	316.6044	-.000074	.0036217
#3	.0024424	-.003061	.0006914	.0002501	310.3259	-.001833	.0037595

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197654	.0026150	.0001409	-.000588	.0004802	-.006071	.0041603
Stddev	.0322002	.0003707	.0001253	.000385	.0006587	.001483	.0032712
%RSD	162.9119	14.17481	88.94037	65.41178	137.1802	24.42188	78.62726
#1	-.006846	.0026410	.0001535	-.000156	.0012384	-.004869	.0013885
#2	.010583	.0029721	.0000098	-.000893	.0001534	-.005616	.0033241
#3	.055559	.0022321	.0002595	-.000716	.0000487	-.007728	.0077684

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167963TB Acquired: 5/15/2025 16:52:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0299440	-.003404	.0000671
Stddev	.0024738	.000160	.0000753
%RSD	8.261446	4.702769	112.1469
#1	.0313713	-.003392	.0001467
#2	.0270875	-.003570	.0000575
#3	.0313732	-.003250	-.000003

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.307	61832.51	18510.65	2484.906	3792.682
Stddev	13.900	64.99	39.42	15.252	15.472
%RSD	.5096628	.1051014	.2129458	.6137893	.4079427
#1	2740.275	61821.44	18465.70	2476.143	3809.265
#2	2729.012	61773.77	18526.96	2476.057	3790.147
#3	2712.632	61902.32	18539.30	2502.517	3778.634

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167963TBRE Acquired: 5/15/2025 16:57:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004444	-.002037	-.001615	.0046809	.0006791	.0075802	.0022126
Stddev	.002665	.001448	.001416	.0014774	.0004412	.0043135	.0005043
%RSD	59.97215	71.07209	87.67355	31.56202	64.96520	56.90555	22.79416
#1	-.001866	-.003217	-.000916	.0058078	.0003437	.0123969	.0019545
#2	-.004277	-.002472	-.000684	.0052265	.0005147	.0040737	.0018896
#3	-.007188	-.000422	-.003245	.0030083	.0011789	.0062699	.0027938

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000066	.0000027	.0369239	.0005235	-.000166	.0001411	.0073792
Stddev	.000054	.0000428	.0061691	.0001278	.000065	.0001265	.0036924
%RSD	81.31304	1563.685	16.70760	24.40993	39.25818	89.67850	50.03798
#1	-.000012	-.000016	.0405026	.0005385	-.000208	.0002872	.0037120
#2	-.000119	.000052	.0298004	.0006431	-.000200	.0000702	.0110963
#3	-.000066	-.000028	.0404685	.0003889	-.000091	.0000659	.0073294

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039977	-.013852	.0012190	.0000838	293.1949	.0001537	.0066289
Stddev	.0001273	.007521	.0003055	.0002823	1.8019	.0010718	.0004425
%RSD	3.183083	54.29280	25.06288	336.8369	.6145648	697.2703	6.675626
#1	.0041446	-.022536	.0014148	.0000897	291.2194	-.000586	.0063240
#2	.0039279	-.009581	.0013753	-.000201	293.6172	.001383	.0064263
#3	.0039207	-.009440	.0008670	.000363	294.7481	-.000335	.0071364

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0290180	.0014895	.0000459	-.001270	.0007411	-.007711	.0034922
Stddev	.0197730	.0013253	.0003330	.000955	.0004419	.009465	.0045842
%RSD	68.14058	88.98040	726.2216	75.20007	59.62418	122.7488	131.2684
#1	.0145449	.0028816	.0000775	-.000469	.0004017	-.014215	.0011980
#2	.0515473	.0002429	-.000302	-.001015	.0005810	.003147	.0005081
#3	.0209618	.0013440	.000362	-.002327	.0012408	-.012064	.0087706

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: PB167963TBRE Acquired: 5/15/2025 16:57:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0401790	-.003847	.0000210
Stddev	.0001034	.001604	.0000165
%RSD	.2572856	41.69606	78.35049
#1	.0400823	-.004572	.0000267
#2	.0401666	-.002008	.0000339
#3	.0402880	-.004959	.0000025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2725.272	60556.22	16992.20	2463.060	3779.120
Stddev	15.175	142.50	127.94	5.646	25.248
%RSD	.5568245	.2353159	.7529598	.2292384	.6680890
#1	2722.405	60718.33	16866.18	2467.983	3783.776
#2	2741.676	60499.57	16988.42	2464.299	3801.716
#3	2711.735	60450.76	17121.99	2456.897	3751.869

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-04 Acquired: 5/15/2025 17:01:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005024	-.002604	.0018007	.0055820	.0003599	.0807723	.3050673
Stddev	.004208	.002918	.0009892	.0035484	.0022774	.0046825	.0014969
%RSD	83.74879	112.0395	54.93716	63.56957	632.7576	5.797163	.4906622
#1	-.000488	.000689	.0026352	.0086342	-.002067	.0774200	.3044617
#2	-.005786	-.003634	.0020589	.0064231	.000696	.0787746	.3039681
#3	-.008799	-.004867	.0007079	.0016885	.002451	.0861224	.3067720

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001297	.0022801	13.92345	-.000359	.0002280	.0322525	.0061826
Stddev	.0000157	.0001034	.04630	.000371	.0001114	.0004048	.0024237
%RSD	12.07098	4.535729	.3325549	103.3786	48.86947	1.255062	39.20130
#1	.0001129	.0023890	13.92247	-.000764	.0002287	.0319249	.0038595
#2	.0001438	.0022681	13.87764	-.000279	.0001162	.0321274	.0059927
#3	.0001325	.0021832	13.97023	-.000034	.0003390	.0327050	.0086956

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3845029	1.191121	.0017567	-.000071	396.1823	.0012878	.0885630
Stddev	.0013617	.009789	.0002061	.000483	1.5837	.0012448	.0009037
%RSD	.3541484	.8218622	11.73138	683.7422	.3997410	96.65941	1.020415
#1	.3857329	1.198234	.0018091	.000080	395.4358	.0009821	.0884146
#2	.3830396	1.195172	.0015294	-.000611	398.0012	.0026569	.0895317
#3	.3847361	1.179956	.0019314	.000319	395.1097	.0002243	.0877427

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7438321	.0322245	.0003469	-.003238	-.000036	.6214401	.0277508
Stddev	.0325911	.0007945	.0003548	.000254	.000527	.0062984	.0038442
%RSD	4.381511	2.465502	102.2899	7.858438	1444.347	1.013518	13.85268
#1	.7402518	.0331054	.0006702	-.003411	-.000538	.6221749	.0316735
#2	.7131789	.0315622	-.000033	-.003356	.000512	.6148065	.0275887
#3	.7780655	.0320060	.000403	-.002946	-.000084	.6273389	.0239901

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-04 Acquired: 5/15/2025 17:01:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2951482	-.004430	.0752339
Stddev	.0022076	.000633	.0000324
%RSD	.7479590	14.29420	.0430947
#1	.2926100	-.003888	.0752391
#2	.2966209	-.005126	.0751993
#3	.2962139	-.004277	.0752635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.640	59384.42	16666.72	2443.326	3659.170
Stddev	7.660	195.70	70.70	1.050	7.756
%RSD	.2836239	.3295457	.4241863	.0429863	.2119526
#1	2704.220	59581.33	16734.77	2442.370	3663.400
#2	2705.854	59381.96	16671.75	2444.450	3663.891
#3	2691.846	59189.96	16593.64	2443.158	3650.219

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08 Acquired: 5/15/2025 17:05:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002824	-.003003	.0001675	.0017629	.0029876	.0255720	.2956807
Stddev	.001406	.001924	.0015638	.0019393	.0012493	.0021851	.0006379
%RSD	49.79233	64.07515	933.8895	110.0089	41.81536	8.544852	.2157373
#1	-.001623	-.005108	.0014325	.0027665	.0027759	.0271661	.2950248
#2	-.004371	-.001336	.0006508	-.000473	.0018577	.0264687	.2957187
#3	-.002479	-.002564	-.001581	.002995	.0043293	.0230812	.2962989

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000127	.0000614	7.526394	-.000693	-.000316	.0115405	.0038933
Stddev	.0000781	.0000130	.025509	.000334	.000260	.0004184	.0010611
%RSD	613.0374	21.08705	.3389318	48.26399	82.33222	3.625859	27.25397
#1	.0000393	.0000599	7.536404	-.000551	-.000615	.0110577	.0031631
#2	.0000740	.0000751	7.545380	-.001075	-.000188	.0117652	.0051105
#3	-.000075	.0000493	7.497398	-.000453	-.000144	.0117986	.0034065

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0181928	1.123786	.0009966	.0002986	440.8753	-.000478	.0661438
Stddev	.0002960	.014863	.0003072	.0002248	1.7541	.001367	.0002272
%RSD	1.627058	1.322592	30.82795	75.27087	.3978663	286.1455	.3435162
#1	.0180591	1.128645	.0012365	.0002107	438.8641	.000360	.0661569
#2	.0185320	1.135612	.0006503	.0001311	441.6731	.000262	.0659104
#3	.0179872	1.107102	.0011028	.0005541	442.0887	-.002056	.0663642

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7241257	.0364475	-.000073	-.001427	-.000303	.3970278	.0921748
Stddev	.0433456	.0004265	.000238	.000554	.000483	.0007826	.0024450
%RSD	5.985918	1.170158	325.0919	38.84001	159.0450	.1971104	2.652580
#1	.7615002	.0365789	.000187	-.001019	.000246	.3978211	.0947907
#2	.6766079	.0359708	-.000278	-.001204	-.000497	.3962563	.0917864
#3	.7342690	.0367928	-.000128	-.002058	-.000659	.3970061	.0899472

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08 Acquired: 5/15/2025 17:05:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3753865	-.004326	.0477186
Stddev	.0022202	.000728	.0001775
%RSD	.5914409	16.82109	.3718877
#1	.3752078	-.004873	.0478410
#2	.3732611	-.004603	.0477996
#3	.3776907	-.003500	.0475151

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.433	59406.61	17460.78	2428.101	3724.104
Stddev	6.330	114.04	54.00	2.571	8.219
%RSD	.2344160	.1919692	.3092461	.1058944	.2207036
#1	2695.957	59525.88	17480.15	2430.532	3719.437
#2	2707.676	59395.30	17399.77	2428.362	3733.594
#3	2697.666	59298.64	17502.42	2425.410	3719.281

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08DUP Acquired: 5/15/2025 17:10:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004929	-.002336	.0004031	.0028463	.0002046	.0217025	.2267801
Stddev	.003007	.000832	.0015316	.0019213	.0018934	.0021974	.0008296
%RSD	61.01739	35.61916	379.9403	67.49902	925.2451	10.12496	.3658357
#1	-.001820	-.003083	.0005451	.0006300	-.001785	.0192039	.2272132
#2	-.007823	-.001439	-.001195	.0040384	.000415	.0233339	.2258235
#3	-.005142	-.002487	.001859	.0038707	.001984	.0225698	.2273036

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000265	-.000053	5.773196	-.001082	-.000313	.0086885	.0023502
Stddev	.0000122	.000059	.012785	.000302	.000357	.0003942	.0021666
%RSD	45.97483	112.6483	.2214606	27.92074	114.2247	4.536445	92.18431
#1	.0000130	-.000038	5.774980	-.001429	-.000676	.0087661	.0028771
#2	.0000299	-.000118	5.759612	-.000877	-.000300	.0082614	.0042048
#3	.0000367	-.000002	5.784995	-.000941	.000038	.0090381	-.000031

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0135823	.8643367	.0006273	.0001332	326.8689	.0005109	.0512308
Stddev	.0002301	.0027040	.0002914	.0003584	2.2147	.0027969	.0006771
%RSD	1.694411	.3128444	46.44603	269.0012	.6775508	547.4805	1.321604
#1	.0133509	.8629593	.0003362	.0000839	326.9271	.0002388	.0508179
#2	.0135848	.8674521	.0006268	-.000198	324.6258	.0034339	.0508623
#3	.0138112	.8625988	.0009189	.000514	329.0540	-.002140	.0520122

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4913784	.0282668	.0004394	-.002794	.0002999	.2812200	.0717225
Stddev	.0157892	.0012567	.0003376	.001167	.0005895	.0066165	.0025270
%RSD	3.213247	4.445835	76.84054	41.76717	196.5857	2.352792	3.523233
#1	.4772539	.0292469	.0004503	-.003806	.0005518	.2765034	.0688094
#2	.5084242	.0287034	.0000964	-.001517	.0007214	.2783731	.0730346
#3	.4884570	.0268500	.0007714	-.003058	-.000374	.2887835	.0733236

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08DUP Acquired: 5/15/2025 17:10:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2866658	-.003984	.0366023
Stddev	.0025019	.000216	.0000151
%RSD	.8727621	5.428771	.0411772
#1	.2847668	-.003752	.0366057
#2	.2895007	-.004019	.0366154
#3	.2857298	-.004180	.0365859

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.796	59992.86	17156.16	2455.167	3770.803
Stddev	3.519	119.31	118.48	5.669	3.220
%RSD	.1294373	.1988703	.6905910	.2308979	.0853948
#1	2721.640	59933.12	17079.36	2460.176	3773.610
#2	2719.887	60130.24	17292.61	2449.013	3767.288
#3	2714.860	59915.23	17096.51	2456.313	3771.512

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08LX5 Acquired: 5/15/2025 17:14:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010640	.0014111	-.000409	.0023884	.0000027	.0140869	.0588208
Stddev	.0038203	.0015762	.000155	.0027506	.0019841	.0007967	.0006544
%RSD	359.0452	111.7019	37.84586	115.1644	73803.04	5.655876	1.112546
#1	.0035597	-.000406	-.000240	.0054587	.0020330	.0136749	.0582940
#2	.0029663	.002415	-.000544	.0015576	-.001932	.0150053	.0586151
#3	-.003334	.002224	-.000442	.0001490	-.000093	.0135805	.0595533

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000325	-.000024	1.449731	-.000291	.0001427	.0025553	-.000743
Stddev	.0000425	.000065	.010470	.000312	.0000653	.0003214	.001155
%RSD	130.5829	271.4916	.7222057	107.2976	45.76972	12.57880	155.5245
#1	.0000351	-.000097	1.438784	-.000467	.0002179	.0022012	-.000634
#2	.0000737	.000024	1.459648	.000069	.0001001	.0026362	.000354
#3	-.000011	.000002	1.450762	-.000475	.0001102	.0028286	-.001949

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034564	.2134587	.0000506	.0001802	78.80328	-.001048	.0128551
Stddev	.0002000	.0070192	.0001674	.0001647	.27455	.001198	.0003570
%RSD	5.787661	3.288305	330.9800	91.39683	.3483936	114.3936	2.777451
#1	.0035230	.2111573	-.000099	.0002399	78.59756	-.001634	.0124644
#2	.0036146	.2213396	.000020	.0003067	79.11503	-.001839	.0131644
#3	.0032315	.2078791	.000231	-.000006	78.69724	.000331	.0129365

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2721221	.0084052	.0002071	.0024941	-.000292	.0560072	.0138427
Stddev	.0253691	.0006767	.0001894	.0006033	.000855	.0102115	.0016739
%RSD	9.322703	8.051367	91.43396	24.18682	292.5253	18.23248	12.09260
#1	.2692134	.0077558	.0001118	.0031751	.000132	.0442962	.0135955
#2	.2483327	.0091063	.0004252	.0020266	.000268	.0630519	.0156265
#3	.2988202	.0083536	.0000844	.0022806	-.001276	.0606735	.0123061

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08LX5 Acquired: 5/15/2025 17:14:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0724696	.0010986	.0092744
Stddev	.0029308	.0005153	.0000557
%RSD	4.044136	46.90874	.6008837
#1	.0690931	.0005047	.0093140
#2	.0743555	.0013639	.0092107
#3	.0739601	.0014272	.0092986

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2800.371	61588.07	16657.20	2524.536	3956.774
Stddev	10.410	181.08	63.68	12.146	12.004
%RSD	.3717201	.2940116	.3822937	.4811336	.3033754
#1	2791.472	61796.77	16662.23	2531.116	3943.952
#2	2811.818	61472.73	16718.21	2531.974	3967.745
#3	2797.824	61494.70	16591.15	2510.520	3958.625

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08MS Acquired: 5/15/2025 17:19:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8869031	2.033620	1.067481	2.114785	.8584764	2.166745	.5312954
Stddev	.0030415	.003842	.002595	.004403	.0020471	.002023	.0022941
%RSD	.3429340	.1889324	.2430934	.2082070	.2384522	.0933756	.4317971
#1	.8834297	2.032413	1.065030	2.117403	.8606452	2.164450	.5289552
#2	.8881904	2.037921	1.067214	2.109702	.8565779	2.167510	.5335405
#3	.8890893	2.030527	1.070200	2.117251	.8582062	2.168274	.5313905

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2181154	.2240378	9.687079	.4498104	.2194996	.3240839	3.144786
Stddev	.0019612	.0004748	.036563	.0003055	.0005693	.0008188	.007077
%RSD	.8991527	.2119251	.3774385	.0679230	.2593638	.2526479	.2250541
#1	.2160954	.2239441	9.652236	.4501565	.2191422	.3231512	3.151591
#2	.2200119	.2236169	9.725148	.4496966	.2192005	.3246843	3.145302
#3	.2182387	.2245525	9.683854	.4495781	.2201561	.3244161	3.137464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2337627	3.359951	.5408582	.0806147	471.8076	.3183879	.2916543
Stddev	.0008825	.021428	.0013612	.0008403	5.5787	.0007087	.0019609
%RSD	.3775162	.6377445	.2516744	1.042325	1.182414	.2225841	.6723244
#1	.2328299	3.335545	.5396412	.0808868	471.8374	.3176532	.2912182
#2	.2338740	3.368633	.5406053	.0812853	477.3713	.3190673	.2937965
#3	.2345843	3.375676	.5423281	.0796721	466.2140	.3184434	.2899483

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.96204	.3473656	.4626003	.7889434	.2169358	1.344297	7.077652
Stddev	.10499	.0028769	.0011984	.0047766	.0012105	.012923	.010798
%RSD	.8777313	.8282082	.2590550	.6054360	.5579874	.9613049	.1525641
#1	12.06616	.3448808	.4630839	.7864660	.2157078	1.353218	7.075322
#2	11.85620	.3505174	.4612357	.7859146	.2169718	1.329477	7.068210
#3	11.96377	.3466985	.4634813	.7944497	.2181279	1.350195	7.089425

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08MS Acquired: 5/15/2025 17:19:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4378228	.2250824	.2685824
Stddev	.0021435	.0004943	.0007237
%RSD	.4895906	.2196255	.2694618
#1	.4401875	.2245116	.2679343
#2	.4360072	.2253719	.2684494
#3	.4372738	.2253637	.2693633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.287	59409.35	16190.53	2435.653	3629.822
Stddev	.616	96.51	109.58	3.601	4.511
%RSD	.0230905	.1624454	.6768285	.1478388	.1242734
#1	2666.642	59298.20	16305.34	2435.790	3633.932
#2	2667.869	59457.95	16087.05	2439.183	3630.538
#3	2667.352	59471.89	16179.19	2431.985	3624.996

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08MSD Acquired: 5/15/2025 17:23:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9149923	2.113799	1.105619	2.192290	.8815727	2.209181	.5058751
Stddev	.0010596	.012094	.002842	.010073	.0034307	.010472	.0008925
%RSD	.1157996	.5721306	.2570567	.4594702	.3891546	.4740039	.1764337
#1	.9146408	2.110048	1.107335	2.193180	.8807395	2.217052	.5051102
#2	.9141531	2.104026	1.102338	2.181801	.8786354	2.197296	.5056594
#3	.9161829	2.127324	1.107184	2.201888	.8853432	2.213194	.5068558

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2281697	.2311916	9.133728	.4615122	.2266961	.3343964	3.093723
Stddev	.0008266	.0006289	.012542	.0005868	.0003455	.0008317	.007450
%RSD	.3622612	.2720125	.1373107	.1271428	.1523837	.2487113	.2407978
#1	.2273735	.2310598	9.119323	.4609517	.2269164	.3341550	3.102315
#2	.2290236	.2306391	9.139641	.4614626	.2262980	.3337121	3.089075
#3	.2281120	.2318760	9.142220	.4621221	.2268739	.3353221	3.089777

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2382522	3.341131	.5758826	.0814008	424.4466	.3253612	.2888525
Stddev	.0003966	.036941	.0021265	.0002796	2.5859	.0019837	.0013014
%RSD	.1664789	1.105636	.3692506	.3435407	.6092478	.6097067	.4505409
#1	.2380370	3.317664	.5771858	.0815539	421.5110	.3249750	.2873519
#2	.2380096	3.383713	.5734287	.0810780	426.3874	.3235990	.2895335
#3	.2387099	3.322018	.5770332	.0815704	425.4413	.3275097	.2896720

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.59773	.3602853	.4725696	.8171709	.2205537	1.283964	7.427233
Stddev	.05482	.0003649	.0011315	.0033044	.0008127	.014537	.029645
%RSD	.4726983	.1012819	.2394434	.4043748	.3684593	1.132160	.3991348
#1	11.61108	.3598779	.4720280	.8207953	.2196175	1.267274	7.427128
#2	11.53747	.3605822	.4718105	.8143257	.2209660	1.290762	7.397641
#3	11.64465	.3603957	.4738701	.8163918	.2210775	1.293856	7.456930

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08MSD Acquired: 5/15/2025 17:23:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4154906	.2301172	.2688766
Stddev	.0044022	.0001325	.0002915
%RSD	1.059513	.0575913	.1084189
#1	.4182614	.2300724	.2685635
#2	.4104145	.2300129	.2689261
#3	.4177959	.2302663	.2691402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2619.639	59914.91	15722.80	2444.492	3553.381
Stddev	13.167	168.64	8.78	5.465	16.110
%RSD	.5026206	.2814696	.0558489	.2235699	.4533604
#1	2604.682	59779.32	15715.19	2438.808	3534.839
#2	2629.479	60103.75	15732.41	2444.959	3563.946
#3	2624.757	59861.67	15720.80	2449.708	3561.357

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV05 Acquired: 5/15/2025 17:41:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.904555	4.949159	4.999793	4.792315	4.795646	9.950043	9.443998
Stddev	.015053	.046136	.017685	.008747	.010960	.025817	.048551
%RSD	.3069164	.9322087	.3537151	.1825229	.2285366	.2594660	.5140924
#1	4.893081	4.924516	4.981121	4.784849	4.784118	9.923632	9.466226
#2	4.898986	5.002384	5.001967	4.801939	4.796888	9.975221	9.477455
#3	4.921599	4.920576	5.016290	4.790158	4.805932	9.951276	9.388312

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2631668	2.467848	25.18232	1.023864	2.493413	1.230724	4.858199
Stddev	.0016992	.009543	.11248	.002655	.009113	.002642	.014895
%RSD	.6456866	.3866877	.4466464	.2593401	.3654709	.2147101	.3066006
#1	.2624362	2.458513	25.15478	1.022959	2.485003	1.228333	4.861475
#2	.2651091	2.467444	25.30601	1.026854	2.492141	1.230278	4.871185
#3	.2619550	2.477586	25.08618	1.021780	2.503095	1.233561	4.841939

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.449884	24.63982	2.460329	1.246785	23.63871	2.447183	2.504639
Stddev	.005668	.15873	.009770	.001330	.08416	.004550	.012708
%RSD	.2313463	.6442068	.3971206	.1067107	.3560340	.1859428	.5073986
#1	2.443496	24.53317	2.450781	1.247992	23.73471	2.448310	2.498696
#2	2.454312	24.82223	2.459900	1.247005	23.60376	2.451064	2.519230
#3	2.451843	24.56404	2.470308	1.245358	23.57765	2.442175	2.495992

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.54185	5.112047	4.969588	4.961313	4.857574	4.757261	5.065069
Stddev	.06639	.024036	.011150	.021805	.022694	.011108	.026532
%RSD	.2820171	.4701774	.2243647	.4395000	.4671944	.2334877	.5238302
#1	23.61815	5.096786	4.957045	4.937305	4.865017	4.749027	5.036724
#2	23.51021	5.139753	4.978377	4.966750	4.875613	4.752862	5.069172
#3	23.49720	5.099602	4.973340	4.979886	4.832093	4.769894	5.089310

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV05 Acquired: 5/15/2025 17:41:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.879978	4.819011	4.862188
Stddev	.018531	.014614	.034795
%RSD	.3797257	.3032613	.7156221
#1	4.881069	4.819153	4.887873
#2	4.860926	4.833553	4.876100
#3	4.897939	4.804326	4.822589

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2798.361	61187.87	16436.42	2513.028	3892.618
Stddev	6.327	393.28	102.94	17.131	13.533
%RSD	.2261010	.6427356	.6262954	.6817047	.3476640
#1	2805.052	60798.41	16381.48	2502.678	3906.319
#2	2797.556	61180.33	16372.61	2503.602	3892.276
#3	2792.475	61584.86	16555.18	2532.802	3879.259

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB05 Acquired: 5/15/2025 17:56:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005498	.0000765	-.001828	.0010971	.0011992	-.001728	.0039682
Stddev	.0038508	.0010109	.000785	.0031360	.0025176	.006471	.0010227
%RSD	700.3729	1322.307	42.92245	285.8538	209.9369	374.5463	25.77221
#1	-.003859	-.000798	-.002720	-.002494	.0040538	.005090	.0051232
#2	.002255	.001183	-.001523	.002487	.0002486	-.002489	.0036036
#3	.003253	-.000156	-.001242	.003298	-.000705	-.007785	.0031777

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000822	.0000065	.0038502	-.000507	.0000819	.0003449	-.003211
Stddev	.0000622	.0000624	.0031788	.000297	.0000973	.0001874	.005877
%RSD	75.61947	958.9640	82.56151	58.66240	118.7978	54.31789	183.0391
#1	.0000214	-.000035	.0007422	-.000167	-.000002	.0002807	-.002407
#2	.0000795	-.000024	.0037130	-.000718	.000059	.0005560	-.009448
#3	.0001457	.000078	.0070954	-.000637	.000189	.0001981	.002223

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003741	-.019717	-.000011	.0003533	.0323283	-.001206	.0000977
Stddev	.0001903	.008039	.000160	.0002560	.0098380	.000984	.0003048
%RSD	50.86501	40.77187	1461.774	72.46345	30.43162	81.56376	311.8460
#1	.0005903	-.025352	.000122	.0006215	.0434418	-.000197	-.000237
#2	.0003003	-.010511	.000034	.0003268	.0247334	-.001260	.000359
#3	.0002318	-.023289	-.000189	.0001116	.0288097	-.002162	.000171

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0616402	.0042605	.0003022	.0004944	.0001615	-.005838	-.004421
Stddev	.0455452	.0007248	.0003250	.0010836	.0010441	.009465	.001846
%RSD	73.88887	17.01138	107.5578	219.1707	646.5730	162.1430	41.76084
#1	.1096326	.0049835	.0001453	.0015653	.0000794	.004713	-.002351
#2	.0190183	.0042638	.0006759	.0005195	.0012442	-.008644	-.005898
#3	.0562697	.0035340	.0000854	-.000602	-.000839	-.013582	-.005013

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB05 Acquired: 5/15/2025 17:56:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001938	-.000180	-.000007
Stddev	.0025720	.001093	.000024
%RSD	1327.028	607.7318	353.7358
#1	-.000201	-.001236	-.000033
#2	.002940	-.000250	.000014
#3	-.002158	.000947	-.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.102	62084.21	16528.85	2537.604	4219.887
Stddev	19.286	247.30	26.46	21.791	21.256
%RSD	.6771644	.3983340	.1600670	.8587226	.5037163
#1	2825.857	61982.07	16557.43	2532.208	4195.718
#2	2860.128	62366.22	16523.90	2561.586	4228.273
#3	2858.322	61904.34	16505.22	2519.018	4235.672

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2017-08A Acquired: 5/15/2025 18:01:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8971834	2.060701	1.083069	2.144221	.8670311	2.193872	.5290441
Stddev	.0068308	.012137	.003472	.007850	.0002604	.004373	.0003504
%RSD	.7613637	.5889664	.3205923	.3661096	.0300375	.1993349	.0662246
#1	.8924274	2.066094	1.085990	2.142054	.8667554	2.188902	.5293669
#2	.8941120	2.046803	1.079230	2.137683	.8672730	2.195586	.5286715
#3	.9050108	2.069207	1.083987	2.152928	.8670649	2.197130	.5290939

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2190991	.2266754	9.504519	.4599743	.2227714	.3293925	3.282685
Stddev	.0008119	.0006894	.027114	.0028452	.0009237	.0013752	.044648
%RSD	.3705392	.3041467	.2852697	.6185581	.4146311	.4174898	1.360093
#1	.2191989	.2266057	9.487474	.4574388	.2233991	.3298681	3.237076
#2	.2182419	.2260235	9.490297	.4630514	.2217108	.3278426	3.326305
#3	.2198564	.2273970	9.535784	.4594328	.2232045	.3304667	3.284676

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2369568	3.374510	.5554223	.0829780	467.8895	.3235695	.3029801
Stddev	.0013216	.017742	.0020174	.0007538	6.1808	.0037509	.0010699
%RSD	.5577366	.5257670	.3632253	.9084606	1.320991	1.159225	.3531161
#1	.2374850	3.373412	.5552934	.0821232	461.6711	.3202631	.3017465
#2	.2354528	3.392776	.5534723	.0835477	474.0319	.3276455	.3036545
#3	.2379326	3.357343	.5575010	.0832631	467.9654	.3227999	.3035393

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.36507	.3500019	.4675354	.7994084	.2210947	1.381588	7.279261
Stddev	.19598	.0006100	.0019278	.0036624	.0012304	.018913	.016655
%RSD	1.584930	.1742895	.4123388	.4581384	.5565235	1.368919	.2288045
#1	12.16494	.3500617	.4683916	.8007802	.2198950	1.382914	7.280636
#2	12.55661	.3493642	.4653278	.7952581	.2223537	1.399803	7.261960
#3	12.37368	.3505798	.4688868	.8021868	.2210355	1.362047	7.295186

Sample Name: Q2017-08A Acquired: 5/15/2025 18:01:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4289941	.2260670	.2701786
Stddev	.0086337	.0013513	.0003785
%RSD	2.012535	.5977531	.1401023
#1	.4376523	.2259874	.2698799
#2	.4203852	.2247572	.2700515
#3	.4289447	.2274564	.2706043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.529	58227.63	16320.21	2401.470	3584.252
Stddev	12.876	341.34	72.48	2.396	12.579
%RSD	.4887329	.5862189	.4441345	.0997826	.3509540
#1	2620.795	58533.08	16251.59	2403.111	3570.418
#2	2636.466	57859.18	16396.03	2398.720	3587.336
#3	2646.327	58290.64	16313.01	2402.580	3595.002

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02 Acquired: 5/15/2025 18:05:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004065	-.003145	.0035462	.0056580	.0037347	.0905930	.0207226
Stddev	.003110	.003073	.0004276	.0040521	.0010862	.0028514	.0002327
%RSD	76.49523	97.70535	12.05866	71.61729	29.08340	3.147465	1.123118
#1	-.004286	.000304	.0040262	.0073677	.0024959	.0897997	.0209639
#2	-.007058	-.005592	.0032060	.0085749	.0045239	.0937570	.0204995
#3	-.000851	-.004148	.0034063	.0010312	.0041843	.0882222	.0207045

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000714	.0002798	29.01400	.0008722	.0002867	.1802390	.7934721
Stddev	.0000347	.0000330	.10184	.0004729	.0001158	.0003051	.0061418
%RSD	48.66137	11.78350	.3510114	54.21889	40.39381	.1692551	.7740365
#1	.0000742	.0002872	28.99059	.0013872	.0001760	.1802191	.7889856
#2	.0000354	.0002437	28.92591	.0004574	.0004070	.1799443	.8004719
#3	.0001047	.0003084	29.12551	.0007721	.0002770	.1805535	.7909589

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0573560	6.312466	.0034038	.0001687	1093.496	.0003272	.4624830
Stddev	.0006007	.038259	.0003128	.0004511	1.255	.0018446	.0020026
%RSD	1.047338	.6060900	9.188600	267.4598	.1147877	563.7512	.4330191
#1	.0566937	6.295968	.0037556	.0006397	1093.109	.0007768	.4611363
#2	.0578656	6.285224	.0031571	-.000260	1094.899	.0019054	.4647843
#3	.0575088	6.356206	.0032988	.000126	1092.480	-.001701	.4615283

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.579703	.0271080	.0016412	-.000967	.0021897	3.509574	5.491225
Stddev	.029988	.0003097	.0001223	.001525	.0006342	.021132	.022063
%RSD	.8377198	1.142360	7.452331	157.7093	28.96342	.6021350	.4017804
#1	3.604119	.0267536	.0015093	.000582	.0015083	3.489896	5.466222
#2	3.588759	.0272442	.0016634	-.001016	.0022981	3.506918	5.507956
#3	3.546231	.0273262	.0017508	-.002468	.0027628	3.531909	5.499498

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02 Acquired: 5/15/2025 18:05:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	14.00291	-.001035	.1502941
Stddev	.04260	.000492	.0001566
%RSD	.3042373	47.59624	.1041986
#1	13.97317	-.000834	.1502250
#2	13.98385	-.000674	.1504733
#3	14.05172	-.001596	.1501839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2593.858	57252.66	16966.55	2378.265	3430.766
Stddev	9.709	154.92	109.36	2.761	11.333
%RSD	.3743038	.2705940	.6445863	.1161022	.3303474
#1	2583.961	57333.72	16886.58	2380.001	3417.790
#2	2603.368	57350.24	17091.18	2375.081	3438.726
#3	2594.244	57074.02	16921.90	2379.713	3435.783

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02DUP Acquired: 5/15/2025 18:09:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004824	-.003318	.0036076	.0053656	.0018113	.0889695	.0201487
Stddev	.001705	.002482	.0013362	.0027339	.0021245	.0044062	.0000341
%RSD	35.34145	74.78449	37.03974	50.95266	117.2914	4.952514	.1690078
#1	-.006326	-.003844	.0051482	.0051509	.0012734	.0844789	.0201649
#2	-.002971	-.005495	.0029108	.0027454	.0000074	.0891433	.0201716
#3	-.005174	-.000616	.0027637	.0082006	.0041530	.0932863	.0201095

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000618	-.000001	31.15694	.0006498	.0000086	.1893444	.8229601
Stddev	.0000639	.000051	.09149	.0002784	.0002682	.0015636	.0113300
%RSD	103.4168	4421.462	.2936571	42.84581	3112.170	.8257992	1.376738
#1	.0001003	-.000043	31.25326	.0009350	-.000164	.1909148	.8359740
#2	.0000972	-.000017	31.14636	.0003788	-.000128	.1877877	.8176140
#3	-.000012	.000056	31.07119	.0006355	.000318	.1893306	.8152923

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0710209	6.980224	.0020939	-.000216	1125.463	-.000513	.3208531
Stddev	.0003938	.030538	.0005291	.000083	11.000	.001123	.0025021
%RSD	.5544853	.4374925	25.26948	38.24299	.9773544	218.9566	.7798432
#1	.0706604	6.972843	.0016460	-.000194	1129.530	-.000598	.3219506
#2	.0709612	6.954054	.0019579	-.000307	1133.850	-.001591	.3179898
#3	.0714412	7.013777	.0026777	-.000146	1113.008	.000650	.3226190

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.716864	.0286101	.0010680	-.002950	.0017651	3.688144	5.817064
Stddev	.016319	.0005488	.0002136	.000748	.0002623	.023522	.043917
%RSD	.4390570	1.918071	20.00101	25.35957	14.85864	.6377824	.7549679
#1	3.703839	.0282854	.0010437	-.003634	.0018116	3.685603	5.855965
#2	3.711584	.0292437	.0008676	-.003063	.0020009	3.712834	5.769440
#3	3.735170	.0283012	.0012928	-.002151	.0014826	3.665995	5.825788

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02DUP Acquired: 5/15/2025 18:09:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	14.74912	-.002429	.1639090
Stddev	.13453	.001083	.0004072
%RSD	.9121288	44.56617	.2484405
#1	14.84148	-.001919	.1640523
#2	14.59477	-.001696	.1634495
#3	14.81110	-.003673	.1642253

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2596.712	55687.61	15692.27	2325.095	3429.291
Stddev	20.342	77.49	50.89	4.796	29.031
%RSD	.7833850	.1391560	.3243078	.2062723	.8465642
#1	2579.498	55663.34	15723.92	2319.558	3401.301
#2	2619.160	55625.15	15719.34	2327.819	3459.262
#3	2591.477	55774.33	15633.57	2327.909	3427.310

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02LX5 Acquired: 5/15/2025 18:14:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021263	-.001176	.0002298	-.000203	.0020659	.0206757	.0075743
Stddev	.0005915	.001146	.0001305	.002119	.0006223	.0060598	.0016356
%RSD	27.81593	97.44169	56.79556	1043.305	30.12319	29.30877	21.59375
#1	.0016593	-.002217	.0003542	-.002288	.0013480	.0231826	.0060596
#2	.0019283	-.001364	.0002414	-.000270	.0023966	.0137648	.0073547
#3	.0027914	.000052	.0000939	.001948	.0024530	.0250799	.0093086

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000740	-.000049	5.746633	-.000045	.0002020	.0349171	.1385706
Stddev	.0000292	.000063	.044410	.000184	.0001273	.0004834	.0090646
%RSD	39.48697	129.1649	.7728042	407.5890	63.01660	1.384519	6.541510
#1	.0000972	-.000009	5.746475	-.000004	.0003372	.0344355	.1403458
#2	.0000836	-.000121	5.702302	.000115	.0001844	.0354023	.1466163
#3	.0000412	-.000016	5.791122	-.000247	.0000845	.0349134	.1287497

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112084	1.245881	.0004234	.0001791	192.0163	-.001129	.1137427
Stddev	.0000923	.023703	.0003802	.0005191	2.3905	.001495	.0013112
%RSD	.8232804	1.902470	89.80303	289.7743	1.244964	132.3879	1.152822
#1	.0112944	1.255185	-.000016	-.000054	190.5013	.000142	.1132838
#2	.0111109	1.218938	.000650	.000774	194.7721	-.000753	.1152217
#3	.0112198	1.263520	.000635	-.000182	190.7756	-.002776	.1127226

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7231820	.0056408	.0002842	.0027692	.0007289	.6014577	.9655660
Stddev	.0354891	.0004242	.0002283	.0009961	.0012906	.0076822	.0009096
%RSD	4.907360	7.519442	80.34782	35.97295	177.0521	1.277273	.0942049
#1	.7466276	.0061265	.0001305	.0016205	.0013338	.6075174	.9660974
#2	.7405661	.0054522	.0001755	.0033961	-.000753	.5928174	.9645157
#3	.6823524	.0053436	.0005466	.0032909	.001606	.6040383	.9660850

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02LX5 Acquired: 5/15/2025 18:14:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.444341	.0030864	.0288043
Stddev	.008287	.0015619	.0002899
%RSD	.3390132	50.60495	1.006606
#1	2.446363	.0019971	.0289499
#2	2.451430	.0048759	.0284704
#3	2.435231	.0023864	.0289926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.208	63131.25	16978.61	2608.606	3902.862
Stddev	3.945	517.83	153.82	13.001	3.160
%RSD	.1398217	.8202472	.9059893	.4983786	.0809742
#1	2818.018	63362.15	17014.21	2610.060	3900.030
#2	2819.988	62538.13	17111.51	2594.939	3902.285
#3	2825.619	63493.45	16810.11	2620.818	3906.271

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02MS Acquired: 5/15/2025 18:18:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9388993	2.061232	1.126157	2.194356	.8949522	2.341295	.2290308
Stddev	.0068112	.014375	.000938	.010044	.0022284	.010142	.0013166
%RSD	.7254477	.6973893	.0832707	.4577079	.2489911	.4331976	.5748589
#1	.9382165	2.046985	1.125896	2.193583	.8974781	2.336709	.2285391
#2	.9324552	2.075731	1.125377	2.184721	.8932643	2.334255	.2280308
#3	.9460263	2.060979	1.127197	2.204764	.8941143	2.352920	.2305225

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2283245	.2367336	32.96709	.4796319	.2310834	.5078194	4.673318
Stddev	.0006821	.0004980	.03594	.0031535	.0004502	.0015702	.022879
%RSD	.2987364	.2103692	.1090148	.6574823	.1948379	.3092050	.4895652
#1	.2275463	.2362587	32.92629	.4760238	.2305667	.5078372	4.651291
#2	.2288186	.2366903	32.98094	.4818611	.2313917	.5062403	4.671699
#3	.2286087	.2372519	32.99404	.4810108	.2312919	.5093806	4.696963

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2881631	9.115471	.5676269	.0419350	1166.230	.3361382	.7125426
Stddev	.0004530	.021686	.0009584	.0005801	1.815	.0002086	.0018848
%RSD	.1571912	.2379044	.1688497	1.383226	.1555963	.0620428	.2645157
#1	.2876447	9.090611	.5669312	.0425524	1164.475	.3363790	.7132217
#2	.2884822	9.125298	.5672293	.0414014	1168.099	.3360157	.7104124
#3	.2883626	9.130504	.5687201	.0418511	1166.117	.3360199	.7139937

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.99107	.3360995	.4649170	.8212648	.2282145	4.867750	13.65120
Stddev	.02473	.0009535	.0003680	.0013960	.0011625	.009364	.02956
%RSD	.1455496	.2836960	.0791602	.1699799	.5093891	.1923662	.2165737
#1	17.01408	.3365118	.4653024	.8226333	.2293129	4.857765	13.61832
#2	16.96492	.3367775	.4645693	.8198429	.2269970	4.869149	13.65966
#3	16.99420	.3350093	.4648792	.8213183	.2283335	4.876335	13.67561

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02MS Acquired: 5/15/2025 18:18:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	15.02107	.2423409	.3877134
Stddev	.04471	.0004660	.0003173
%RSD	.2976710	.1922917	.0818410
#1	14.96958	.2424832	.3875329
#2	15.04355	.2427191	.3875276
#3	15.05009	.2418203	.3880798

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2589.199	55604.37	16226.71	2329.524	3391.332
Stddev	5.442	67.16	17.99	4.496	3.125
%RSD	.2101922	.1207908	.1108838	.1930192	.0921477
#1	2583.040	55681.06	16239.15	2324.335	3388.670
#2	2593.361	55555.97	16206.08	2332.266	3394.773
#3	2591.194	55576.09	16234.89	2331.972	3390.553

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02MSD Acquired: 5/15/2025 18:22:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8895435	1.953385	1.057064	2.065055	.8438553	2.201399	.2080684
Stddev	.0032835	.016783	.004263	.000570	.0020463	.005172	.0015590
%RSD	.3691173	.8591555	.4033257	.0276006	.2424995	.2349638	.7492757
#1	.8868179	1.971216	1.056426	2.065625	.8422404	2.207352	.2090608
#2	.8931887	1.951044	1.053155	2.064485	.8431689	2.198839	.2088730
#3	.8886238	1.937896	1.061610	2.065055	.8461566	2.198006	.2062715

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2208998	.2223011	31.47293	.4440972	.2174613	.4853195	4.018296
Stddev	.0006182	.0008495	.18281	.0024288	.0005538	.0008681	.027033
%RSD	.2798369	.3821284	.5808580	.5468973	.2546628	.1788727	.6727572
#1	.2213545	.2228576	31.47594	.4436200	.2177001	.4843660	4.006746
#2	.2211490	.2213233	31.65422	.4467291	.2168281	.4855281	4.049185
#3	.2201960	.2227224	31.28863	.4419425	.2178556	.4860642	3.998956

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2678950	8.794594	.5343448	.0513756	1099.065	.3108338	.5497376
Stddev	.0022992	.056867	.0022866	.0005975	7.473	.0016533	.0019631
%RSD	.8582608	.6466098	.4279166	1.163108	.6799092	.5318838	.3570877
#1	.2663154	8.747575	.5333877	.0517949	1107.466	.3104885	.5475742
#2	.2705328	8.857800	.5326922	.0516406	1093.160	.3126325	.5514053
#3	.2668367	8.778408	.5369543	.0506914	1096.568	.3093805	.5502331

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.31380	.3277878	.4424646	.7692676	.2095547	4.542449	13.02918
Stddev	.09952	.0020116	.0003997	.0005139	.0013754	.041235	.00983
%RSD	.6498813	.6136911	.0903256	.0667989	.6563290	.9077646	.0754317
#1	15.28291	.3300370	.4422394	.7687878	.2081444	4.512565	13.01784
#2	15.42510	.3271654	.4422283	.7698098	.2108923	4.589493	13.03540
#3	15.23339	.3261609	.4429261	.7692051	.2096275	4.525289	13.03428

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02MSD Acquired: 5/15/2025 18:22:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	14.70770	.2257800	.3708150
Stddev	.04492	.0018186	.0015022
%RSD	.3054179	.8054738	.4051095
#1	14.70089	.2264013	.3704930
#2	14.66657	.2272066	.3724522
#3	14.75564	.2237322	.3695000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2596.664	56522.75	15816.05	2368.166	3409.404
Stddev	6.823	262.89	32.15	6.642	8.153
%RSD	.2627773	.4651050	.2032790	.2804606	.2391431
#1	2604.355	56691.25	15825.78	2372.467	3417.909
#2	2594.302	56219.83	15780.16	2360.517	3408.646
#3	2591.336	56657.17	15842.21	2371.515	3401.655

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02A Acquired: 5/15/2025 18:27:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7996861	1.775687	.9656615	1.859399	.7636593	1.972799	.1892985
Stddev	.0041756	.005645	.0056477	.001574	.0029201	.014657	.0021808
%RSD	.5221501	.3179303	.5848546	.0846747	.3823858	.7429325	1.152038
#1	.7958243	1.778370	.9721657	1.860114	.7602961	1.981792	.1910856
#2	.8041170	1.779490	.9619995	1.860489	.7651327	1.980718	.1899414
#3	.7991169	1.769200	.9628192	1.857594	.7655492	1.955886	.1868686

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2020552	.2029357	29.97114	.3997063	.1973202	.4470900	3.564744
Stddev	.0005596	.0012798	.18030	.0012626	.0002995	.0006371	.031074
%RSD	.2769441	.6306309	.6015878	.3158795	.1517685	.1424980	.8717130
#1	.2026771	.2044023	30.05935	.3997751	.1975833	.4467309	3.573261
#2	.2015922	.2020451	30.09035	.3984107	.1969943	.4478256	3.590672
#3	.2018965	.2023598	29.76371	.4009331	.1973830	.4467135	3.530299

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2484775	8.318615	.4869155	.0530497	1049.746	.2805720	.5167748
Stddev	.0016123	.062574	.0021747	.0007942	1.907	.0047236	.0033050
%RSD	.6488601	.7522136	.4466242	1.497046	.1816223	1.683542	.6395508
#1	.2486817	8.364225	.4889489	.0528416	1051.660	.2848874	.5129635
#2	.2499779	8.344341	.4846228	.0539272	1049.732	.2813031	.5185099
#3	.2467728	8.247279	.4871749	.0523803	1047.847	.2755256	.5188509

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.97466	.3025679	.3999320	.7133238	.1900353	4.286607	12.06381
Stddev	.10522	.0001317	.0004775	.0034157	.0011549	.024611	.02376
%RSD	.7529444	.0435139	.1193961	.4788377	.6077239	.5741309	.1969564
#1	14.05751	.3027196	.4001344	.7171861	.1902332	4.265445	12.08834
#2	14.01019	.3024827	.3993867	.7107009	.1910784	4.313614	12.06218
#3	13.85627	.3025014	.4002750	.7120844	.1887942	4.280764	12.04090

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2006-02A Acquired: 5/15/2025 18:27:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	13.96521	.2021436	.3414366
Stddev	.02086	.0009149	.0025565
%RSD	.1493573	.4526218	.7487462
#1	13.98066	.2023119	.3423650
#2	13.94149	.2029626	.3433993
#3	13.97350	.2011561	.3385457

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.742	57431.17	16130.24	2414.700	3546.343
Stddev	30.275	54.72	68.05	7.486	28.185
%RSD	1.117249	.0952712	.4218925	.3100328	.7947669
#1	2743.817	57376.50	16058.76	2420.339	3575.342
#2	2699.466	57431.07	16137.72	2406.207	3544.640
#3	2685.943	57485.93	16194.25	2417.556	3519.049

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2026-01 Acquired: 5/15/2025 18:31:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079377	-.002955	.2570643	-.002642	.0078989	16.93147
Stddev	.0023889	.002271	.0019248	.003452	.0012389	.10538
%RSD	30.09628	76.84843	.7487664	130.6496	15.68488	.6224001
#1	.0098191	-.003386	.2562076	-.001686	.0079931	16.86709
#2	.0087440	-.000500	.2557166	-.006471	.0066155	17.05308
#3	.0052499	-.004981	.2592687	.000231	.0090880	16.87424

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3397482	.0013373	.0008197	161.9059	.0590563	.0164409
Stddev	.0030289	.0000382	.0002121	.9785	.0005929	.0005537
%RSD	.8915206	2.857732	25.87571	.6043873	1.003913	3.368032
#1	.3370386	.0013396	.0009812	160.9163	.0587689	.0159182
#2	.3430182	.0012979	.0005795	162.8729	.0597381	.0163833
#3	.3391879	.0013743	.0008983	161.9286	.0586620	.0170212

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2309818	42.17613	.7956658	29.94275	.0439758	.0023442
Stddev	.0018465	.47857	.0039598	.19765	.0002115	.0003073
%RSD	.7994264	1.134685	.4976729	.6601074	.4810241	13.10799
#1	.2308920	41.77296	.7916971	29.71955	.0439191	.0025080
#2	.2291818	42.70500	.7996166	30.09561	.0437985	.0019898
#3	.2328716	42.05044	.7956837	30.01310	.0442099	.0025349

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.22369	.0439534	1.888332	17.30846	.0905371	.0300413
Stddev	.52928	.0009157	.011898	.25762	.0000386	.0003887
%RSD	1.253521	2.083403	.6300922	1.488382	.0426326	1.293754
#1	41.88959	.0429051	1.882876	17.12832	.0905253	.0297321
#2	42.83394	.0445973	1.901979	17.60354	.0905803	.0304776
#3	41.94755	.0443577	1.880139	17.19353	.0905058	.0299143

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2026-01 Acquired: 5/15/2025 18:31:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002055	.7268409	F 29.83430	6.632152	9.072090	.0171164
Stddev	.001226	.0065372	.37020	.037879	.045001	.0007113
%RSD	59.67722	.8993982	1.240842	.5711492	.4960365	4.155675
#1	-.000838	.7194190	29.55374	6.620998	9.063383	.0169035
#2	-.002036	.7317443	30.25388	6.601102	9.032079	.0179099
#3	-.003290	.7293594	29.69529	6.674357	9.120808	.0165359

Elem	Sr4077
Units	ppm
Avg	.4054772
Stddev	.0023167
%RSD	.5713543
#1	.4036170
#2	.4080722
#3	.4047424

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2841.598	64715.35	17181.41	2624.520	3911.188
Stddev	5.981	537.35	55.15	12.912	14.377
%RSD	.2104876	.8303290	.3210104	.4919740	.3675758
#1	2845.087	64974.41	17197.60	2634.183	3919.686
#2	2845.016	64097.55	17119.97	2609.855	3919.288
#3	2834.692	65074.11	17226.65	2629.521	3894.589

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2026-02 Acquired: 5/15/2025 18:35:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103543	-.001705	.2516688	-.004808	.0089388	16.29058
Stddev	.0004842	.000862	.0019530	.004515	.0012701	.04852
%RSD	4.675928	50.59371	.7760020	93.91300	14.20889	.2978118
#1	.0103020	-.001737	.2539163	-.003673	.0092570	16.34346
#2	.0108624	-.000826	.2503844	-.009783	.0100196	16.28016
#3	.0098984	-.002550	.2507058	-.000969	.0075399	16.24813

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3448232	.0011444	-.000030	162.2895	.0578653	.0162304
Stddev	.0018001	.0000659	.000043	.7505	.0006362	.0001471
%RSD	.5220263	5.754272	143.6593	.4624536	1.099477	.9060226
#1	.3468860	.0011937	-.000008	163.1525	.0582073	.0160619
#2	.3435706	.0010696	-.000079	161.7899	.0582573	.0162962
#3	.3440130	.0011698	-.000003	161.9261	.0571312	.0163330

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2309833	45.32063	.7859520	29.42602	.0429443	.0022575
Stddev	.0013113	.31956	.0024657	.13474	.0001390	.0002252
%RSD	.5676993	.7050984	.3137187	.4578894	.3237883	9.973418
#1	.2302261	45.32444	.7887985	29.50967	.0430816	.0022431
#2	.2302264	45.63826	.7845800	29.27059	.0428035	.0024895
#3	.2324974	44.99918	.7844774	29.49780	.0429478	.0020399

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.72746	.0426860	1.897343	18.67925	.0914057	.0292023
Stddev	.43912	.0004380	.004213	.16606	.0003402	.0004068
%RSD	.9603053	1.026105	.2220418	.8890218	.3722056	1.392973
#1	45.71591	.0426200	1.892485	18.68442	.0916898	.0296312
#2	46.17225	.0422848	1.899545	18.84266	.0910287	.0288221
#3	45.29423	.0431533	1.899999	18.51066	.0914988	.0291535

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: Q2026-02 Acquired: 5/15/2025 18:35:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003760	.7092876	F 31.54717	6.724748	9.224330	.0175749
Stddev	.001172	.0022074	.23130	.013692	.029421	.0007036
%RSD	31.18648	.3112198	.7331772	.2036007	.3189482	4.003459
#1	-.004216	.7116748	31.52282	6.734142	9.206396	.0180863
#2	-.002428	.7073201	31.78967	6.709038	9.208309	.0178658
#3	-.004635	.7088678	31.32900	6.731063	9.258284	.0167725

Elem	Sr4077
Units	ppm
Avg	.3964777
Stddev	.0012671
%RSD	.3195796
#1	.3978834
#2	.3961259
#3	.3954236

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2804.528	62808.30	18131.97	2555.756	3853.220
Stddev	12.224	286.41	134.14	9.223	9.312
%RSD	.4358641	.4560050	.7397754	.3608848	.2416620
#1	2797.757	62662.09	18007.55	2563.025	3842.987
#2	2818.639	62624.50	18274.07	2545.380	3861.196
#3	2797.187	63138.30	18114.30	2558.861	3855.476

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV06 Acquired: 5/15/2025 18:47:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.791698	4.850202	4.936388	4.641764	4.679689	9.835413	9.275267
Stddev	.011904	.033887	.006601	.010398	.012650	.010453	.019173
%RSD	.2484219	.6986790	.1337212	.2240180	.2703251	.1062840	.2067091
#1	4.800863	4.855168	4.933397	4.652595	4.688855	9.824349	9.255828
#2	4.778244	4.814106	4.931812	4.640838	4.684955	9.845124	9.275811
#3	4.795987	4.881333	4.943955	4.631860	4.665256	9.836765	9.294162

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2624018	2.442773	24.98839	1.026560	2.463997	1.210530	4.785595
Stddev	.0012269	.002416	.07025	.005680	.002629	.004010	.025275
%RSD	.4675487	.0988944	.2811405	.5533507	.1066902	.3312701	.5281413
#1	.2612839	2.441930	24.92096	1.029054	2.466565	1.214550	4.781352
#2	.2622071	2.440891	24.98304	1.020059	2.461311	1.210512	4.762710
#3	.2637143	2.445497	25.06116	1.030566	2.464116	1.206529	4.812723

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.445197	24.63047	2.431544	1.233104	23.23289	2.425477	2.480878
Stddev	.004316	.07950	.002974	.006371	.06237	.001983	.010257
%RSD	.1765266	.3227860	.1223104	.5166718	.2684679	.0817429	.4134556
#1	2.440550	24.54248	2.432061	1.233759	23.30465	2.427568	2.487222
#2	2.449081	24.65180	2.428345	1.226430	23.19164	2.425239	2.469044
#3	2.445961	24.69713	2.434225	1.239122	23.20239	2.423624	2.486368

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15544	5.072246	4.907155	4.899602	4.794978	4.742988	4.981797
Stddev	.04929	.032028	.017297	.004269	.005312	.024909	.016776
%RSD	.2128826	.6314281	.3524945	.0871337	.1107815	.5251695	.3367372
#1	23.20232	5.048472	4.926118	4.901069	4.792428	4.721438	4.967193
#2	23.10404	5.059600	4.892241	4.894792	4.791422	4.737266	4.978079
#3	23.15997	5.108666	4.903106	4.902943	4.801084	4.770260	5.000120

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCV06 Acquired: 5/15/2025 18:47:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.727444	4.734320	4.836056
Stddev	.008926	.001532	.013853
%RSD	.1888089	.0323560	.2864433
#1	4.726980	4.736087	4.820356
#2	4.718760	4.733498	4.841252
#3	4.736593	4.733374	4.846559

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2829.537	61071.81	16347.39	2533.495	3937.220
Stddev	9.156	197.28	38.75	8.388	1.392
%RSD	.3235699	.3230256	.2370434	.3310769	.0353586
#1	2819.545	60926.18	16358.85	2525.161	3935.882
#2	2831.544	61296.33	16379.12	2541.936	3938.661
#3	2837.523	60992.94	16304.20	2533.387	3937.119

Reviewed By:jaswal
On:5/16/2025 2:34:16 PM
Inst Id :P4
LB :LB135794

Sample Name: CCB06 Acquired: 5/15/2025 18:52:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013116	.0027760	.0015784	-.000817	-.001646	.0081190
Stddev	.0011864	.0004355	.0001942	.000945	.000768	.0064631
%RSD	90.45960	15.68888	12.30346	115.6781	46.68153	79.60429
#1	.0007811	.0029210	.0017558	-.001757	-.002236	.0110169
#2	.0004829	.0022865	.0016084	-.000828	-.001923	.0126260
#3	.0026707	.0031205	.0013709	.000133	-.000777	.0007141

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083447	.0002916	.0000666	-.014645	-.000967	-.000063
Stddev	.0123590	.0001467	.0000253	.006130	.000205	.000050
%RSD	148.1067	50.31516	37.89227	41.85557	21.15808	78.49877
#1	.0212388	.0004496	.0000570	-.019570	-.001200	-.000063
#2	.0071940	.0002654	.0000476	-.016584	-.000820	-.000014
#3	-.003399	.0001597	.0000953	-.007780	-.000879	-.000114

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003138	-.000355	-.000201	-.018662	.0001120	.0008060
Stddev	.0001820	.006431	.001123	.005322	.0000945	.0010521
%RSD	57.99455	1813.450	558.2883	28.51632	84.33428	130.5369
#1	.0004754	.006589	.001090	-.024664	.0001857	.0001628
#2	.0001167	-.001549	-.000740	-.016799	.0000055	.0002350
#3	.0003492	-.006104	-.000954	-.014522	.0001448	.0020200

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.314423	.0021414	-.000187	-.049796	.0145107	.0002181
Stddev	.043798	.0022335	.000253	.006105	.0052205	.0001670
%RSD	13.92962	104.3036	134.9742	12.26055	35.97691	76.58949
#1	-.264555	.0000422	-.000098	-.043902	.0196582	.0003741
#2	-.332064	.0044885	-.000473	-.056092	.0146540	.0002382
#3	-.346649	.0018934	.000009	-.049394	.0092201	.0000419

Sample Name: CCB06 Acquired: 5/15/2025 18:52:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002934	.0031799	-.031917	F -.013759	-.005678	-.002476
Stddev	.000594	.0006992	.003102	.001653	.001003	.002086
%RSD	20.26023	21.98804	9.720060	12.01248	17.66626	84.23524
#1	-.002388	.0039867	-.032387	-.012029	-.004521	-.000802
#2	-.003568	.0027506	-.028607	-.015322	-.006212	-.004813
#3	-.002847	.0028023	-.034759	-.013926	-.006301	-.001814

Elem	Sr4077
Units	ppm
Avg	.0005433
Stddev	.0001996
%RSD	36.72966
#1	.0006787
#2	.0006371
#3	.0003142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6052.121	138910.3	15543.44	5341.373	9135.967
Stddev	290.714	14243.4	4761.16	1061.449	408.737
%RSD	4.803509	10.25368	30.63134	19.87222	4.473927
#1	6252.753	122775.7	11628.99	5431.134	9464.675
#2	6184.883	144215.2	14157.54	6355.090	9264.920
#3	5718.728	149740.0	20843.79	4237.893	8678.307

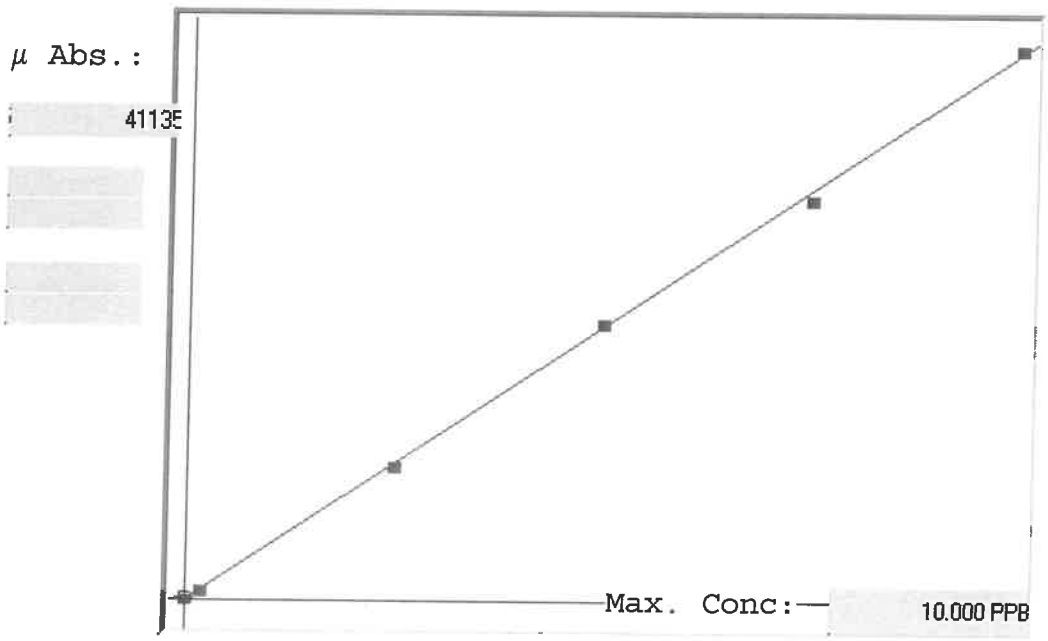
Reviewed By:jaswal
On:5/15/2025 1:45:56 PM
Inst Id :CV1
LB :LB135763

LB135763

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.4518e-004

C= 1.9495e-003

Rho= 0.9997109

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.048	0.048	187	0.000	187	0			
0.2	0.200	0.180	-0.020	725	0.0 %	725				
2.5	2.500	2.468	-0.032	10059	0.0 %	10059				
5.0	5.000	5.086	0.086	20735	0.0 %	20735				
7.5	7.500	7.331	-0.169	29893	0.0 %	29893				
10.0	10.000	10.087	0.087	41135	0.0 %	41135				

%D
—
-10
-1
2
-2
1

Reviewed By:jaswal
On:5/15/2025 1:45:56 PM
Inst Id :CV1
LB :LB135763

LB135763 INSTRUMENT IDDDDDD : CV1

Method: 7470A Operator: Admin Date of Analysis: 14 May 2025 11:18:17

Sample ID	Extended ID	µ Abs	Conc	Strnd Conc	Method	Units	Date	Type	Type
0.0 - 1	S0	187	-	0.0000	7470A	PPB	14 May 2025 11:27:45	S	Std
0.2 - 1	S0.2	725	-	0.2000	7470A	PPB	14 May 2025 11:30:02	S	Std
2.5 - 1	S2.5	10059	-	2.5000	7470A	PPB	14 May 2025 11:32:19	S	Std
5.0 - 1	S5	20735	-	5.0000	7470A	PPB	14 May 2025 11:34:36	S	Std
7.5 - 1	S7.5	29893	-	7.5000	7470A	PPB	14 May 2025 11:36:54	S	Std
10.0 - 1	S10	41135	-	10.0000	7470A	PPB	14 May 2025 11:39:12	S	Std
ICV08 - 1	ICV08	15099	3.7039		7470A	PPB	14 May 2025 11:42:26	U	SMPL
ICB08 - 1	ICB08	-412	-0.0991		7470A	PPB	14 May 2025 11:44:41	U	SMPL
CCV22 - 1	CCV22	20283	4.9749		7470A	PPB	14 May 2025 11:46:59	U	SMPL
CCB22 - 1	CCB22	-88	-0.0196		7470A	PPB	14 May 2025 11:51:58	U	SMPL
CRA - 1	CRA	715	0.1773		7470A	PPB	14 May 2025 11:54:13	U	SMPL
HighStd - 1	HighStd	42086	10.3206		7470A	PPB	14 May 2025 11:56:28	U	SMPL
ChkStd - 1	ChkStd	28629	7.0212		7470A	PPB	14 May 2025 11:58:44	U	SMPL
PB167978BL - 1	PBW	122	0.0319		7470A	PPB	14 May 2025 12:03:42	U	SMPL
PB167978BS - 1	LCSW	15053	3.6926		7470A	PPB	14 May 2025 12:05:57	U	SMPL
Q1984-02 - 1	OU4-PCS-TC-33-050725	1077	0.2660		7470A	PPB	14 May 2025 12:08:14	U	SMPL
Q1984-04 - 1	OU4-PCS-TC-34-050725	72	0.0196		7470A	PPB	14 May 2025 12:10:32	U	SMPL
Q1984-06 - 1	OU4-PCS-TC-35-050725	208	0.0529		7470A	PPB	14 May 2025 12:12:52	U	SMPL
Q1984-08 - 1	OU4-TS-24-050725	-78	-0.0172		7470A	PPB	14 May 2025 12:15:10	U	SMPL
Q1984-10 - 1	OU4-TS-25-050725	12	0.0049		7470A	PPB	14 May 2025 12:17:26	U	SMPL
CCV23 - 1	CCV23	22186	5.4415		7470A	PPB	14 May 2025 12:24:36	U	SMPL
CCB23 - 1	CCB23	-370	-0.0888		7470A	PPB	14 May 2025 12:26:51	U	SMPL
Q1984-12 - 1	OU4-TS-26-050725	-30	-0.0054		7470A	PPB	14 May 2025 12:29:09	U	SMPL
Q1984-14 - 1	OU4-TS-27-050725	-20	-0.0030		7470A	PPB	14 May 2025 12:31:24	U	SMPL
Q1984-16 - 1	OU4-TS-28-050725	78	0.0211		7470A	PPB	14 May 2025 12:33:40	U	SMPL
Q1984-16DUP - 1	OU4-TS-28-050725DUP	5	0.0032		7470A	PPB	14 May 2025 12:35:56	U	SMPL
Q1984-16MS - 1	OU4-TS-28-050725MS	15325	3.7593		7470A	PPB	14 May 2025 12:38:12	U	SMPL
Q1984-16MSD - 1	OU4-TS-28-050725MSD	13098	3.2133		7470A	PPB	14 May 2025 12:40:29	U	SMPL
PB167979BL - 1	PBW	-220	-0.0520		7470A	PPB	14 May 2025 12:42:47	U	SMPL
PB167979BS - 1	LCSW	18371	4.5061		7470A	PPB	14 May 2025 12:45:06	U	SMPL
Q2001-03 - 1	WC-A4-03-C	-291	-0.0694		7470A	PPB	14 May 2025 12:47:24	U	SMPL
Q2001-07 - 1	WC-A1-05-C	-29	-0.0052		7470A	PPB	14 May 2025 12:49:42	U	SMPL
CCV24 - 1	CCV24	22434	5.5023		7470A	PPB	14 May 2025 12:51:58	U	SMPL
CCB24 - 1	CCB24	-345	-0.0826		7470A	PPB	14 May 2025 12:54:13	U	SMPL
Q2001-11 - 1	WC-A1-06-C	-40	-0.0079		7470A	PPB	14 May 2025 12:56:32	U	SMPL
Q2001-15 - 1	WC-A1-07-C	-24	-0.0039		7470A	PPB	14 May 2025 12:58:47	U	SMPL
Q2004-02 - 1	VNJ-220	44	0.0127		7470A	PPB	14 May 2025 13:01:03	U	SMPL
Q2004-04 - 1	2811	37	0.0110		7470A	PPB	14 May 2025 13:03:19	U	SMPL
Q2004-06 - 1	R0202	27	0.0086		7470A	PPB	14 May 2025 13:05:35	U	SMPL
Q2004-08 - 1	205510	73	0.0198		7470A	PPB	14 May 2025 13:07:51	U	SMPL
Q2004-10 - 1	SOIL-STOCK	91	0.0243		7470A	PPB	14 May 2025 13:10:07	U	SMPL
Q2004-12 - 1	STONE-STOCK	64	0.0176		7470A	PPB	14 May 2025 13:12:24	U	SMPL
Q2007-06 - 1	OR-636-COMP-10	137	0.0355		7470A	PPB	14 May 2025 13:14:42	U	SMPL
Q2007-12 - 1	OR-636-COMP-11	104	0.0274		7470A	PPB	14 May 2025 13:16:57	U	SMPL
CCV25 - 1	CCV25	19664	4.8232		7470A	PPB	14 May 2025 13:28:16	U	SMPL
CCB25 - 1	CCB25	-320	-0.0765		7470A	PPB	14 May 2025 13:30:32	U	SMPL
Q2007-18 - 1	OR-636-COMP-12	20	0.0069		7470A	PPB	14 May 2025 13:32:49	U	SMPL
Q2007-24 - 1	OR-636-COMP-13	14	0.0054		7470A	PPB	14 May 2025 13:35:05	U	SMPL
Q2007-30 - 1	OR-636-COMP-14	86	0.0230		7470A	PPB	14 May 2025 13:37:21	U	SMPL
Q2007-36 - 1	OR-636-COMP-15	114	0.0299		7470A	PPB	14 May 2025 13:39:37	U	SMPL
Q2007-36DUP - 1	OR-636-COMP-15DUP	63	0.0174		7470A	PPB	14 May 2025 13:41:56	U	SMPL
Q2007-36MS - 1	OR-636-COMP-15MS	14681	3.6014		7470A	PPB	14 May 2025 13:44:14	U	SMPL
Q2007-36MSD - 1	OR-636-COMP-15MSD	13236	3.2471		7470A	PPB	14 May 2025 13:46:30	U	SMPL
Q2017-04 - 1	MH-I	-206	-0.0486		7470A	PPB	14 May 2025 13:48:49	U	SMPL
Q2017-08 - 1	MH-J	5	0.0032		7470A	PPB	14 May 2025 13:51:08	U	SMPL
PB167980BL - 1	PBW	2	0.0024		7470A	PPB	14 May 2025 13:53:24	U	SMPL
CCV26 - 1	CCV26	20973	5.1441		7470A	PPB	14 May 2025 13:55:40	U	SMPL
CCB26 - 1	CCB26	-324	-0.0775		7470A	PPB	14 May 2025 13:57:56	U	SMPL
PB167980BS - 1	LCSW	15143	3.7147		7470A	PPB	14 May 2025 14:00:14	U	SMPL
Q1970-02 - 1	TRE-25-0057	1657	0.4082		7470A	PPB	14 May 2025 14:02:30	U	SMPL
Q1980-01 - 1	3834	-172	-0.0402		7470A	PPB	14 May 2025 14:04:47	U	SMPL
Q1980-02 - 1	3832	215	0.0547		7470A	PPB	14 May 2025 14:07:05	U	SMPL
Q1980-03 - 1	3835	73	0.0198		7470A	PPB	14 May 2025 14:09:21	U	SMPL
Q1985-01 - 1	RW8-BW-20250507	14	0.0054		7470A	PPB	14 May 2025 14:11:38	U	SMPL
Q1992-01 - 1	60453	256	0.0647		7470A	PPB	14 May 2025 14:13:55	U	SMPL
Q2005-01 - 1	252806	2072	0.5100		7470A	PPB	14 May 2025 14:16:12	U	SMPL
Q2008-01 - 1	IDW-AQ-DRUM-633-05092025	326	0.0819		7470A	PPB	14 May 2025 14:18:30	U	SMPL
Q2008-01DUP - 1	IDW-AQ-DRUM-633-05092025DUP	205	0.0522		7470A	PPB	14 May 2025 14:20:46	U	SMPL
CCV27 - 1	CCV27	19215	4.7131		7470A	PPB	14 May 2025 14:23:04	U	SMPL
CCB27 - 1	CCB27	-212	-0.0500		7470A	PPB	14 May 2025 14:25:20	U	SMPL
Q2008-01MS - 1	IDW-AQ-DRUM-633-05092025MS	14528	3.5639		7470A	PPB	14 May 2025 14:27:39	U	SMPL
Q2008-01MSD - 1	IDW-AQ-DRUM-633-05092025MSD	13267	3.2548		7470A	PPB	14 May 2025 14:29:54	U	SMPL
PB167943TB - 1	PB167943TB	-298	-0.0711		7470A	PPB	14 May 2025 14:32:13	U	SMPL
PB167933TB - 1	PB167933TB	-6	0.0005		7470A	PPB	14 May 2025 14:34:31	U	SMPL
PB167963TB - 1	PB167963TB	44	0.0127		7470A	PPB	14 May 2025 14:36:47	U	SMPL
CCV28 - 1	CCV28	19581	4.8028		7470A	PPB	14 May 2025 14:39:04	U	SMPL
CCB28 - 1	CCB28	-220	-0.0520		7470A	PPB	14 May 2025 14:41:20	U	SMPL
Q1984-16LX5 - 1		-19	-0.0027		7470A	PPB	14 May 2025 14:43:38	U	SMPL
Q1984-16A - 1		15805	3.8770		7470A	PPB	14 May 2025 14:45:56	U	SMPL
Q2007-36LX5 - 1		-191	-0.0449		7470A	PPB	14 May 2025 14:48:11	U	SMPL
Q2007-36A - 1		15610	3.8292		7470A	PPB	14 May 2025 14:50:29	U	SMPL
Q2008-01LX5 - 1		-83	-0.0184		7470A	PPB	14 May 2025 14:52:47	U	SMPL
Q2008-01A - 1		15717	3.8554		7470A	PPB	14 May 2025 14:55:04	U	SMPL
CCV29 - 1	CCV29	21014	5.1542		7470A	PPB	14 May 2025 14:57:20	U	SMPL
CCB29 - 1	CCB29	-291	-0.0694		7470A	PPB	14 May 2025 14:59:38	U	SMPL

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167955

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: 05/12/2025 **Time :** 10:15 **Temp :** 96 °C

End Digest Date: 05/12/2025 **Time :** 13:20 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLS.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6005
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#1CELL#50 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05112125 14:20	SLS. met. dig	SG (metals lab)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167955

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167955BL	PBW955	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	33
PB167955BS	LCS955	<2	50	25	Colorless	Colorless	Clear	Clear	M6005,M6016	34
Q1985-01MS	RW8-BW-20250507MS	<2	50	25	Colorless	Colorless	Cloudy	Clear	M6005,M6016	37
Q1985-01MSD	RW8-BW-20250507MSD	<2	50	25	Colorless	Colorless	Cloudy	Clear	M6005,M6016	38
Q1985-01DUP	RW8-BW-20250507DUP	<2	50	25	Colorless	Colorless	Cloudy	Clear	N/A	36
Q1985-01	RW8-BW-20250507	<2	50	25	Colorless	Colorless	Cloudy	Clear	N/A	35
Q1992-01	60453	<2	50	25	Brown	ligh Btrown	Cloudy	Clear	N/A	39
Q2005-01	252806	<2	50	25	Colorless	Colorless	Cloudy	Clear	N/A	40
Q2008-01	IDW-AQ-DRUM-633-050920 25	<2	50	25	Colorless	Colorless	Cloudy	Clear	N/A	41

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB167955 **WorkList ID :** 189446 **Department :** Digestion **Date :** 05-12-2025 09:46:45

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1985-01	RW8-BW-20250507	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	TETR06	L41	05/07/2025	6010D
Q1992-01	60453	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	L41	05/08/2025	6010D
Q2005-01	252806	Water	Metals PSEG Group2	1:1 HNO3 to pH < 2	PSEG03	L41	05/09/2025	6010D
Q2008-01	IDW-AQ-DRUM-633-05092025	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	JACO05	L41	05/09/2025	6010D

421 of 607

Date/Time 05/12/25 10:05
Raw Sample Received by: SLab. met. dig
Raw Sample Relinquished by: CP Csm

Date/Time 05/12/25 11:05
Raw Sample Received by: CP Csm
Raw Sample Relinquished by: SLab. met. dig

Q1985-METALS

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167980

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 05/13/2025 **Time :** 14:20 **Temp :** 94 °C

End Digest Date: 05/13/2025 **Time :** 16:20 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature:

Supervisor Signature:

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85654
CCV	30mL	MP85656
CRA	30mL	MP85658
Blank Spike	0.48mL	MP85647
Matrix Spike	0.48mL	MP85647

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.25mL	MP85240
KMnO4 (5%)	4.5mL	MP85241
K2S2O8 (5%)	2.4mL	MP85242
Hydroxylamine HCL (12%)	1.8mL	MP85243
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP85648
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85649
2.5 ppb	S2.5	30mL	MP85650
5.0 ppb	S5.0	30mL	MP85651
7.5 ppb	S7.5	30mL	MP85652
10.0 ppb	S10.0	30mL	MP85653
ICV	ICV	30mL	MP85654
ICB	ICB	30mL	MP85655
CCV	CCV	30mL	MP85656
CCB	CCB	30mL	MP85657
CRI	CRI	30mL	MP85658
CHK STD	CHK STD	30mL	MP85659

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/13/25 @ 17:16	MB - Dig. Lab	MB - metal Lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167980

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB167980BL	PBW980	30	30	<2	N/A	3-39
PB167980BS	LCS980	30	30	<2	MP85647	40
Q1970-02	TRE-25-0057	30	30	<2	N/A	41
Q1980-01	3834	30	30	<2	N/A	42
Q1980-02	3832	30	30	<2	N/A	43
Q1980-03	3835	30	30	<2	N/A	44
Q1985-01	RW8-BW-20250507	30	30	<2	N/A	45
Q1992-01	60453	30	30	<2	N/A	46
Q2005-01	252806	30	30	<2	N/A	47
Q2008-01	IDW-AQ-DRUM-633-05092025	30	30	<2	N/A	48
Q2008-01DUP	IDW-AQ-DRUM-633-05092025DUP	30	30	<2	N/A	49
Q2008-01MS	IDW-AQ-DRUM-633-05092025MS	30	30	<2	MP85647	50
Q2008-01MSD	IDW-AQ-DRUM-633-05092025MSD	30	30	<2	MP85647	51

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 051325_7470 **WorkList ID :** 189478 **Department :** Digestion **Date :** 05-13-2025 08:47:20

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1985-01	RW8-BW-20250507	Water	Mercury	1:1 HNO3 to pH < 2	TETR06	L41	05/07/2025	7470A
Q2008-01	IDW-AQ-DRUM-633-05092025	Water	Mercury	1:1 HNO3 to pH < 2	JACO05	L41	05/09/2025	7470A
Q1970-02	TRE-25-0057	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L41	05/07/2025	7470A
Q1980-01	3834	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L61	05/07/2025	7470A
Q1980-02	3832	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L61	05/07/2025	7470A
Q1980-03	3835	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L61	05/07/2025	7470A
Q1992-01	60453	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L41	05/08/2025	7470A
Q2005-01	252806	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	L41	05/09/2025	7470A

Date/Time 5/13/25 @ 14:00

Raw Sample Received by: MB - DH. LWS

Raw Sample Relinquished by: MB - DH. LWS

Date/Time 5/15/25 @ 14:40

Raw Sample Received by: MB - DH. LWS

Raw Sample Relinquished by: MB - DH. LWS

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135763

Review By	MOHAN	Review On	5/15/2025 11:25:39 AM
Supervise By	jaswal	Supervise On	5/15/2025 1:45:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85648,MP85649,MP85650,MP85651,MP85652,MP85653
ICV Standard	MP85654
CCV Standard	MP85656
ICSA Standard	
CRI Standard	MP85658
LCS Standard	
Chk Standard	MP85655,MP85657,MP85659,MP85654

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/14/25 11:27		MOHAN	OK
2	S0.2	S0.2	CAL2	05/14/25 11:30		MOHAN	OK
3	S2.5	S2.5	CAL3	05/14/25 11:32		MOHAN	OK
4	S5	S5	CAL4	05/14/25 11:34		MOHAN	OK
5	S7.5	S7.5	CAL5	05/14/25 11:36		MOHAN	OK
6	S10	S10	CAL6	05/14/25 11:39		MOHAN	OK
7	ICV08	ICV08	ICV	05/14/25 11:42		MOHAN	OK
8	ICB08	ICB08	ICB	05/14/25 11:44		MOHAN	OK
9	CCV22	CCV22	CCV	05/14/25 11:46		MOHAN	OK
10	CCB22	CCB22	CCB	05/14/25 11:51		MOHAN	OK
11	CRA	CRA	CRDL	05/14/25 11:54		MOHAN	OK
12	HighStd	HighStd	HIGH STD	05/14/25 11:56		MOHAN	OK
13	ChkStd	ChkStd	SAM	05/14/25 11:58		MOHAN	OK
14	PB167978BL	PB167978BL	MB	05/14/25 12:03		MOHAN	OK
15	PB167978BS	PB167978BS	LCS	05/14/25 12:05		MOHAN	OK
16	Q1984-02	OU4-PCS-TC-33-050	SAM	05/14/25 12:08		MOHAN	OK
17	Q1984-04	OU4-PCS-TC-34-050	SAM	05/14/25 12:10		MOHAN	OK
18	Q1984-06	OU4-PCS-TC-35-050	SAM	05/14/25 12:12		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135763

Review By	MOHAN	Review On	5/15/2025 11:25:39 AM
Supervise By	jaswal	Supervise On	5/15/2025 1:45:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85648,MP85649,MP85650,MP85651,MP85652,MP85653
ICV Standard	MP85654
CCV Standard	MP85656
ICSA Standard	
CRI Standard	MP85658
LCS Standard	
Chk Standard	MP85655,MP85657,MP85659,MP85654

19	Q1984-08	OU4-TS-24-050725	SAM	05/14/25 12:15		MOHAN	OK
20	Q1984-10	OU4-TS-25-050725	SAM	05/14/25 12:17		MOHAN	OK
21	CCV23	CCV23	CCV	05/14/25 12:24		MOHAN	OK
22	CCB23	CCB23	CCB	05/14/25 12:26		MOHAN	OK
23	Q1984-12	OU4-TS-26-050725	SAM	05/14/25 12:29		MOHAN	OK
24	Q1984-14	OU4-TS-27-050725	SAM	05/14/25 12:31		MOHAN	OK
25	Q1984-16	OU4-TS-28-050725	SAM	05/14/25 12:33		MOHAN	OK
26	Q1984-16DUP	OU4-TS-28-050725DU	DUP	05/14/25 12:35		MOHAN	OK
27	Q1984-16MS	OU4-TS-28-050725MS	MS	05/14/25 12:38		MOHAN	OK
28	Q1984-16MSD	OU4-TS-28-050725MS	MSD	05/14/25 12:40		MOHAN	OK
29	PB167979BL	PB167979BL	MB	05/14/25 12:42		MOHAN	OK
30	PB167979BS	PB167979BS	LCS	05/14/25 12:45		MOHAN	OK
31	Q2001-03	WC-A4-03-C	SAM	05/14/25 12:47		MOHAN	OK
32	Q2001-07	WC-A1-05-C	SAM	05/14/25 12:49		MOHAN	OK
33	CCV24	CCV24	CCV	05/14/25 12:51		MOHAN	OK
34	CCB24	CCB24	CCB	05/14/25 12:54		MOHAN	OK
35	Q2001-11	WC-A1-06-C	SAM	05/14/25 12:56		MOHAN	OK
36	Q2001-15	WC-A1-07-C	SAM	05/14/25 12:58		MOHAN	OK
37	Q2004-02	VNJ-220	SAM	05/14/25 13:01		MOHAN	OK
38	Q2004-04	2811	SAM	05/14/25 13:03		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135763

Review By	MOHAN	Review On	5/15/2025 11:25:39 AM
Supervise By	jaswal	Supervise On	5/15/2025 1:45:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85648,MP85649,MP85650,MP85651,MP85652,MP85653
ICV Standard	MP85654
CCV Standard	MP85656
ICSA Standard	
CRI Standard	MP85658
LCS Standard	
Chk Standard	MP85655,MP85657,MP85659,MP85654

39	Q2004-06	R0202	SAM	05/14/25 13:05		MOHAN	OK
40	Q2004-08	205510	SAM	05/14/25 13:07		MOHAN	OK
41	Q2004-10	SOIL-STOCK	SAM	05/14/25 13:10		MOHAN	OK
42	Q2004-12	STONE-STOCK	SAM	05/14/25 13:12		MOHAN	OK
43	Q2007-06	OR-636-COMP-10	SAM	05/14/25 13:14		MOHAN	OK
44	Q2007-12	OR-636-COMP-11	SAM	05/14/25 13:16		MOHAN	OK
45	CCV25	CCV25	CCV	05/14/25 13:28		MOHAN	OK
46	CCB25	CCB25	CCB	05/14/25 13:30		MOHAN	OK
47	Q2007-18	OR-636-COMP-12	SAM	05/14/25 13:32		MOHAN	OK
48	Q2007-24	OR-636-COMP-13	SAM	05/14/25 13:35		MOHAN	OK
49	Q2007-30	OR-636-COMP-14	SAM	05/14/25 13:37		MOHAN	OK
50	Q2007-36	OR-636-COMP-15	SAM	05/14/25 13:39		MOHAN	OK
51	Q2007-36DUP	OR-636-COMP-15DU	DUP	05/14/25 13:41		MOHAN	OK
52	Q2007-36MS	OR-636-COMP-15MS	MS	05/14/25 13:44		MOHAN	OK
53	Q2007-36MSD	OR-636-COMP-15MS	MSD	05/14/25 13:46		MOHAN	OK
54	Q2017-04	MH-I	SAM	05/14/25 13:48		MOHAN	OK
55	Q2017-08	MH-J	SAM	05/14/25 13:51		MOHAN	OK
56	PB167980BL	PB167980BL	MB	05/14/25 13:53		MOHAN	OK
57	CCV26	CCV26	CCV	05/14/25 13:55		MOHAN	OK
58	CCB26	CCB26	CCB	05/14/25 13:57		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135763

Review By	MOHAN	Review On	5/15/2025 11:25:39 AM
Supervise By	jaswal	Supervise On	5/15/2025 1:45:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85648,MP85649,MP85650,MP85651,MP85652,MP85653
ICV Standard	MP85654
CCV Standard	MP85656
ICSA Standard	
CRI Standard	MP85658
LCS Standard	
Chk Standard	MP85655,MP85657,MP85659,MP85654

59	PB167980BS	PB167980BS	LCS	05/14/25 14:00		MOHAN	OK
60	Q1970-02	TRE-25-0057	SAM	05/14/25 14:02		MOHAN	OK
61	Q1980-01	3834	SAM	05/14/25 14:04		MOHAN	OK
62	Q1980-02	3832	SAM	05/14/25 14:07		MOHAN	OK
63	Q1980-03	3835	SAM	05/14/25 14:09		MOHAN	OK
64	Q1985-01	RW8-BW-20250507	SAM	05/14/25 14:11		MOHAN	OK
65	Q1992-01	60453	SAM	05/14/25 14:13		MOHAN	OK
66	Q2005-01	252806	SAM	05/14/25 14:16		MOHAN	OK
67	Q2008-01	IDW-AQ-DRUM-633-0	SAM	05/14/25 14:18		MOHAN	OK
68	Q2008-01DUP	IDW-AQ-DRUM-633-0	DUP	05/14/25 14:20		MOHAN	OK
69	CCV27	CCV27	CCV	05/14/25 14:23		MOHAN	OK
70	CCB27	CCB27	CCB	05/14/25 14:25		MOHAN	OK
71	Q2008-01MS	IDW-AQ-DRUM-633-0	MS	05/14/25 14:27		MOHAN	OK
72	Q2008-01MSD	IDW-AQ-DRUM-633-0	MSD	05/14/25 14:29		MOHAN	OK
73	PB167943TB	PB167943TB	MB	05/14/25 14:32		MOHAN	OK
74	PB167978TB	PB167978TB	MB	05/14/25 14:34		MOHAN	OK
75	PB167963TB	PB167963TB	MB	05/14/25 14:36	Not Use	MOHAN	Not Ok
76	CCV28	CCV28	CCV	05/14/25 14:39		MOHAN	OK
77	CCB28	CCB28	CCB	05/14/25 14:41		MOHAN	OK
78	Q1984-16L	OU4-TS-28-050725L	SD	05/14/25 14:43		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135763

Review By	MOHAN	Review On	5/15/2025 11:25:39 AM
Supervise By	jaswal	Supervise On	5/15/2025 1:45:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85648,MP85649,MP85650,MP85651,MP85652,MP85653
ICV Standard	MP85654
CCV Standard	MP85656
ICSA Standard	
CRI Standard	MP85658
LCS Standard	
Chk Standard	MP85655,MP85657,MP85659,MP85654

79	Q1984-16A	OU4-TS-28-050725A	PS	05/14/25 14:45		MOHAN	OK
80	Q2007-36L	OR-636-COMP-15L	SD	05/14/25 14:48		MOHAN	OK
81	Q2007-36A	OR-636-COMP-15A	PS	05/14/25 14:50		MOHAN	OK
82	Q2008-01L	IDW-AQ-DRUM-633-0	SD	05/14/25 14:52		MOHAN	OK
83	Q2008-01A	IDW-AQ-DRUM-633-0	PS	05/14/25 14:55		MOHAN	OK
84	CCV29	CCV29	CCV	05/14/25 14:57		MOHAN	OK
85	CCB29	CCB29	CCB	05/14/25 14:59		MOHAN	OK

Alliance TECHNICAL GROUP
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 # LB135778

Review By	Janvi	Review On	5/15/2025 1:21:26 PM
Supervise By	jaswal	Supervise On	5/15/2025 1:41:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/14/25 12:12		Kareem	OK
2	S1	S1	CAL2	05/14/25 12:16		Kareem	OK
3	S2	S2	CAL3	05/14/25 12:21		Kareem	OK
4	S3	S3	CAL4	05/14/25 12:25		Kareem	OK
5	S4	S4	CAL5	05/14/25 12:29		Kareem	OK
6	S5	S5	CAL6	05/14/25 12:33		Kareem	OK
7	ICV01	ICV01	ICV	05/14/25 13:24	ICV fail for Al,Ba,Ca,Co,Mn,Ni,K,Ag,Na,V (200.7) (95-105)	Kareem	OK
8	LLICV01	LLICV01	LLICV	05/14/25 13:34		Kareem	OK
9	ICB01	ICB01	ICB	05/14/25 13:38		Kareem	OK
10	CRI01	CRI01	CRDL	05/14/25 13:43		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/14/25 14:09		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/14/25 14:16		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/14/25 14:43		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/14/25 14:47		Kareem	OK
15	CCV01	CCV01	CCV	05/14/25 14:51		Kareem	OK
16	CCB01	CCB01	CCB	05/14/25 14:56		Kareem	OK
17	Q2025-01	001-WILLETS-PT-BL	SAM	05/14/25 15:01		Kareem	OK
18	Q2025-02	002-35TH-AVE(APR)	SAM	05/14/25 15:05		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135778

Review By	Janvi	Review On	5/15/2025 1:21:26 PM
Supervise By	jaswal	Supervise On	5/15/2025 1:41:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

19	Q2008-01	IDW-AQ-DRUM-633-(	SAM	05/14/25 15:09		Kareem	OK
20	Q2007-06	OR-636-COMP-10	SAM	05/14/25 15:13		Kareem	OK
21	Q2007-12	OR-636-COMP-11	SAM	05/14/25 15:18		Kareem	OK
22	Q2007-18	OR-636-COMP-12	SAM	05/14/25 15:22		Kareem	OK
23	Q2007-24	OR-636-COMP-13	SAM	05/14/25 15:27		Kareem	OK
24	Q2007-30	OR-636-COMP-14	SAM	05/14/25 15:31		Kareem	OK
25	Q2007-36	OR-636-COMP-15	SAM	05/14/25 15:35		Kareem	OK
26	Q2001-07	WC-A1-05-C	SAM	05/14/25 15:40		Kareem	OK
27	CCV02	CCV02	CCV	05/14/25 15:53		Kareem	OK
28	CCB02	CCB02	CCB	05/14/25 15:57		Kareem	OK
29	Q2007-36DUP	OR-636-COMP-15DU	DUP	05/14/25 16:01		Kareem	OK
30	Q2007-36L	OR-636-COMP-15L	SD	05/14/25 16:06		Kareem	OK
31	Q2007-36MS	OR-636-COMP-15MS	MS	05/14/25 16:10		Kareem	OK
32	Q2007-36MSD	OR-636-COMP-15MS	MSD	05/14/25 16:14		Kareem	OK
33	Q2007-36A	OR-636-COMP-15A	PS	05/14/25 16:18		Kareem	OK
34	Q2007-01	OR-636-COMP-10	SAM	05/14/25 16:23		Kareem	OK
35	Q2007-07	OR-636-COMP-11	SAM	05/14/25 16:27		Kareem	OK
36	Q2007-13	OR-636-COMP-12	SAM	05/14/25 16:31		Kareem	OK
37	Q2007-19	OR-636-COMP-13	SAM	05/14/25 16:35		Kareem	OK
38	Q2001-11	WC-A1-06-C	SAM	05/14/25 16:39		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135778

Review By	Janvi	Review On	5/15/2025 1:21:26 PM
Supervise By	jaswal	Supervise On	5/15/2025 1:41:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

39	CCV03	CCV03	CCV	05/14/25 16:44		Kareem	OK
40	CCB03	CCB03	CCB	05/14/25 16:48		Kareem	OK
41	Q2007-25	OR-636-COMP-14	SAM	05/14/25 16:52		Kareem	OK
42	Q2001-15	WC-A1-07-C	SAM	05/14/25 16:56		Kareem	OK
43	Q2007-31	OR-636-COMP-15	SAM	05/14/25 17:01		Kareem	OK
44	Q2007-31DUP	OR-636-COMP-15DU	DUP	05/14/25 17:05		Kareem	OK
45	Q2007-31L	OR-636-COMP-15L	SD	05/14/25 17:09		Kareem	OK
46	Q2007-31MS	OR-636-COMP-15MS	MS	05/14/25 17:13		Kareem	OK
47	Q2007-31A	OR-636-COMP-15A	PS	05/14/25 17:21		Kareem	OK
48	Q2007-31MSD	OR-636-COMP-15MS	MSD	05/14/25 17:31		Kareem	OK
49	Q1974-02	OILY-DEBRIS-COMP	SAM	05/14/25 17:36		Kareem	OK
50	Q1974-04	OILY-PADS	SAM	05/14/25 17:40		Kareem	OK
51	CCV04	CCV04	CCV	05/14/25 18:08		Kareem	OK
52	CCB04	CCB04	CCB	05/14/25 18:12		Kareem	OK
53	PB167961BL	PB167961BL	MB	05/14/25 18:17		Kareem	OK
54	PB167961BS	PB167961BS	LCS	05/14/25 18:21		Kareem	OK
55	PB167955BL	PB167955BL	MB	05/14/25 18:25		Kareem	OK
56	PB167985BL	PB167985BL	MB	05/14/25 18:33		Kareem	OK
57	PB167985BS	PB167985BS	LCS	05/14/25 18:38		Kareem	OK
58	PB167955BS	PB167955BS	LCS	05/14/25 19:04		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135778

Review By	Janvi	Review On	5/15/2025 1:21:26 PM
Supervise By	jaswal	Supervise On	5/15/2025 1:41:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

59	Q2006-02	EFF-WW	SAM	05/14/25 19:08	NOT USE	Kareem	Not Ok
60	Q2006-02DUP	EFF-WWDUP	DUP	05/14/25 19:12	NOT USE	Kareem	Not Ok
61	Q2006-02L	EFF-WWL	SD	05/14/25 19:17	NOT USE	Kareem	Not Ok
62	CCV05	CCV05	CCV	05/14/25 19:21		Kareem	OK
63	CCB05	CCB05	CCB	05/14/25 19:25		Kareem	OK

Alliance TECHNICAL GROUP
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 # LB135794

Review By	Janvi	Review On	5/16/2025 2:32:46 PM
Supervise By	jaswal	Supervise On	5/16/2025 2:34:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/15/25 13:12		Kareem	OK
2	S1	S1	CAL2	05/15/25 13:16		Kareem	OK
3	S2	S2	CAL3	05/15/25 13:20		Kareem	OK
4	S3	S3	CAL4	05/15/25 13:24		Kareem	OK
5	S4	S4	CAL5	05/15/25 13:29		Kareem	OK
6	S5	S5	CAL6	05/15/25 13:33		Kareem	OK
7	ICV01	ICV01	ICV	05/15/25 13:37	ICV fail for Be,Co,Mg,Mn,Ni,K,Ag,V(95 -105)%	Kareem	OK
8	LLICV01	LLICV01	LLICV	05/15/25 13:42		Kareem	OK
9	ICB01	ICB01	ICB	05/15/25 13:47		Kareem	OK
10	CRI01	CRI01	CRDL	05/15/25 13:51		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/15/25 14:01		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/15/25 14:05		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/15/25 14:09		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/15/25 14:14		Kareem	OK
15	CCV01	CCV01	CCV	05/15/25 14:18		Kareem	OK
16	CCB01	CCB01	CCB	05/15/25 14:22		Kareem	OK
17	Q2004-01	VNJ-220	SAM	05/15/25 14:26		Kareem	OK
18	Q2004-03	2811	SAM	05/15/25 14:31		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135794

Review By	Janvi	Review On	5/16/2025 2:32:46 PM
Supervise By	jaswal	Supervise On	5/16/2025 2:34:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

19	Q2004-05	R0202	SAM	05/15/25 14:35		Kareem	OK
20	Q2004-07	205510	SAM	05/15/25 14:39		Kareem	OK
21	Q2004-09	SOIL-STOCK	SAM	05/15/25 14:43		Kareem	OK
22	Q2004-11	STONE-STOCK	SAM	05/15/25 14:48		Kareem	OK
23	Q2004-02	VNJ-220	SAM	05/15/25 14:52		Kareem	OK
24	Q2004-04	2811	SAM	05/15/25 14:56		Kareem	OK
25	Q2004-06	R0202	SAM	05/15/25 15:01		Kareem	OK
26	CCV02	CCV02	CCV	05/15/25 15:05		Kareem	OK
27	CCB02	CCB02	CCB	05/15/25 15:09		Kareem	OK
28	Q2004-08	205510	SAM	05/15/25 15:13		Kareem	OK
29	Q2004-10	SOIL-STOCK	SAM	05/15/25 15:18		Kareem	OK
30	Q2004-12	STONE-STOCK	SAM	05/15/25 15:22		Kareem	OK
31	Q2001-03	WC-A4-03-C	SAM	05/15/25 15:27		Kareem	OK
32	Q1992-01DL	60453DL	SAM	05/15/25 15:31	straight 5X	Kareem	OK
33	Q2005-01	252806	SAM	05/15/25 15:35		Kareem	OK
34	Q1985-01	RW8-BW-20250507	SAM	05/15/25 15:40		Kareem	OK
35	Q1985-01DUP	RW8-BW-20250507D	DUP	05/15/25 15:44		Kareem	OK
36	Q1985-01L	RW8-BW-20250507L	SD	05/15/25 15:48		Kareem	OK
37	CCV03	CCV03	CCV	05/15/25 15:53		Kareem	OK
38	CCB03	CCB03	CCB	05/15/25 15:57		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135794

Review By	Janvi	Review On	5/16/2025 2:32:46 PM
Supervise By	jaswal	Supervise On	5/16/2025 2:34:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

39	Q1985-01MS	RW8-BW-20250507M	MS	05/15/25 16:01		Kareem	OK
40	Q1985-01MSD	RW8-BW-20250507M	MSD	05/15/25 16:05		Kareem	OK
41	Q1985-01A	RW8-BW-20250507A	PS	05/15/25 16:10		Kareem	OK
42	PB167943TB	PB167943TB	MB	05/15/25 16:14		Kareem	OK
43	PB167954BL	PB167954BL	MB	05/15/25 16:18		Kareem	OK
44	PB167954BS	PB167954BS	LCS	05/15/25 16:23		Kareem	OK
45	PB167984BL	PB167984BL	MB	05/15/25 16:27		Kareem	OK
46	PB167984BS	PB167984BS	LCS	05/15/25 16:31		Kareem	OK
47	PB168012BL	PB168012BL	MB	05/15/25 16:35		Kareem	OK
48	CCV04	CCV04	CCV	05/15/25 16:39		Kareem	OK
49	CCB04	CCB04	CCB	05/15/25 16:44		Kareem	OK
50	PB168012BS	PB168012BS	LCS	05/15/25 16:48		Kareem	OK
51	PB167963TB	PB167963TB	MB	05/15/25 16:52		Kareem	OK
52	PB167963TBRE	PB167963TBRE	MB	05/15/25 16:57		Kareem	OK
53	Q2017-04	MH-I	SAM	05/15/25 17:01		Kareem	OK
54	Q2017-08	MH-J	SAM	05/15/25 17:05		Kareem	OK
55	Q2017-08DUP	MH-JDUP	DUP	05/15/25 17:10		Kareem	OK
56	Q2017-08L	MH-JL	SD	05/15/25 17:14		Kareem	OK
57	Q2017-08MS	MH-JMS	MS	05/15/25 17:19		Kareem	OK
58	Q2017-08MSD	MH-JMSD	MSD	05/15/25 17:23		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135794

Review By	Janvi	Review On	5/16/2025 2:32:46 PM
Supervise By	jaswal	Supervise On	5/16/2025 2:34:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

59	CCV05	CCV05	CCV	05/15/25 17:41		Kareem	OK
60	CCB05	CCB05	CCB	05/15/25 17:56		Kareem	OK
61	Q2017-08A	MH-JA	PS	05/15/25 18:01		Kareem	OK
62	Q2006-02	EFF-WW	SAM	05/15/25 18:05		Kareem	OK
63	Q2006-02DUP	EFF-WWDUP	DUP	05/15/25 18:09		Kareem	OK
64	Q2006-02L	EFF-WWL	SD	05/15/25 18:14		Kareem	OK
65	Q2006-02MS	EFF-WWMS	MS	05/15/25 18:18		Kareem	OK
66	Q2006-02MSD	EFF-WWMSD	MSD	05/15/25 18:22		Kareem	OK
67	Q2006-02A	EFF-WWA	PS	05/15/25 18:27		Kareem	OK
68	Q2026-01	001-WILLETS-PT-BLV	SAM	05/15/25 18:31		Kareem	OK
69	Q2026-02	002-35TH-AVE(MAY)	SAM	05/15/25 18:35		Kareem	OK
70	CCV06	CCV06	CCV	05/15/25 18:47		Kareem	OK
71	CCB06	CCB06	CCB	05/15/25 18:52		Kareem	OK

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

Prep Standard - Chemical Standard Summary

Order ID : Q1985

Test : Mercury,Metals ICP-TAL

Prepbatch ID : PB167955,PB167980,

Sequence ID/Qc Batch ID: LB135763,LB135778,LB135794,LB135794,

Standard ID :
MP85156,MP85240,MP85241,MP85242,MP85243,MP85545,MP85546,MP85547,MP85548,MP85549,MP85551,MP85552,MP85553,MP85554,MP85555,MP85556,MP85557,MP85558,MP85647,MP85648,MP85649,MP85650,MP85651,MP85652,MP85653,MP85654,MP85655,MP85656,MP85657,MP85658,MP85659,

Chemical ID :
M4251,M4465,M4916,M5062,M5429,M5466,M5467,M5470,M5471,M5658,M5747,M5748,M5751,M5798,M5799,M5800,M5801,M5811,M5814,M5815,M5816,M5817,M5820,M5875,M5884,M5942,M5959,M5962,M5970,M5985,M5997,M6005,M6016,M6021,M6023,M6028,M6030,M6032,M6041,M6058,M6076,M6077,M6127,M6128,M6137,M6138,M6142,M6144,M6145,M6146,M6150,M6151,M6152,M6155,M6158,M6159,M6161,W3112,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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
3965	2:1 H2SO4 : HNO3	MP85240	04/16/2025	10/16/2025	Mohan Bera	None	None	Sarabjit Jaswal 04/29/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6158 = Final Quantity: 3200.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85241	04/16/2025	10/16/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP85242	04/16/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85243	04/16/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4251 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85545	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6158 = Final Quantity: 2500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP85546	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 5.00000ml of M5466 + 5.00000ml of M5471 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5997 + 5.00000ml of M6076 + 5.00000ml of M6146 + 455.00000ml of MP85545 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85547	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85548	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of MP85546 + 75.00000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP85549	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 16.00000ml of MP85546 + 184.00000ml of MP85545 = Final Quantity: 200.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85551	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5942 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M5816 + 89.29000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP85552	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 2.00000ml of MP85551 + 98.00000ml of MP85545 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85553	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5467 + 0.25000ml of M5470 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.32500ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP85554	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85545 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85555	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5470 + 0.10000ml of M5970 + 0.10000ml of M6077 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.68000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP85556	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85557	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6158 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP85558	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 200.00000ml of M6158 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85647	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85648	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85649	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85647 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85650	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85647 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85651	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85647 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85652	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP85647 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85653	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85647 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85654	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 2.50000ml of M6161 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85655	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85656	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85647 = Final Quantity: 500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP85657	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6158 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85658	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85647 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85659	05/13/2025	05/14/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/13/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP85647 = Final Quantity: 250.000 ml

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	12/19/2018 / mohan	12/05/2018 / mohan	M4251

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/30/2026	04/15/2025 / JANVI	05/14/2024 / Jaswal	M6005

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	10/30/2025	04/30/2025 / mohan	05/14/2024 / Jaswal	M6016

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	07/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

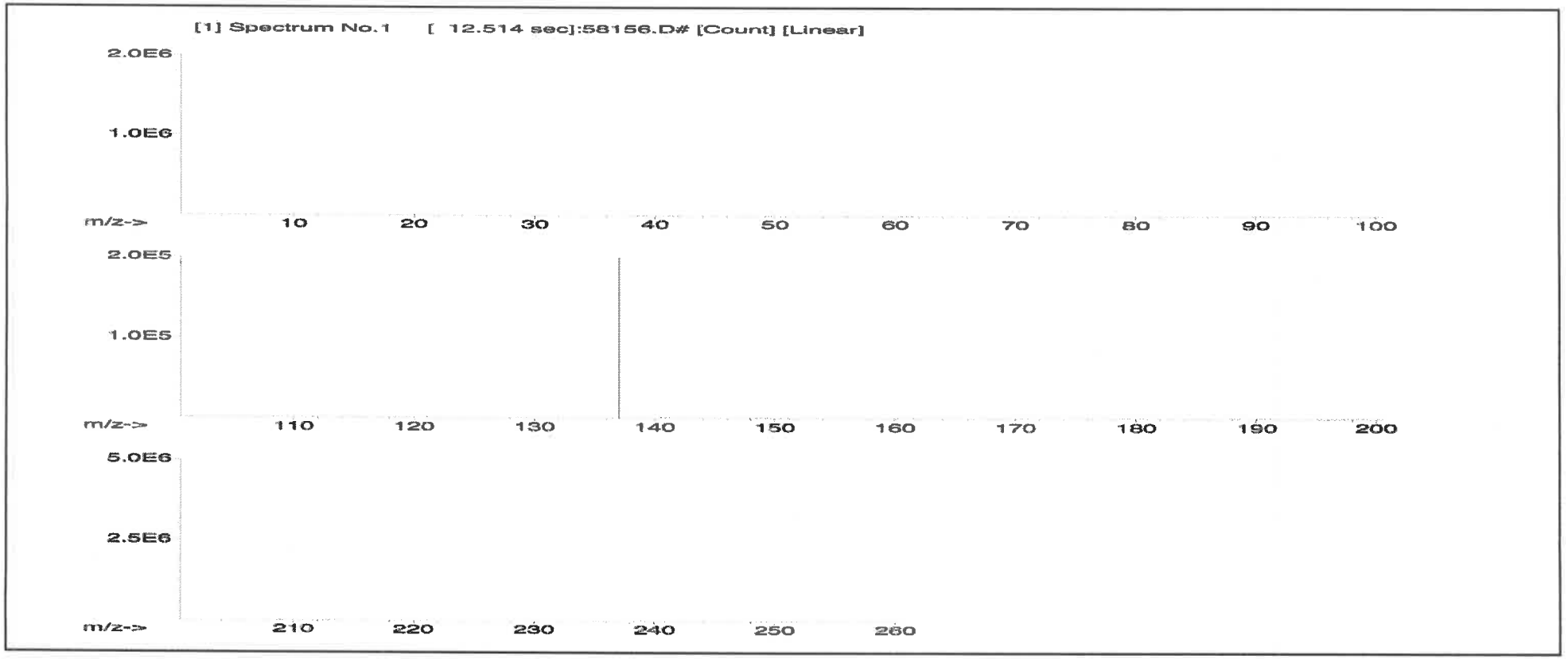
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito		
Formulated By:	Giovanni Esposito	010924
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

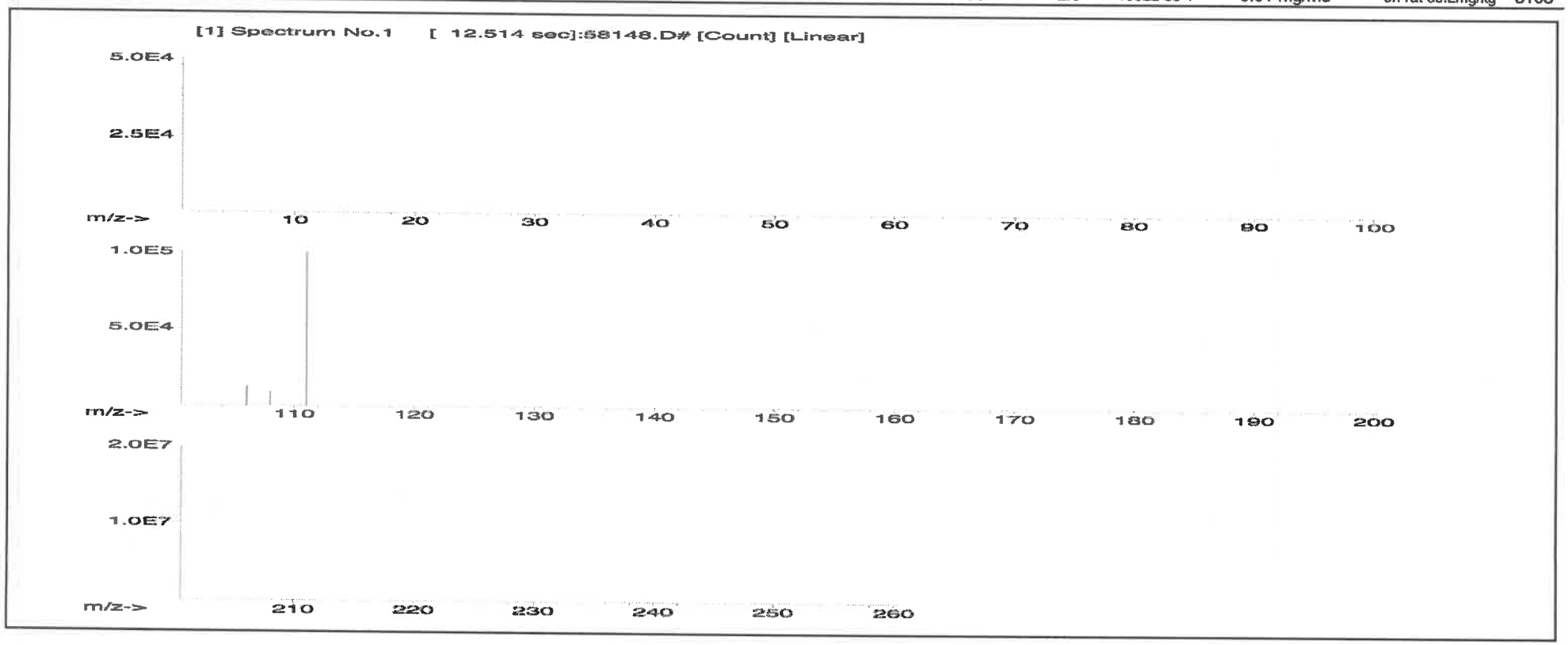
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**			**Lot #**	
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

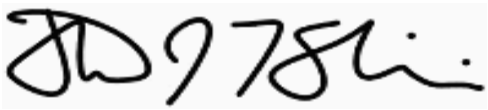
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

				Lot #	
Part Number:	**58126**		**Solvent:**	21110221	Nitric Acid
Lot Number:	**051523**				
Description:	**Iron (Fe)**		5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

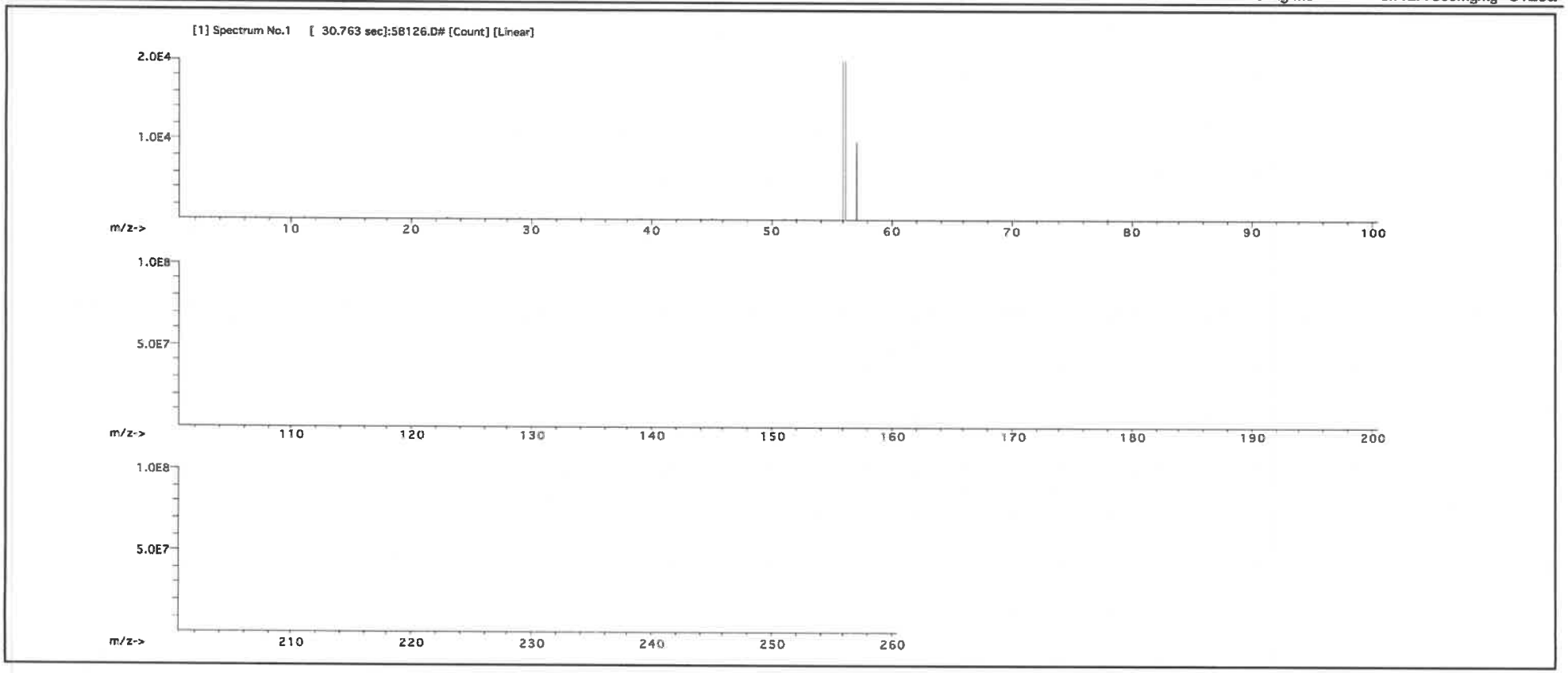
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

M4251
JB

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5429 R1 01/26/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

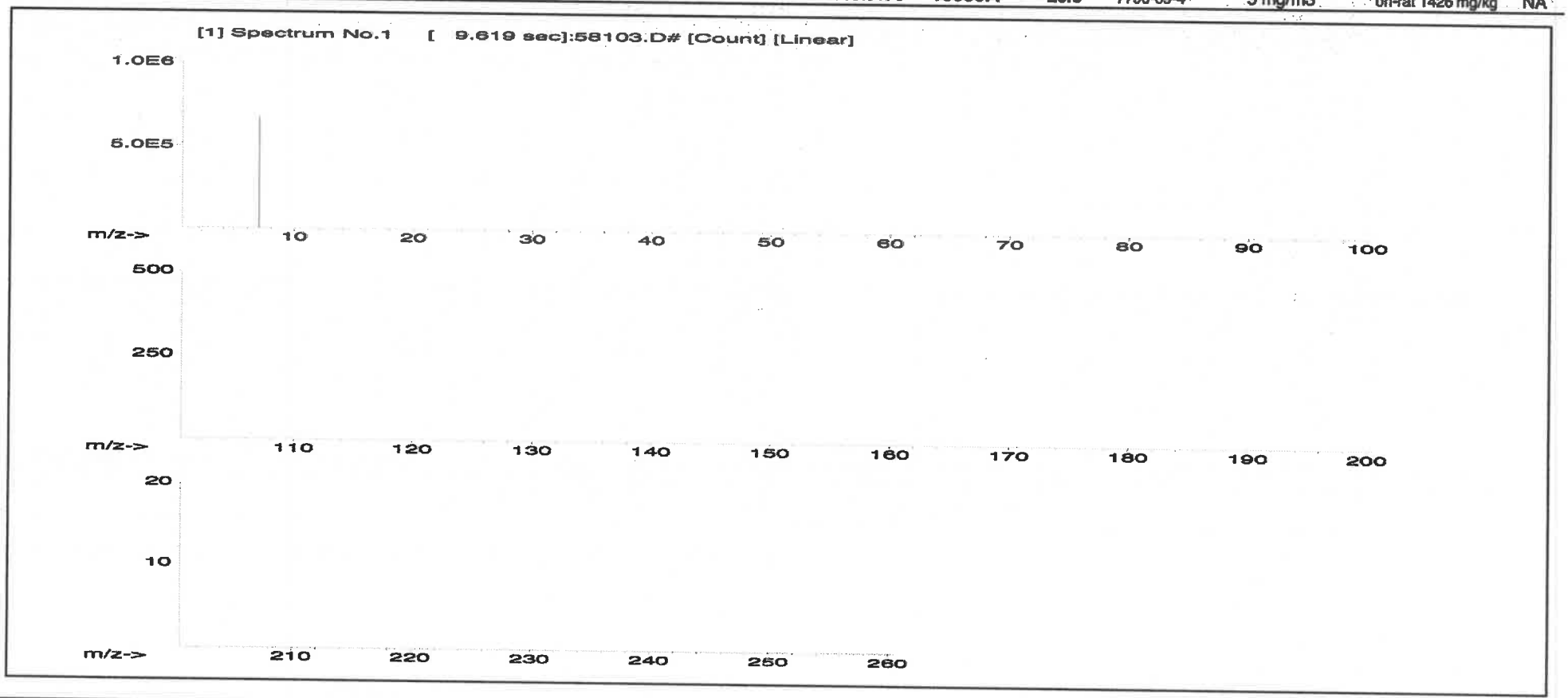
Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #			
Solvent:	20510011	Nitric Acid	5E-05	Balance Uncertainty
2%	20.0 (mL)	Nitric Acid	0.058	Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



QUALITY-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M 5466

Certified Reference Material CRM

R: 03/01/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

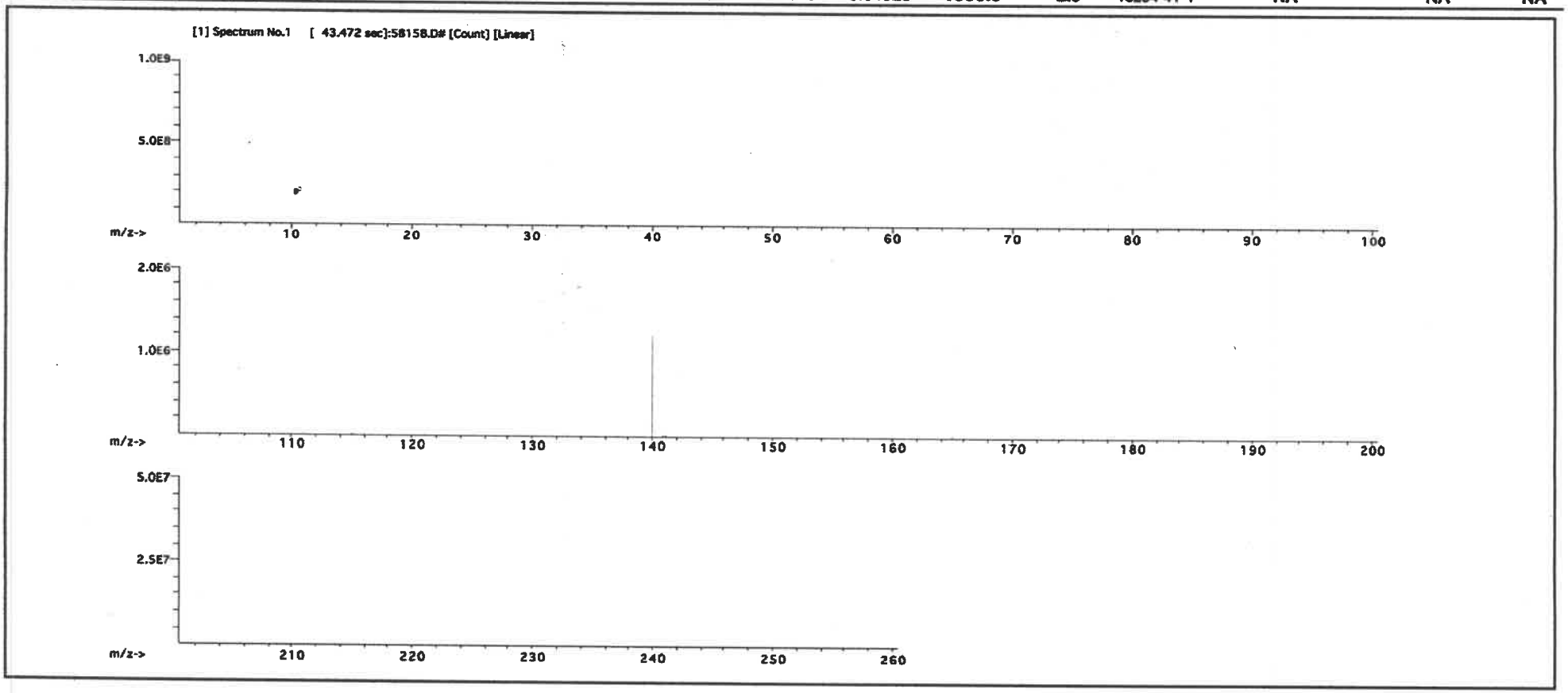
Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1000.12 | 0.058 Flask Uncertainty | 5E-05 Balance 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

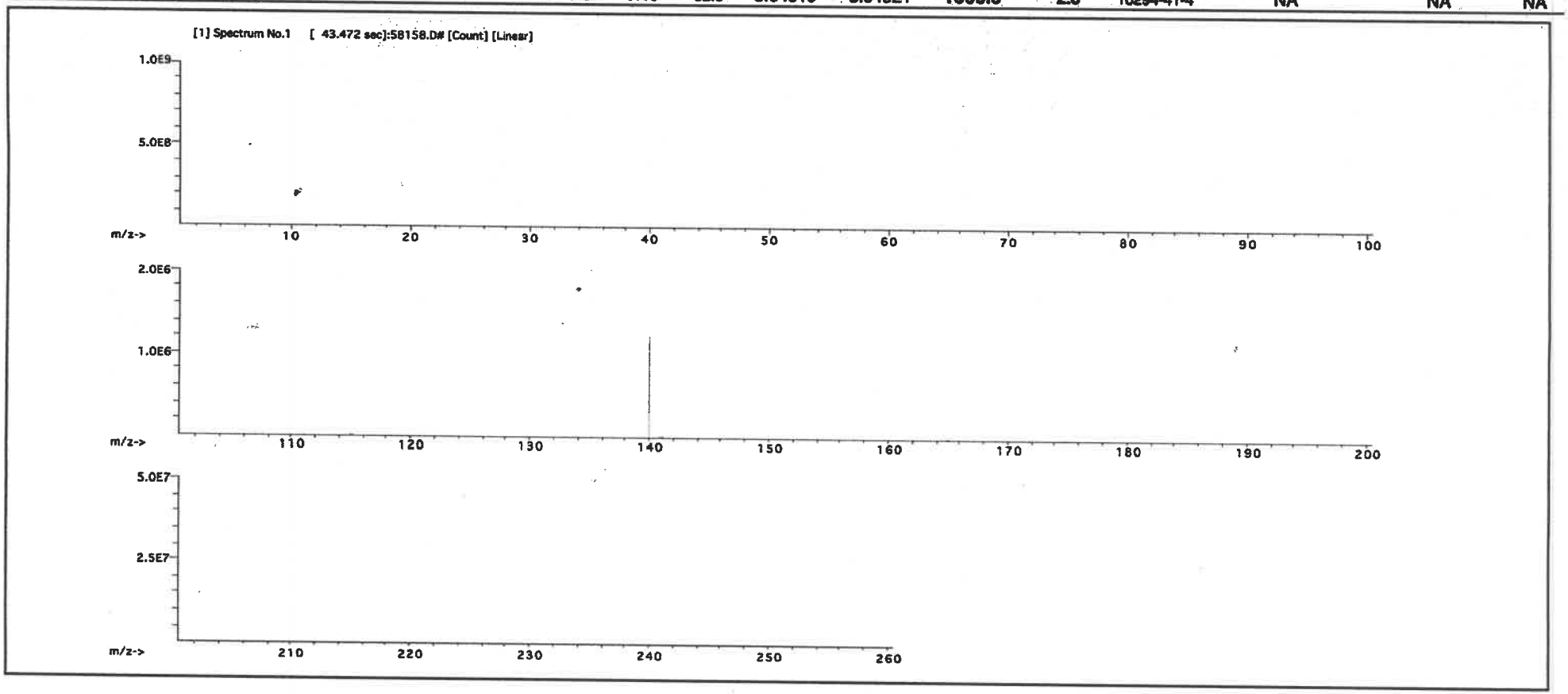
Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



2023-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

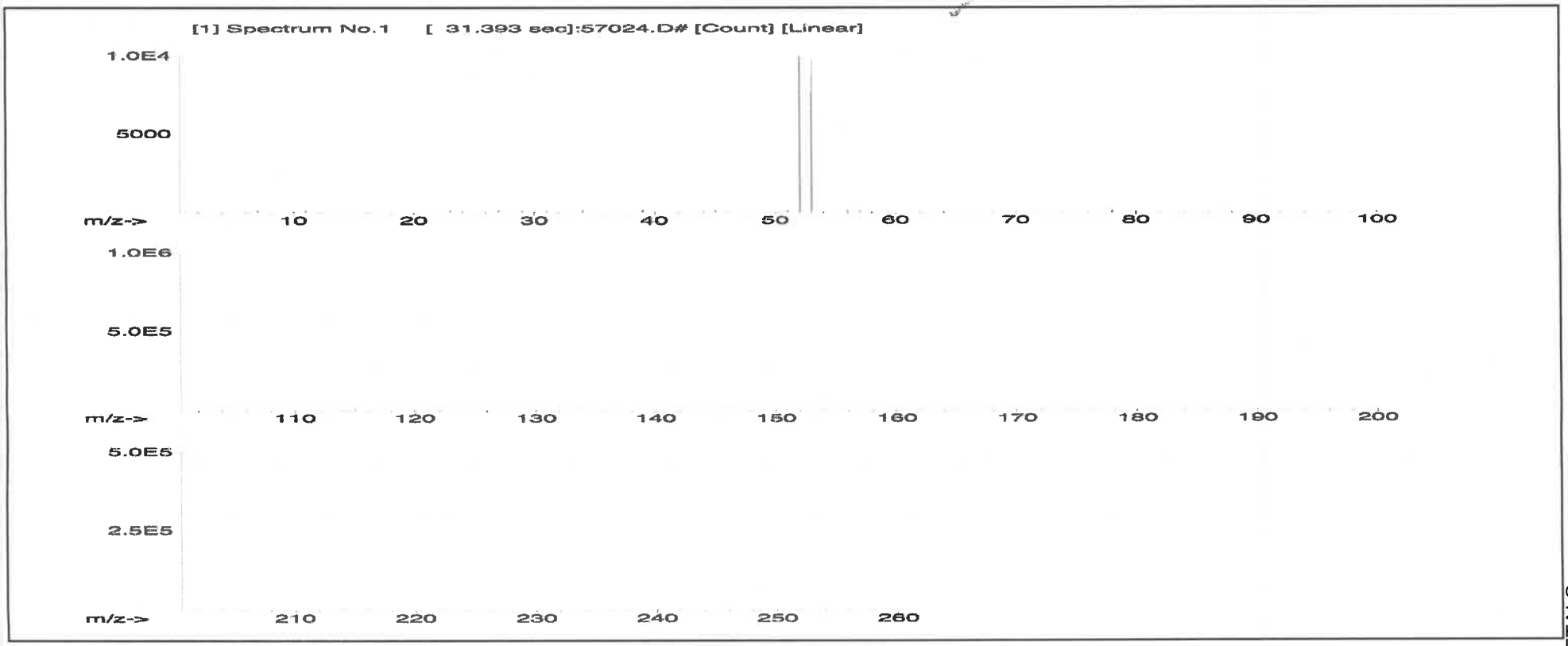
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5747

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

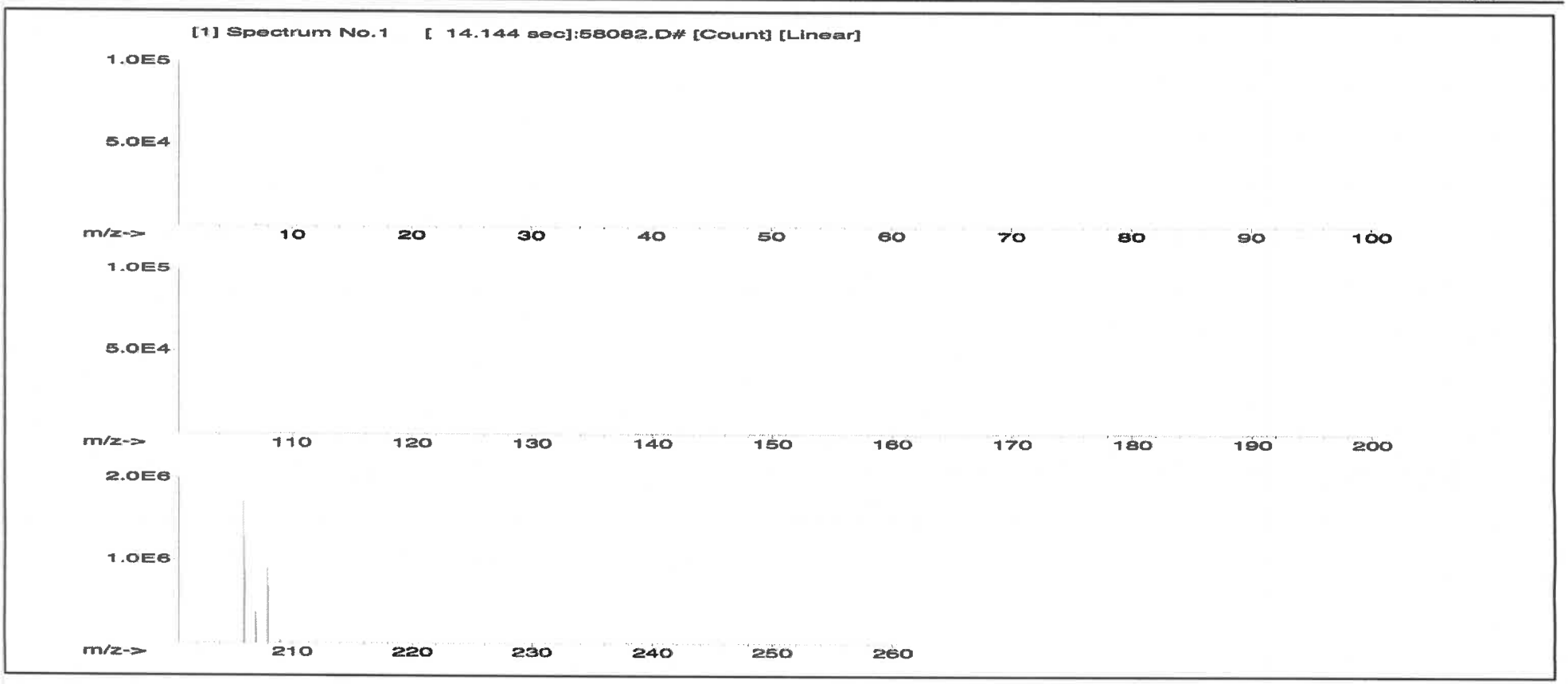
Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5748

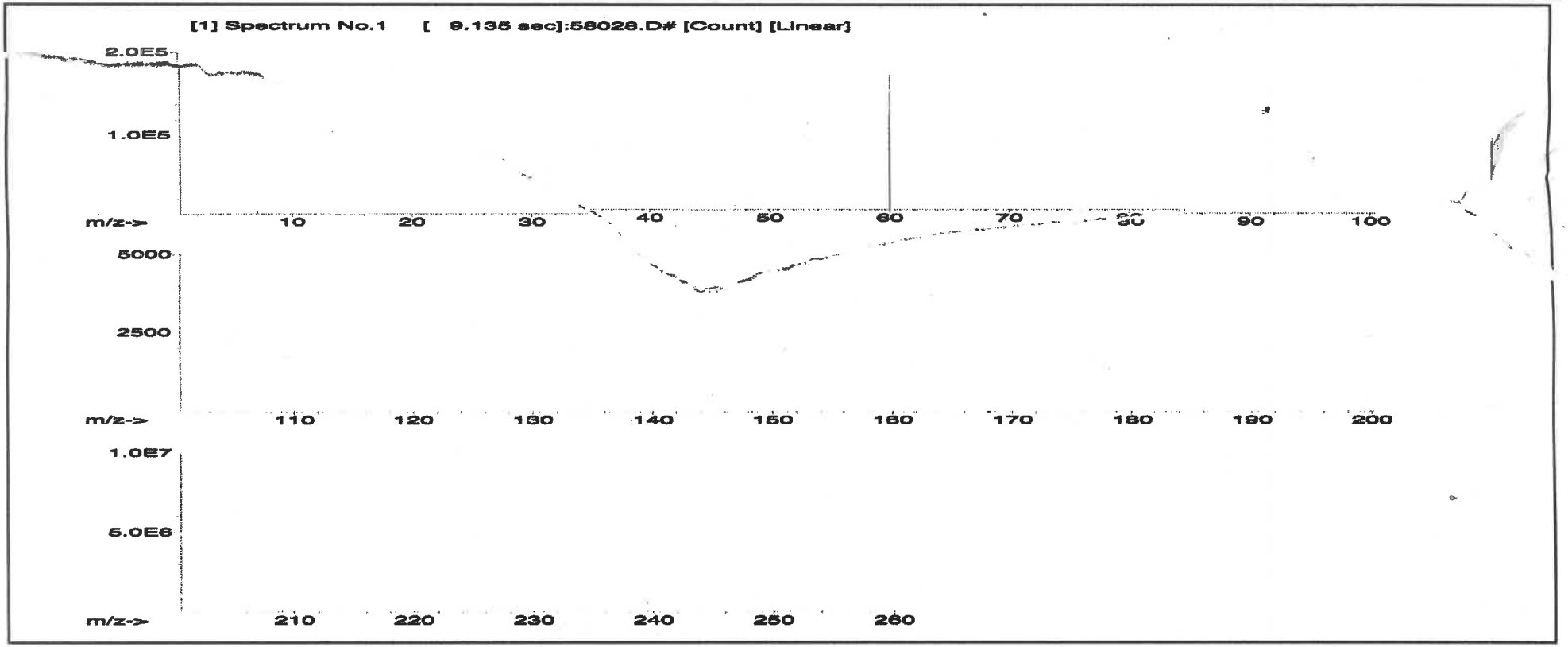
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/25/23 M5751

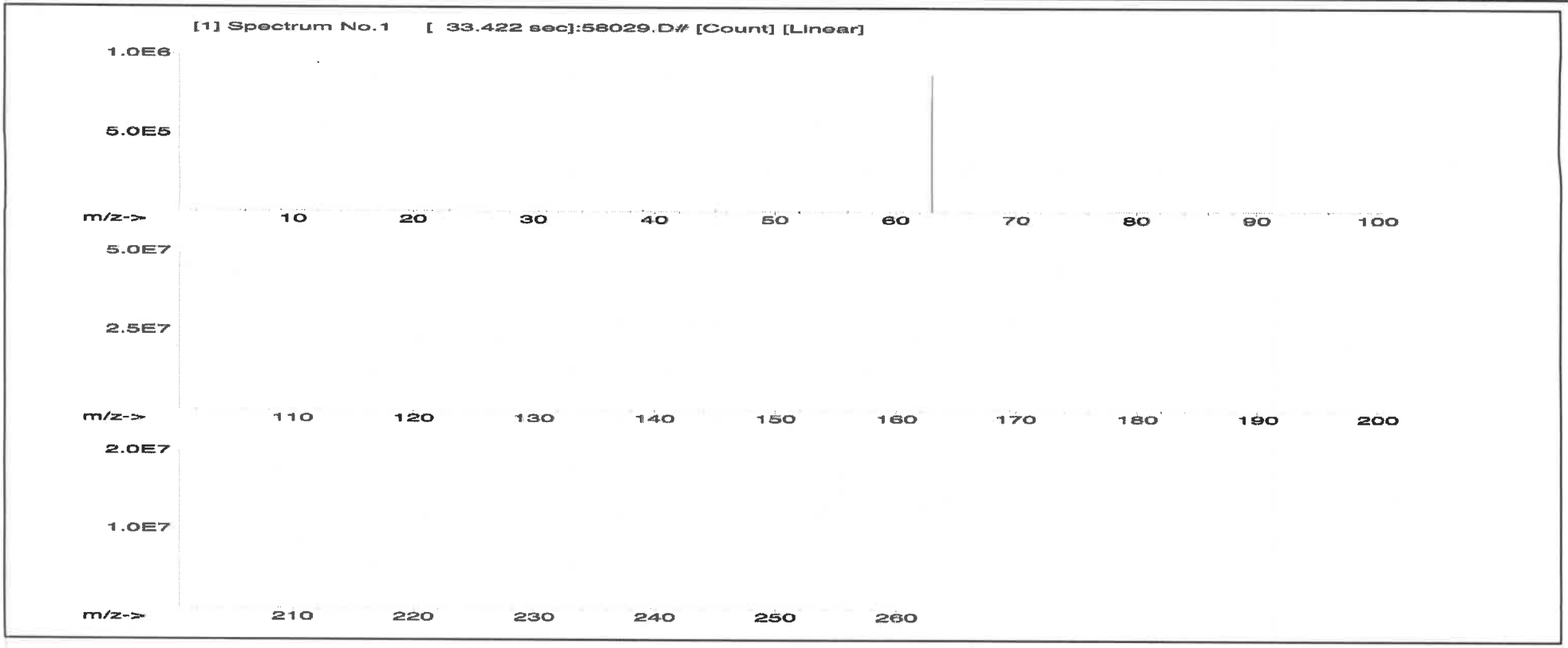
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5798

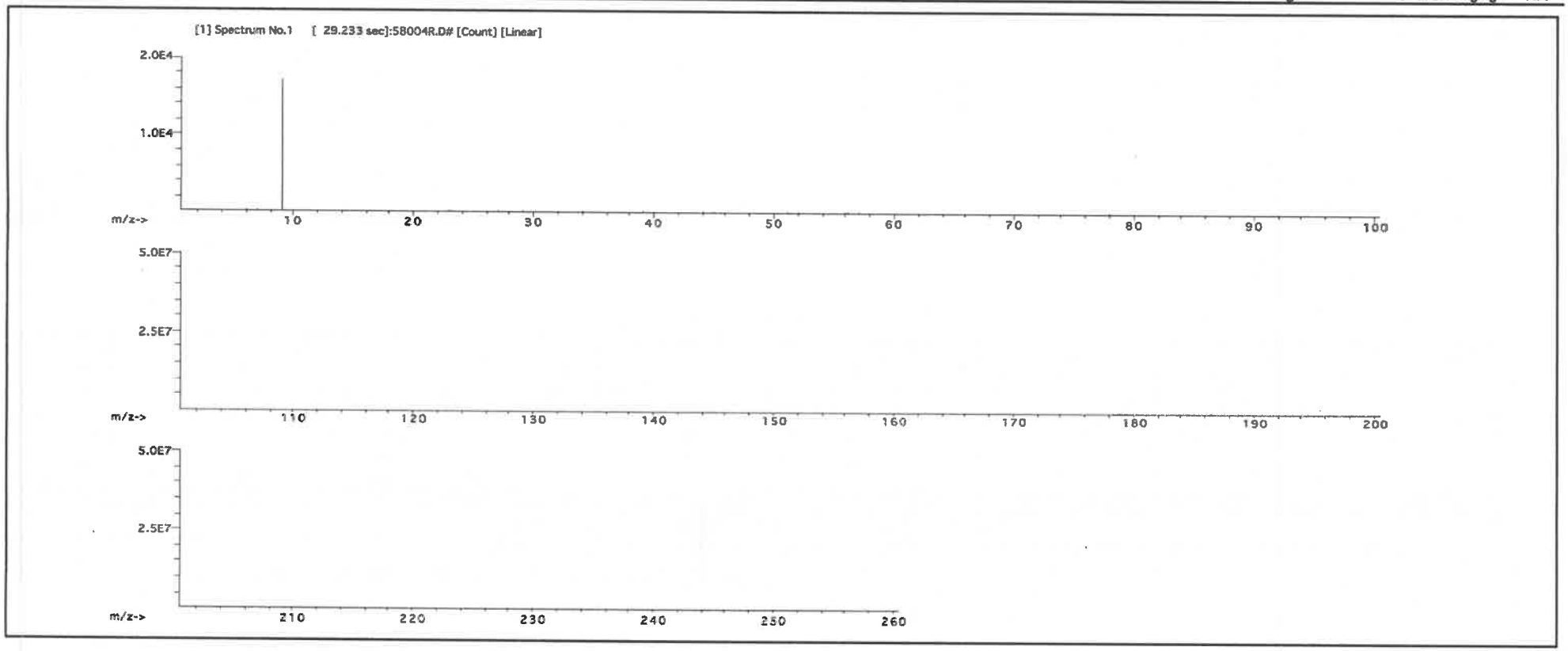
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R? 02/09/24 IV15799

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

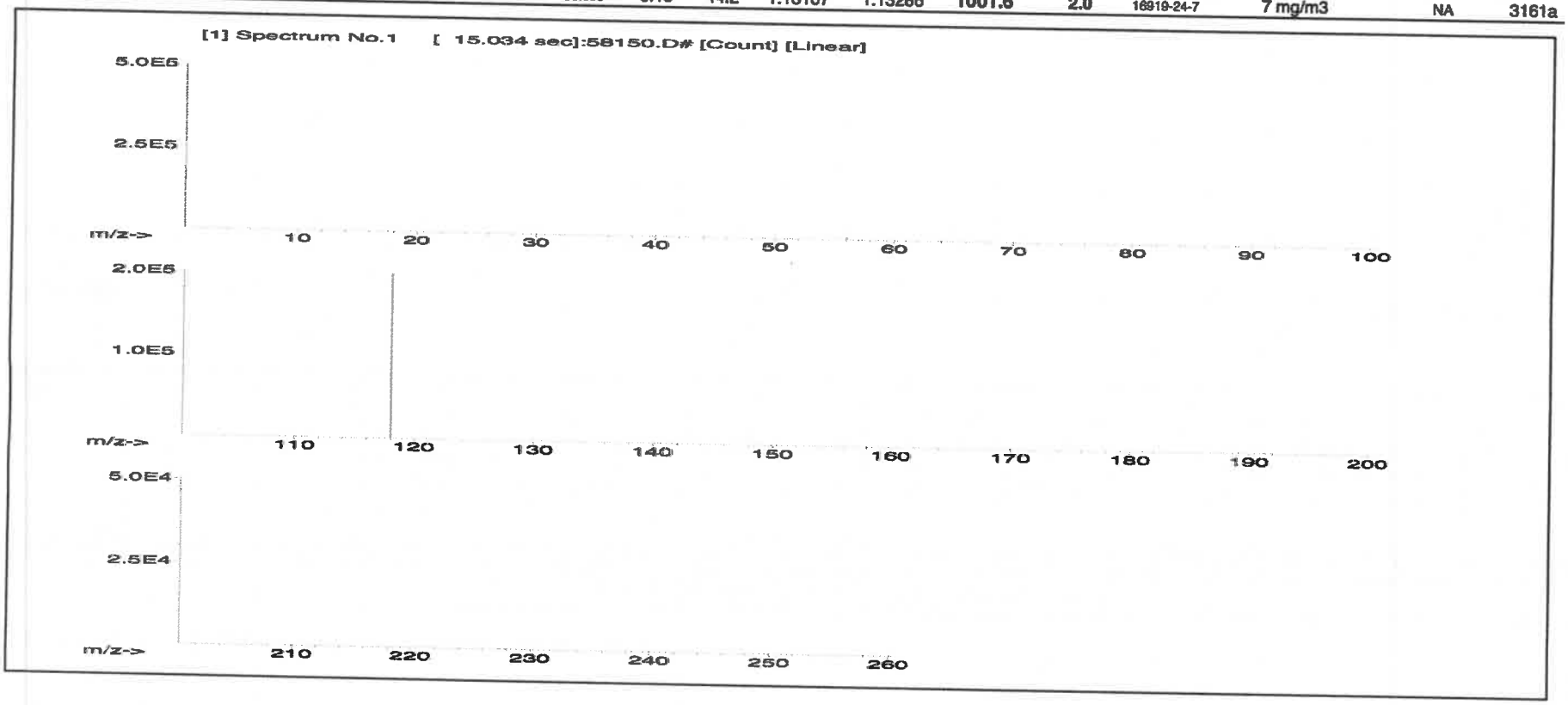
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 IM5800 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

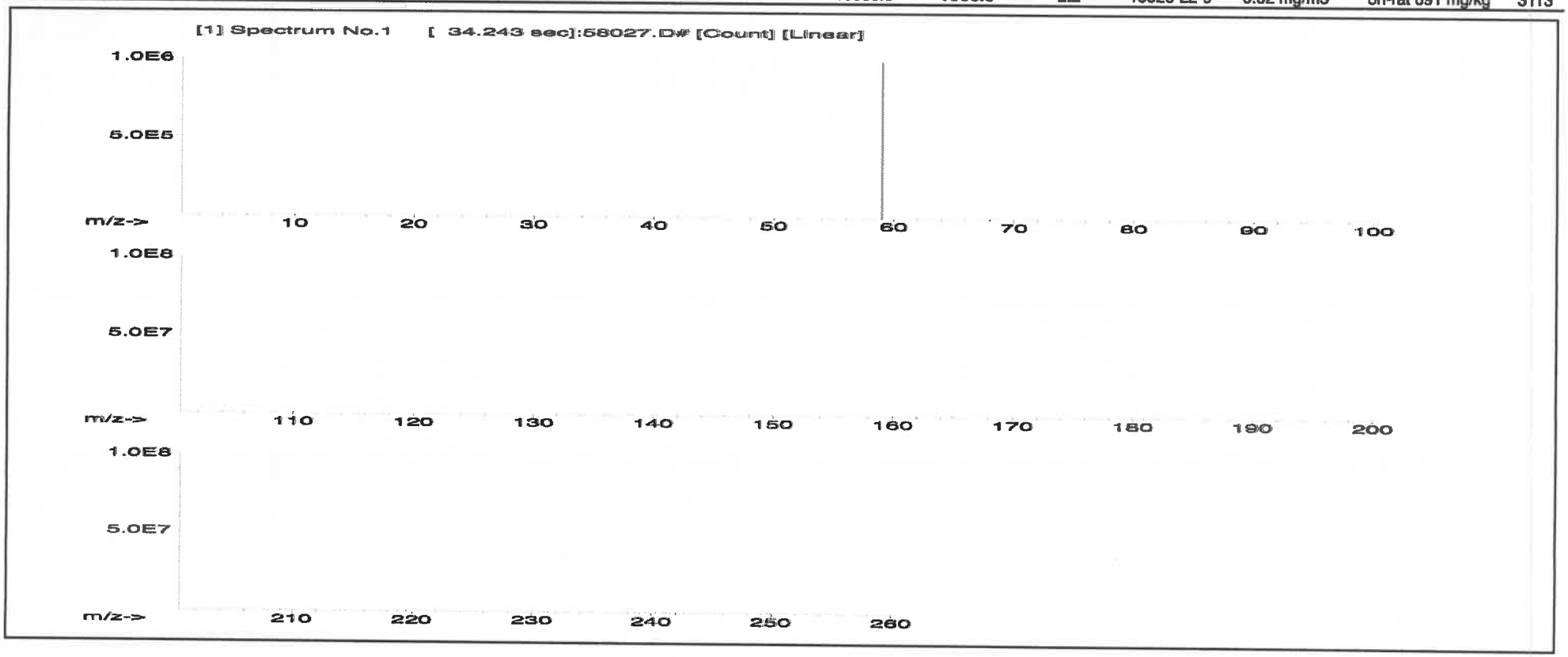
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By: Lawrence Barry 091923

Reviewed By: Pedro L. Rentas 091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	2.2	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5801 BH

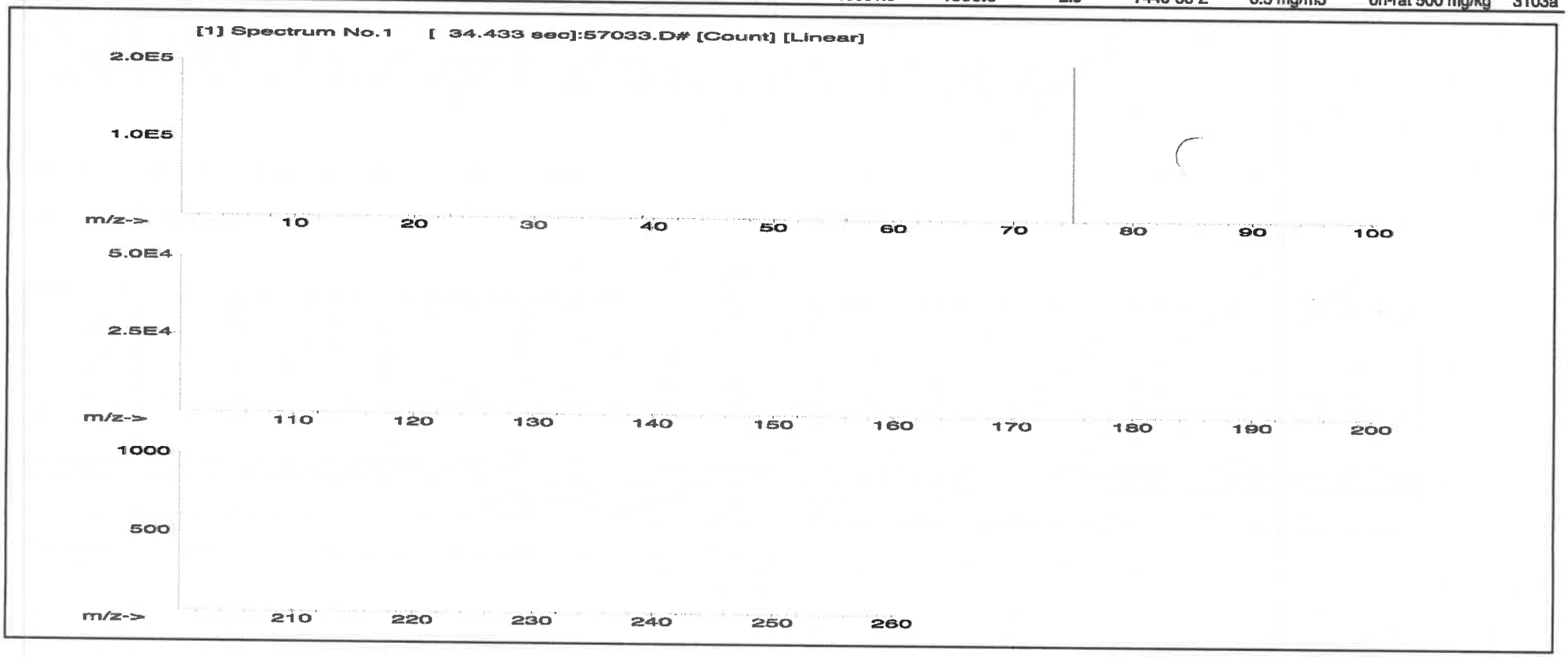
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

A: 02/09/24 M.5814

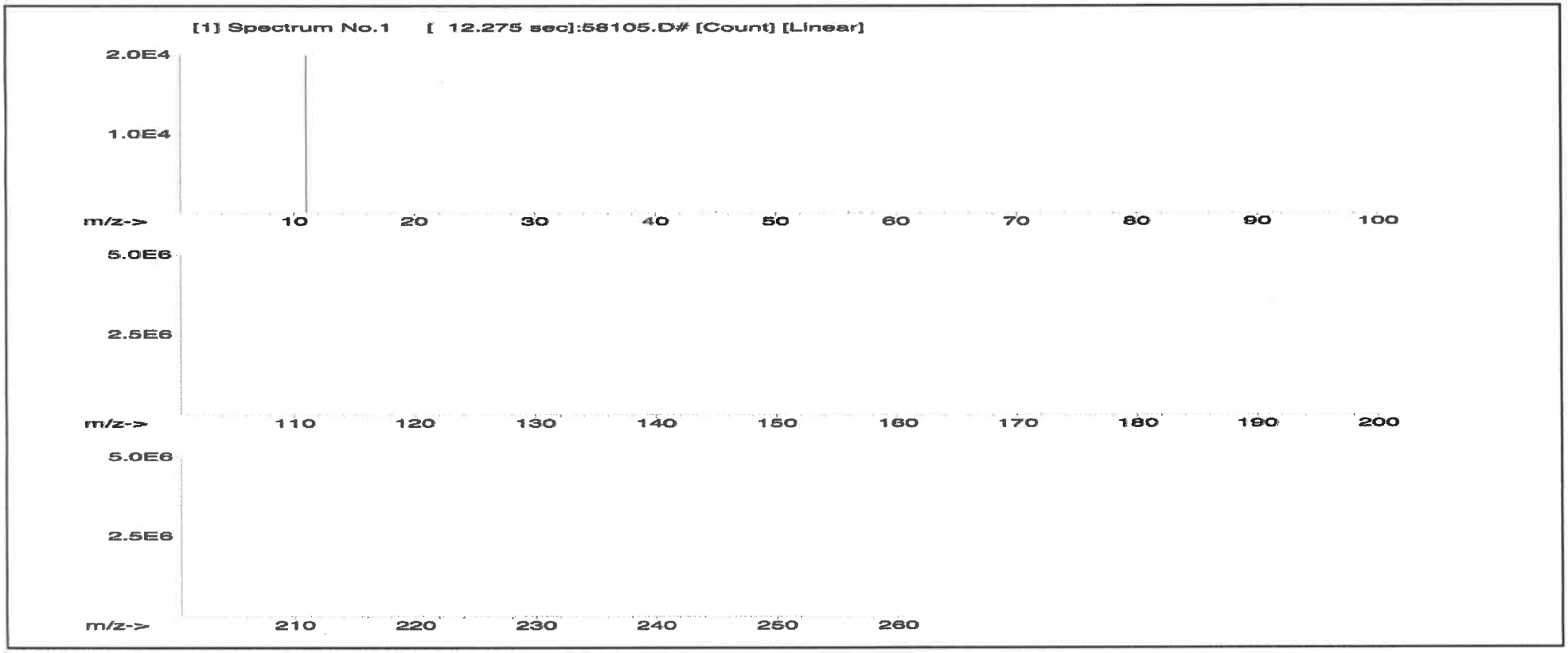
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Lot #**		
Lot Number:	**071123**	**Solvent:**	MKBQ8597V	Ammonium hydroxide	
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R1 02/09/24. M58165

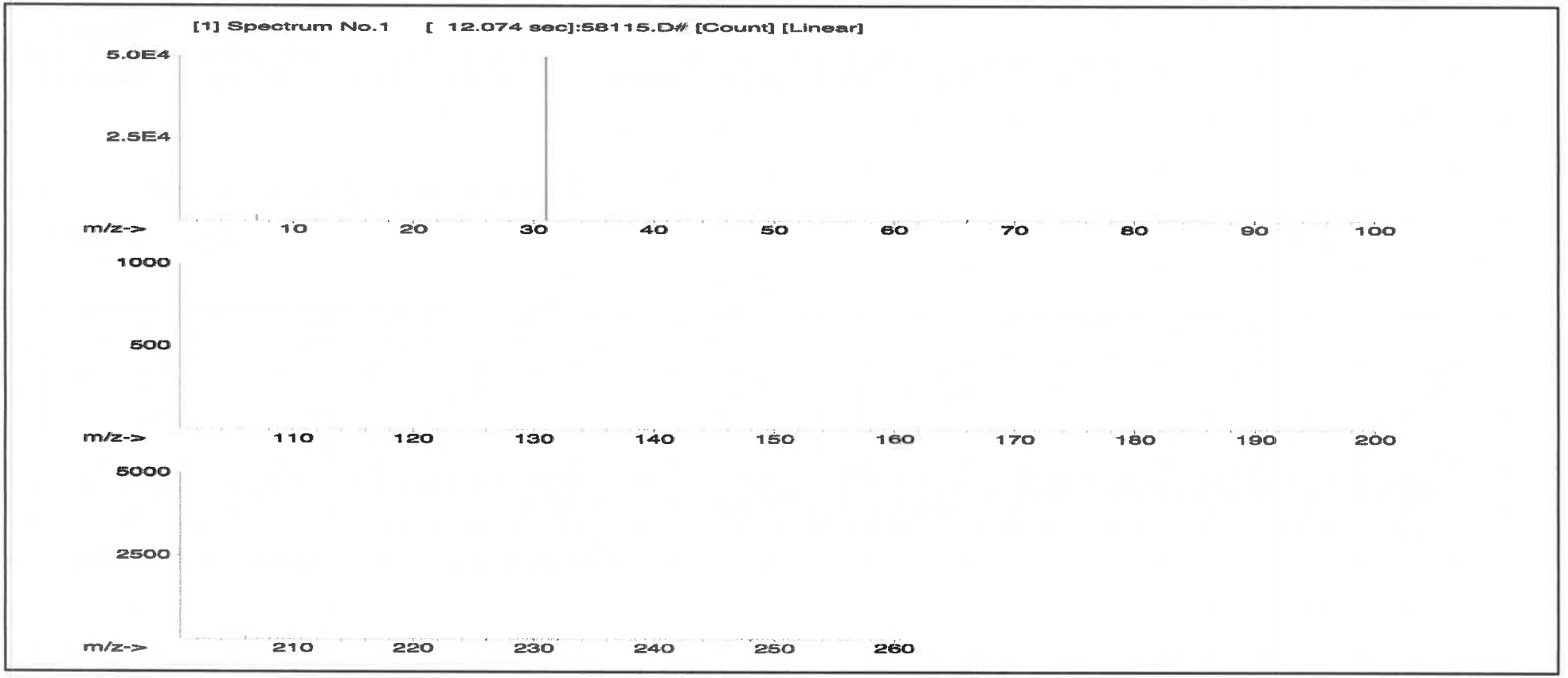
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5816

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57016
Lot Number: 122923
Description: Sulfur (S)

Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

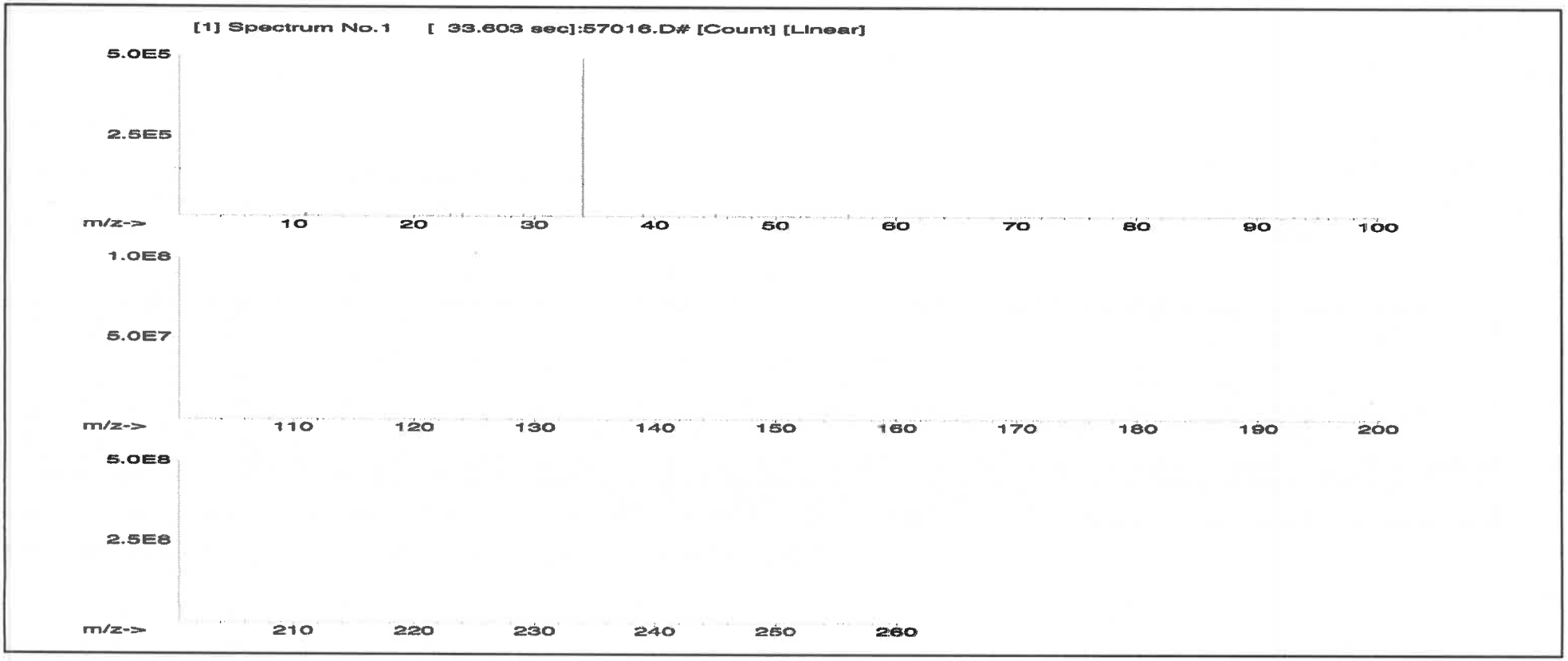
Weight shown below was diluted to (mL): 4000.0 0.06 Flask Uncertainty

	Lot #	
Solvent:	122923	ASTM Type 1 Water

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5817

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

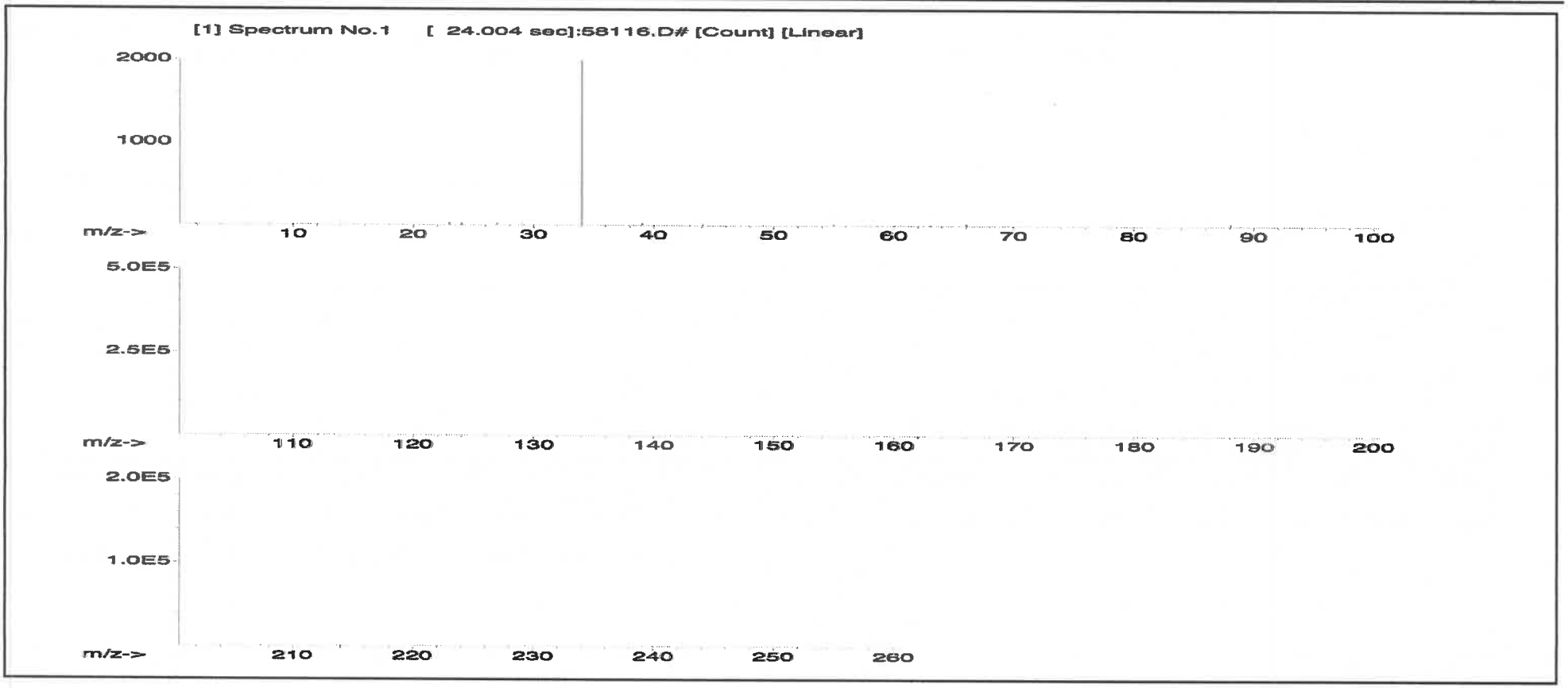
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5820

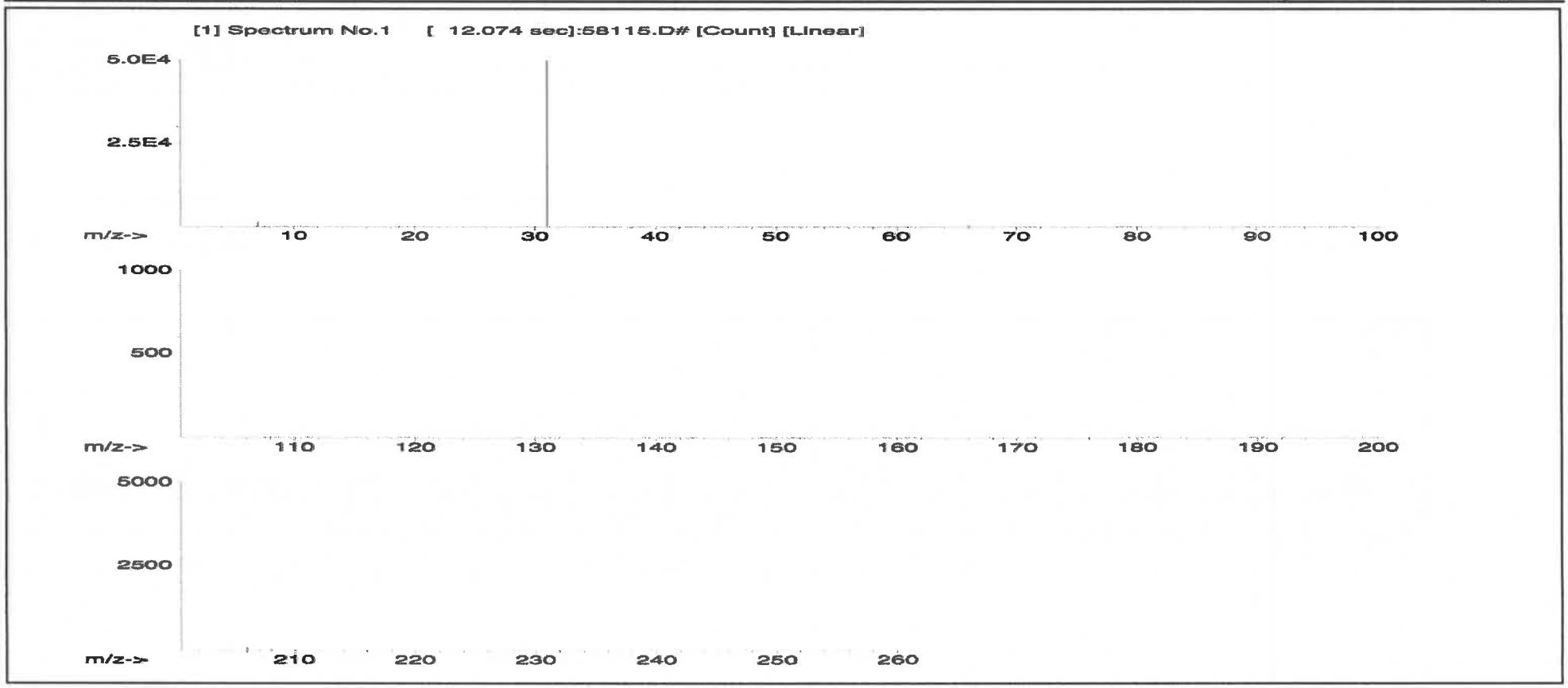
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MF884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 02/22/24 M5942

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	< 0.000536	M	Eu	< 0.000268	O	Na	< 0.032670	M	Se	0.001204	O	Zn	< 0.003267			
O	Al	0.000872	O	Fe	0.003225	O	Nb	< 0.043560	O	Si	0.004735	O	Zr	< 0.043560			
M	As	< 0.008586	M	Ga	< 0.000268	M	Nd	< 0.000268	M	Sm	< 0.000268						
M	Au	< 0.004577	M	Gd	< 0.000268	O	Ni	< 0.010890	M	Sn	0.000096						
O	B	< 0.008929	M	Ge	< 0.002146	M	Os	< 0.000269	O	Sr	0.000096						
M	Ba	< 0.002683	M	Hf	0.002161	O	P	< 0.054450	M	Ta	0.010560						
M	Be	< 0.005366	M	Hg	< 0.003231	M	Pb	< 0.001073	M	Tb	< 0.000268						
M	Bi	< 0.001609	M	Ho	< 0.000268	M	Pd	< 0.000268	M	Te	< 0.001341						
O	Ca	0.000676	M	In	< 0.002683	M	Pr	< 0.000268	M	Th	< 0.053663						
M	Cd	< 0.000268	M	Ir	< 0.000269	M	Pt	< 0.000536	s	Ti	<						
M	Ce	< 0.000268	M	K	0.001172	M	Rb	< 0.000268	M	Tl	< 0.000268						
M	Co	< 0.004293	M	La	< 0.000268	M	Re	< 0.000268	M	Tm	< 0.000268						
M	Cr	0.000752	O	Li	< 0.027225	M	Rh	< 0.000268	M	U	< 0.000268						
M	Cs	< 0.000268	M	Lu	< 0.000268	M	Ru	< 0.000269	M	V	< 0.019855						
O	Cu	< 0.010890	O	Mg	< 0.005445	i	S	<	M	W	0.000473						
M	Dy	< 0.000268	O	Mn	< 0.003267	M	Sb	< 0.006976	M	Y	< 0.002146						
M	Er	< 0.000268	M	Mo	0.000774	O	Sc	< 0.004900	M	Yb	< 0.000536						

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

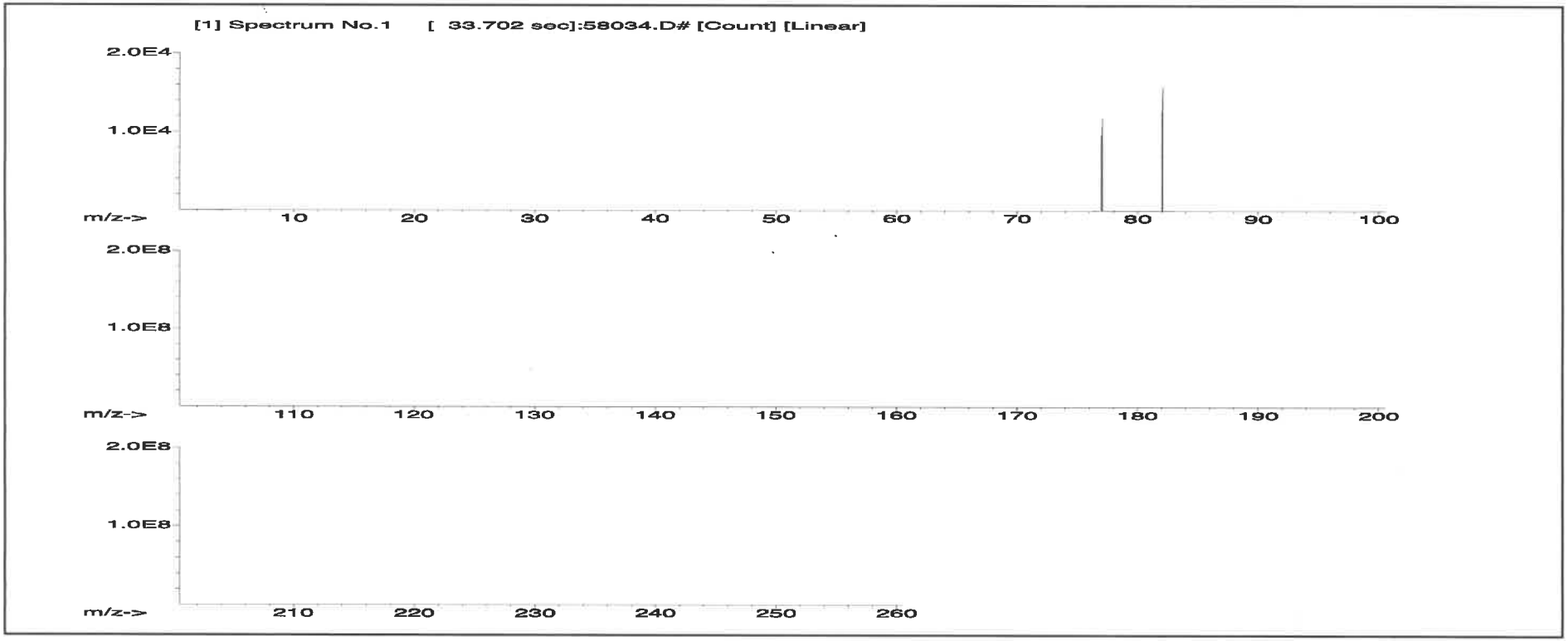
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

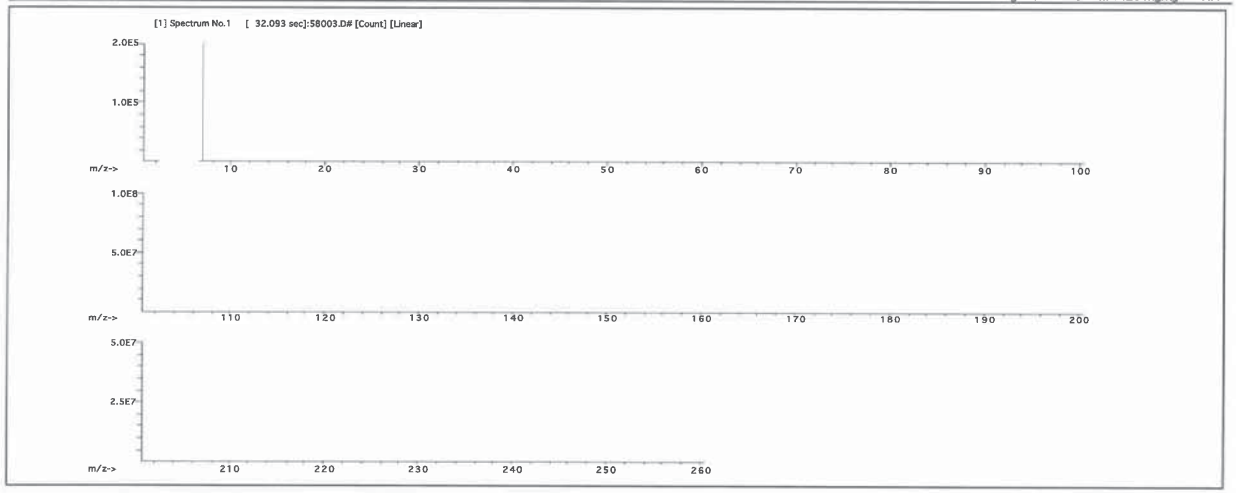
Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	
		5E-05	Balance Uncertainty
		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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24
MS-997

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	1 000 ± 7 µg/mL	Cadmium, Cd	500.0 ± 2.2 µg/mL
Lead, Pb	1 000 ± 4 µg/mL	Selenium, Se	1 000 ± 6 µg/mL
Thallium, Tl	1 000 ± 7 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

R! 08/22/24 M6058, M6059

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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:

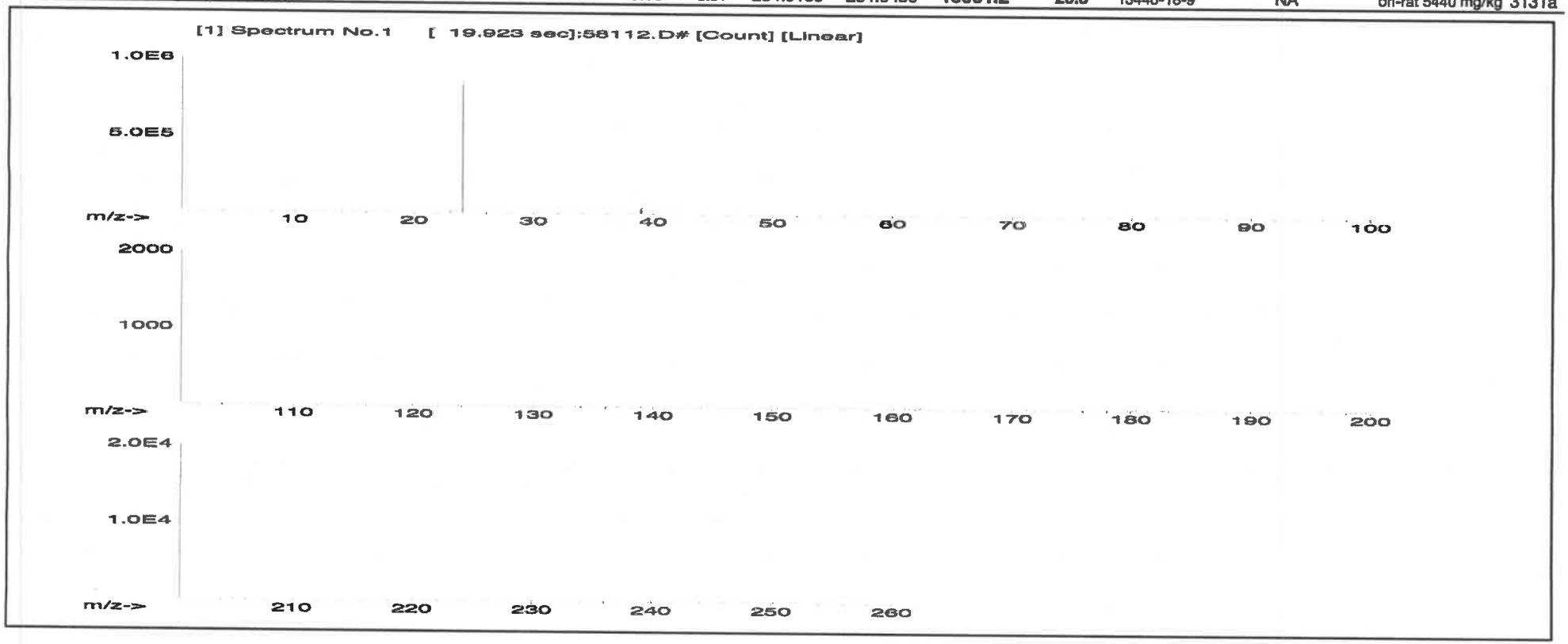
R -> 1/13/25
M 6127

Part Number:	**58112**		**Solvent:**	**Lot #** 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25

M6128

Part Number:	**58025**		**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**				
Description:	**Manganese (Mn)**		2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

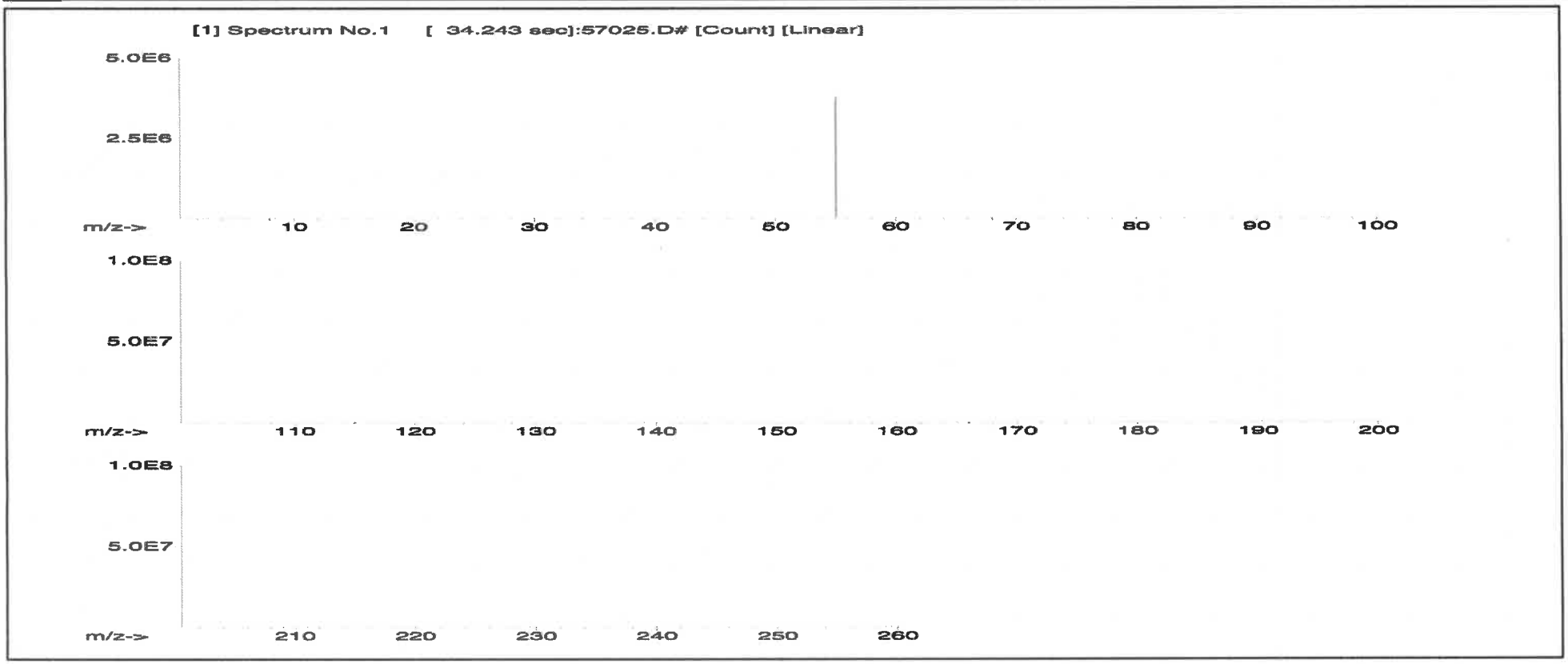
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

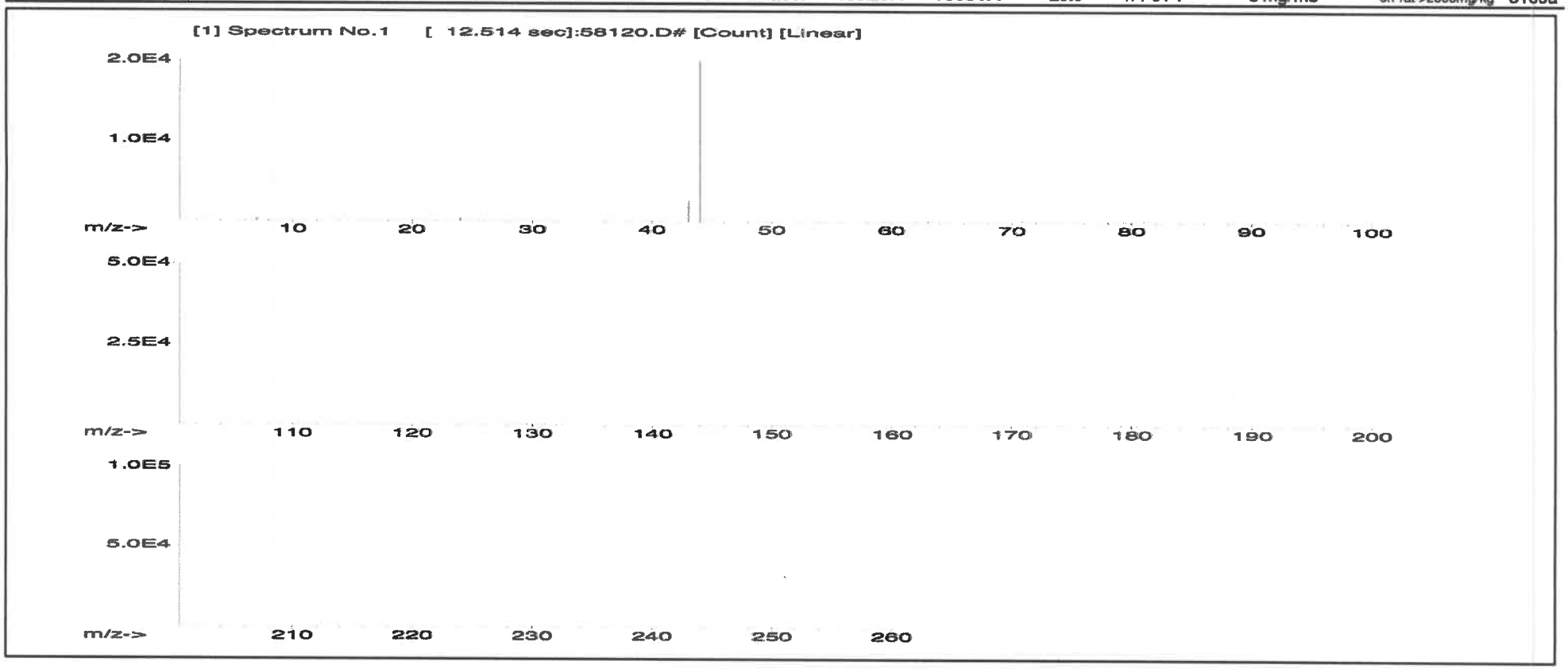
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)

Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 121824
Pedro Rentas
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	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).

Part # **58120** Lot # **121824**

Printed: 1/10/2025, 4:48:14 PM

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

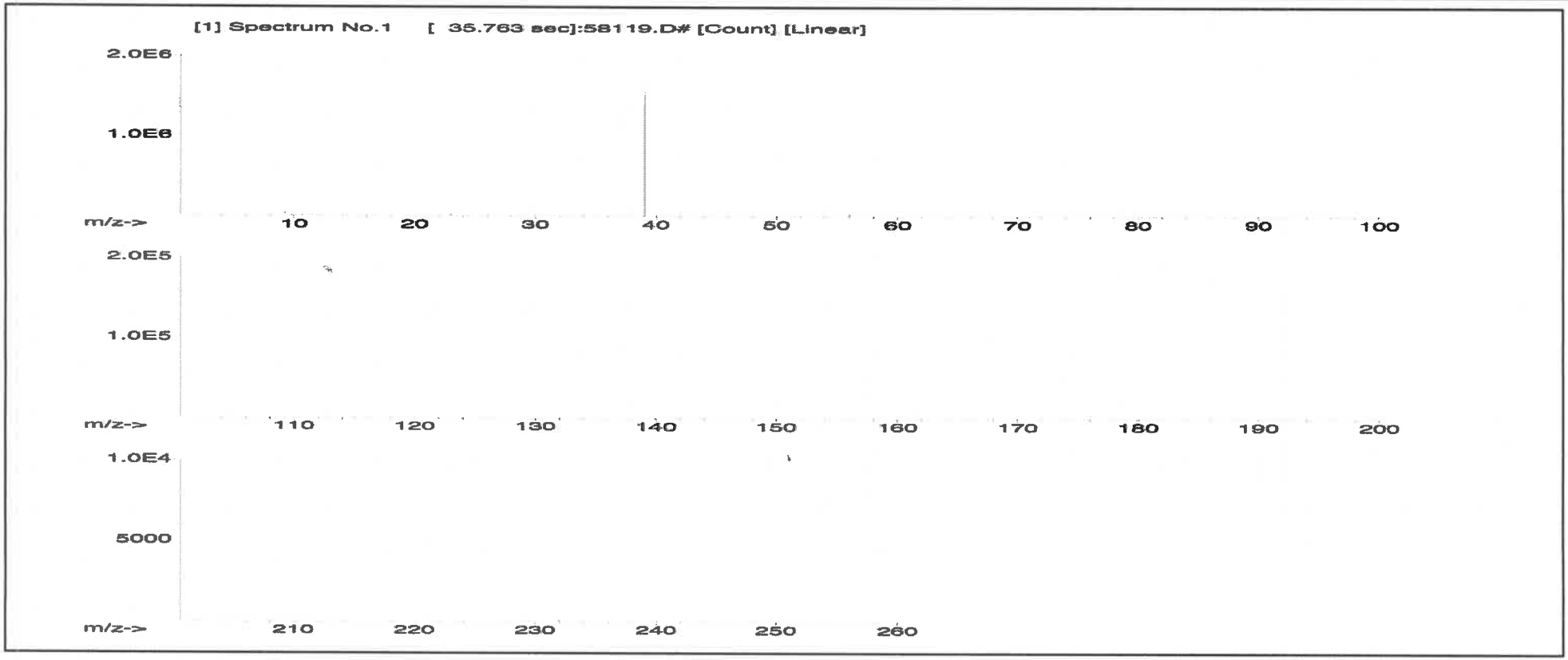
5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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:

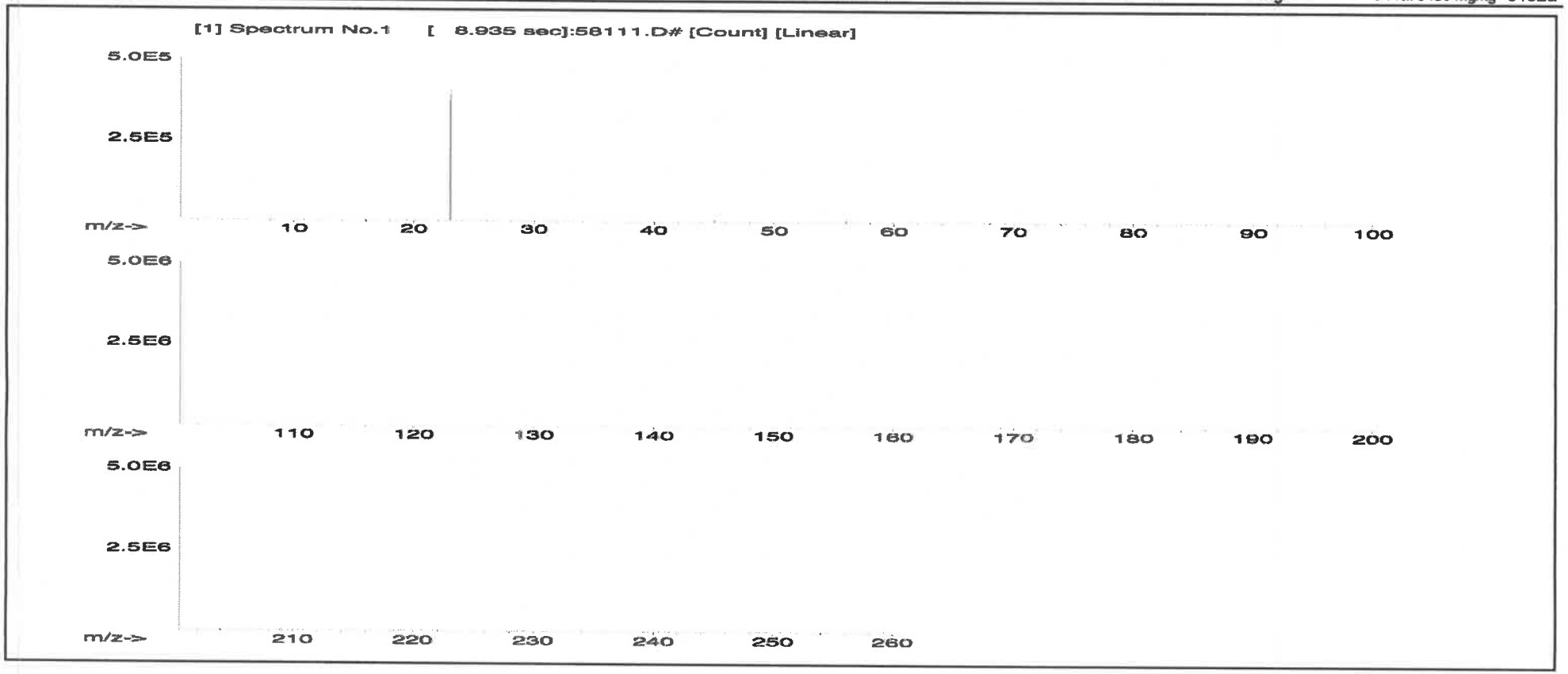
R->1/13/25

M6144

Part Number:	**58111**			**Lot #**	
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

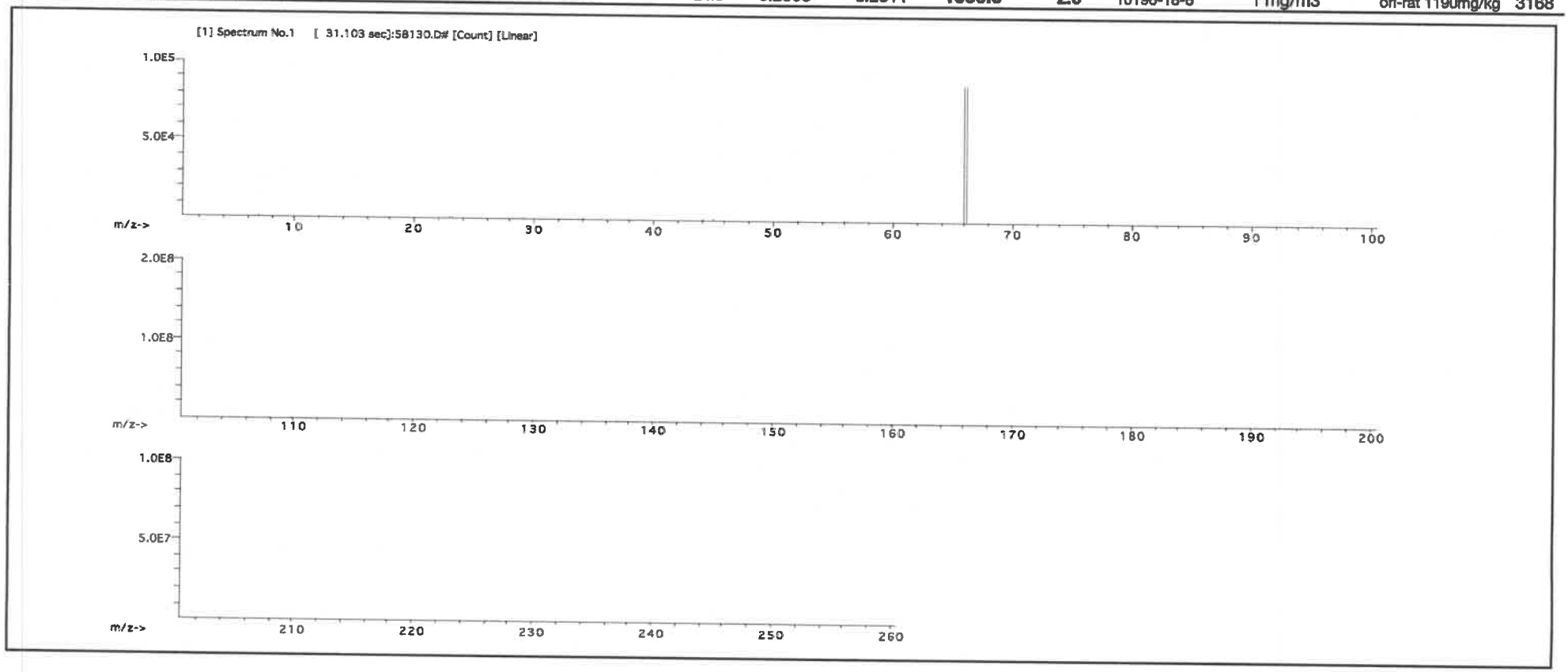
M6145

Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 121724
Pedro Rentas
Reviewed By: Pedro L. Rentas 121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) ***CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS***

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	CN^-	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R→ 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Biosciences Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

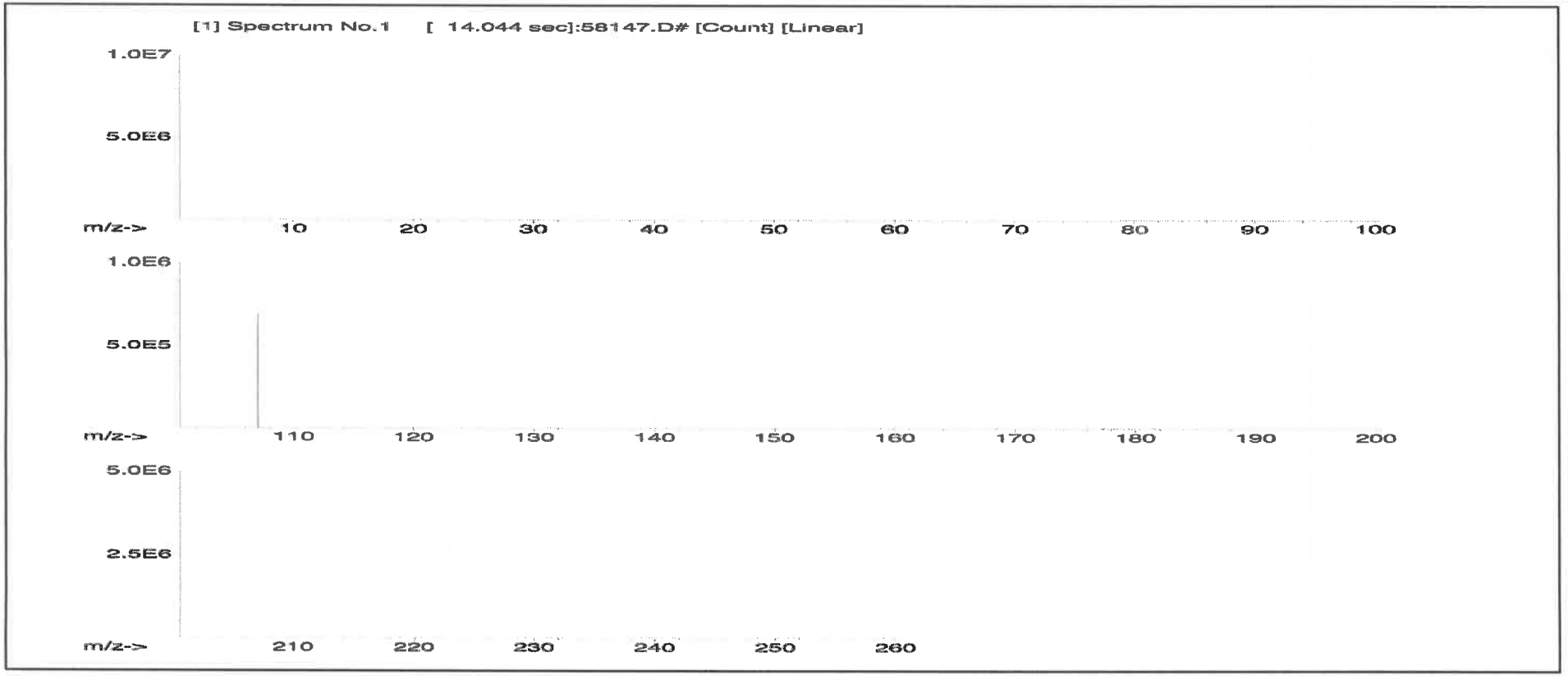
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26 ± 0.058 Flask Uncertainty

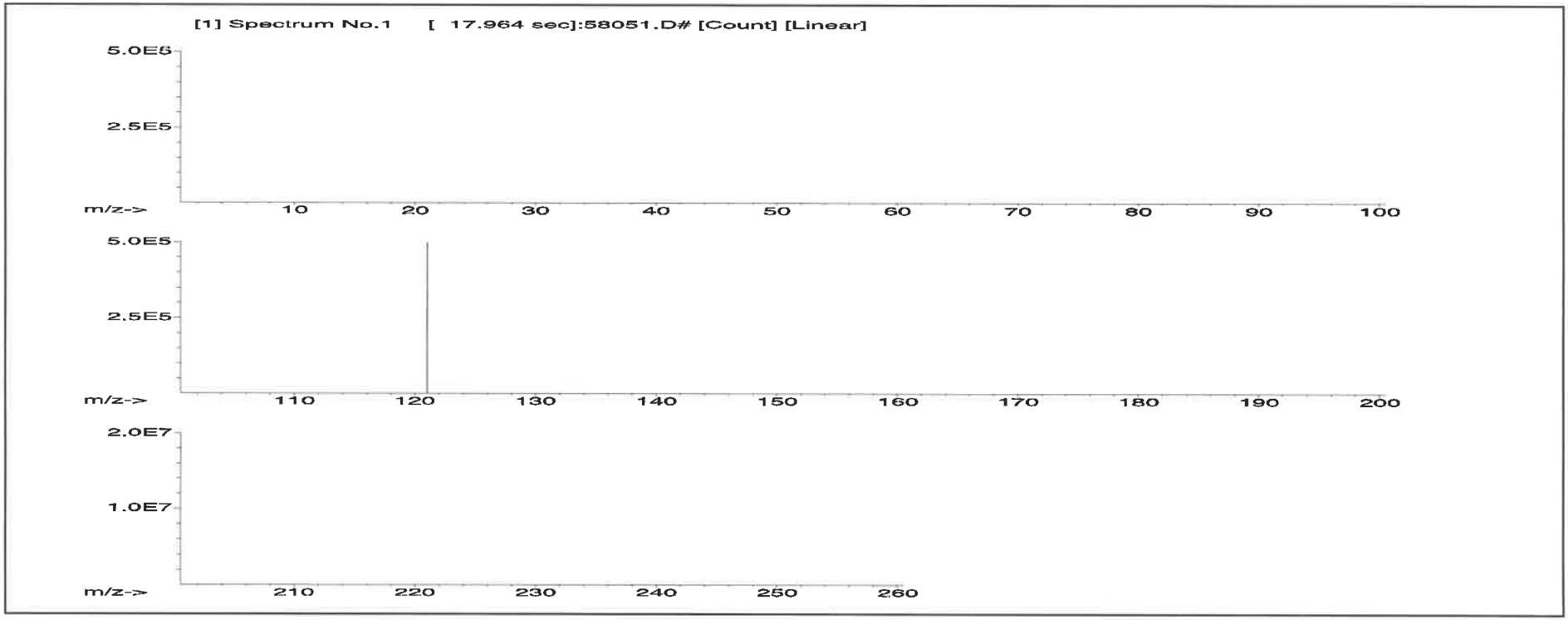
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	071724
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	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).

R : 04/20/21

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,



Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**998 ± 4 µg/mL** ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	**1001 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**1001 ± 2 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6023

R ! 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

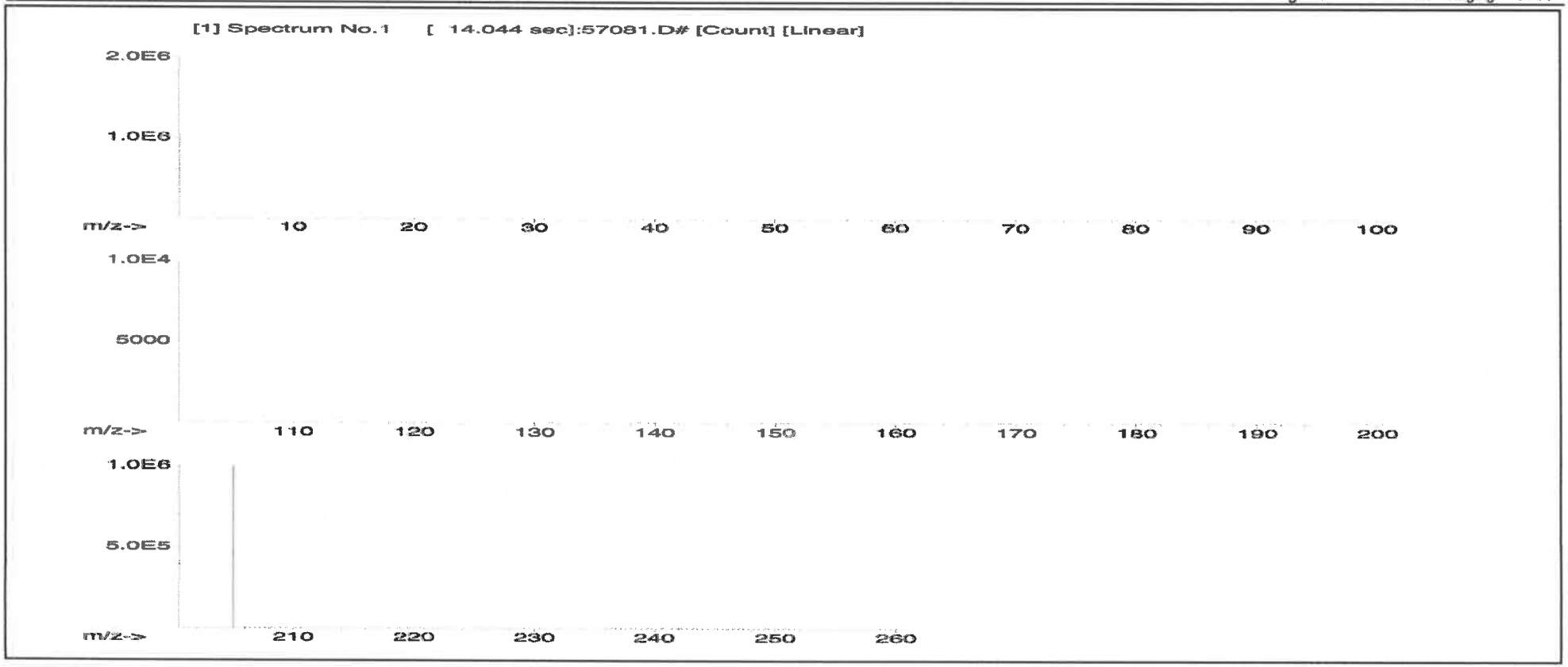
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**			**Lot #**	
Lot Number:	**062724**		**Solvent:**	24002546	Nitric Acid
Description:	**Thallium (Tl)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

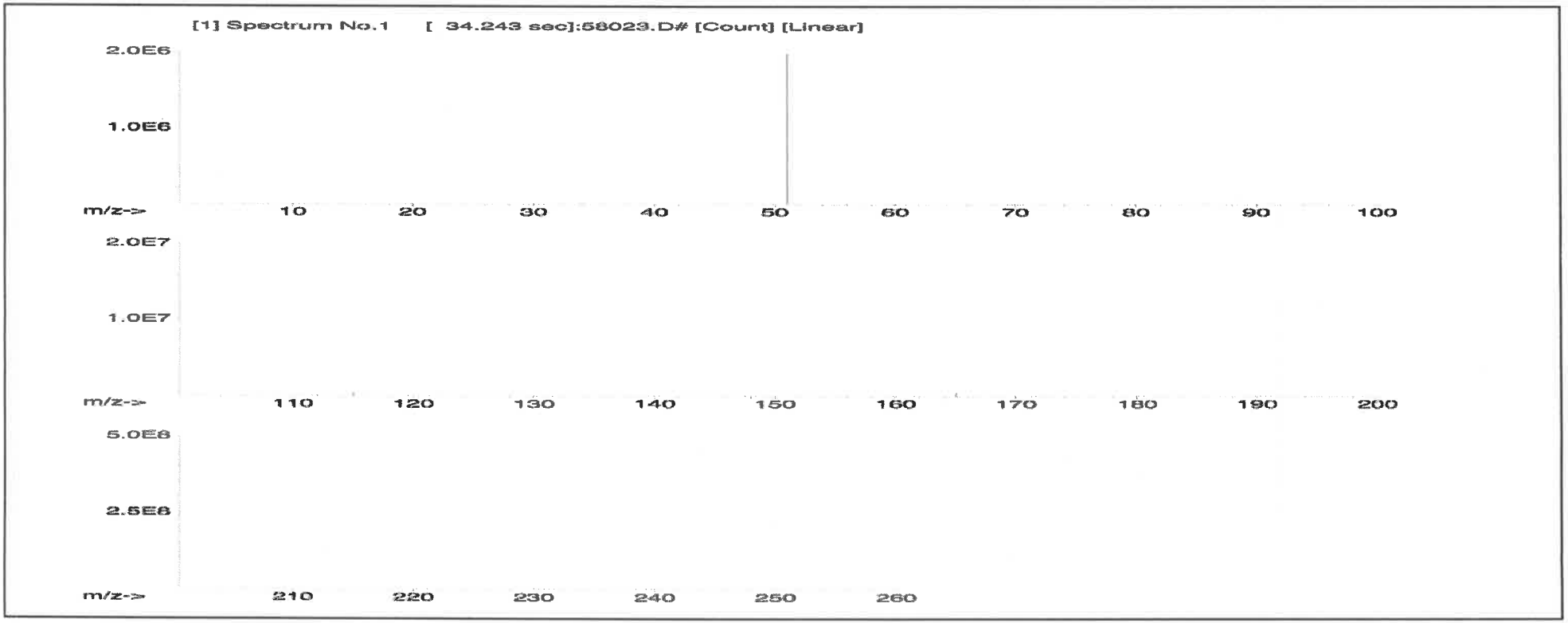
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: Q1985

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: PO#
ADDRESS: 4433 Corporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: RW8	ADDRESS:
CITY: Virginia Beach STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu	CITY: STATE: ZIP:
ATTENTION: Ernie Wu	E-MAIL: ernie,wu@tetratech.com	ATTENTION: PHONE:
PHONE: 757-466-4901 FAX: 757-461-4148	PHONE: 757-466-4901 FAX: 757-461-4148	

DATA TURNAROUND INFORMATION

FAX: 5 DAYS*
HARD COPY: 5 DAYS*
EDD 5 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESELTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD Format
- ☐ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	1,4-Dioxane SW846 8270 SIM (1)	VOC SW846 8260 (2)	TAL Metals (3)	pH (4)	TSS (5)	SVOC 8270 (6)	(7)	(8)	(9)
								1	2	3	4	5	6	7	8	9
								PRESERVATIVES								
									A	B						
1.	RW8-BW-20250507	GW		x	5/7/25	12:30	8	1	3	1	1	1	1			
2.	TB-20250507	WQ		x	5/7/25	9:00	3	(V)	3							
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																

COMMENTS

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	5/7/25 1550	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2. FedEx	5-8-25 0950	2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 2.3°C
☐ Ice in Cooler?: Y
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments: Adjust FACTOR +1 IN RUN #1

Page ____ of ____

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
CHEMTECH: ☐ Picked Up ☐ Overnight

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH 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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1985 TETR06
Client Name : Tetra Tech NUS, Inc.
Client Contact : Ernie Wu
Invoice Name : Tetra Tech NUS, Inc.
Invoice Contact : Ernie Wu

Order Date : 5/8/2025 10:49:00 AM
Project Name : NWIRP Bethpage 112G080
Receive DateTime : 5/8/2025 9:50:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : ADAPT
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1985-01	RW8-BW-20250507	Water	05/07/2025	12:30					
					VOCMS Group1		8260-Low		5 Bus. Days
Q1985-02	TB-20250507	Water	05/07/2025	09:00					
					VOCMS Group1		8260-Low		5 Bus. Days

Relinguished By :
Date / Time : 5/8/25 1143

Received By : JC
Date / Time : 5/8/25 1143

Storage Area : VOA Refridgerator Room