284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : P5362

Project ID : Con Ed Non-MGP - East River SI 453648

Client : PARSONS Main of New York, Inc.

Lab Sample Number	Client Sample Number
P5362-01	WC-SOIL-20241219
P5362-02	WC-SOIL-20241219

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

Signature : _____

Date: 1/7/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **P5362**

	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: **MAYUR DESAI** **Date:** **01/07/2025**

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LAB CHRONICLE

OrderID:	P5362	**OrderDate:**	12/20/2024 10:07:00 AM
Client:	PARSONS Main of New York, Inc.	**Project:**	Con Ed Non-MGP - East River SI 453648
Contact:	Stephen Liberatore	**Location:**	N21,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5362-01	**WC-SOIL-20241219**	**SOIL**			**12/19/24**			**12/19/24**
			Mercury	7471B		12/20/24	12/20/24	
			Metals ICP-TAL	6010D		12/26/24	12/30/24	
P5362-02	**WC-SOIL-20241219**	**TCLP**			**12/19/24**			**12/19/24**
			TCLP ICP Metals	6010D		12/27/24	12/30/24	
			TCLP Mercury	7470A		12/30/24	12/30/24	

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Hit Summary Sheet
SW-846

SDG No.: P5362 **Order ID:** P5362

Client: PARSONS Main of New York, Inc. **Project ID:** Con Ed Non-MGP - East River SI 453648

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WC-SOIL-20241219								
P5362-01	WC-SOIL-20241219	SOIL	Aluminum	3630		2.38	4.94	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Arsenic	2.08		0.29	0.99	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Barium	24.4		0.63	4.94	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Beryllium	0.35		0.012	0.30	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Calcium	847		2.77	98.8	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Chromium	9.17		0.053	0.49	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Cobalt	6.02		0.057	1.48	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Copper	226		0.46	0.99	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Iron	9420		2.66	4.94	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Lead	231		0.15	0.59	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Magnesium	1870		3.39	98.8	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Manganese	80.9		0.070	0.99	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Mercury	0.030		0.0060	0.013	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Nickel	18.9		0.089	1.98	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Potassium	787		28.4	98.8	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Sodium	120		35.7	98.8	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Vanadium	17.7		0.27	1.98	mg/Kg
P5362-01	WC-SOIL-20241219	SOIL	Zinc	236		0.11	1.98	mg/Kg



SAMPLE DATA

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Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/19/24
Project:	Con Ed Non-MGP - East River SI 453648	Date Received:	12/19/24
Client Sample ID:	WC-SOIL-20241219	SDG No.:	P5362
Lab Sample ID:	P5362-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	92

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3630		1	2.38	4.94	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-36-0	Antimony	0.15	UN	1	0.15	2.47	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-38-2	Arsenic	2.08		1	0.29	0.99	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-39-3	Barium	24.4	N	1	0.63	4.94	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-41-7	Beryllium	0.35		1	0.012	0.30	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-43-9	Cadmium	0.016	U	1	0.016	0.30	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-70-2	Calcium	847		1	2.77	98.8	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-47-3	Chromium	9.17		1	0.053	0.49	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-48-4	Cobalt	6.02		1	0.057	1.48	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-50-8	Copper	226		1	0.46	0.99	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7439-89-6	Iron	9420		1	2.66	4.94	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7439-92-1	Lead	231		1	0.15	0.59	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7439-95-4	Magnesium	1870		1	3.39	98.8	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7439-96-5	Manganese	80.9		1	0.070	0.99	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7439-97-6	Mercury	0.030		1	0.0060	0.013	mg/Kg	12/20/24 10:15	12/20/24 14:40	SW7471B	
7440-02-0	Nickel	18.9		1	0.089	1.98	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-09-7	Potassium	787		1	28.4	98.8	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7782-49-2	Selenium	0.33	UN	1	0.33	0.99	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-22-4	Silver	0.051	UN	1	0.051	0.49	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-23-5	Sodium	120	N	1	35.7	98.8	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-28-0	Thallium	0.44	U	1	0.44	1.98	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-62-2	Vanadium	17.7	N	1	0.27	1.98	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050
7440-66-6	Zinc	236		1	0.11	1.98	mg/Kg	12/26/24 14:45	12/30/24 15:28	SW6010	SW3050

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

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

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

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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
ICV28	Mercury	4.01	4.0	100	90 - 110	CV	12/20/2024	14:13	LB134050

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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
CCV57	Mercury	5.05	5.0	101	90 - 110	CV	12/20/2024	14:17	LB134050
CCV58	Mercury	4.92	5.0	98	90 - 110	CV	12/20/2024	14:43	LB134050
CCV59	Mercury	4.90	5.0	98	90 - 110	CV	12/20/2024	15:01	LB134050

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	2460	2500	98	90 - 110	P	12/30/2024	14:20	LB134129
	Antimony	971	1000	97	90 - 110	P	12/30/2024	14:20	LB134129
	Arsenic	1020	1000	102	90 - 110	P	12/30/2024	14:20	LB134129
	Barium	491	520	94	90 - 110	P	12/30/2024	14:20	LB134129
	Beryllium	488	510	96	90 - 110	P	12/30/2024	14:20	LB134129
	Cadmium	511	510	100	90 - 110	P	12/30/2024	14:20	LB134129
	Calcium	9600	10000	96	90 - 110	P	12/30/2024	14:20	LB134129
	Chromium	536	520	103	90 - 110	P	12/30/2024	14:20	LB134129
	Cobalt	517	520	99	90 - 110	P	12/30/2024	14:20	LB134129
	Copper	517	510	102	90 - 110	P	12/30/2024	14:20	LB134129
	Iron	10300	10000	103	90 - 110	P	12/30/2024	14:20	LB134129
	Lead	1010	1000	101	90 - 110	P	12/30/2024	14:20	LB134129
	Magnesium	5600	6000	93	90 - 110	P	12/30/2024	14:20	LB134129
	Manganese	501	520	96	90 - 110	P	12/30/2024	14:20	LB134129
	Nickel	519	530	98	90 - 110	P	12/30/2024	14:20	LB134129
	Potassium	9990	9900	101	90 - 110	P	12/30/2024	14:20	LB134129
	Selenium	989	1000	99	90 - 110	P	12/30/2024	14:20	LB134129
	Silver	259	250	104	90 - 110	P	12/30/2024	14:20	LB134129
	Sodium	9950	10000	100	90 - 110	P	12/30/2024	14:20	LB134129
	Thallium	1020	1000	102	90 - 110	P	12/30/2024	14:20	LB134129
	Vanadium	478	500	96	90 - 110	P	12/30/2024	14:20	LB134129
	Zinc	1040	1000	104	90 - 110	P	12/30/2024	14:20	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	105	100	105	80 - 120	P	12/30/2024	14:24	LB134129
	Antimony	48.7	50.0	97	80 - 120	P	12/30/2024	14:24	LB134129
	Arsenic	20.7	20.0	104	80 - 120	P	12/30/2024	14:24	LB134129
	Barium	92.2	100	92	80 - 120	P	12/30/2024	14:24	LB134129
	Beryllium	5.77	6.0	96	80 - 120	P	12/30/2024	14:24	LB134129
	Cadmium	6.21	6.0	104	80 - 120	P	12/30/2024	14:24	LB134129
	Calcium	1900	2000	95	80 - 120	P	12/30/2024	14:24	LB134129
	Chromium	9.47	10.0	95	80 - 120	P	12/30/2024	14:24	LB134129
	Cobalt	29.8	30.0	99	80 - 120	P	12/30/2024	14:24	LB134129
	Copper	21.6	20.0	108	80 - 120	P	12/30/2024	14:24	LB134129
	Iron	90.5	100	90	80 - 120	P	12/30/2024	14:24	LB134129
	Lead	11.3	12.0	94	80 - 120	P	12/30/2024	14:24	LB134129
	Magnesium	1990	2000	100	80 - 120	P	12/30/2024	14:24	LB134129
	Manganese	19.5	20.0	98	80 - 120	P	12/30/2024	14:24	LB134129
	Nickel	40.1	40.0	100	80 - 120	P	12/30/2024	14:24	LB134129
	Potassium	1890	2000	94	80 - 120	P	12/30/2024	14:24	LB134129
	Selenium	18.4	20.0	92	80 - 120	P	12/30/2024	14:24	LB134129
	Silver	10.2	10.0	102	80 - 120	P	12/30/2024	14:24	LB134129
	Sodium	1880	2000	94	80 - 120	P	12/30/2024	14:24	LB134129
	Thallium	38.3	40.0	96	80 - 120	P	12/30/2024	14:24	LB134129
	Vanadium	38.4	40.0	96	80 - 120	P	12/30/2024	14:24	LB134129
	Zinc	42.2	40.0	105	80 - 120	P	12/30/2024	14:24	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	9360	10000	94	90 - 110	P	12/30/2024	14:49	LB134129
	Antimony	4670	5000	94	90 - 110	P	12/30/2024	14:49	LB134129
	Arsenic	4640	5000	93	90 - 110	P	12/30/2024	14:49	LB134129
	Barium	9260	10000	93	90 - 110	P	12/30/2024	14:49	LB134129
	Beryllium	244	250	98	90 - 110	P	12/30/2024	14:49	LB134129
	Cadmium	2370	2500	95	90 - 110	P	12/30/2024	14:49	LB134129
	Calcium	23500	25000	94	90 - 110	P	12/30/2024	14:49	LB134129
	Chromium	972	1000	97	90 - 110	P	12/30/2024	14:49	LB134129
	Cobalt	2360	2500	95	90 - 110	P	12/30/2024	14:49	LB134129
	Copper	1180	1250	94	90 - 110	P	12/30/2024	14:49	LB134129
	Iron	4690	5000	94	90 - 110	P	12/30/2024	14:49	LB134129
	Lead	4730	5000	95	90 - 110	P	12/30/2024	14:49	LB134129
	Magnesium	23600	25000	94	90 - 110	P	12/30/2024	14:49	LB134129
	Manganese	2360	2500	94	90 - 110	P	12/30/2024	14:49	LB134129
	Nickel	2370	2500	95	90 - 110	P	12/30/2024	14:49	LB134129
	Potassium	23100	25000	92	90 - 110	P	12/30/2024	14:49	LB134129
	Selenium	4610	5000	92	90 - 110	P	12/30/2024	14:49	LB134129
	Silver	1200	1250	96	90 - 110	P	12/30/2024	14:49	LB134129
	Sodium	23000	25000	92	90 - 110	P	12/30/2024	14:49	LB134129
	Thallium	4530	5000	91	90 - 110	P	12/30/2024	14:49	LB134129
	Vanadium	2350	2500	94	90 - 110	P	12/30/2024	14:49	LB134129
	Zinc	2400	2500	96	90 - 110	P	12/30/2024	14:49	LB134129
CCV02	Aluminum	9460	10000	95	90 - 110	P	12/30/2024	15:19	LB134129
	Antimony	4790	5000	96	90 - 110	P	12/30/2024	15:19	LB134129
	Arsenic	4750	5000	95	90 - 110	P	12/30/2024	15:19	LB134129
	Barium	9410	10000	94	90 - 110	P	12/30/2024	15:19	LB134129
	Beryllium	247	250	99	90 - 110	P	12/30/2024	15:19	LB134129
	Cadmium	2440	2500	98	90 - 110	P	12/30/2024	15:19	LB134129
	Calcium	24100	25000	96	90 - 110	P	12/30/2024	15:19	LB134129
	Chromium	1000	1000	100	90 - 110	P	12/30/2024	15:19	LB134129
	Cobalt	2420	2500	97	90 - 110	P	12/30/2024	15:19	LB134129
	Copper	1200	1250	96	90 - 110	P	12/30/2024	15:19	LB134129
	Iron	4960	5000	99	90 - 110	P	12/30/2024	15:19	LB134129
	Lead	4860	5000	97	90 - 110	P	12/30/2024	15:19	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	24300	25000	97	90 - 110	P	12/30/2024	15:19	LB134129
	Manganese	2390	2500	96	90 - 110	P	12/30/2024	15:19	LB134129
	Nickel	2430	2500	97	90 - 110	P	12/30/2024	15:19	LB134129
	Potassium	24300	25000	97	90 - 110	P	12/30/2024	15:19	LB134129
	Selenium	4750	5000	95	90 - 110	P	12/30/2024	15:19	LB134129
	Silver	1240	1250	99	90 - 110	P	12/30/2024	15:19	LB134129
	Sodium	24200	25000	97	90 - 110	P	12/30/2024	15:19	LB134129
	Thallium	4930	5000	99	90 - 110	P	12/30/2024	15:19	LB134129
	Vanadium	2400	2500	96	90 - 110	P	12/30/2024	15:19	LB134129
	Zinc	2460	2500	98	90 - 110	P	12/30/2024	15:19	LB134129
CCV03	Aluminum	9260	10000	93	90 - 110	P	12/30/2024	16:12	LB134129
	Antimony	4910	5000	98	90 - 110	P	12/30/2024	16:12	LB134129
	Arsenic	4850	5000	97	90 - 110	P	12/30/2024	16:12	LB134129
	Barium	9200	10000	92	90 - 110	P	12/30/2024	16:12	LB134129
	Beryllium	242	250	97	90 - 110	P	12/30/2024	16:12	LB134129
	Cadmium	2460	2500	98	90 - 110	P	12/30/2024	16:12	LB134129
	Calcium	23700	25000	95	90 - 110	P	12/30/2024	16:12	LB134129
	Chromium	980	1000	98	90 - 110	P	12/30/2024	16:12	LB134129
	Cobalt	2410	2500	96	90 - 110	P	12/30/2024	16:12	LB134129
	Copper	1210	1250	97	90 - 110	P	12/30/2024	16:12	LB134129
	Iron	4740	5000	95	90 - 110	P	12/30/2024	16:12	LB134129
	Lead	4830	5000	97	90 - 110	P	12/30/2024	16:12	LB134129
	Magnesium	24100	25000	96	90 - 110	P	12/30/2024	16:12	LB134129
	Manganese	2330	2500	93	90 - 110	P	12/30/2024	16:12	LB134129
	Nickel	2420	2500	97	90 - 110	P	12/30/2024	16:12	LB134129
	Potassium	23300	25000	93	90 - 110	P	12/30/2024	16:12	LB134129
	Selenium	4960	5000	99	90 - 110	P	12/30/2024	16:12	LB134129
	Silver	1200	1250	96	90 - 110	P	12/30/2024	16:12	LB134129
	Sodium	23100	25000	92	90 - 110	P	12/30/2024	16:12	LB134129
	Thallium	4810	5000	96	90 - 110	P	12/30/2024	16:12	LB134129
	Vanadium	2350	2500	94	90 - 110	P	12/30/2024	16:12	LB134129
	Zinc	2370	2500	95	90 - 110	P	12/30/2024	16:12	LB134129
CCV04	Aluminum	9370	10000	94	90 - 110	P	12/30/2024	17:04	LB134129
	Antimony	4880	5000	98	90 - 110	P	12/30/2024	17:04	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	4780	5000	96	90 - 110	P	12/30/2024	17:04	LB134129
	Barium	9090	10000	91	90 - 110	P	12/30/2024	17:04	LB134129
	Beryllium	257	250	103	90 - 110	P	12/30/2024	17:04	LB134129
	Cadmium	2520	2500	101	90 - 110	P	12/30/2024	17:04	LB134129
	Calcium	24500	25000	98	90 - 110	P	12/30/2024	17:04	LB134129
	Chromium	1000	1000	100	90 - 110	P	12/30/2024	17:04	LB134129
	Cobalt	2440	2500	98	90 - 110	P	12/30/2024	17:04	LB134129
	Copper	1190	1250	95	90 - 110	P	12/30/2024	17:04	LB134129
	Iron	4750	5000	95	90 - 110	P	12/30/2024	17:04	LB134129
	Lead	4900	5000	98	90 - 110	P	12/30/2024	17:04	LB134129
	Magnesium	25700	25000	103	90 - 110	P	12/30/2024	17:04	LB134129
	Manganese	2350	2500	94	90 - 110	P	12/30/2024	17:04	LB134129
	Nickel	2450	2500	98	90 - 110	P	12/30/2024	17:04	LB134129
	Potassium	22900	25000	92	90 - 110	P	12/30/2024	17:04	LB134129
	Selenium	4930	5000	98	90 - 110	P	12/30/2024	17:04	LB134129
	Silver	1220	1250	97	90 - 110	P	12/30/2024	17:04	LB134129
	Sodium	22800	25000	91	90 - 110	P	12/30/2024	17:04	LB134129
	Thallium	4840	5000	97	90 - 110	P	12/30/2024	17:04	LB134129
	Vanadium	2390	2500	96	90 - 110	P	12/30/2024	17:04	LB134129
	Zinc	2400	2500	96	90 - 110	P	12/30/2024	17:04	LB134129
CCV05	Aluminum	9420	10000	94	90 - 110	P	12/30/2024	17:54	LB134129
	Antimony	4930	5000	99	90 - 110	P	12/30/2024	17:54	LB134129
	Arsenic	4790	5000	96	90 - 110	P	12/30/2024	17:54	LB134129
	Barium	9080	10000	91	90 - 110	P	12/30/2024	17:54	LB134129
	Beryllium	257	250	103	90 - 110	P	12/30/2024	17:54	LB134129
	Cadmium	2520	2500	101	90 - 110	P	12/30/2024	17:54	LB134129
	Calcium	24400	25000	98	90 - 110	P	12/30/2024	17:54	LB134129
	Chromium	999	1000	100	90 - 110	P	12/30/2024	17:54	LB134129
	Cobalt	2430	2500	97	90 - 110	P	12/30/2024	17:54	LB134129
	Copper	1200	1250	96	90 - 110	P	12/30/2024	17:54	LB134129
	Iron	4740	5000	95	90 - 110	P	12/30/2024	17:54	LB134129
	Lead	4900	5000	98	90 - 110	P	12/30/2024	17:54	LB134129
	Magnesium	25700	25000	103	90 - 110	P	12/30/2024	17:54	LB134129
	Manganese	2360	2500	94	90 - 110	P	12/30/2024	17:54	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	12/30/2024	17:54	LB134129
	Potassium	23000	25000	92	90 - 110	P	12/30/2024	17:54	LB134129
	Selenium	4950	5000	99	90 - 110	P	12/30/2024	17:54	LB134129
	Silver	1220	1250	98	90 - 110	P	12/30/2024	17:54	LB134129
	Sodium	22900	25000	92	90 - 110	P	12/30/2024	17:54	LB134129
	Thallium	4800	5000	96	90 - 110	P	12/30/2024	17:54	LB134129
	Vanadium	2390	2500	96	90 - 110	P	12/30/2024	17:54	LB134129
	Zinc	2410	2500	96	90 - 110	P	12/30/2024	17:54	LB134129
CCV06	Aluminum	9560	10000	96	90 - 110	P	12/30/2024	18:44	LB134129
	Antimony	4900	5000	98	90 - 110	P	12/30/2024	18:44	LB134129
	Arsenic	4710	5000	94	90 - 110	P	12/30/2024	18:44	LB134129
	Barium	9140	10000	91	90 - 110	P	12/30/2024	18:44	LB134129
	Beryllium	263	250	105	90 - 110	P	12/30/2024	18:44	LB134129
	Cadmium	2490	2500	100	90 - 110	P	12/30/2024	18:44	LB134129
	Calcium	24700	25000	99	90 - 110	P	12/30/2024	18:44	LB134129
	Chromium	996	1000	100	90 - 110	P	12/30/2024	18:44	LB134129
	Cobalt	2410	2500	96	90 - 110	P	12/30/2024	18:44	LB134129
	Copper	1180	1250	94	90 - 110	P	12/30/2024	18:44	LB134129
	Iron	4670	5000	93	90 - 110	P	12/30/2024	18:44	LB134129
	Lead	4840	5000	97	90 - 110	P	12/30/2024	18:44	LB134129
	Magnesium	26100	25000	104	90 - 110	P	12/30/2024	18:44	LB134129
	Manganese	2380	2500	95	90 - 110	P	12/30/2024	18:44	LB134129
	Nickel	2410	2500	96	90 - 110	P	12/30/2024	18:44	LB134129
	Potassium	22800	25000	91	90 - 110	P	12/30/2024	18:44	LB134129
	Selenium	4910	5000	98	90 - 110	P	12/30/2024	18:44	LB134129
	Silver	1220	1250	98	90 - 110	P	12/30/2024	18:44	LB134129
	Sodium	22700	25000	91	90 - 110	P	12/30/2024	18:44	LB134129
	Thallium	4790	5000	96	90 - 110	P	12/30/2024	18:44	LB134129
	Vanadium	2410	2500	96	90 - 110	P	12/30/2024	18:44	LB134129
	Zinc	2400	2500	96	90 - 110	P	12/30/2024	18:44	LB134129
CCV07	Aluminum	9400	10000	94	90 - 110	P	12/30/2024	19:24	LB134129
	Antimony	4920	5000	98	90 - 110	P	12/30/2024	19:24	LB134129
	Arsenic	4710	5000	94	90 - 110	P	12/30/2024	19:24	LB134129
	Barium	9770	10000	98	90 - 110	P	12/30/2024	19:24	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	271	250	108	90 - 110	P	12/30/2024	19:24	LB134129
	Cadmium	2530	2500	101	90 - 110	P	12/30/2024	19:24	LB134129
	Calcium	25000	25000	100	90 - 110	P	12/30/2024	19:24	LB134129
	Chromium	1000	1000	100	90 - 110	P	12/30/2024	19:24	LB134129
	Cobalt	2420	2500	97	90 - 110	P	12/30/2024	19:24	LB134129
	Copper	1180	1250	94	90 - 110	P	12/30/2024	19:24	LB134129
	Iron	4610	5000	92	90 - 110	P	12/30/2024	19:24	LB134129
	Lead	4870	5000	97	90 - 110	P	12/30/2024	19:24	LB134129
	Magnesium	26900	25000	108	90 - 110	P	12/30/2024	19:24	LB134129
	Manganese	2380	2500	95	90 - 110	P	12/30/2024	19:24	LB134129
	Nickel	2420	2500	97	90 - 110	P	12/30/2024	19:24	LB134129
	Potassium	26000	25000	104	90 - 110	P	12/30/2024	19:24	LB134129
	Selenium	4970	5000	99	90 - 110	P	12/30/2024	19:24	LB134129
	Silver	1220	1250	97	90 - 110	P	12/30/2024	19:24	LB134129
	Sodium	26400	25000	106	90 - 110	P	12/30/2024	19:24	LB134129
	Thallium	4740	5000	95	90 - 110	P	12/30/2024	19:24	LB134129
	Vanadium	2400	2500	96	90 - 110	P	12/30/2024	19:24	LB134129
	Zinc	2370	2500	95	90 - 110	P	12/30/2024	19:24	LB134129

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CRDL STANDARD FOR AA & ICP

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.19	0.2	97	40 - 160	CV	12/20/2024	14:22	LB134050
CRI01	Aluminum	93.7	100	94	40 - 160	P	12/30/2024	14:32	LB134129
	Antimony	46.6	50.0	93	40 - 160	P	12/30/2024	14:32	LB134129
	Arsenic	21.1	20.0	105	40 - 160	P	12/30/2024	14:32	LB134129
	Barium	91.3	100	91	40 - 160	P	12/30/2024	14:32	LB134129
	Beryllium	5.68	6.0	95	40 - 160	P	12/30/2024	14:32	LB134129
	Cadmium	6.07	6.0	101	40 - 160	P	12/30/2024	14:32	LB134129
	Calcium	1900	2000	95	40 - 160	P	12/30/2024	14:32	LB134129
	Chromium	9.09	10.0	91	40 - 160	P	12/30/2024	14:32	LB134129
	Cobalt	29.0	30.0	96	40 - 160	P	12/30/2024	14:32	LB134129
	Copper	20.6	20.0	103	40 - 160	P	12/30/2024	14:32	LB134129
	Iron	95.3	100	95	40 - 160	P	12/30/2024	14:32	LB134129
	Lead	11.3	12.0	94	40 - 160	P	12/30/2024	14:32	LB134129
	Magnesium	2030	2000	101	40 - 160	P	12/30/2024	14:32	LB134129
	Manganese	19.2	20.0	96	40 - 160	P	12/30/2024	14:32	LB134129
	Nickel	38.7	40.0	97	40 - 160	P	12/30/2024	14:32	LB134129
	Potassium	1950	2000	98	40 - 160	P	12/30/2024	14:32	LB134129
	Selenium	17.9	20.0	89	40 - 160	P	12/30/2024	14:32	LB134129
	Silver	10.4	10.0	104	40 - 160	P	12/30/2024	14:32	LB134129
	Sodium	1930	2000	96	40 - 160	P	12/30/2024	14:32	LB134129
	Thallium	37.1	40.0	93	40 - 160	P	12/30/2024	14:32	LB134129
	Vanadium	37.7	40.0	94	40 - 160	P	12/30/2024	14:32	LB134129
	Zinc	41.1	40.0	103	40 - 160	P	12/30/2024	14:32	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB28	Mercury	0.20	+/-0.20	U	0.20	CV	12/20/2024	14:15	LB134050

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB57	Mercury	0.20	+/-0.20	U	0.20	CV	12/20/2024	14:20	LB134050
CCB58	Mercury	0.20	+/-0.20	U	0.20	CV	12/20/2024	14:45	LB134050
CCB59	Mercury	0.20	+/-0.20	U	0.20	CV	12/20/2024	15:03	LB134050

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	12/30/2024	14:28	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	14:28	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	14:28	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	14:28	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	14:28	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	14:28	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	14:28	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	14:28	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	14:28	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	14:28	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	14:28	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	14:28	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	14:28	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	14:28	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	14:28	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	14:28	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	14:28	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	14:28	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	14:28	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	14:28	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	14:28	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	14:28	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	12/30/2024	14:53	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	14:53	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	14:53	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	14:53	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	14:53	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	14:53	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	14:53	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	14:53	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	14:53	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	14:53	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	14:53	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	14:53	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	14:53	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	14:53	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	14:53	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	14:53	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	14:53	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	14:53	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	14:53	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	14:53	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	14:53	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	14:53	LB134129
CCB02	Aluminum	100	+/-100	U	100	P	12/30/2024	15:23	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	15:23	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	15:23	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	15:23	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	15:23	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	15:23	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	15:23	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	15:23	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	15:23	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	15:23	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	15:23	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	15:23	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	15:23	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	15:23	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	15:23	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	15:23	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	15:23	LB134129

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	15:23	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	15:23	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	15:23	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	15:23	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	15:23	LB134129
CCB03	Aluminum	100	+/-100	U	100	P	12/30/2024	16:16	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	16:16	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	16:16	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	16:16	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	16:16	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	16:16	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	16:16	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	16:16	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	16:16	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	16:16	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	16:16	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	16:16	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	16:16	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	16:16	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	16:16	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	16:16	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	16:16	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	16:16	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	16:16	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	16:16	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	16:16	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	16:16	LB134129
CCB04	Aluminum	100	+/-100	U	100	P	12/30/2024	17:08	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	17:08	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	17:08	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	17:08	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	17:08	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	17:08	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	17:08	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	17:08	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	17:08	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	17:08	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	17:08	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	17:08	LB134129

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	17:08	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	17:08	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	17:08	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	17:08	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	17:08	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	17:08	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	17:08	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	17:08	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	17:08	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	17:08	LB134129
CCB05	Aluminum	100	+/-100	U	100	P	12/30/2024	17:58	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	17:58	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	17:58	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	17:58	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	17:58	LB134129
	Cadmium	0.24	+/-6.00	J	6.00	P	12/30/2024	17:58	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	17:58	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	17:58	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	17:58	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	17:58	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	17:58	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	17:58	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	17:58	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	17:58	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	17:58	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	17:58	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	17:58	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	17:58	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	17:58	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	17:58	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	17:58	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	17:58	LB134129
CCB06	Aluminum	100	+/-100	U	100	P	12/30/2024	18:48	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	18:48	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	18:48	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	18:48	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	18:48	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	18:48	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	18:48	LB134129

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	18:48	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	18:48	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	18:48	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	18:48	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	18:48	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	18:48	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	18:48	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	18:48	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	18:48	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	18:48	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	18:48	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	18:48	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	18:48	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	18:48	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	18:48	LB134129
CCB07	Aluminum	100	+/-100	U	100	P	12/30/2024	19:31	LB134129
	Antimony	50.0	+/-50.0	U	50.0	P	12/30/2024	19:31	LB134129
	Arsenic	20.0	+/-20.0	U	20.0	P	12/30/2024	19:31	LB134129
	Barium	100	+/-100	U	100	P	12/30/2024	19:31	LB134129
	Beryllium	6.00	+/-6.00	U	6.00	P	12/30/2024	19:31	LB134129
	Cadmium	6.00	+/-6.00	U	6.00	P	12/30/2024	19:31	LB134129
	Calcium	2000	+/-2000	U	2000	P	12/30/2024	19:31	LB134129
	Chromium	10.0	+/-10.0	U	10.0	P	12/30/2024	19:31	LB134129
	Cobalt	30.0	+/-30.0	U	30.0	P	12/30/2024	19:31	LB134129
	Copper	20.0	+/-20.0	U	20.0	P	12/30/2024	19:31	LB134129
	Iron	100	+/-100	U	100	P	12/30/2024	19:31	LB134129
	Lead	12.0	+/-12.0	U	12.0	P	12/30/2024	19:31	LB134129
	Magnesium	2000	+/-2000	U	2000	P	12/30/2024	19:31	LB134129
	Manganese	20.0	+/-20.0	U	20.0	P	12/30/2024	19:31	LB134129
	Nickel	40.0	+/-40.0	U	40.0	P	12/30/2024	19:31	LB134129
	Potassium	2000	+/-2000	U	2000	P	12/30/2024	19:31	LB134129
	Selenium	20.0	+/-20.0	U	20.0	P	12/30/2024	19:31	LB134129
	Silver	10.0	+/-10.0	U	10.0	P	12/30/2024	19:31	LB134129
	Sodium	2000	+/-2000	U	2000	P	12/30/2024	19:31	LB134129
	Thallium	40.0	+/-40.0	U	40.0	P	12/30/2024	19:31	LB134129
	Vanadium	40.0	+/-40.0	U	40.0	P	12/30/2024	19:31	LB134129
	Zinc	40.0	+/-40.0	U	40.0	P	12/30/2024	19:31	LB134129

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Metals
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PREPARATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB165798BL		**SOLID**		**Batch Number:**	**PB165798**		**Prep Date:**	**12/20/2024**	
	Mercury	0.013	<0.013	U	0.013	CV	12/20/2024	14:29	LB134050

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB165863BL		**SOLID**		**Batch Number:**	**PB165863**		**Prep Date:**	**12/26/2024**	
	Aluminum	4.17	<4.17	U	4.17	P	12/30/2024	16:20	LB134129
	Antimony	2.08	<2.08	U	2.08	P	12/30/2024	16:20	LB134129
	Arsenic	0.83	<0.83	U	0.83	P	12/30/2024	16:20	LB134129
	Barium	4.17	<4.17	U	4.17	P	12/30/2024	16:20	LB134129
	Beryllium	0.25	<0.25	U	0.25	P	12/30/2024	16:20	LB134129
	Cadmium	0.25	<0.25	U	0.25	P	12/30/2024	16:20	LB134129
	Calcium	83.3	<83.3	U	83.3	P	12/30/2024	16:20	LB134129
	Chromium	0.42	<0.42	U	0.42	P	12/30/2024	16:20	LB134129
	Cobalt	1.25	<1.25	U	1.25	P	12/30/2024	16:20	LB134129
	Copper	0.83	<0.83	U	0.83	P	12/30/2024	16:20	LB134129
	Iron	4.17	<4.17	U	4.17	P	12/30/2024	16:20	LB134129
	Lead	0.50	<0.50	U	0.50	P	12/30/2024	16:20	LB134129
	Magnesium	83.3	<83.3	U	83.3	P	12/30/2024	16:20	LB134129
	Manganese	0.83	<0.83	U	0.83	P	12/30/2024	16:20	LB134129
	Nickel	1.67	<1.67	U	1.67	P	12/30/2024	16:20	LB134129
	Potassium	83.3	<83.3	U	83.3	P	12/30/2024	16:20	LB134129
	Selenium	0.83	<0.83	U	0.83	P	12/30/2024	16:20	LB134129
	Silver	0.42	<0.42	U	0.42	P	12/30/2024	16:20	LB134129
	Sodium	83.3	<83.3	U	83.3	P	12/30/2024	16:20	LB134129
	Thallium	1.67	<1.67	U	1.67	P	12/30/2024	16:20	LB134129
	Vanadium	1.67	<1.67	U	1.67	P	12/30/2024	16:20	LB134129
	Zinc	1.67	<1.67	U	1.67	P	12/30/2024	16:20	LB134129

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Metals
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INTERFERENCE CHECK SAMPLE

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	244000	255000	96	216000	294000	12/30/2024	14:37	LB134129
	Antimony	-5.21			-50	50	12/30/2024	14:37	LB134129
	Arsenic	6.64			-20	20	12/30/2024	14:37	LB134129
	Barium	4.90	6.0	82	-94	106	12/30/2024	14:37	LB134129
	Beryllium	1.12			-6	6	12/30/2024	14:37	LB134129
	Cadmium	-4.02	1.0	402	-5	7	12/30/2024	14:37	LB134129
	Calcium	229000	245000	94	208000	282000	12/30/2024	14:37	LB134129
	Chromium	57.9	52.0	111	42	62	12/30/2024	14:37	LB134129
	Cobalt	1.51			-30	30	12/30/2024	14:37	LB134129
	Copper	21.0	2.0	1050	-18	22	12/30/2024	14:37	LB134129
	Iron	101000	101000	100	85600	116500	12/30/2024	14:37	LB134129
	Lead	7.91			-12	12	12/30/2024	14:37	LB134129
	Magnesium	253000	255000	99	216000	294000	12/30/2024	14:37	LB134129
	Manganese	5.24	7.0	75	-13	27	12/30/2024	14:37	LB134129
	Nickel	2.15	2.0	108	-38	42	12/30/2024	14:37	LB134129
	Potassium	179			0	0	12/30/2024	14:37	LB134129
	Selenium	-16.6			-20	20	12/30/2024	14:37	LB134129
	Silver	-8.33			-10	10	12/30/2024	14:37	LB134129
	Sodium	49.7			0	0	12/30/2024	14:37	LB134129
	Thallium	8.96			-40	40	12/30/2024	14:37	LB134129
	Vanadium	9.35			-40	40	12/30/2024	14:37	LB134129
	Zinc	3.57			-40	40	12/30/2024	14:37	LB134129
ICSAB01	Aluminum	240000	247000	97	209000	285000	12/30/2024	14:45	LB134129
	Antimony	647	618	105	525	711	12/30/2024	14:45	LB134129
	Arsenic	107	104	103	88.4	120	12/30/2024	14:45	LB134129
	Barium	512	537	95	437	637	12/30/2024	14:45	LB134129
	Beryllium	532	495	108	420	570	12/30/2024	14:45	LB134129
	Cadmium	1080	972	111	826	1120	12/30/2024	14:45	LB134129
	Calcium	228000	235000	97	199000	271000	12/30/2024	14:45	LB134129
	Chromium	617	542	114	460	624	12/30/2024	14:45	LB134129
	Cobalt	444	476	93	404	548	12/30/2024	14:45	LB134129
	Copper	554	511	108	434	588	12/30/2024	14:45	LB134129
	Iron	101000	99300	102	84400	114500	12/30/2024	14:45	LB134129
	Lead	52.7	49.0	108	37	61	12/30/2024	14:45	LB134129
	Magnesium	249000	248000	100	210000	286000	12/30/2024	14:45	LB134129
	Manganese	517	507	102	430	584	12/30/2024	14:45	LB134129
	Nickel	1090	954	114	810	1100	12/30/2024	14:45	LB134129
	Potassium	131			0	0	12/30/2024	14:45	LB134129
	Selenium	45.6	46.0	99	26	66	12/30/2024	14:45	LB134129
	Silver	226	201	112	170	232	12/30/2024	14:45	LB134129
	Sodium	55.8			0	0	12/30/2024	14:45	LB134129
	Thallium	107	108	99	68	148	12/30/2024	14:45	LB134129

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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	505	491	103	417	565	12/30/2024	14:45	LB134129
	Zinc	857	952	90	809	1095	12/30/2024	14:45	LB134129

METAL
QC
DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: PARSONS Main of New York, Inc. **level:** low **sdg no.:** P5362

contract: PARS02 **lab code:** CHEM **case no.:** P5362 **sas no.:** P5362

matrix: Solid **sample id:** P5362-01 **client id:** WC-SOIL-20241219MS

Percent Solids for Sample: 92 **Spiked ID:** P5362-01MS **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	3740		3630		99.3	111		P
Antimony	mg/Kg	75 - 125	13.7		2.47	U	39.7	34	N	P
Arsenic	mg/Kg	75 - 125	32.8		2.08		39.7	77		P
Barium	mg/Kg	75 - 125	30.7		24.4		9.9	63	N	P
Beryllium	mg/Kg	75 - 125	7.99		0.35		9.9	77		P
Cadmium	mg/Kg	75 - 125	8.74		0.30	U	9.9	88		P
Calcium	mg/Kg	75 - 125	808		847		49.6	-77		P
Chromium	mg/Kg	75 - 125	25.0		9.17		19.9	80		P
Cobalt	mg/Kg	75 - 125	14.2		6.02		9.9	82		P
Copper	mg/Kg	75 - 125	178		226		14.9	-324		P
Iron	mg/Kg	75 - 125	8220		9420		150	-798		P
Lead	mg/Kg	75 - 125	237		231		49.6	11		P
Magnesium	mg/Kg	75 - 125	1900		1870		99.3	31		P
Manganese	mg/Kg	75 - 125	80.2		80.9		9.9	-7		P
Nickel	mg/Kg	75 - 125	39.3		18.9		24.8	82		P
Potassium	mg/Kg	75 - 125	1210		787		500	85		P
Selenium	mg/Kg	75 - 125	68.9		0.99	U	99.3	69	N	P
Silver	mg/Kg	75 - 125	2.36		0.49	U	3.7	64	N	P
Sodium	mg/Kg	75 - 125	230		120		150	73	N	P
Thallium	mg/Kg	75 - 125	83.6		1.98	U	99.3	84		P
Vanadium	mg/Kg	75 - 125	27.7		17.7		14.9	67	N	P
Zinc	mg/Kg	75 - 125	223		236		9.9	-133		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: PARSONS Main of New York, Inc. **level:** low **sdg no.:** P5362

contract: PARS02 **lab code:** CHEM **case no.:** P5362 **sas no.:** P5362

matrix: Solid **sample id:** P5362-01 **client id:** WC-SOIL-20241219MSD

Percent Solids for Sample: 92 **Spiked ID:** P5362-01MSD **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	3850		3630		100	224		P
Antimony	mg/Kg	75 - 125	13.7		2.47	U	41.0	33	N	P
Arsenic	mg/Kg	75 - 125	33.1		2.08		41.0	76		P
Barium	mg/Kg	75 - 125	32.2		24.4		10.3	76		P
Beryllium	mg/Kg	75 - 125	8.17		0.35		10.3	76		P
Cadmium	mg/Kg	75 - 125	8.78		0.30	U	10.3	85		P
Calcium	mg/Kg	75 - 125	832		847		51.3	-28		P
Chromium	mg/Kg	75 - 125	25.7		9.17		20.5	81		P
Cobalt	mg/Kg	75 - 125	14.4		6.02		10.3	82		P
Copper	mg/Kg	75 - 125	180		226		15.4	-299		P
Iron	mg/Kg	75 - 125	8620		9420		150	-531		P
Lead	mg/Kg	75 - 125	241		231		51.3	19		P
Magnesium	mg/Kg	75 - 125	1940		1870		100	70		P
Manganese	mg/Kg	75 - 125	83.6		80.9		10.3	27		P
Nickel	mg/Kg	75 - 125	39.9		18.9		25.6	82		P
Potassium	mg/Kg	75 - 125	1270		787		510	95		P
Selenium	mg/Kg	75 - 125	68.6		0.99	U	100	69	N	P
Silver	mg/Kg	75 - 125	2.46		0.49	U	3.8	65	N	P
Sodium	mg/Kg	75 - 125	240		120		150	80		P
Thallium	mg/Kg	75 - 125	85.0		1.98	U	100	85		P
Vanadium	mg/Kg	75 - 125	28.8		17.7		15.4	72	N	P
Zinc	mg/Kg	75 - 125	230		236		10.3	-56		P

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: PARSONS Main of New York, Inc. **level:** low **sdg no.:** P5362

contract: PARS02 **lab code:** CHEM **case no.:** P5362 **sas no.:** P5362

matrix: Solid **sample id:** P5365-01 **client id:** TAPFTA-SB01I-4.5-121924-00-T1MS

Percent Solids for Sample: 90.1 **Spiked ID:** P5365-01MS **Percent Solids for Spike Sample:** 90.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 124	0.29		0.0080	J	0.29	99		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: PARSONS Main of New York, Inc. **level:** low **sdg no.:** P5362

contract: PARS02 **lab code:** CHEM **case no.:** P5362 **sas no.:** P5362

matrix: Solid **sample id:** P5365-01 **client id:** TAPFTA-SB01I-4.5-121924-00-T1MSD

Percent Solids for Sample: 90.1 **Spiked ID:** P5365-01MSD **Percent Solids for Spike Sample:** 90.1

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 124	0.30		0.0080	J	0.28	106		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Matrix: Solid **Level:** LOW **Client ID:** WC-SOIL-20241219A

Sample ID: P5362-01 **Spiked ID:** P5362-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	13.7		2.47	U	39.5	35		P
Barium	mg/Kg	75 - 125	30.4		24.4		9.90	61		P
Selenium	mg/Kg	75 - 125	69.5		0.99	U	98.8	70		P
Silver	mg/Kg	75 - 125	2.33		0.49	U	3.70	63		P
Sodium	mg/Kg	75 - 125	229		120		150	73		P
Vanadium	mg/Kg	75 - 125	27.4		17.7		14.8	65		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **Level:** LOW **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Matrix: Solid **Sample ID:** P5362-01 **Client ID:** WC-SOIL-20241219DUP

Percent Solids for Sample: 92 **Duplicate ID** P5362-01DUP **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	3630		3400		7		P
Antimony	mg/Kg	20	2.47	U	2.31	U			P
Arsenic	mg/Kg	20	2.08		1.88		10		P
Barium	mg/Kg	20	24.4		22.9		6		P
Beryllium	mg/Kg	20	0.35		0.31		10		P
Cadmium	mg/Kg	20	0.30	U	0.28	U			P
Calcium	mg/Kg	20	847		795		6		P
Chromium	mg/Kg	20	9.17		8.64		6		P
Cobalt	mg/Kg	20	6.02		5.73		5		P
Copper	mg/Kg	20	226		216		5		P
Iron	mg/Kg	20	9420		8950		5		P
Lead	mg/Kg	20	231		219		5		P
Magnesium	mg/Kg	20	1870		1750		7		P
Manganese	mg/Kg	20	80.9		74.7		8		P
Nickel	mg/Kg	20	18.9		18.0		5		P
Potassium	mg/Kg	20	787		753		4		P
Selenium	mg/Kg	20	0.99	U	0.93	U			P
Silver	mg/Kg	20	0.49	U	0.46	U			P
Sodium	mg/Kg	20	120		115		4		P
Thallium	mg/Kg	20	1.98	U	1.85	U			P
Vanadium	mg/Kg	20	17.7		16.6		6		P
Zinc	mg/Kg	20	236		223		6		P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **Level:** LOW **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Matrix: Solid **Sample ID:** P5362-01MS **Client ID:** WC-SOIL-20241219MSD

Percent Solids for Sample: 92 **Duplicate ID** P5362-01MSD **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	3740		3850		3		P
Antimony	mg/Kg	20	13.7		13.7		0		P
Arsenic	mg/Kg	20	32.8		33.1		1		P
Barium	mg/Kg	20	30.7		32.2		5		P
Beryllium	mg/Kg	20	7.99		8.17		2		P
Cadmium	mg/Kg	20	8.74		8.78		0		P
Calcium	mg/Kg	20	808		832		3		P
Chromium	mg/Kg	20	25.0		25.7		3		P
Cobalt	mg/Kg	20	14.2		14.4		1		P
Copper	mg/Kg	20	178		180		1		P
Iron	mg/Kg	20	8220		8620		5		P
Lead	mg/Kg	20	237		241		2		P
Magnesium	mg/Kg	20	1900		1940		2		P
Manganese	mg/Kg	20	80.2		83.6		4		P
Nickel	mg/Kg	20	39.3		39.9		2		P
Potassium	mg/Kg	20	1210		1270		5		P
Selenium	mg/Kg	20	68.9		68.6		0		P
Silver	mg/Kg	20	2.36		2.46		4		P
Sodium	mg/Kg	20	230		240		4		P
Thallium	mg/Kg	20	83.6		85.0		2		P
Vanadium	mg/Kg	20	27.7		28.8		4		P
Zinc	mg/Kg	20	223		230		3		P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **Level:** LOW **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Matrix: Solid **Sample ID:** P5365-01 **Client ID:** TAPFTA-SB01I-4.5-121924-00-T1DUP

Percent Solids for Sample: 90.1 **Duplicate ID** P5365-01DUP **Percent Solids for Spike Sample:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.0080	J	0.0080	J	0		CV

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **Level:** LOW **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Matrix: Solid **Sample ID:** P5365-01MS **Client ID:** TAPFTA-SB01I-4.5-121924-00-T1MSD

Percent Solids for Sample: 90.1 **Duplicate ID** P5365-01MSD **Percent Solids for Spike Sample:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.29		0.30		3		CV

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165798BS							
Mercury	mg/Kg	0.25	0.26		106	80 - 124	CV

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LABORATORY CONTROL SAMPLE SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165863BS							
Aluminum	mg/Kg	83.3	74.2		89	80 - 120	P
Antimony	mg/Kg	33.3	31.7		95	80 - 120	P
Arsenic	mg/Kg	33.3	32.8		98	80 - 120	P
Barium	mg/Kg	8.3	7.41		89	80 - 120	P
Beryllium	mg/Kg	8.3	8.17		98	80 - 120	P
Cadmium	mg/Kg	8.3	8.30		100	80 - 120	P
Calcium	mg/Kg	41.7	39.3	J	94	80 - 120	P
Chromium	mg/Kg	16.7	16.7		100	80 - 120	P
Cobalt	mg/Kg	8.3	8.11		98	80 - 120	P
Copper	mg/Kg	12.5	12.3		98	80 - 120	P
Iron	mg/Kg	130	121		93	80 - 120	P
Lead	mg/Kg	41.7	40.1		96	80 - 120	P
Magnesium	mg/Kg	83.3	78.9	J	95	80 - 120	P
Manganese	mg/Kg	8.3	7.82		94	80 - 120	P
Nickel	mg/Kg	20.8	20.5		99	80 - 120	P
Potassium	mg/Kg	420	370		88	80 - 120	P
Selenium	mg/Kg	83.3	81.1		97	80 - 120	P
Silver	mg/Kg	3.1	3.13		101	80 - 120	P
Sodium	mg/Kg	130	113		87	80 - 120	P
Thallium	mg/Kg	83.3	78.6		94	80 - 120	P
Vanadium	mg/Kg	12.5	11.6		93	80 - 120	P
Zinc	mg/Kg	8.3	8.16		98	80 - 120	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-SOIL-20241219L

Lab Name: Chemtech Consulting Group **Contract:** PARS02

Lab Code: CHEM **Lb No.:** lb134129 **Lab Sample ID :** P5362-01L **SDG No.:** P5362

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	3630		3990		10		P
Antimony	2.47	U	12.4	U			P
Arsenic	2.08		2.41	J	16		P
Barium	24.4		27.0		11		P
Beryllium	0.35		0.37	J	8		P
Cadmium	0.30	U	1.48	U			P
Calcium	847		961		14		P
Chromium	9.17		10.2		11		P
Cobalt	6.02		6.12	J	2		P
Copper	226		261		15		P
Iron	9420		10600		13		P
Lead	231		242		5		P
Magnesium	1870		2110		13		P
Manganese	80.9		90.5		12		P
Nickel	18.9		19.6		3		P
Potassium	787		854		8		P
Selenium	0.99	U	4.94	U			P
Silver	0.49	U	2.47	U			P
Sodium	120		494	U	100.0		P
Thallium	1.98	U	9.88	U			P
Vanadium	17.7		19.7		11		P
Zinc	236		274		16		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TAPFTA-SB01I-4.5-121924-00-T1L

Lab Name: Chemtech Consulting Group **Contract:** PARS02

Lab Code: CHEM **Lb No.:** lb134050 **Lab Sample ID :** P5365-01L **SDG No.:** P5362

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.0080	J	0.066	U	100.0		CV

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

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: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Case No.:** P5362 **SAS No.:** P5362

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

METAL PREPARATION & ANALYICAL SUMMARY

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Fax : 908 789 8922

Metals
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SAMPLE PREPARATION SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Method:**

Case No.: P5362 **SAS No.:** P5362

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165798**						
P5362-01	WC-SOIL-20241219	SAM	SOLID	12/20/2024	0.59	35.0	92.00
P5365-01DUP	TAPFTA-SB01I-4.5-121924-00-T1DUP	DUP	SOLID	12/20/2024	0.58	35.0	90.10
P5365-01MS	TAPFTA-SB01I-4.5-121924-00-T1MS	MS	SOLID	12/20/2024	0.54	35.0	90.10
P5365-01MSD	TAPFTA-SB01I-4.5-121924-00-T1MSD	MSD	SOLID	12/20/2024	0.56	35.0	90.10
PB165798BL	PB165798BL	MB	SOLID	12/20/2024	0.54	35.0	100.00
PB165798BS	PB165798BS	LCS	SOLID	12/20/2024	0.57	35.0	100.00

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Fax : 908 789 8922

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: PARSONS Main of New York, Inc. **SDG No.:** P5362

Contract: PARS02 **Lab Code:** CHEM **Method:**

Case No.: P5362 **SAS No.:** P5362

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165863**						
P5362-01	WC-SOIL-20241219	SAM	SOLID	12/26/2024	2.20	100.0	92.00
P5362-01DUP	WC-SOIL-20241219DUP	DUP	SOLID	12/26/2024	2.35	100.0	92.00
P5362-01MS	WC-SOIL-20241219MS	MS	SOLID	12/26/2024	2.19	100.0	92.00
P5362-01MSD	WC-SOIL-20241219MSD	MSD	SOLID	12/26/2024	2.12	100.0	92.00
PB165863BL	PB165863BL	MB	SOLID	12/26/2024	2.40	100.0	100.00
PB165863BS	PB165863BS	LCS	SOLID	12/26/2024	2.40	100.0	100.00

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metals
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ANALYSIS RUN LOG

Client: PARSONS Main of New York, Inc. **Contract:** PARS02

Lab code: CHEM **Case no.:** P5362 **Sas no.:** P5362 **Sdg no.:** P5362

Instrument id number: **Method:** **Run number:** LB134050

Start date: 12/20/2024 **End date:** 12/20/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1358	HG
S0.2	S0.2	1	1400	HG
S2.5	S2.5	1	1403	HG
S5	S5	1	1405	HG
S7.5	S7.5	1	1407	HG
S10	S10	1	1410	HG
ICV28	ICV28	1	1413	HG
ICB28	ICB28	1	1415	HG
CCV57	CCV57	1	1417	HG
CCB57	CCB57	1	1420	HG
CRA	CRA	1	1422	HG
PB165798BL	PB165798BL	1	1429	HG
PB165798BS	PB165798BS	1	1431	HG
P5362-01	WC-SOIL-20241219	1	1440	HG
CCV58	CCV58	1	1443	HG
CCB58	CCB58	1	1445	HG
P5365-01DUP	TAPFTA-SB01I-4.5-121924-00-'	1	1450	HG
P5365-01MS	TAPFTA-SB01I-4.5-121924-00-'	1	1452	HG
P5365-01MSD	TAPFTA-SB01I-4.5-121924-00-'	1	1454	HG
P5365-01L	TAPFTA-SB01I-4.5-121924-00-'	5	1456	HG
CCV59	CCV59	1	1501	HG
CCB59	CCB59	1	1503	HG

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metals
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ANALYSIS RUN LOG

Client: PARSONS Main of New York, Inc. **Contract:** PARS02

Lab code: CHEM **Case no.:** P5362 **Sas no.:** P5362 **Sdg no.:** P5362

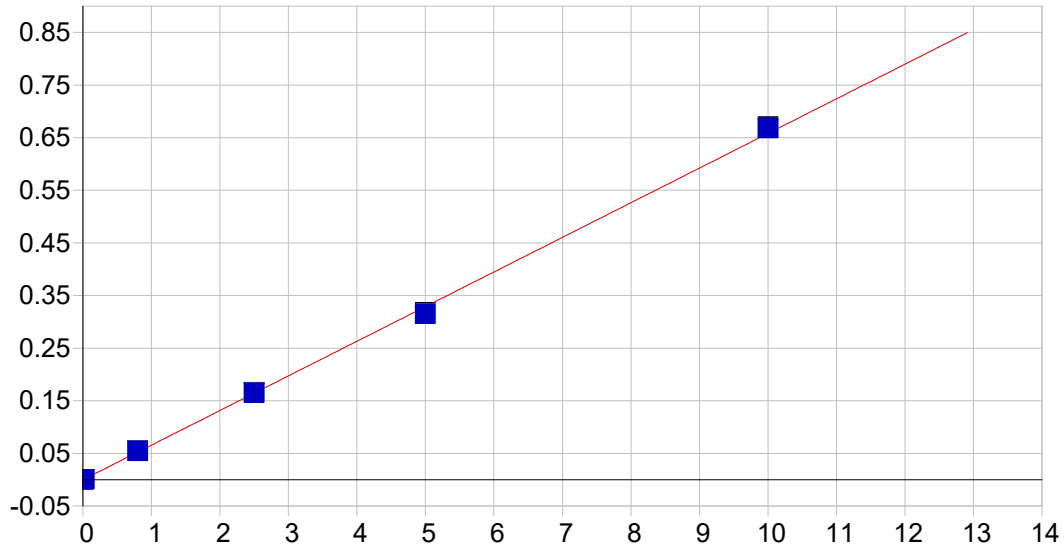
Instrument id number: **Method:** **Run number:** LB134129

Start date: 12/30/2024 **End date:** 12/30/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1354	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	1358	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	1403	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	1407	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	1411	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	1415	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	1420	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	1424	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	1428	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	1432	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	1437	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	1445	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	1449	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	1453	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	1519	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	1523	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01	WC-SOIL-20241219	1	1528	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01DUP	WC-SOIL-20241219DUP	1	1535	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01L	WC-SOIL-20241219L	5	1539	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01MS	WC-SOIL-20241219MS	1	1543	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01MSD	WC-SOIL-20241219MSD	1	1547	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5362-01A	WC-SOIL-20241219A	1	1551	Ag,Ba,Na,Sb,Se,V
CCV03	CCV03	1	1612	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	1616	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB165863BL	PB165863BL	1	1620	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB165863BS	PB165863BS	1	1625	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	1704	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	1708	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	1754	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	1758	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	1844	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	1848	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	1924	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	1931	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



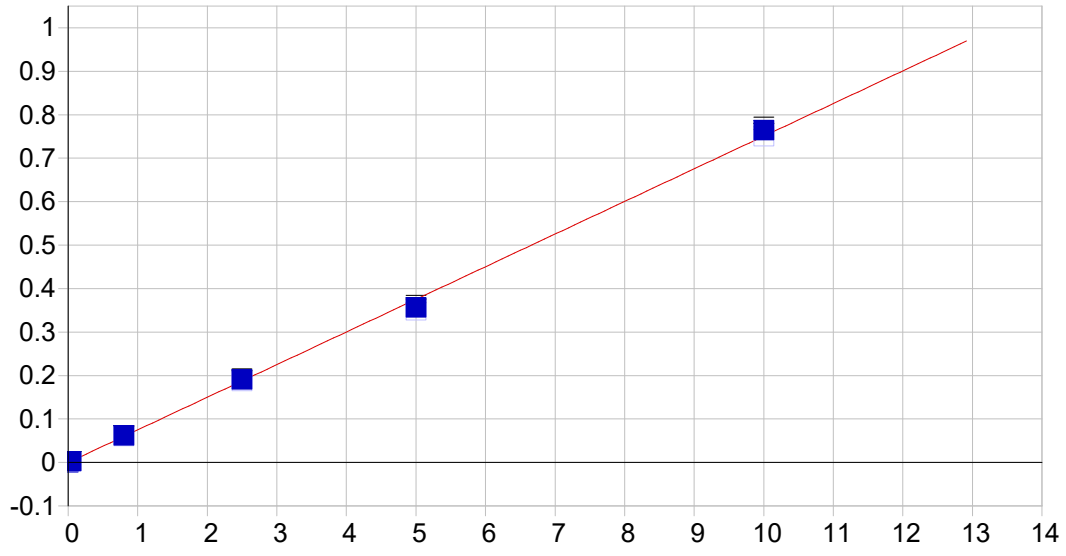
As 189.042 {479}

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A0 (Offset):	-0.000204	Re-Slope:	1.000000
A1 (Gain):	0.065822	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999668	Status:	OK.
Std Error of Est:	0.000040		
Predicted MDL:	0.002516		
Predicted MQL:	0.008387		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00020	.000	1
S1	.02000	.01951	-.000	-2.45	.00107	.000	1
S3	2.5000	2.5131	.013	.524	.16504	.001	1
S4	5.0000	4.7981	-.202	-4.04	.31527	.002	1
S5	10.000	10.154	.154	1.54	.66747	.003	1
S2	.80000	.83496	.035	4.37	.05470	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



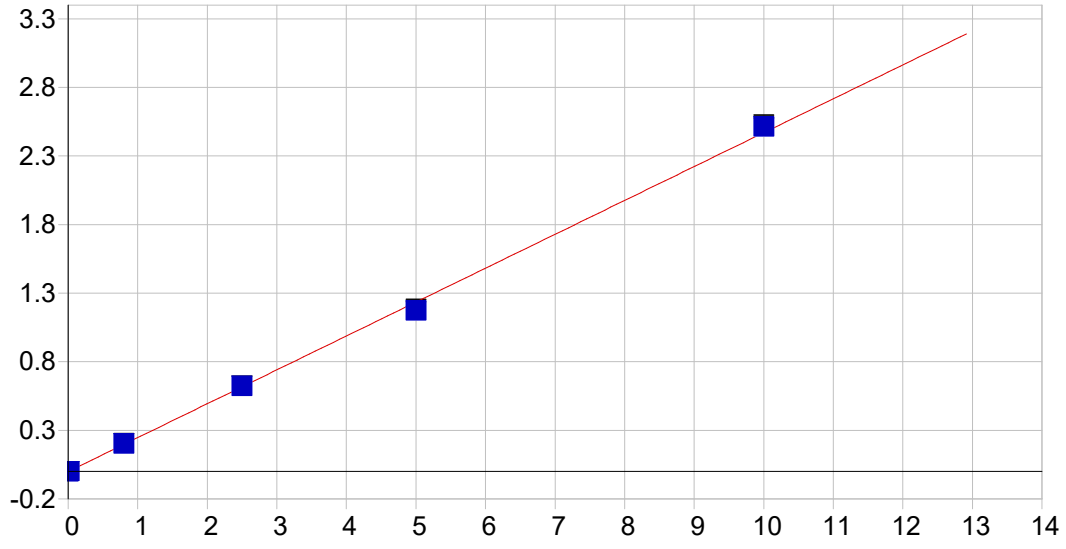
Tl 190.856 {477}

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A1 (Gain):	0.075085	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999525	Status:	OK.
Std Error of Est:	0.000075		
Predicted MDL:	0.002012		
Predicted MQL:	0.006706		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00015	.000	1
S1	.04000	.03919	-.001	-2.04	.00260	.000	1
S3	2.5000	2.5412	.041	1.65	.18720	.001	1
S4	5.0000	4.7539	-.246	-4.92	.34988	.005	1
S5	10.000	10.183	.183	1.83	.75059	.007	1
S2	.80000	.82299	.023	2.87	.06054	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



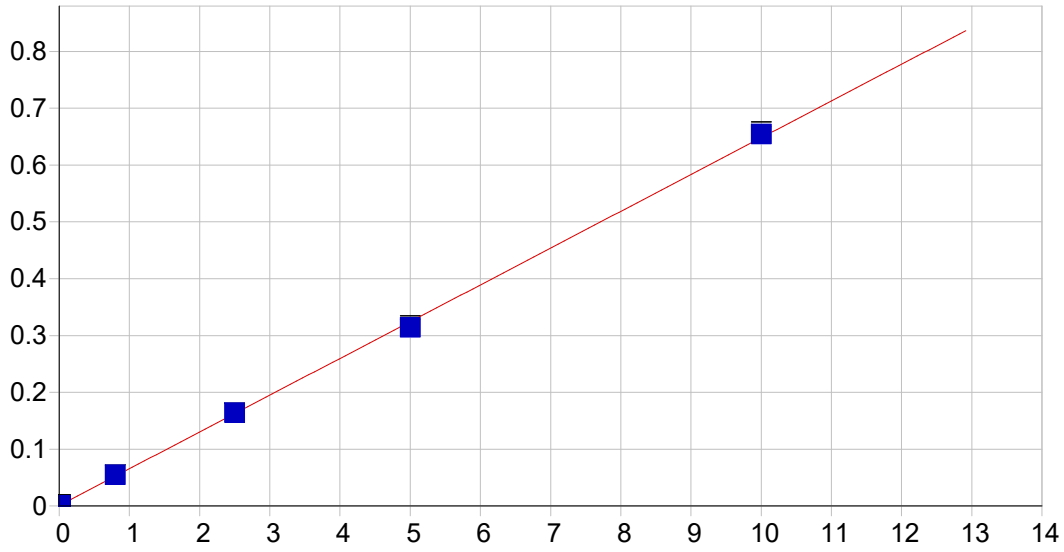
Pb 220.353 {453}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000253	Re-Slope:	1.000000
A1 (Gain):	0.247045	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999549	Status:	OK.
Std Error of Est:	0.000135		
Predicted MDL:	0.001261		
Predicted MQL:	0.004202		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00025	.000	1
S1	.01200	.01179	-.000	-1.77	.00260	.000	1
S3	2.5000	2.5253	.025	1.01	.62294	.003	1
S4	5.0000	4.7583	-.242	-4.83	1.1739	.009	1
S5	10.000	10.188	.188	1.88	2.5140	.011	1
S2	.80000	.82830	.028	3.54	.20416	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



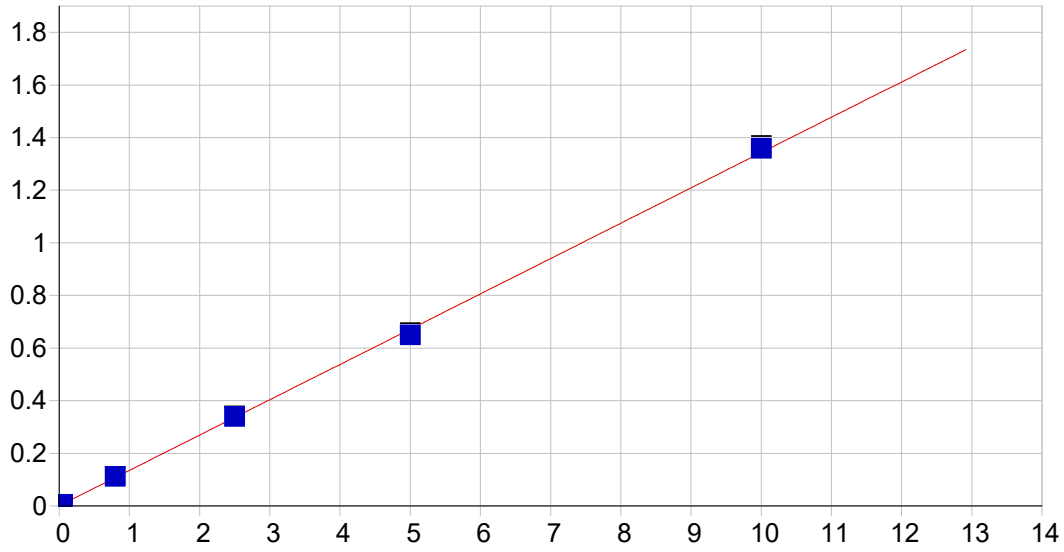
Se 196.090 {472}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000631	Re-Slope:	1.000000
A1 (Gain):	0.064749	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999784	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.003413		
Predicted MQL:	0.011378		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00063	.000	1
S1	.02000	.01848	-.002	-7.62	.00183	.000	1
S3	2.5000	2.5252	.025	1.01	.16408	.000	1
S4	5.0000	4.8421	-.158	-3.16	.31403	.003	1
S5	10.000	10.098	.098	.985	.65425	.004	1
S2	.80000	.83572	.036	4.46	.05472	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



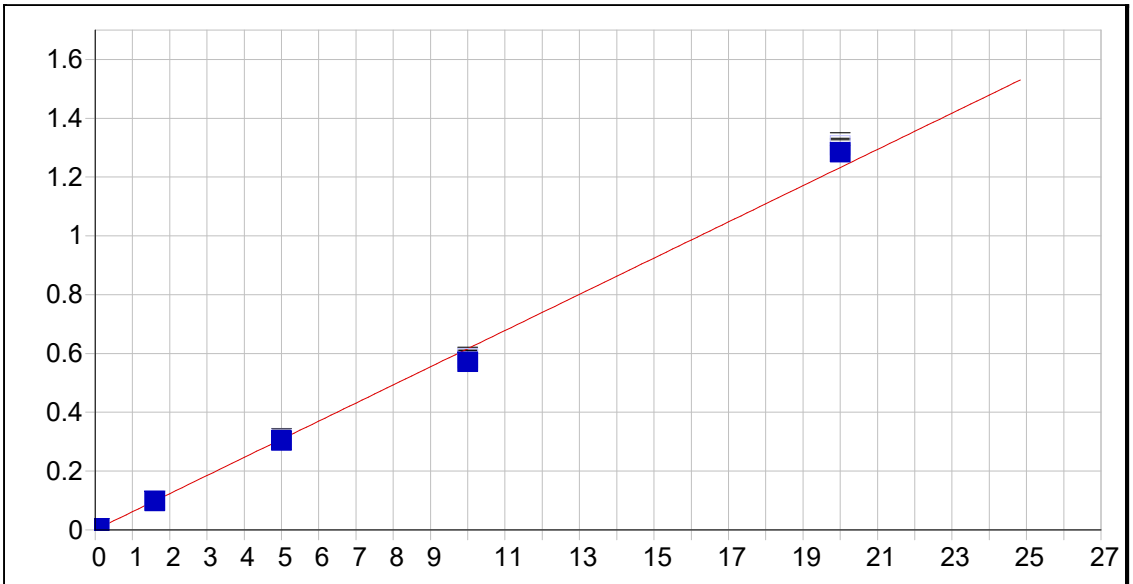
Sb 206.833 {463}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000631	Re-Slope:	1.000000
A1 (Gain):	0.134231	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999778	Status:	OK.
Std Error of Est:	0.000105		
Predicted MDL:	0.002020		
Predicted MQL:	0.006735		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00063	.000	1
S1	.05000	.04767	-.002	-4.65	.00704	.000	1
S3	2.5000	2.5232	.023	.929	.34024	.002	1
S4	5.0000	4.8326	-.167	-3.35	.65114	.007	1
S5	10.000	10.122	.122	1.22	1.3629	.007	1
S2	.80000	.82501	.025	3.13	.11166	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



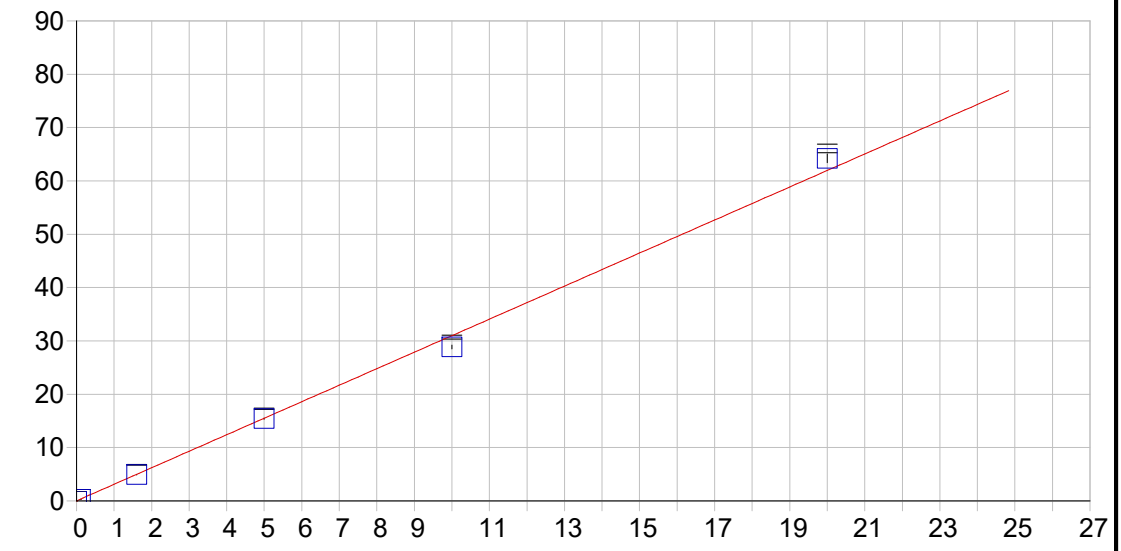
Al 396.152 { 85}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000244	Re-Slope:	1.000000
A1 (Gain):	0.061612	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998821	Status:	OK.
Std Error of Est:	0.000226		
Predicted MDL:	0.007623		
Predicted MQL:	0.025408		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00024	.000	1
S1	.10000	.10013	.000	.127	.00689	.000	1
S3	5.0000	4.9158	-.084	-1.68	.30909	.002	1
S4	10.000	9.2648	-.735	-7.35	.58302	.005	1
S5	20.000	20.832	.832	4.16	1.3076	.009	1
S2	1.6000	1.5877	-.012	-.771	.09998	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



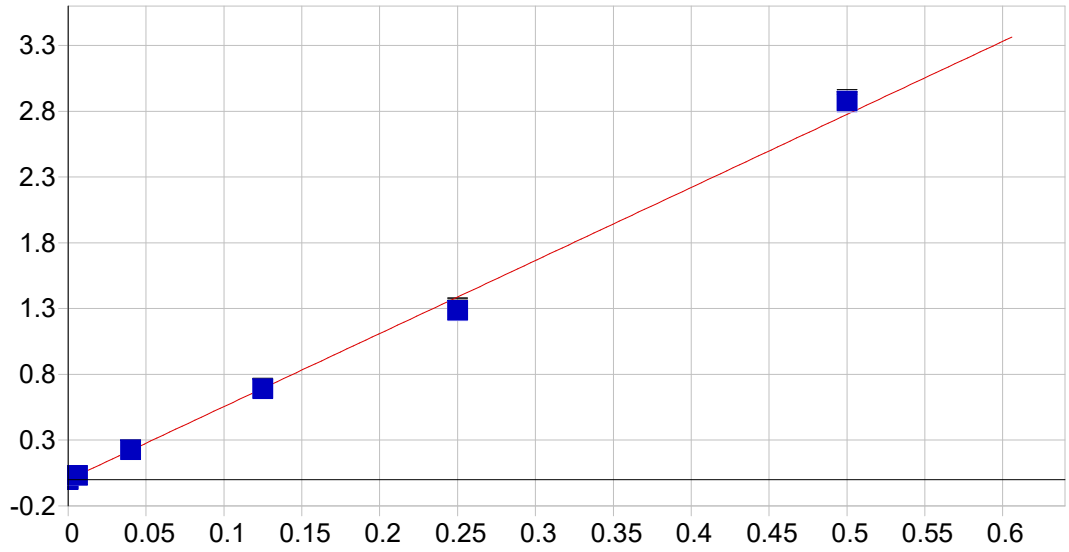
Ba 493.409 { 68}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.019121	Re-Slope:	1.000000
A1 (Gain):	3.096814	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998993	Status:	OK.
Std Error of Est:	0.010316		
Predicted MDL:	0.000577		
Predicted MQL:	0.001922		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.01915	.002	1
S1	.10000	.09588	-.004	-4.12	.31606	.003	1
S3	5.0000	4.9742	-.026	-.516	15.423	.136	1
S4	10.000	9.3153	-.685	-6.85	28.867	.373	1
S5	20.000	20.731	.731	3.65	64.219	.792	1
S2	1.6000	1.5838	-.016	-1.01	4.9238	.040	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



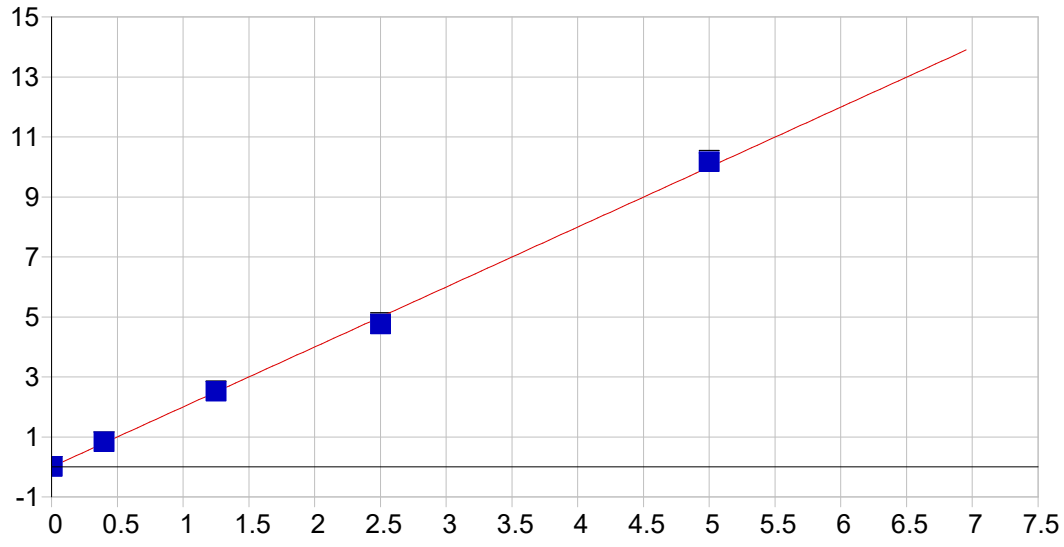
Be 234.861 {144}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000348	Re-Slope:	1.000000
A1 (Gain):	5.553075	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998888	Status:	OK.
Std Error of Est:	0.000751		
Predicted MDL:	0.000044		
Predicted MQL:	0.000145		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00035	.000	1
S1	.00600	.00566	-.000	-5.71	.03082	.000	1
S3	.12500	.12455	-.000	-.358	.68819	.005	1
S4	.25000	.23175	-.018	-7.30	1.2804	.018	1
S5	.50000	.51817	.018	3.63	2.8647	.011	1
S2	.04000	.04087	.001	2.16	.22559	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



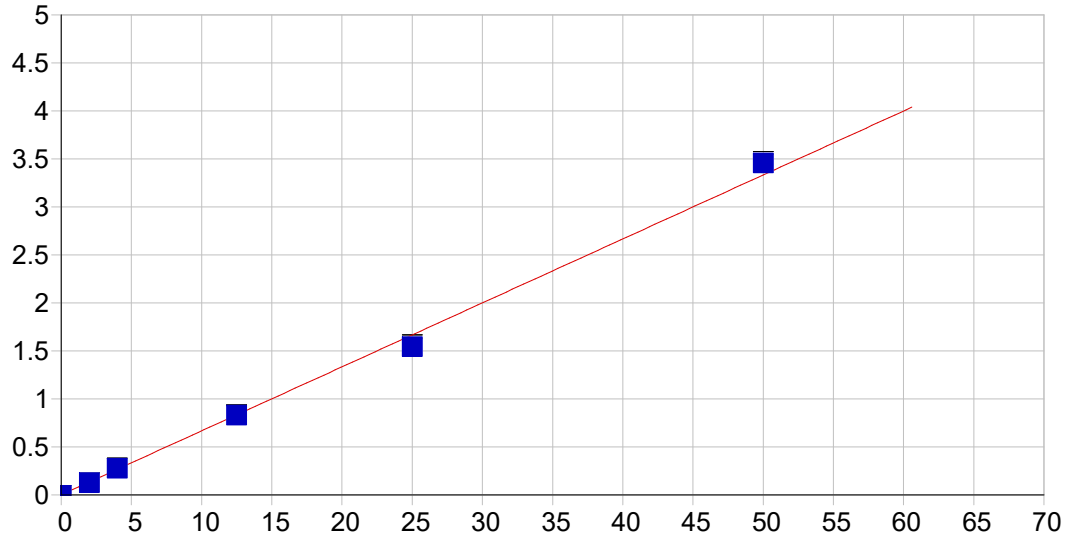
Cd 226.502 {449}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000167	Re-Slope:	1.000000
A1 (Gain):	1.998762	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999558	Status:	OK.
Std Error of Est:	0.000540		
Predicted MDL:	0.000118		
Predicted MQL:	0.000394		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00017	.000	1
S1	.00600	.00599	-.000	-.121	.01186	.000	1
S3	1.2500	1.2597	.010	.775	2.5196	.009	1
S4	2.5000	2.3822	-.118	-4.71	4.7651	.041	1
S5	5.0000	5.0894	.089	1.79	10.180	.043	1
S2	.40000	.41875	.019	4.69	.83743	.002	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



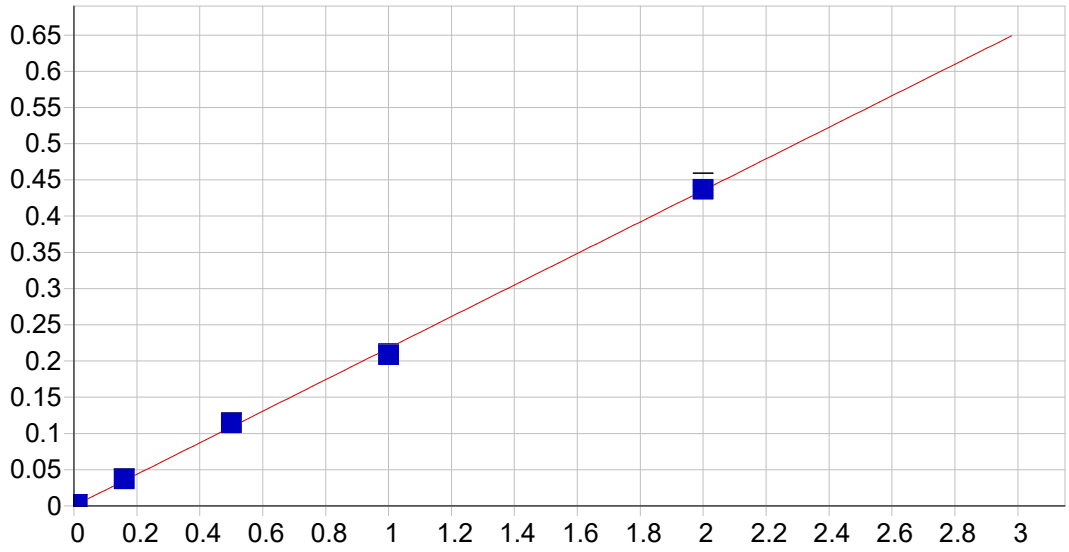
Ca 373.690 { 90}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001308	Re-Slope:	1.000000
A1 (Gain):	0.066626	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998847	Status:	OK.
Std Error of Est:	0.001694		
Predicted MDL:	0.007492		
Predicted MQL:	0.024975		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00012	.000	.000	.00132	.000	1
S2	4.0000	4.1438	.144	3.60	.27739	.002	1
S3	12.500	12.417	-.083	-.667	.82857	.007	1
S4	25.000	23.169	-1.83	-7.33	1.5449	.017	1
S5	50.000	51.877	1.88	3.75	3.4576	.015	1
S1	2.0000	1.8942	-.106	-5.29	.12751	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



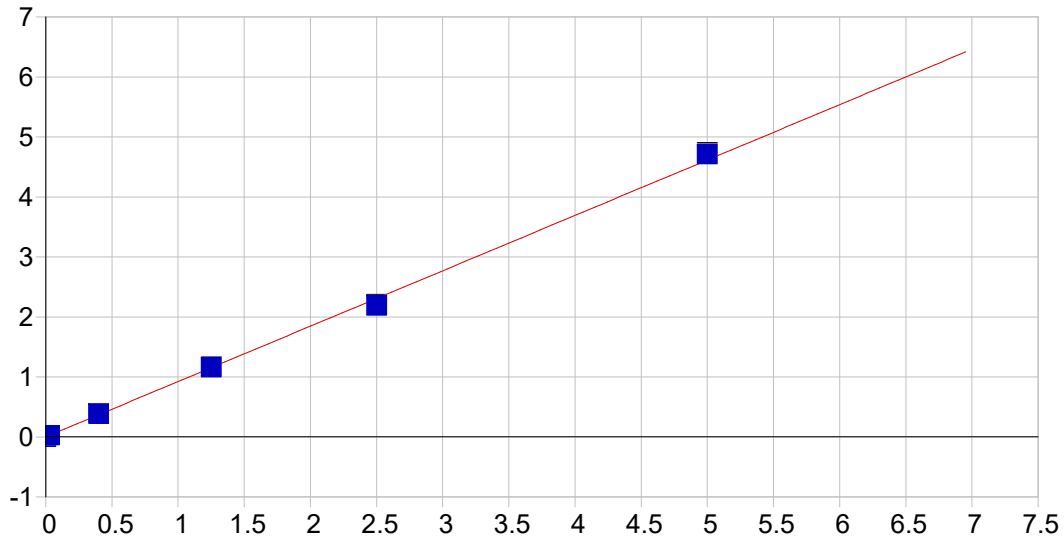
Cr 267.716 {126}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000082	Re-Slope:	1.000000
A1 (Gain):	0.217737	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999483	Status:	OK.
Std Error of Est:	0.000052		
Predicted MDL:	0.000380		
Predicted MQL:	0.001267		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00008	.000	1
S1	.01000	.00949	-.001	-5.14	.00215	.000	1
S3	.50000	.52571	.026	5.14	.11458	.000	1
S4	1.0000	.95776	-.042	-4.22	.20869	.001	1
S5	2.0000	2.0069	.007	.347	.43719	.009	1
S2	.16000	.17012	.010	6.32	.03713	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



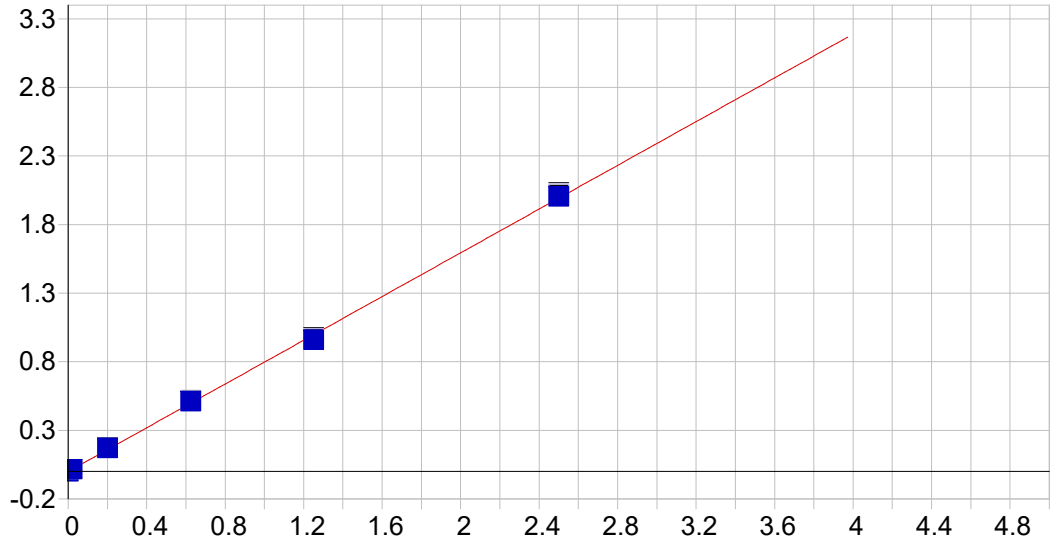
Co 228.616 {448}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000072	Re-Slope:	1.000000
A1 (Gain):	0.922892	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999492	Status:	OK.
Std Error of Est:	0.000599		
Predicted MDL:	0.000228		
Predicted MQL:	0.000760		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00007	.000	1
S1	.03000	.02948	-.001	-1.73	.02716	.000	1
S3	1.2500	1.2589	.009	.709	1.1638	.004	1
S4	2.5000	2.3724	-.128	-5.10	2.1934	.018	1
S5	5.0000	5.1030	.103	2.06	4.7175	.023	1
S2	.40000	.41623	.016	4.06	.38484	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



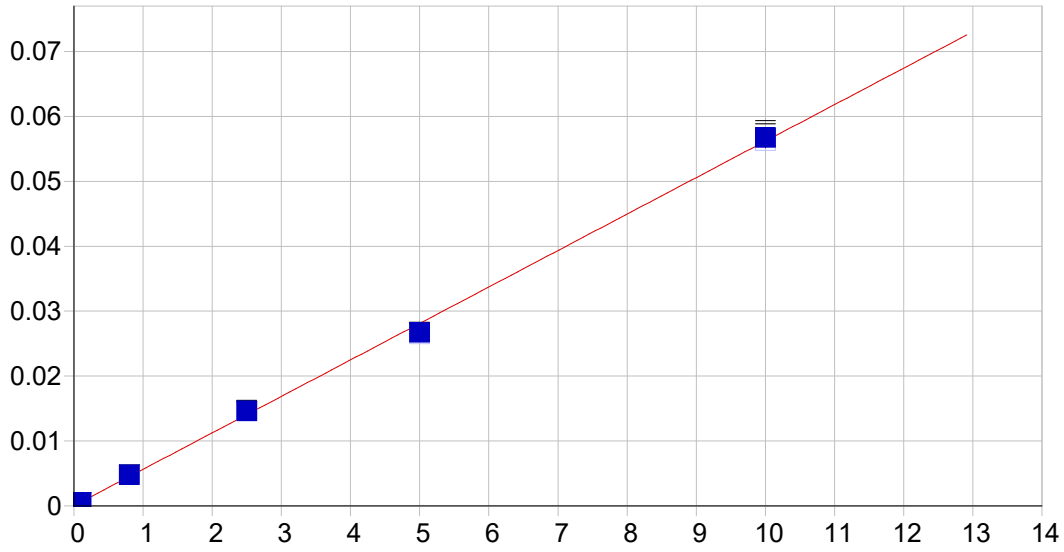
Cu 224.700 {450}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.797146	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999650	Status:	OK.
Std Error of Est:	0.000250		
Predicted MDL:	0.000422		
Predicted MQL:	0.001405		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00002	.000	1
S1	.02000	.02137	.001	6.83	.01722	.000	1
S3	.62500	.64189	.017	2.70	.51641	.002	1
S4	1.2500	1.2030	-.047	-3.76	.96848	.008	1
S5	2.5000	2.5155	.015	.620	2.0242	.010	1
S2	.20000	.21320	.013	6.60	.17145	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



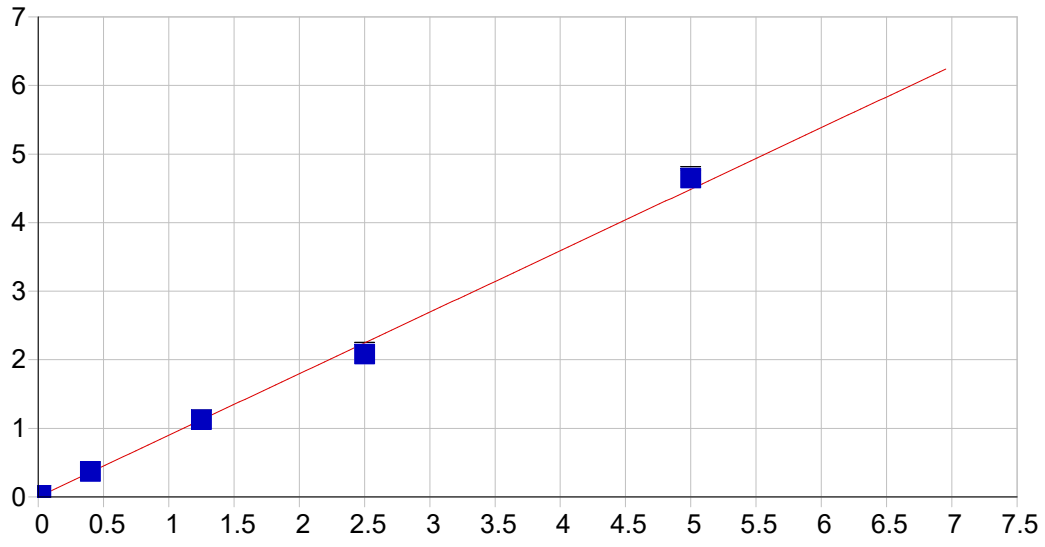
Fe 240.488 {140}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.005617	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999420	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.004812		
Predicted MQL:	0.016040		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00002	.000	1
S1	.10000	.09888	-.001	-1.12	.00057	.000	1
S3	2.5000	2.6044	.104	4.18	.01453	.000	1
S4	5.0000	4.7502	-.250	-5.00	.02646	.000	1
S5	10.000	10.096	.096	.957	.05625	.001	1
S2	.80000	.85079	.051	6.35	.00476	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



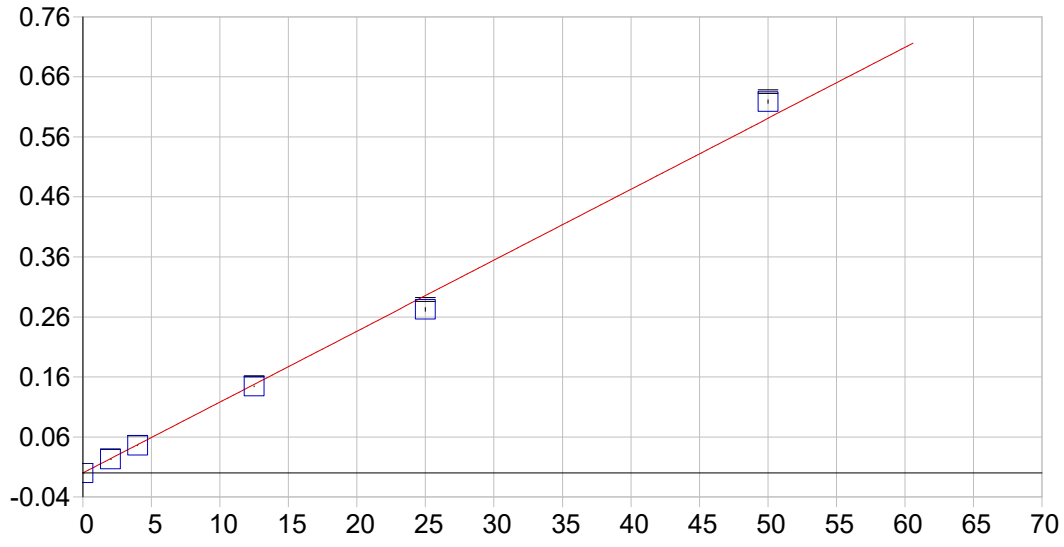
Mn 257.610 {131}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002117	Re-Slope:	1.000000
A1 (Gain):	0.897142	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998913	Status:	OK.
Std Error of Est:	0.000694		
Predicted MDL:	0.000235		
Predicted MQL:	0.000784		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00212	.000	1
S1	.02000	.01986	-.000	-.715	.01994	.000	1
S3	1.2500	1.2488	-.001	-.097	1.1227	.008	1
S4	2.5000	2.3161	-.184	-7.36	2.0804	.027	1
S5	5.0000	5.1769	.177	3.54	4.6475	.025	1
S2	.40000	.40837	.008	2.09	.36856	.002	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



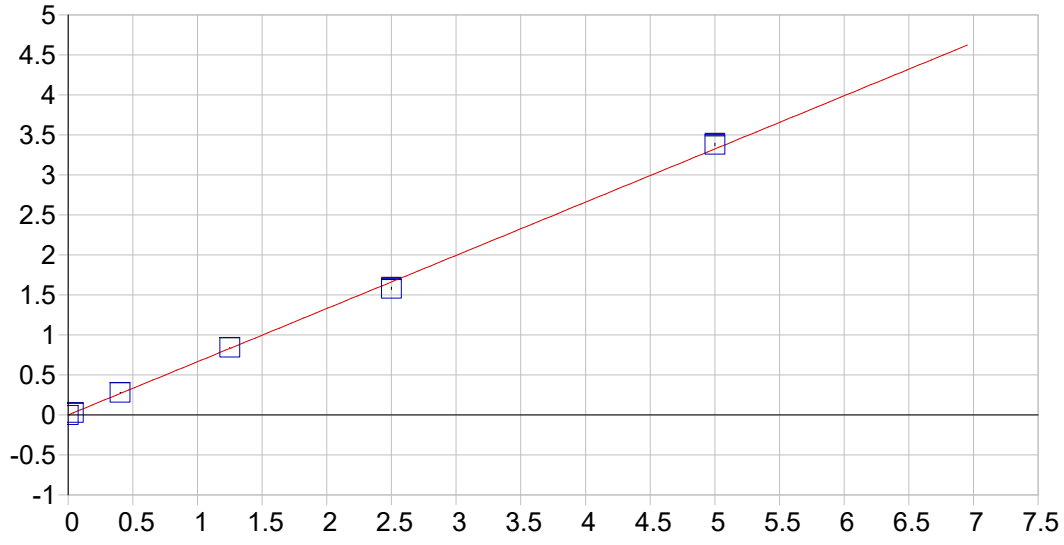
Mg 279.079 {121}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000200	Re-Slope:	1.000000
A1 (Gain):	0.011823	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998565	Status:	OK.
Std Error of Est:	0.000335		
Predicted MDL:	0.017925		
Predicted MQL:	0.059751		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00021	.000	.000	-.00020	.000	1
S2	4.0000	3.8815	-.118	-2.96	.04569	.000	1
S3	12.500	12.227	-.273	-2.19	.14436	.001	1
S4	25.000	23.080	-1.92	-7.68	.27269	.003	1
S5	50.000	52.354	2.35	4.71	.61880	.003	1
S1	2.0000	1.9572	-.043	-2.14	.02294	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



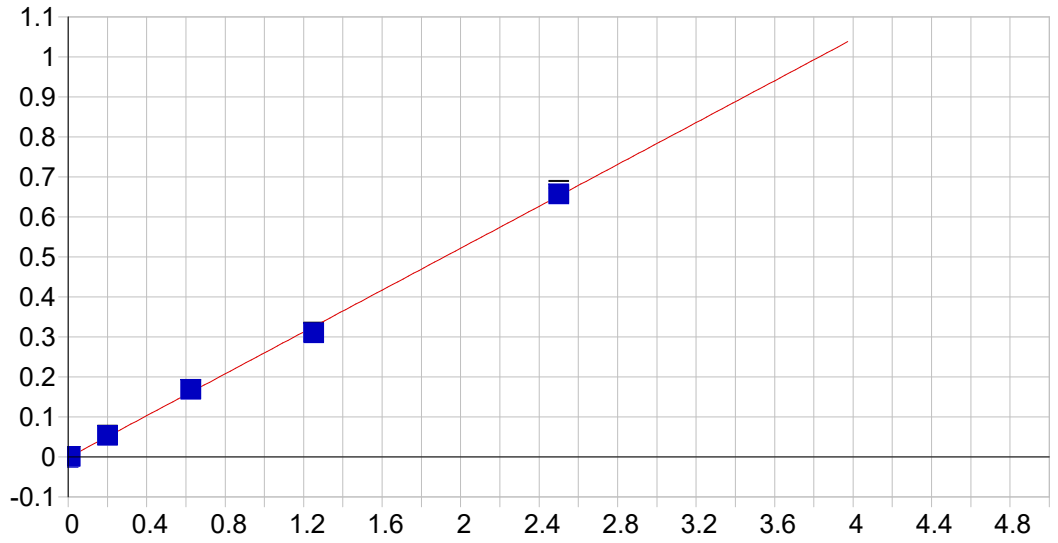
Ni 231.604 {446}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000214	Re-Slope:	1.000000
A1 (Gain):	0.664755	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999524	Status:	OK.
Std Error of Est:	0.000481		
Predicted MDL:	0.000352		
Predicted MQL:	0.001172		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00021	.000	1
S1	.04000	.03918	-.001	-2.05	.02626	.000	1
S3	1.2500	1.2667	.017	1.34	.84226	.003	1
S4	2.5000	2.3781	-.122	-4.88	1.5811	.013	1
S5	5.0000	5.0847	.085	1.69	3.3803	.016	1
S2	.40000	.42132	.021	5.33	.28029	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



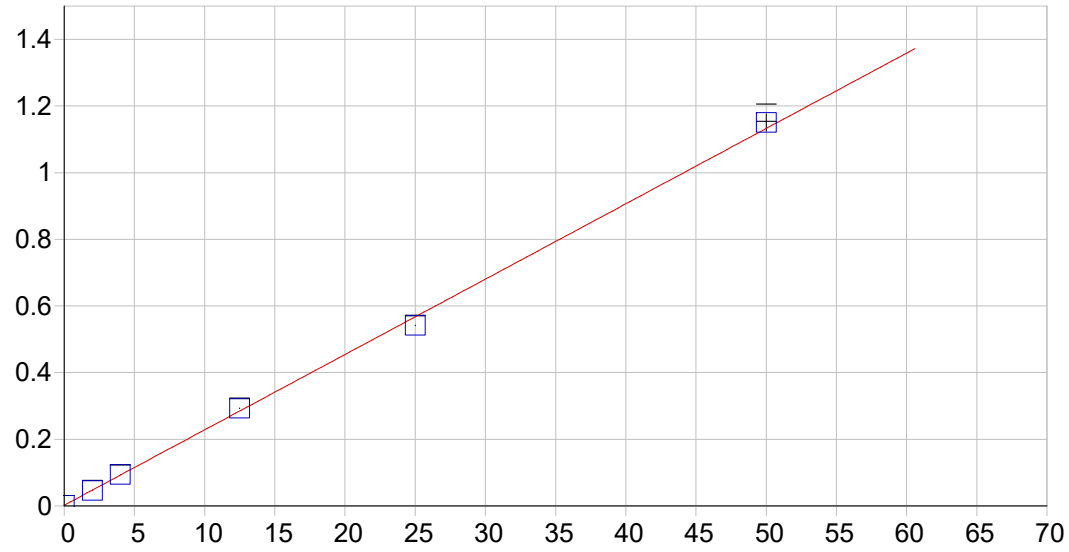
Ag 328.068 {103}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001627	Re-Slope:	1.000000
A1 (Gain):	0.261664	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999507	Status:	OK.
Std Error of Est:	0.000068		
Predicted MDL:	0.000411		
Predicted MQL:	0.001371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00163	.000	1
S1	.01000	.01002	.000	.177	.00098	.000	1
S3	.62500	.64980	.025	3.97	.16774	.001	1
S4	1.2500	1.1928	-.057	-4.57	.30917	.001	1
S5	2.5000	2.5203	.020	.810	.65518	.008	1
S2	.20000	.21208	.012	6.04	.05365	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



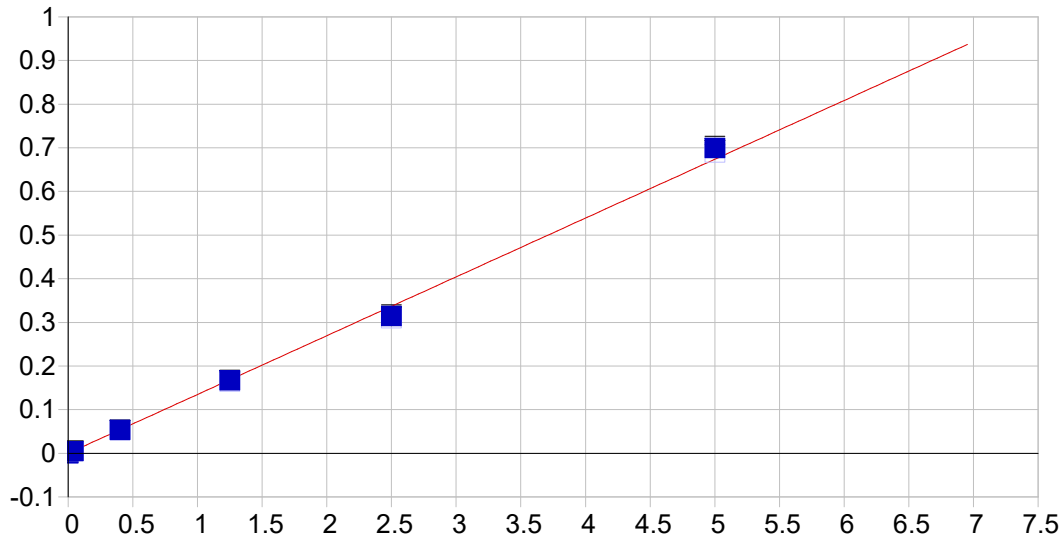
Na 589.592 { 57}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002217	Re-Slope:	1.000000
A1 (Gain):	0.022610	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999594	Status:	OK.
Std Error of Est:	0.000341		
Predicted MDL:	0.008048		
Predicted MQL:	0.026826		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00222	.000	1
S2	4.0000	4.0563	.056	1.41	.09393	.001	1
S3	12.500	12.842	.342	2.74	.29257	.001	1
S4	25.000	23.854	-1.15	-4.58	.54156	.001	1
S5	50.000	50.788	.788	1.58	1.1505	.026	1
S1	2.0000	1.9597	-.040	-2.02	.04652	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



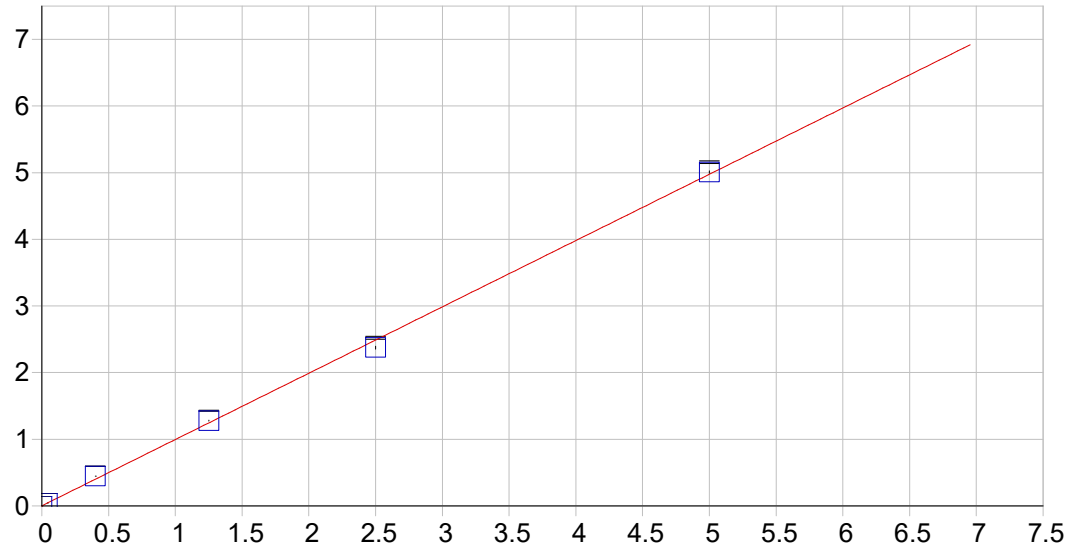
V 292.402 {115}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.134745	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998954	Status:	OK.
Std Error of Est:	0.000143		
Predicted MDL:	0.001604		
Predicted MQL:	0.005347		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00000	.000	1
S1	.04000	.03883	-.001	-2.92	.00503	.000	1
S3	1.2500	1.2374	-.013	-1.00	.16428	.001	1
S4	2.5000	2.3320	-.168	-6.72	.30931	.003	1
S5	5.0000	5.1886	.189	3.77	.68931	.005	1
S2	.40000	.39309	-.007	-1.73	.05218	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



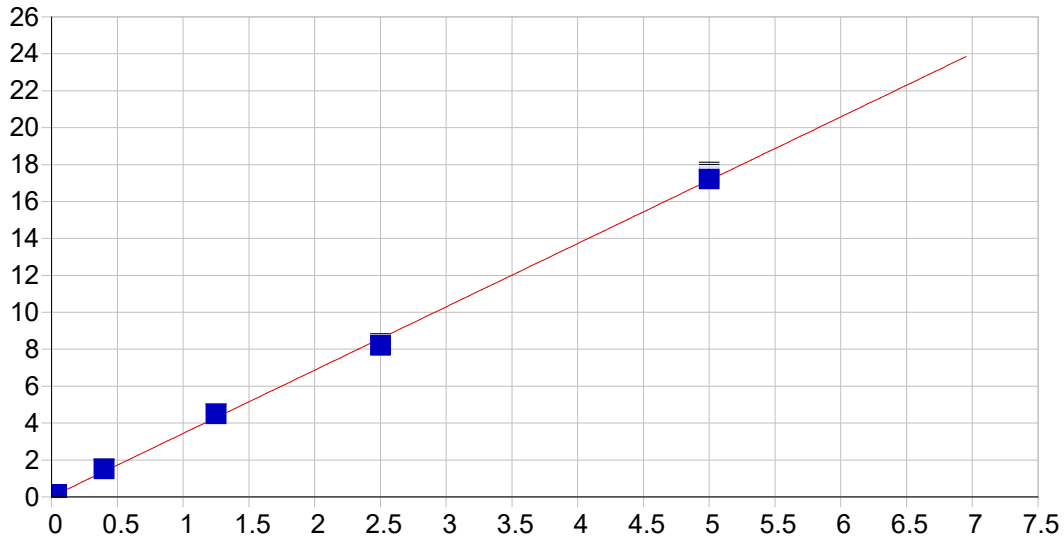
Zn 206.200 {464}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001424	Re-Slope:	1.000000
A1 (Gain):	0.994965	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999341	Status:	OK.
Std Error of Est:	0.000848		
Predicted MDL:	0.000217		
Predicted MQL:	0.000722		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00142	.000	1
S1	.04000	.04146	.001	3.66	.04268	.000	1
S3	1.2500	1.2839	.034	2.72	1.2789	.006	1
S4	2.5000	2.3857	-.114	-4.57	2.3751	.021	1
S5	5.0000	5.0310	.031	.620	5.0071	.020	1
S2	.40000	.44789	.048	12.0	.44705	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



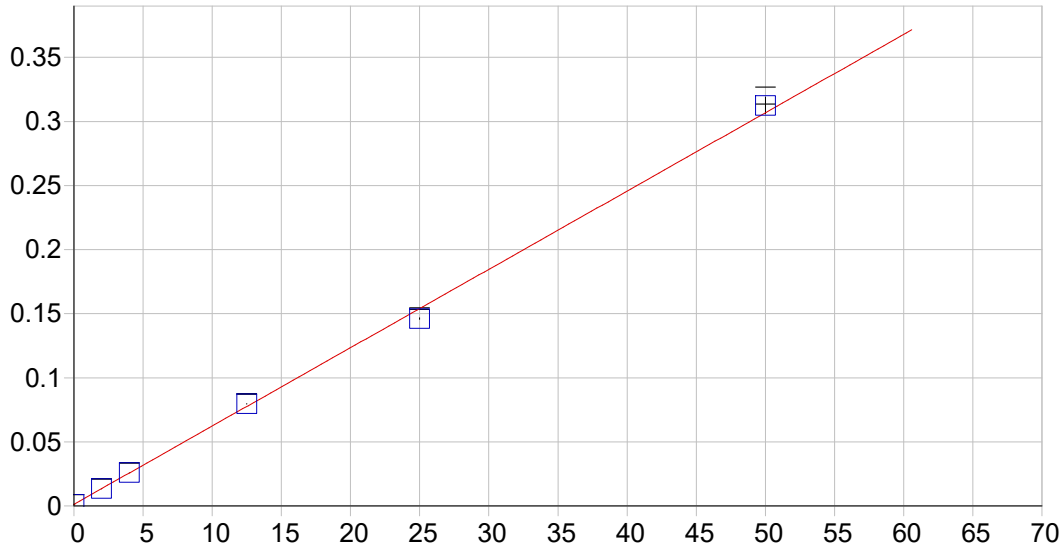
Zn 213.856 {158}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006123	Re-Slope:	1.000000
A1 (Gain):	3.429946	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999385	Status:	OK.
Std Error of Est:	0.002844		
Predicted MDL:	0.000254		
Predicted MQL:	0.000845		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00610	.000	1
S1	.04000	.04149	.001	3.72	.14938	.002	1
S3	1.2500	1.3058	.056	4.46	4.5146	.015	1
S4	2.5000	2.3870	-.113	-4.52	8.2530	.050	1
S5	5.0000	5.0170	.017	.339	17.333	.251	1
S2	.40000	.43880	.039	9.70	1.5207	.012	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



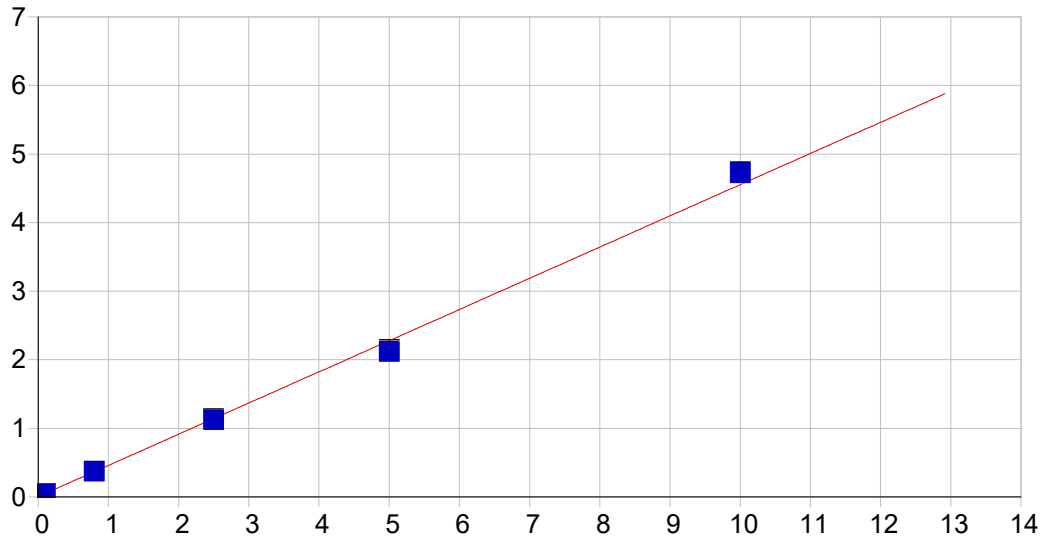
K 766.490 { 44}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001235	Re-Slope:	1.000000
A1 (Gain):	0.006111	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999504	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	0.034905		
Predicted MQL:	0.116351		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00123	.000	1
S2	4.0000	4.0299	.030	.746	.02586	.000	1
S3	12.500	12.837	.337	2.69	.07968	.000	1
S4	25.000	23.713	-1.29	-5.15	.14613	.001	1
S5	50.000	50.925	.925	1.85	.31242	.007	1
S1	2.0000	1.9955	-.004	-.224	.01343	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



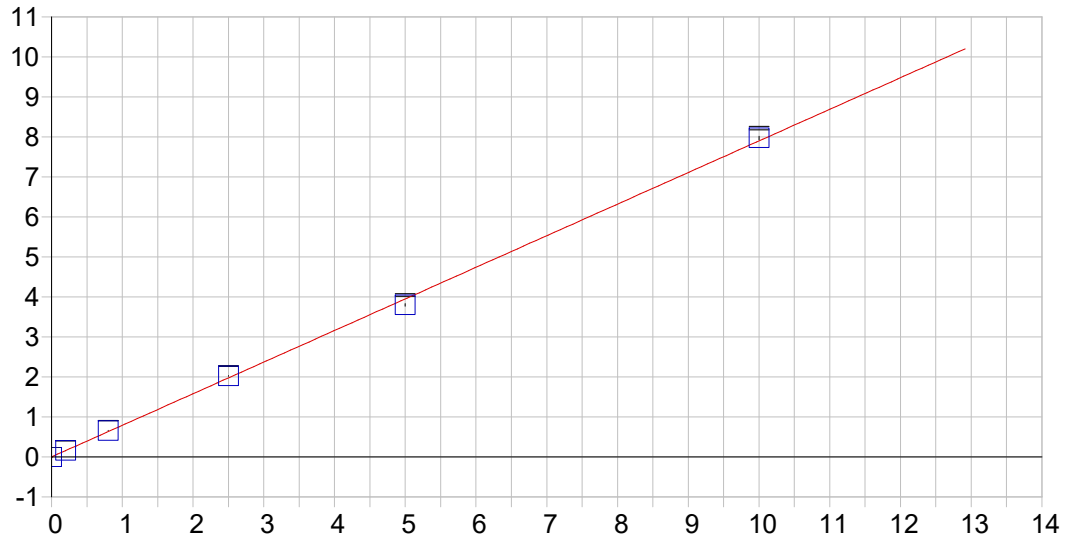
B 249.678 {135}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004053	Re-Slope:	1.000000
A1 (Gain):	0.454923	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998890	Status:	OK.
Std Error of Est:	0.001124		
Predicted MDL:	0.000613		
Predicted MQL:	0.002042		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00406	.000	1
S1	.10000	.09473	-.005	-5.27	.04695	.000	1
S3	2.5000	2.4673	-.033	-1.31	1.1243	.011	1
S4	5.0000	4.6448	-.355	-7.10	2.1126	.032	1
S5	10.000	10.384	.384	3.84	4.7189	.015	1
S2	.80000	.80958	.010	1.20	.37164	.002	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



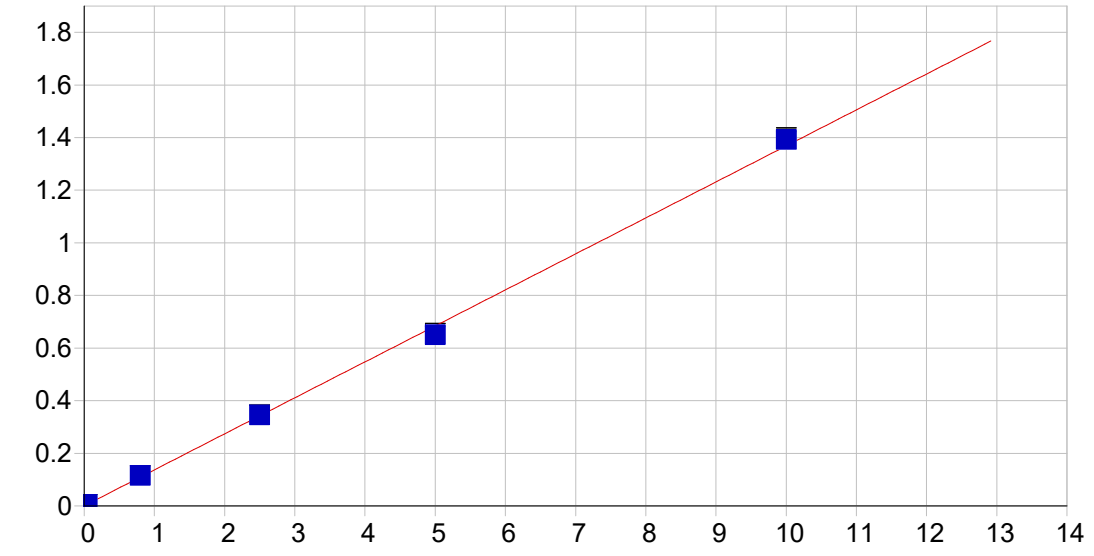
Mo 202.030 {467}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000113	Re-Slope:	1.000000
A1 (Gain):	0.789989	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999699	Status:	OK.
Std Error of Est:	0.001442		
Predicted MDL:	0.000291		
Predicted MQL:	0.000969		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00012	.000	1
S1	.20000	.19835	-.002	-.827	.15658	.001	1
S3	2.5000	2.5629	.063	2.52	2.0246	.008	1
S4	5.0000	4.8112	-.189	-3.78	3.8007	.033	1
S5	10.000	10.092	.092	.924	7.9727	.041	1
S2	.80000	.83519	.035	4.40	.65968	.002	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



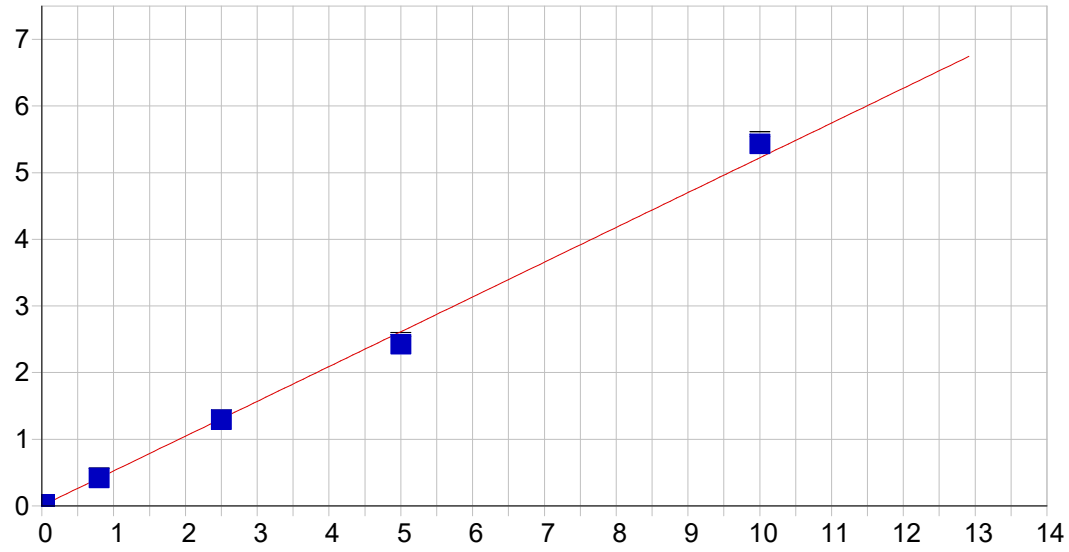
Sn 189.989 {478}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000291	Re-Slope:	1.000000
A1 (Gain):	0.136804	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999510	Status:	OK.
Std Error of Est:	0.000142		
Predicted MDL:	0.000834		
Predicted MQL:	0.002779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00029	.000	1
S1	.04000	.03888	-.001	-2.80	.00560	.000	1
S3	2.5000	2.5268	.027	1.07	.34561	.002	1
S4	5.0000	4.7525	-.247	-4.95	.64975	.006	1
S5	10.000	10.181	.181	1.81	1.3917	.008	1
S2	.80000	.84095	.041	5.12	.11522	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



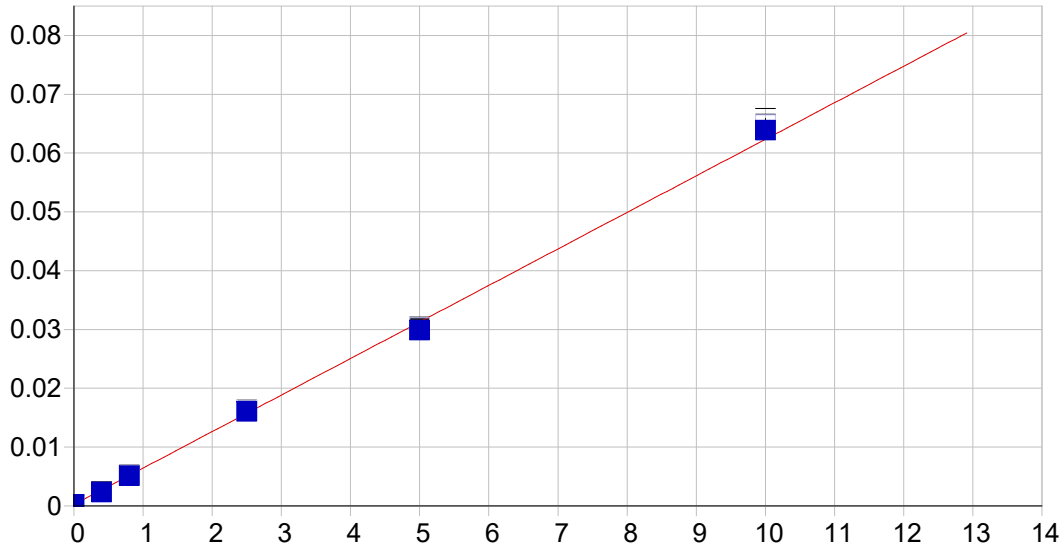
Ti 336.121 {100}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002206	Re-Slope:	1.000000
A1 (Gain):	0.522119	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998863	Status:	OK.
Std Error of Est:	0.000826		
Predicted MDL:	0.000607		
Predicted MQL:	0.002022		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00221	.000	1
S1	.04000	.03743	-.003	-6.42	.02173	.000	1
S3	2.5000	2.4665	-.034	-1.34	1.2895	.007	1
S4	5.0000	4.6438	-.356	-7.12	2.4259	.029	1
S5	10.000	10.396	.396	3.96	5.4285	.037	1
S2	.80000	.79580	-.004	-.526	.41755	.001	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



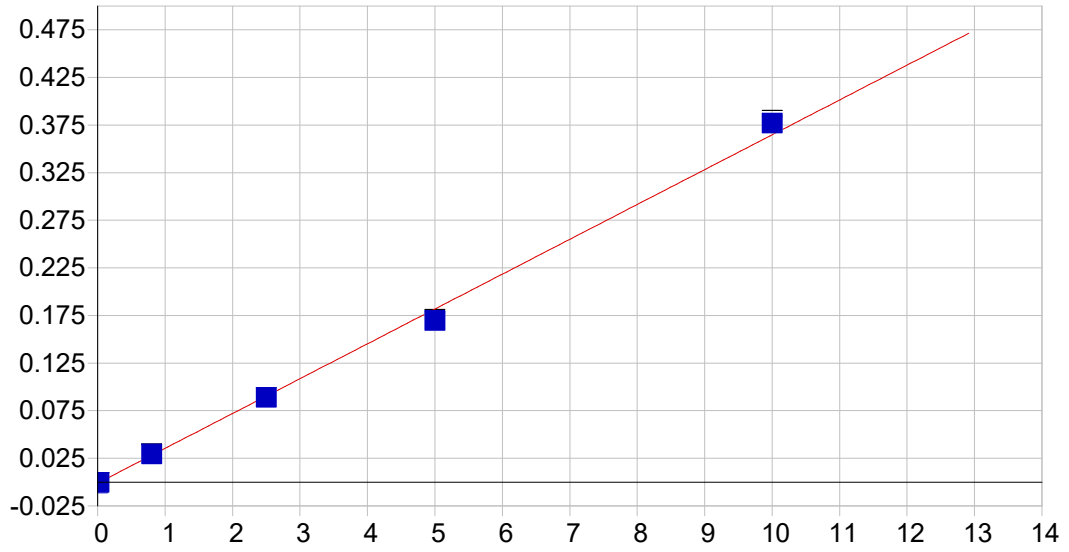
Si 288.158 {117}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000216	Re-Slope:	1.000000
A1 (Gain):	0.006212	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999344	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.007694		
Predicted MQL:	0.025648		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00022	.000	1
S1	.40000	.34360	-.056	-14.1	.00235	.000	1
S3	2.5000	2.5463	.046	1.85	.01627	.000	1
S4	5.0000	4.7719	-.228	-4.56	.03033	.000	1
S5	10.000	10.245	.245	2.45	.06479	.001	1
S2	.80000	.79279	-.007	-.902	.00522	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



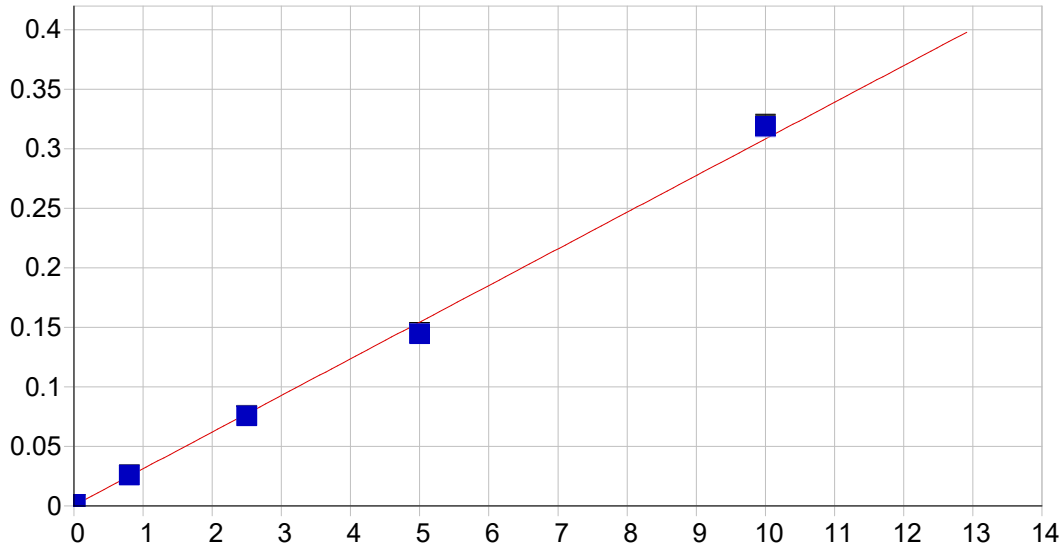
P 177.495 {490}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001148	Re-Slope:	1.000000
A1 (Gain):	0.036594	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999042	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.002755		
Predicted MQL:	0.009182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00115	.000	1
S1	.02000	.02065	.001	3.25	-.00039	.000	1
S3	2.5000	2.4602	-.040	-1.59	.08887	.000	1
S4	5.0000	4.6703	-.330	-6.59	.16973	.001	1
S5	10.000	10.331	.331	3.31	.37687	.003	1
S2	.80000	.83749	.037	4.69	.02949	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



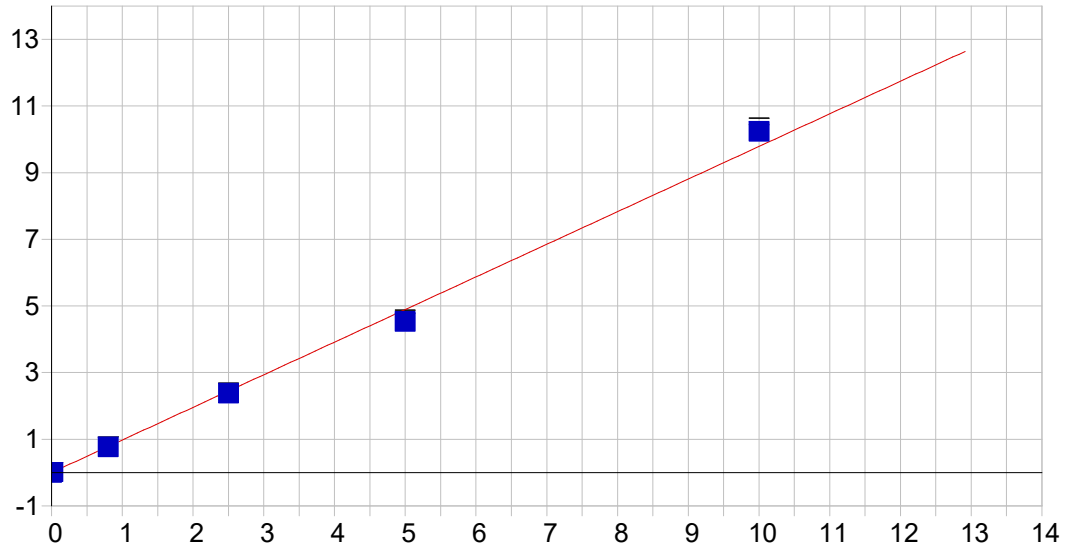
S 182.034 {485}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000427	Re-Slope:	1.000000
A1 (Gain):	0.030792	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999084	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.003353		
Predicted MQL:	0.011176		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00043	.000	1
S1	.02000	.02139	.001	6.94	.00106	.000	1
S3	2.5000	2.4425	-.057	-2.30	.07544	.000	1
S4	5.0000	4.6882	-.312	-6.24	.14439	.001	1
S5	10.000	10.343	.343	3.43	.31812	.002	1
S2	.80000	.82451	.025	3.06	.02575	.000	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



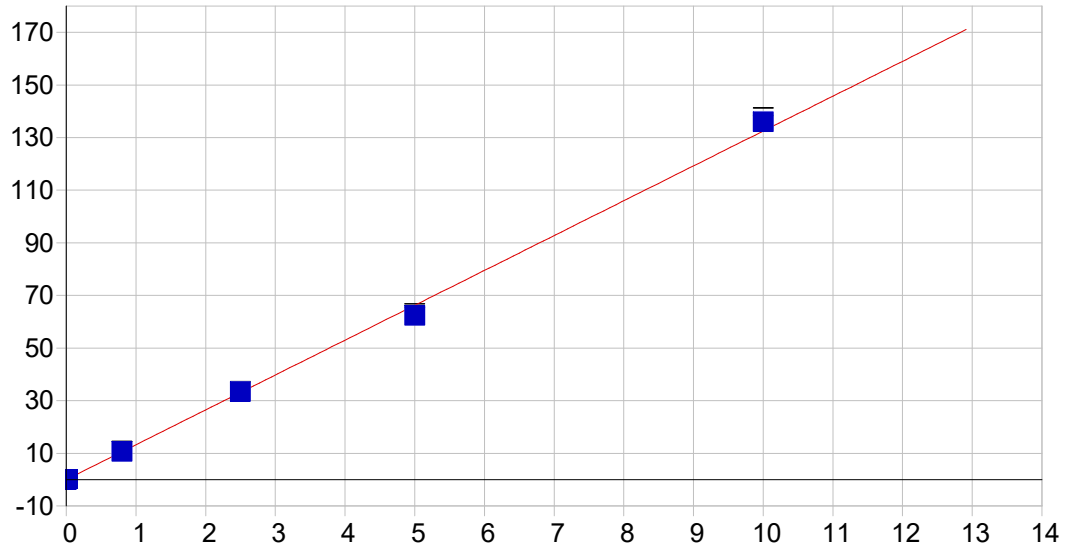
Li 670.784 { 50}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001114	Re-Slope:	1.000000
A1 (Gain):	0.978777	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998602	Status:	OK.
Std Error of Est:	0.001215		
Predicted MDL:	0.000956		
Predicted MQL:	0.003185		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00111	.000	1
S5	10.000	10.459	.459	4.59	10.245	.101	1
S4	5.0000	4.6263	-.374	-7.47	4.5314	.051	1
S3	2.5000	2.4292	-.071	-2.83	2.3787	.012	1
S1	.02000	.01781	-.002	-11.0	.01667	.000	1
S2	.80000	.78772	-.012	-1.53	.77059	.005	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



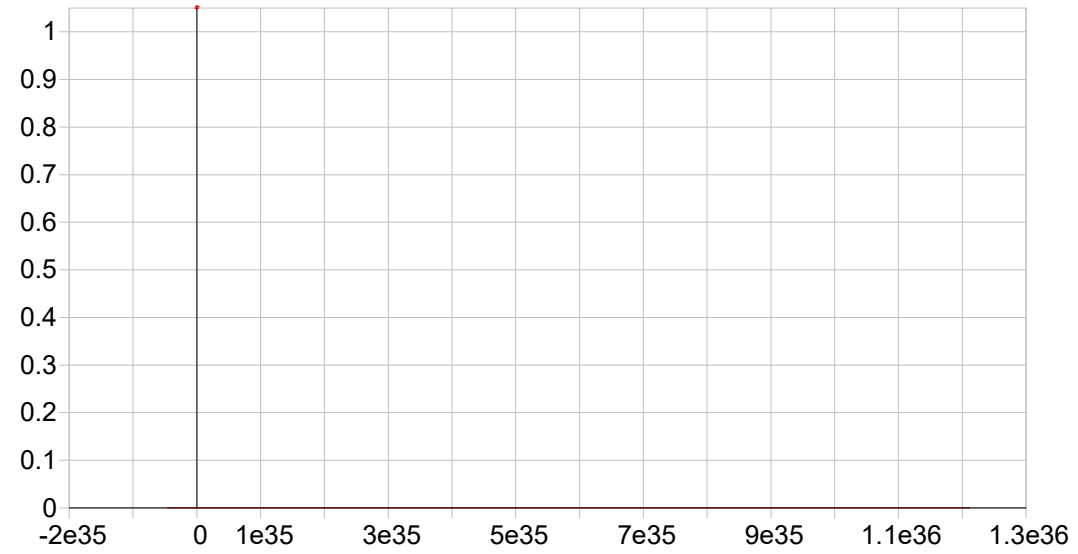
Sr 407.771 { 83}

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000071	Re-Slope:	1.000000
A1 (Gain):	13.250091	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999335	Status:	OK.
Std Error of Est:	0.011340		
Predicted MDL:	0.000041		
Predicted MQL:	0.000136		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.02000	.01905	-.001	-4.76	.25378	.002	1
S3	2.5000	2.5192	.019	.770	33.413	.111	1
S4	5.0000	4.7076	-.292	-5.85	62.442	.631	1
S5	10.000	10.266	.266	2.66	136.15	1.46	1
S2	.80000	.80865	.009	1.08	10.725	.073	1

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

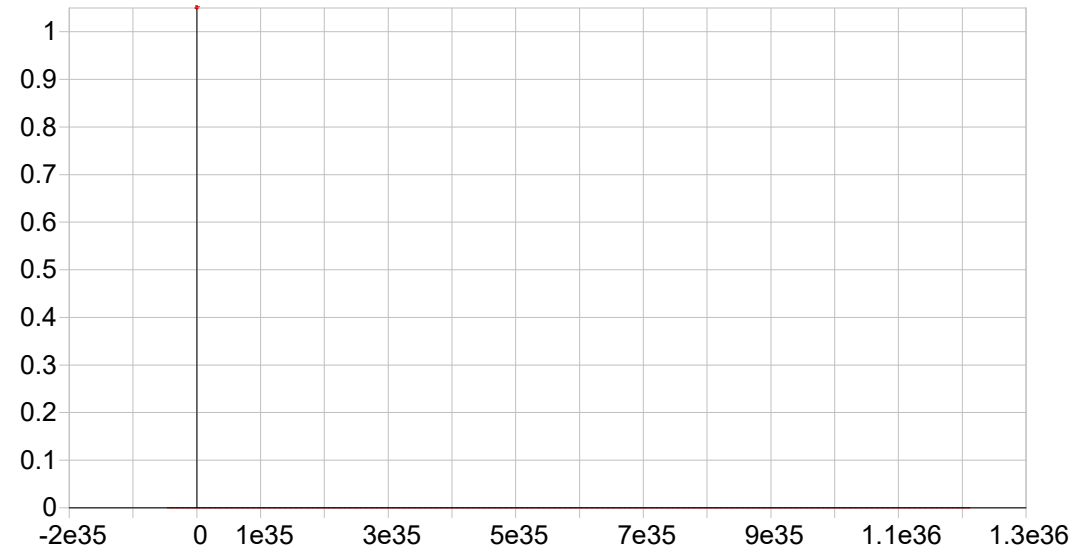


Y 224.306 {450}*

Date of Fit:	12/30/2024 14:49:59	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

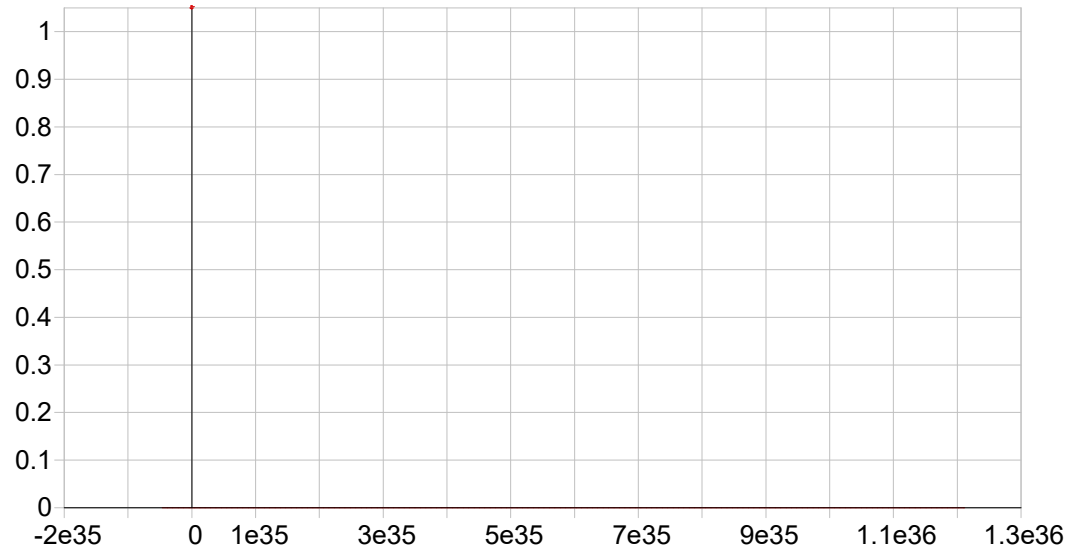
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

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

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



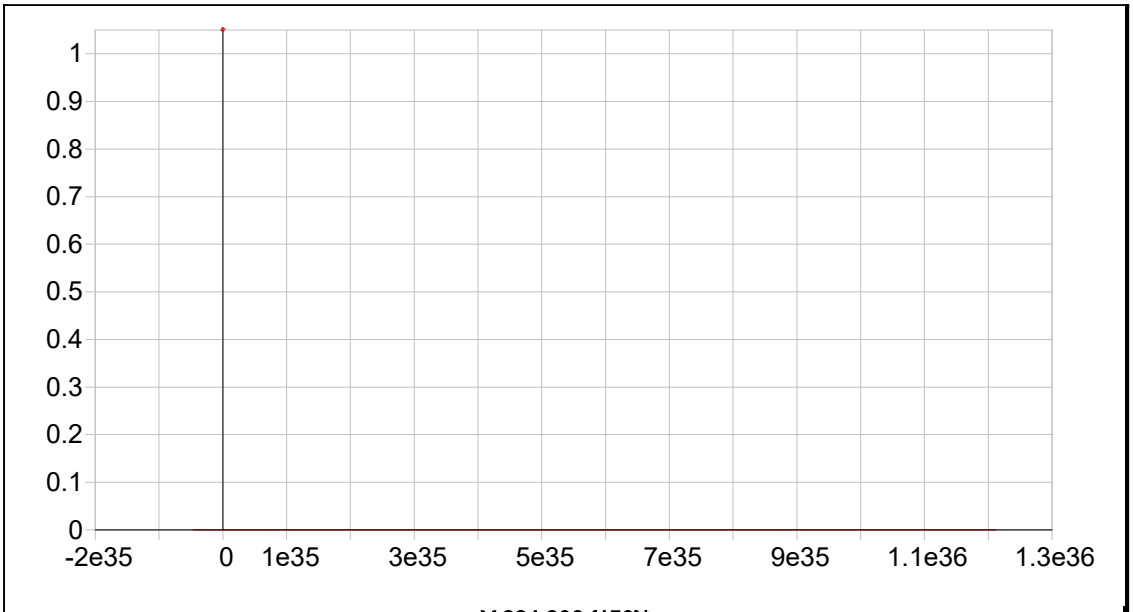
Y 371.030 { 91}*

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

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

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

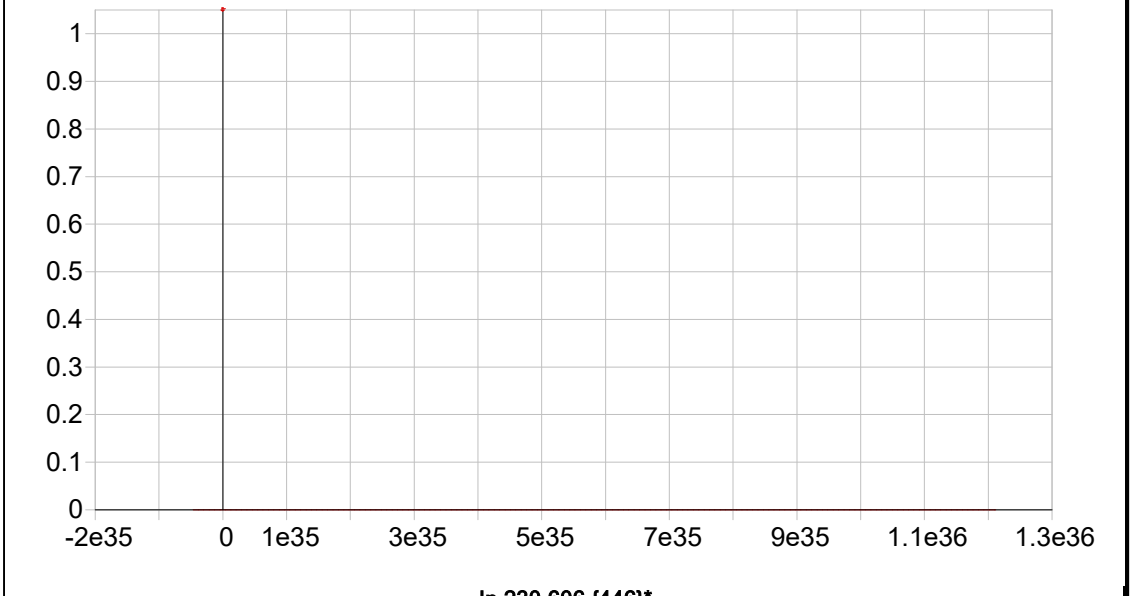
Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129



Y 224.306 {150}*

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

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



In 230.606 {446}*

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

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

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

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

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S0 Acquired: 12/30/2024 13:54:31 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	-.00020	-.00015	-.00025	.00063	.00063	.00024	.01915	-.00035
Stddev	.00014	.00009	.00029	.00013	.00023	.00012	.00230	.00003
%RSD	66.908	56.643	112.55	19.852	35.842	48.334	12.001	7.9389
#1	-.00034	-.00007	-.00006	.00056	.00088	.00021	.01929	-.00038
#2	-.00021	-.00024	-.00012	.00056	.00044	.00038	.01678	-.00034
#3	-.00007	-.00015	-.00058	.00078	.00057	.00015	.02137	-.00033

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	-.00017	.00132	.00008	.00007	-.00002	.00002	.00212	-.00020
Stddev	.00006	.00014	.00006	.00013	.00031	.00001	.00017	.00003
%RSD	35.032	10.308	72.870	177.56	1561.7	37.114	8.0424	14.224
#1	-.00023	.00139	.00005	.00022	.00005	.00002	.00221	-.00023
#2	-.00013	.00139	.00015	-.00003	-.00036	.00003	.00192	-.00018
#3	-.00014	.00116	.00004	.00002	.00025	.00001	.00222	-.00018

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00021	-.00163	.00222	-.00000	.00610	.00123	.00406	-.00012
Stddev	.00024	.00006	.00020	.00011	.00010	.00013	.00015	.00005
%RSD	110.87	3.7908	9.0024	4283.6	1.7140	10.563	3.6425	44.568
#1	-.00003	-.00167	.00199	.00006	.00605	.00124	.00418	-.00014
#2	.00044	-.00165	.00234	-.00013	.00604	.00110	.00410	-.00006
#3	.00024	-.00156	.00232	.00007	.00623	.00136	.00389	-.00016

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	.00029	.00221	.00022	-.00115	.00043	-.00111	.00009
Stddev	.00008	.00016	.00003	.00004	.00003	.00030	.00047
%RSD	28.423	7.0205	12.677	3.7587	6.5254	26.922	541.45
#1	.00030	.00222	.00019	-.00111	.00041	-.00136	-.00003
#2	.00020	.00236	.00024	-.00114	.00042	-.00078	.00061
#3	.00037	.00205	.00022	-.00120	.00046	-.00119	-.00032

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: S0 Acquired: 12/30/2024 13:54:31 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2532.8	55918.	11724.	1874.8	3791.1
Stddev	14.3	239.	45.	17.0	20.5
%RSD	.56418	.42728	.38200	.90453	.54099
#1	2516.3	55670.	11731.	1855.2	3768.3
#2	2541.2	55938.	11765.	1885.4	3808.1
#3	2541.0	56146.	11676.	1883.7	3797.0

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S1 Acquired: 12/30/2024 13:58:55 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	.00107	.00260	.00260	.00183	.00704	.00689	.31606	.03082
Stddev	.00009	.00014	.00017	.00023	.00031	.00015	.00330	.00010
%RSD	8.2746	5.4114	6.6838	12.801	4.3955	2.1125	1.0428	.33286
#1	.00111	.00249	.00244	.00157	.00738	.00700	.31787	.03094
#2	.00097	.00255	.00278	.00189	.00698	.00673	.31805	.03076
#3	.00114	.00276	.00258	.00202	.00677	.00695	.31225	.03076

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	.01186	.12751	.00215	.02716	.01722	.00057	.01994	.02294
Stddev	.00020	.00108	.00004	.00032	.00026	.00001	.00039	.00008
%RSD	1.6651	.84627	1.6977	1.1833	1.5055	1.8017	1.9350	.34178
#1	.01164	.12875	.00219	.02728	.01749	.00056	.02017	.02289
#2	.01202	.12698	.00212	.02680	.01698	.00057	.01949	.02303
#3	.01193	.12680	.00213	.02741	.01718	.00058	.02016	.02290

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	.02626	.00098	.04652	.00503	.14938	.01343	.04695	.15658
Stddev	.00036	.00004	.00020	.00010	.00152	.00010	.00017	.00058
%RSD	1.3728	4.2051	.42973	1.9771	1.0201	.73515	.36937	.37332
#1	.02652	.00094	.04641	.00507	.14794	.01340	.04712	.15664
#2	.02585	.00102	.04640	.00491	.14923	.01334	.04678	.15597
#3	.02641	.00097	.04676	.00510	.15098	.01354	.04696	.15713

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	.00560	.02173	.00235	-.00039	.00106	.01667	.25378
Stddev	.00005	.00001	.00002	.00006	.00002	.00014	.00203
%RSD	.85851	.06819	.70865	14.653	1.5877	.85519	.80032
#1	.00556	.02175	.00235	-.00033	.00107	.01680	.25612
#2	.00565	.02173	.00234	-.00043	.00104	.01652	.25252
#3	.00560	.02172	.00237	-.00042	.00106	.01669	.25269

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S1 Acquired: 12/30/2024 13:58:55 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2492.5	56786.	11837.	1928.5	3677.4
Stddev	8.3	202.	62.	1.4	16.1
%RSD	.33173	.35580	.52662	.07012	.43885
#1	2485.5	56647.	11769.	1927.3	3664.4
#2	2501.6	57018.	11851.	1930.0	3695.5
#3	2490.4	56693.	11891.	1928.3	3672.3

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S2 Acquired: 12/30/2024 14:03:17 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	.05470	.06054	.20416	.05472	.11166	.09998	4.9238	.22559
Stddev	.00013	.00046	.00063	.00020	.00056	.00036	.0396	.00110
%RSD	.23370	.76094	.30752	.37119	.49899	.35522	.80326	.48913
#1	.05455	.06002	.20369	.05464	.11119	.10027	4.8923	.22574
#2	.05475	.06070	.20391	.05458	.11153	.09958	4.9110	.22442
#3	.05479	.06089	.20487	.05496	.11228	.10008	4.9682	.22661

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	.83743	.27739	.03713	.38484	.17145	.00476	.36856	.04569
Stddev	.00179	.00233	.00020	.00113	.00027	.00004	.00197	.00028
%RSD	.21412	.83881	.53671	.29410	.15884	.74281	.53353	.62107
#1	.83712	.27545	.03690	.38407	.17138	.00473	.36723	.04573
#2	.83582	.27676	.03727	.38430	.17123	.00480	.36762	.04539
#3	.83936	.27997	.03723	.38614	.17175	.00476	.37082	.04596

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	.28029	.05365	.09393	.05218	1.5207	.02586	.37164	.65968
Stddev	.00017	.00021	.00060	.00043	.0120	.00021	.00247	.00173
%RSD	.06089	.40004	.63896	.81989	.78563	.80899	.66488	.26191
#1	.28042	.05358	.09334	.05184	1.5083	.02564	.37275	.65792
#2	.28010	.05390	.09454	.05203	1.5321	.02605	.36880	.65974
#3	.28035	.05349	.09391	.05266	1.5217	.02589	.37336	.66138

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	.11522	.41755	.00522	.02949	.02575	.77059	10.725
Stddev	.00050	.00150	.00002	.00020	.00014	.00507	.073
%RSD	.43446	.35843	.33489	.68752	.53199	.65811	.67884
#1	.11480	.41708	.00520	.02927	.02583	.76749	10.683
#2	.11510	.41635	.00523	.02955	.02559	.76785	10.684
#3	.11578	.41923	.00521	.02966	.02583	.77645	10.809

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S2 Acquired: 12/30/2024 14:03:17 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2433.6	56237.	11469.	1906.0	3571.9
Stddev	7.8	296.	47.	16.8	10.5
%RSD	.32021	.52690	.40602	.88181	.29372
#1	2425.0	56331.	11440.	1921.8	3560.5
#2	2440.2	55906.	11523.	1888.4	3581.1
#3	2435.5	56476.	11445.	1907.9	3574.0

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S3 Acquired: 12/30/2024 14:07:28 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	.16504	.18720	.62294	.16408	.34024	.30909	15.423	.68819
Stddev	.00098	.00143	.00285	.00036	.00165	.00193	.136	.00512
%RSD	.59434	.76124	.45827	.21991	.48602	.62375	.88296	.74434
#1	.16391	.18678	.62030	.16366	.33869	.31101	15.561	.69363
#2	.16546	.18603	.62255	.16432	.34005	.30716	15.289	.68346
#3	.16573	.18878	.62597	.16424	.34198	.30910	15.420	.68749

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	2.5196	.82857	.11458	1.1638	.51641	.01453	1.1227	.14436
Stddev	.0087	.00729	.00021	.0039	.00218	.00009	.0083	.00080
%RSD	.34643	.87963	.18678	.33781	.42162	.59118	.74079	.55241
#1	2.5120	.83600	.11440	1.1606	.51475	.01444	1.1320	.14504
#2	2.5176	.82143	.11482	1.1627	.51560	.01461	1.1159	.14348
#3	2.5291	.82829	.11453	1.1682	.51888	.01454	1.1202	.14456

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	.84226	.16774	.29257	.16428	4.5146	.07968	1.1243	2.0246
Stddev	.00325	.00060	.00100	.00103	.0149	.00021	.0106	.0076
%RSD	.38580	.35682	.34213	.62678	.32995	.26050	.94451	.37787
#1	.83954	.16777	.29168	.16540	4.5292	.07951	1.1361	2.0174
#2	.84138	.16832	.29365	.16338	4.5153	.07991	1.1157	2.0236
#3	.84586	.16713	.29239	.16406	4.4994	.07961	1.1210	2.0326

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	.34561	1.2895	.01627	.08887	.07544	2.3787	33.413
Stddev	.00160	.0074	.00002	.00010	.00037	.0121	.111
%RSD	.46399	.57538	.12299	.11091	.49448	.51029	.33123
#1	.34450	1.2980	.01625	.08881	.07513	2.3914	33.527
#2	.34488	1.2842	.01629	.08881	.07533	2.3672	33.408
#3	.34745	1.2864	.01626	.08898	.07585	2.3776	33.306

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S3 Acquired: 12/30/2024 14:07:28 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2488.1	55659.	11642.	1847.2	3676.9
Stddev	4.7	144.	119.	2.8	2.8
%RSD	.19038	.25941	1.0213	.15225	.07700
#1	2493.6	55558.	11506.	1845.1	3679.2
#2	2485.3	55595.	11729.	1846.1	3677.9
#3	2485.5	55824.	11689.	1850.4	3673.8

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S4 Acquired: 12/30/2024 14:11:45 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	.31527	.34988	1.1739	.31403	.65114	.58302	28.867	1.2804
Stddev	.00212	.00507	.0095	.00291	.00669	.00467	.373	.0184
%RSD	.67362	1.4489	.80485	.92590	1.0267	.80029	1.2937	1.4341
#1	.31680	.34952	1.1809	.31598	.65695	.58813	29.289	1.3011
#2	.31284	.34501	1.1632	.31069	.64383	.57899	28.733	1.2736
#3	.31615	.35512	1.1776	.31543	.65263	.58194	28.579	1.2664

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	4.7651	1.5449	.20869	2.1934	.96848	.02646	2.0804	.27269
Stddev	.0410	.0168	.00124	.0180	.00817	.00005	.0274	.00312
%RSD	.86058	1.0901	.59344	.82041	.84329	.20394	1.3156	1.1460
#1	4.7968	1.5644	.20993	2.2080	.97664	.02648	2.1120	.27629
#2	4.7188	1.5359	.20869	2.1733	.96030	.02651	2.0645	.27110
#3	4.7797	1.5346	.20745	2.1990	.96849	.02641	2.0647	.27067

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	1.5811	.30917	.54156	.30931	8.2530	.14613	2.1126	3.8007
Stddev	.0134	.00149	.00084	.00334	.0498	.00061	.0318	.0331
%RSD	.84737	.48307	.15590	1.0789	.60326	.41703	1.5045	.86979
#1	1.5914	.31037	.54228	.31315	8.3014	.14673	2.1493	3.8253
#2	1.5659	.30965	.54177	.30715	8.2557	.14616	2.0954	3.7631
#3	1.5859	.30750	.54063	.30763	8.2019	.14551	2.0932	3.8136

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	.64975	2.4259	.03033	.16973	.14439	4.5314	62.442
Stddev	.00594	.0291	.00011	.00135	.00107	.0509	.631
%RSD	.91435	1.1985	.37087	.79275	.74082	1.1233	1.0102
#1	.65382	2.4593	.03029	.17010	.14461	4.5899	63.165
#2	.64294	2.4066	.03045	.16824	.14322	4.4966	62.007
#3	.65250	2.4118	.03024	.17085	.14532	4.5079	62.153

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S4 Acquired: 12/30/2024 14:11:45 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2424.2	56243.	11537.	1828.8	3562.2
Stddev	20.8	193.	142.	5.9	28.9
%RSD	.85649	.34336	1.2288	.32261	.81014
#1	2405.1	56095.	11374.	1825.3	3537.9
#2	2446.3	56172.	11610.	1825.5	3594.1
#3	2421.3	56461.	11627.	1835.6	3554.7

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S5 Acquired: 12/30/2024 14:15:57 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	.66747	.75059	2.5140	.65425	1.3629	1.3076	64.219	2.8647
Stddev	.00256	.00750	.0106	.00421	.0071	.0094	.792	.0115
%RSD	.38285	.99865	.42107	.64416	.52267	.72123	1.2335	.40025
#1	.66634	.74292	2.5033	.65228	1.3613	1.3159	64.908	2.8747
#2	.66567	.75094	2.5144	.65139	1.3567	1.3096	64.395	2.8671
#3	.67039	.75790	2.5244	.65909	1.3707	1.2973	63.353	2.8522

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	10.180	3.4576	.43719	4.7175	2.0242	.05625	4.6475	.61880
Stddev	.043	.0151	.00870	.0226	.0096	.00110	.0252	.00287
%RSD	.42661	.43572	1.9905	.48001	.47598	1.9584	.54155	.46399
#1	10.131	3.4721	.44153	4.6931	2.0195	.05679	4.6677	.62194
#2	10.195	3.4587	.44288	4.7213	2.0178	.05698	4.6555	.61816
#3	10.214	3.4420	.42718	4.7379	2.0353	.05498	4.6193	.61631

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	3.3803	.65518	1.1505	.68931	17.333	.31242	4.7189	7.9727
Stddev	.0157	.00847	.0261	.00481	.251	.00661	.0154	.0410
%RSD	.46547	1.2925	2.2654	.69765	1.4509	2.1153	.32544	.51412
#1	3.3630	.65904	1.1649	.69324	17.457	.31587	4.7208	7.9519
#2	3.3841	.66104	1.1663	.69074	17.499	.31659	4.7027	7.9463
#3	3.3938	.64547	1.1204	.68395	17.044	.30480	4.7332	8.0200

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3917	5.4285	.06479	.37687	.31812	10.245	136.15
Stddev	.0076	.0371	.00108	.00302	.00198	.101	1.46
%RSD	.54535	.68361	1.6670	.80228	.62167	.98348	1.0730
#1	1.3831	5.4622	.06533	.37382	.31629	10.329	137.80
#2	1.3945	5.4345	.06550	.37690	.31786	10.273	135.62
#3	1.3974	5.3888	.06355	.37987	.32022	10.133	135.03

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: S5 Acquired: 12/30/2024 14:15:57 Type: Cal
Method: NON EPA-6010-200.7(v2573) 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	2363.5	54553.	10582.	1765.8	3391.9
Stddev	11.3	993.	53.	28.7	14.7
%RSD	.47893	1.8202	.49819	1.6279	.43234
#1	2365.7	54023.	10526.	1749.7	3405.4
#2	2373.5	53937.	10588.	1748.8	3393.9
#3	2351.2	55698.	10631.	1799.0	3376.3

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICV01 Acquired: 12/30/2024 14:20:09 Type: Unk
Method: NON EPA-6010-200.7(v2573) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.015887	1.018190	1.011885	.9887378	.9708192	2.456872
Stddev	.005243	.002773	.002000	.0049145	.0038198	.007050
%RSD	.5160869	.2723538	.1976721	.4970514	.3934596	.2869379
#1	1.017069	1.015908	1.013109	.9935933	.9748928	2.464944
#2	1.020438	1.021276	1.009577	.9888538	.9702472	2.453750
#3	1.010154	1.017387	1.012969	.9837663	.9673177	2.451923

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4910221	.4884559	.5113805	9.602877	.5362880	.5167202
Stddev	.0008748	.0014195	.0009515	.004548	.0016204	.0014097
%RSD	.1781666	.2906036	.1860589	.0473566	.3021485	.2728188
#1	.4905196	.4869073	.5118843	9.600173	.5350298	.5170054
#2	.4905145	.4887651	.5102830	9.608128	.5357178	.5151897
#3	.4920323	.4896953	.5119740	9.600331	.5381164	.5179655

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5174199	10.27470	.5014379	5.595247	.5194666	.2589198
Stddev	.0005775	.02289	.0016418	.047883	.0008138	.0001652
%RSD	.1116165	.2228089	.3274240	.8557805	.1566506	.0637971
#1	.5169712	10.28967	.4995438	5.586800	.5195456	.2587606
#2	.5172169	10.28608	.5023143	5.646791	.5186162	.2590903
#3	.5180715	10.24835	.5024556	5.552149	.5202379	.2589084

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.946690	.4775973	1.035773	9.985725	2.323530	2.455657
Stddev	.040006	.0018854	.004982	.072633	.006873	.003163
%RSD	.4022036	.3947574	.4809715	.7273711	.2957910	.1287955
#1	9.981811	.4797296	1.035933	10.06947	2.315603	2.455001
#2	9.903142	.4761511	1.030712	9.94787	2.327172	2.452873
#3	9.955117	.4769111	1.040672	9.93984	2.327816	2.459096

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICV01 Acquired: 12/30/2024 14:20:09 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	2.429492	2.335965	F 2.016934	F .0104710	F -.003422	F -.001359
Stddev	.002617	.001399	.002952	.0024150	.000615	.000412
%RSD	.1077172	.0598786	.1463481	23.06341	17.96039	30.31826
#1	2.429727	2.335467	2.019289	.0115576	-.004085	-.001110
#2	2.426765	2.334884	2.013623	.0121518	-.002872	-.001835
#3	2.431983	2.337545	2.017890	.0077036	-.003307	-.001132

Elem	Sr4077
Units	ppm
Avg	F -.008546
Stddev	.000180
%RSD	2.101793
#1	-.008376
#2	-.008529
#3	-.008734

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2539.162	56796.23	12022.22	1914.619	3746.798
Stddev	3.694	49.24	24.45	7.219	6.368
%RSD	.1454844	.0866952	.2034052	.3770393	.1699551
#1	2540.521	56759.22	12049.78	1914.001	3748.077
#2	2541.984	56852.12	12003.11	1922.127	3752.430
#3	2534.981	56777.37	12013.77	1907.728	3739.888

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: LLICV01 Acquired: 12/30/2024 14:24:13 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	.0207024	.0383273	.0113079	.0184323	.0487237	.1051201	.0921979
Stddev	.0006728	.0010507	.0012311	.0008355	.0008979	.0050549	.0002577
%RSD	3.249746	2.741350	10.88672	4.533021	1.842784	4.808737	.2795409
#1	.0202807	.0383434	.0119428	.0188546	.0478833	.1032037	.0919023
#2	.0203483	.0372687	.0098890	.0189724	.0486181	.1108530	.0923754
#3	.0214783	.0393698	.0120919	.0174699	.0496697	.1013035	.0923160

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057742	.0062105	1.899581	.0094698	.0297818	.0215900	.0905437
Stddev	.0000368	.0001075	.005998	.0001322	.0001136	.0002310	.0018170
%RSD	.6366444	1.731276	.3157796	1.396325	.3813116	1.070065	2.006752
#1	.0057318	.0063195	1.905945	.0093772	.0297052	.0218568	.0886960
#2	.0057961	.0062072	1.894032	.0096212	.0299123	.0214590	.0923283
#3	.0057948	.0061046	1.898767	.0094110	.0297280	.0214542	.0906069

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195351	1.989645	.0401331	.0102136	1.883396	.0383856	.0421521
Stddev	.0002373	.035178	.0004312	.0001378	.003068	.0012319	.0002194
%RSD	1.214888	1.768075	1.074556	1.349070	.1628966	3.209188	.5204329
#1	.0197565	1.985832	.0401212	.0100651	1.882574	.0372023	.0419084
#2	.0192845	2.026574	.0397080	.0102384	1.886791	.0382936	.0423340
#3	.0195643	1.956528	.0405703	.0103374	1.880822	.0396609	.0422138

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.885138	.1123859	.1967758	.0394107	.0377154	.3359785	.0224254
Stddev	.010313	.0003226	.0007087	.0005555	.0005689	.0046370	.0013555
%RSD	.5470576	.2870811	.3601434	1.409595	1.508437	1.380136	6.044511
#1	1.878151	.1120925	.1973787	.0398171	.0370735	.3365320	.0213167
#2	1.880281	.1127314	.1959952	.0396373	.0379155	.3310896	.0239366
#3	1.896983	.1123339	.1969534	.0387777	.0381572	.3403138	.0220230

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: LLICV01 Acquired: 12/30/2024 14:24:13 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	.0206738	.0178330	.0186010
Stddev	.0019883	.0003542	.0000770
%RSD	9.617656	1.986459	.4138910
#1	.0192192	.0174301	.0185227
#2	.0198626	.0180958	.0186766
#3	.0229394	.0179731	.0186036

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.947	57448.13	11630.55	1937.409	3598.212
Stddev	8.723	163.53	17.32	6.528	12.578
%RSD	.3533035	.2846525	.1488889	.3369259	.3495532
#1	2471.334	57264.07	11648.34	1932.732	3601.314
#2	2476.228	57503.67	11613.75	1934.628	3608.949
#3	2459.279	57576.66	11629.57	1944.866	3584.374

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICB01 Acquired: 12/30/2024 14:28:31 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	.0011084	-.001851	-.000393	-.001724	-.002256	-.003600	.0014658
Stddev	.0004444	.000525	.000658	.003255	.000852	.004775	.0002532
%RSD	40.09395	28.37316	167.4018	188.8517	37.76805	132.6156	17.27584
#1	.0014411	-.001348	-.000121	.001678	-.001324	-.008697	.0012960
#2	.0006037	-.002396	.000086	-.004810	-.002449	-.002873	.0013445
#3	.0012804	-.001809	-.001143	-.002040	-.002996	.000769	.0017568

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000495	.0001410	-.010390	-.000484	-.000104	.0000353	-.002720
Stddev	.0000243	.0001191	.005898	.000214	.000100	.0001761	.003331
%RSD	49.07347	84.42052	56.76568	44.29514	95.79537	499.2931	122.4490
#1	.0000744	.0001189	-.013405	-.000677	-.000118	.0001896	-.000430
#2	.0000482	.0002696	-.003594	-.000520	.000002	.0000728	-.006541
#3	.0000259	.0000346	-.014173	-.000254	-.000196	-.000157	-.001189

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000167	.0044839	-.000158	.0004306	.0112254	.0008238	-.000620
Stddev	.000082	.0182024	.000389	.0002285	.0105510	.0016317	.000035
%RSD	49.25003	405.9502	245.6356	53.06303	93.99266	198.0598	5.642750
#1	-.000246	.0225113	.000252	.0003487	.0125158	-.000905	-.000659
#2	-.000171	-.013889	-.000204	.0002543	.0000885	.001040	-.000593
#3	-.000082	.004829	-.000523	.0006887	.0210719	.002337	-.000608

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201259	.0048903	-.000056	-.000063	.0004192	.0014337	-.000005
Stddev	.0183847	.0003943	.000224	.000217	.0003625	.0092225	.001192
%RSD	91.34850	8.062369	402.1697	342.9393	86.48509	643.2602	24413.99
#1	-.000830	.0053256	.000028	.000170	.0002950	-.001314	-.001243
#2	.033545	.0045571	-.000309	-.000101	.0008275	.011718	.001136
#3	.027662	.0047883	.000114	-.000258	.0001351	-.006102	.000092

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICB01 Acquired: 12/30/2024 14:28:31 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	-.002226	-.000504	-.000039
Stddev	.006862	.000148	.000016
%RSD	308.3018	29.34751	41.13331
#1	.003745	-.000400	-.000023
#2	-.009722	-.000674	-.000039
#3	-.000700	-.000439	-.000056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2496.641	60025.17	11601.11	1978.378	3648.135
Stddev	.209	354.10	18.65	13.096	6.832
%RSD	.0083837	.5899116	.1607243	.6619382	.1872804
#1	2496.742	60282.71	11582.15	1986.523	3641.958
#2	2496.401	60171.44	11601.76	1985.339	3646.974
#3	2496.781	59621.38	11619.43	1963.272	3655.474

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CRI01 Acquired: 12/30/2024 14:32:52 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	.0210820	.0371417	.0113230	.0178563	.0465808	.0936853	.0913020
Stddev	.0024652	.0002877	.0010544	.0006561	.0016527	.0009382	.0001433
%RSD	11.69354	.7745821	9.312284	3.674196	3.547969	1.001470	.1569053
#1	.0239089	.0368669	.0120239	.0183387	.0469692	.0941598	.0914636
#2	.0199582	.0371174	.0101104	.0181209	.0447685	.0942915	.0912522
#3	.0193789	.0374408	.0118349	.0171092	.0480047	.0926046	.0911904

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056764	.0060695	1.899950	.0090910	.0289554	.0206155	.0952519
Stddev	.0000249	.0000512	.009961	.0001479	.0001521	.0005082	.0013466
%RSD	.4377085	.8428083	.5242961	1.626439	.5252080	2.465054	1.413727
#1	.0056882	.0060269	1.888470	.0089792	.0288212	.0200499	.0967974
#2	.0056932	.0060553	1.905078	.0090351	.0291206	.0207628	.0943307
#3	.0056479	.0061262	1.906303	.0092586	.0289245	.0210337	.0946278

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0191675	2.028487	.0387073	.0103632	1.927008	.0377244	.0411049
Stddev	.0003477	.031358	.0004658	.0001902	.006806	.0015192	.0001388
%RSD	1.813913	1.545903	1.203262	1.835750	.3532122	4.027040	.3375675
#1	.0190508	2.058771	.0389388	.0105807	1.933555	.0393684	.0412428
#2	.0195586	2.030536	.0390121	.0102814	1.927500	.0363724	.0411066
#3	.0188933	1.996155	.0381712	.0102276	1.919969	.0374325	.0409653

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.954770	.0976620	.1972746	.0383433	.0370959	.3395807	.0195869
Stddev	.020633	.0004799	.0005181	.0004805	.0005121	.0026779	.0020286
%RSD	1.055529	.4913618	.2626070	1.253154	1.380570	.7885927	10.35693
#1	1.965120	.0982127	.1976224	.0381986	.0372969	.3406022	.0203138
#2	1.931011	.0973336	.1966792	.0388796	.0365138	.3415974	.0172950
#3	1.968180	.0974396	.1975222	.0379518	.0374771	.3365423	.0211519

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CRI01 Acquired: 12/30/2024 14:32:52 Type: Unk
Method: NON EPA-6010-200.7(v2573) 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	.0186910	.0168974	.0185735
Stddev	.0011302	.0009614	.0000693
%RSD	6.046652	5.689455	.3730403
#1	.0199883	.0163730	.0186414
#2	.0179194	.0163122	.0185029
#3	.0181653	.0180069	.0185761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2594.917	56977.44	11893.65	1915.238	3869.888
Stddev	2.827	311.28	20.42	6.489	9.521
%RSD	.1089580	.5463212	.1717186	.3388059	.2460217
#1	2592.898	56620.61	11874.32	1907.806	3861.424
#2	2598.148	57118.45	11915.02	1918.126	3868.044
#3	2593.705	57193.26	11891.61	1919.781	3880.196

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICSA01 Acquired: 12/30/2024 14:37:10 Type: Unk
Method: NON EPA-6010-200.7(v2573) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066448	.0089609	.0079108	-.016584	-.005210	243.9372
Stddev	.0007257	.0029614	.0010424	.007101	.002958	2.3088
%RSD	10.92122	33.04843	13.17728	42.81760	56.76862	.9464927
#1	.0074809	.0061116	.0067211	-.012758	-.002582	242.4555
#2	.0062755	.0087480	.0086640	-.024777	-.004635	242.7587
#3	.0061780	.0120230	.0083474	-.012216	-.008414	246.5975

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049009	.0011164	-.004019	229.4843	.0579377	.0015149
Stddev	.0006484	.0000230	.000183	1.4791	.0003328	.0002693
%RSD	13.23006	2.057245	4.541474	.6445331	.5743519	17.77368
#1	.0043188	.0011057	-.003939	228.0201	.0577097	.0016246
#2	.0047842	.0011427	-.003891	229.4549	.0577838	.0012082
#3	.0055997	.0011007	-.004228	230.9778	.0583195	.0017121

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209737	100.5733	.0052365	253.2579	.0021522	-.008328
Stddev	.0006912	.2331	.0004241	1.5544	.0001709	.000322
%RSD	3.295647	.2317345	8.098617	.6137742	7.942225	3.866246
#1	.0203633	100.8420	.0050949	251.8213	.0023334	-.007962
#2	.0208336	100.4261	.0049013	253.0444	.0021296	-.008568
#3	.0217243	100.4518	.0057133	254.9080	.0019937	-.008454

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0497112	.0093509	.0035745	.1785225	.0599363	.0011750
Stddev	.0043040	.0012059	.0003192	.0100764	.0012111	.0003340
%RSD	8.657993	12.89649	8.929893	5.644302	2.020642	28.42426
#1	.0473225	.0090037	.0039074	.1813103	.0610943	.0008159
#2	.0471313	.0083567	.0035449	.1673457	.0600362	.0012327
#3	.0546798	.0106924	.0032711	.1869114	.0586783	.0014763

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICSA01 Acquired: 12/30/2024 14:37:10 Type: Unk
Method: NON EPA-6010-200.7(v2573) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016975	-.001537	.0024522	.0075492	-.013327	F -.037530
Stddev	.0012075	.000501	.0054410	.0041238	.002532	.001125
%RSD	71.13188	32.58626	221.8850	54.62496	19.00055	2.997134
#1	.0030899	-.001077	-.003571	.0084595	-.012949	-.037544
#2	.0010640	-.002070	.003916	.0111418	-.011005	-.036398
#3	.0009387	-.001464	.007011	.0030464	-.016027	-.038648

Elem	Sr4077
Units	ppm
Avg	-.006020
Stddev	.000526
%RSD	8.733275
#1	-.006626
#2	-.005741
#3	-.005693

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2250.454	50844.34	11399.85	1707.335	3214.995
Stddev	16.865	216.21	135.43	10.321	16.254
%RSD	.7493840	.4252453	1.187967	.6045273	.5055583
#1	2269.288	50745.41	11505.60	1701.995	3232.274
#2	2245.321	51092.32	11446.74	1719.233	3212.700
#3	2236.752	50695.29	11247.21	1700.778	3200.010

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICSAB01 Acquired: 12/30/2024 14:45:43 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1065540	.1074446	.0526753	.0455812	.6471988	240.1167
Stddev	.0020784	.0001847	.0010853	.0042936	.0032586	1.4287
%RSD	1.950517	.1718633	2.060441	9.419660	.5034962	.5950070
#1	.1041583	.1074502	.0526710	.0505378	.6445210	241.6995
#2	.1076291	.1072572	.0515921	.0430068	.6462483	238.9225
#3	.1078745	.1076264	.0537628	.0431991	.6508269	239.7279

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5121917	.5319780	1.078062	228.1175	.6174016	.4444871
Stddev	.0037091	.0031983	.002056	1.4492	.0027238	.0008979
%RSD	.7241605	.6012065	.1906926	.6352953	.4411750	.2020082
#1	.5156569	.5335878	1.080322	229.5615	.6147555	.4452398
#2	.5126389	.5340516	1.076304	228.1280	.6172523	.4434932
#3	.5082792	.5282947	1.077558	226.6631	.6201970	.4447283

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5543071	100.8204	.5165515	249.2135	1.088901	.2259189
Stddev	.0017304	.1527	.0050181	1.8256	.003298	.0007201
%RSD	.3121691	.1514772	.9714555	.7325400	.3028403	.3187558
#1	.5559435	100.8929	.5213244	251.0283	1.092211	.2252843
#2	.5524960	100.6449	.5170103	249.2350	1.085616	.2257709
#3	.5544817	100.9233	.5113198	247.3773	1.088876	.2267016

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0558254	.5053152	.8571385	.1308240	.9746742	1.006581
Stddev	.0059067	.0022226	.0032611	.0182117	.0040576	.003311
%RSD	10.58073	.4398519	.3804617	13.92080	.4162980	.3289148
#1	.0492849	.5069540	.8560038	.1375421	.9765955	1.008436
#2	.0574202	.5062063	.8545964	.1447224	.9774143	1.002759
#3	.0607709	.5027853	.8608153	.1102075	.9700129	1.008548

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: ICSAB01 Acquired: 12/30/2024 14:45:43 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.009540	.9257712	.8569717	F .0158962	F -.008058	F -.037997
Stddev	.005879	.0072874	.0142696	.0034611	.004647	.000571
%RSD	.5823084	.7871747	1.665113	21.77280	57.66942	1.503973
#1	1.013118	.9334349	.8410748	.0150701	-.002867	-.038048
#2	1.002755	.9249490	.8611671	.0129231	-.009478	-.038542
#3	1.012746	.9189297	.8686733	.0196956	-.011829	-.037402

Elem	Sr4077
Units	ppm
Avg	F -.006055
Stddev	.000585
%RSD	9.664256
#1	-.005611
#2	-.005835
#3	-.006718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2278.699	50829.54	11387.09	1725.760	3250.497
Stddev	7.599	148.77	73.35	9.997	10.392
%RSD	.3334865	.2926772	.6441209	.5792709	.3197034
#1	2269.967	50939.37	11318.92	1721.952	3238.506
#2	2283.810	50889.00	11377.65	1737.101	3256.891
#3	2282.321	50660.24	11464.70	1718.227	3256.093

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV01 Acquired: 12/30/2024 14:49:31 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.640766	4.530301	4.734552	4.614408	4.673930	9.362224	9.262657
Stddev	.012801	.021001	.013627	.018201	.014453	.005144	.047143
%RSD	.2758445	.4635592	.2878184	.3944313	.3092257	.0549431	.5089536
#1	4.632047	4.513733	4.719363	4.596456	4.665132	9.359442	9.285499
#2	4.634787	4.523249	4.738589	4.613920	4.666047	9.359069	9.294026
#3	4.655462	4.553920	4.745705	4.632848	4.690610	9.368159	9.208444

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2443086	2.373582	23.50311	.9720940	2.364904	1.179781	4.694425
Stddev	.0006435	.005198	.06473	.0099678	.005590	.003428	.028712
%RSD	.2633934	.2189951	.2753911	1.025395	.2363777	.2905531	.6116226
#1	.2445854	2.367836	23.48620	.9835962	2.359211	1.177488	4.726681
#2	.2447673	2.374955	23.57461	.9667066	2.365116	1.178133	4.684935
#3	.2435730	2.377956	23.44851	.9659793	2.370386	1.183721	4.671660

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.359158	23.60438	2.368265	1.200692	23.04548	2.347834	2.396644
Stddev	.010532	.05403	.005229	.008583	.19182	.007584	.023131
%RSD	.4464312	.2288828	.2207872	.7148672	.8323493	.3230321	.9651424
#1	2.347679	23.63085	2.362268	1.210530	23.25992	2.343705	2.423270
#2	2.368377	23.64006	2.370661	1.196810	22.89024	2.356587	2.381508
#3	2.361417	23.54222	2.371868	1.194735	22.98627	2.343210	2.385153

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.07449	4.847185	4.731691	4.717189	4.665057	4.631608	4.695257
Stddev	.16552	.012883	.011856	.014383	.012442	.031944	.013188
%RSD	.7173143	.2657909	.2505741	.3049110	.2667064	.6897034	.2808710
#1	23.26507	4.841356	4.721243	4.702084	4.654311	4.663681	4.686083
#2	22.96675	4.861952	4.729252	4.718763	4.678688	4.599794	4.689317
#3	22.99165	4.838245	4.744577	4.730721	4.662172	4.631348	4.710370

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV01 Acquired: 12/30/2024 14:49:31 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.558572	4.634188	4.698600
Stddev	.014639	.010638	.048669
%RSD	.3211229	.2295569	1.035825
#1	4.553839	4.622380	4.682756
#2	4.546886	4.643025	4.753217
#3	4.574992	4.637158	4.659826

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2507.239	55937.23	11036.42	1861.428	3654.080
Stddev	5.181	431.26	35.87	16.548	7.127
%RSD	.2066359	.7709708	.3249708	.8889979	.1950343
#1	2511.936	55439.53	11053.11	1842.414	3662.115
#2	2508.100	56171.69	10995.26	1872.571	3651.603
#3	2501.682	56200.48	11060.91	1869.300	3648.523

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB01 Acquired: 12/30/2024 14:53:41 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000636	-.000468	.0001671	.0005642	-.002054	-.003042	.0025567
Stddev	.001199	.001223	.0002191	.0030262	.001043	.005685	.0003916
%RSD	188.5432	261.2106	131.0579	536.3189	50.75936	186.9002	15.31688
#1	-.002018	-.001073	-.000079	.0029288	-.000855	-.003308	.0028959
#2	.000007	-.001271	.000242	.0016100	-.002749	-.008589	.0026461
#3	.000105	.000939	.000339	-.002846	-.002559	.002772	.0021281

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000545	.0001203	.0037692	-.000427	.0000385	-.000408	.0016048
Stddev	.0000136	.0001333	.0050130	.000175	.0000761	.000249	.0039612
%RSD	24.95141	110.8317	133.0018	40.99717	197.7545	60.97912	246.8324
#1	.0000487	-.000022	.0092977	-.000400	.0001252	-.000359	.0027862
#2	.0000701	.000140	-.000481	-.000614	-.000017	-.000678	-.002813
#3	.0000448	.000242	.002490	-.000267	.000007	-.000187	.004841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000672	.0059022	-.000263	.0002682	.0095849	.0007823	-.000116
Stddev	.000160	.0120891	.000183	.0003263	.0009801	.0014889	.000157
%RSD	23.84799	204.8234	69.53106	121.6571	10.22545	190.3342	135.8897
#1	-.000801	.0173970	-.000101	.0000030	.0084780	-.000608	-.000180
#2	-.000493	-.006704	-.000461	.0006327	.0103424	.000602	-.000230
#3	-.000724	.007014	-.000226	.0001691	.0099343	.002353	.000063

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.060767	.0035519	.0000130	.0025251	.0003862	-.003440	-.000664
Stddev	.024584	.0002372	.0001678	.0000877	.0003483	.001129	.000704
%RSD	40.45587	6.678202	1289.429	3.471838	90.18821	32.81598	105.9989
#1	-.056565	.0035206	.0002068	.0024323	.0004414	-.002185	-.001474
#2	-.087181	.0038033	-.000082	.0026065	.0000136	-.004372	-.000198
#3	-.038555	.0033320	-.000086	.0025367	.0007037	-.003763	-.000321

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB01 Acquired: 12/30/2024 14:53:41 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.003745	.0001063	.0001318
Stddev	.002351	.0007064	.0000335
%RSD	62.79651	664.6239	25.38638
#1	-.001927	.0000342	.0001468
#2	-.002907	-.000561	.0000934
#3	-.006400	.000846	.0001551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.991	57748.81	11848.35	1940.155	3900.349
Stddev	6.549	43.17	140.84	6.816	14.422
%RSD	.2512117	.0747462	1.188664	.3513104	.3697701
#1	2599.434	57709.20	11738.06	1938.403	3883.722
#2	2611.019	57742.42	11800.00	1947.676	3907.851
#3	2610.519	57794.82	12007.00	1934.387	3909.474

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: P5342-08 Acquired: 12/30/2024 14:58:02 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.004969	-.007491	.0234279	.0064871	.0022718	.1961034	.3451017
Stddev	.000790	.001644	.0003566	.0019347	.0010516	.0034216	.0006438
%RSD	15.90044	21.94838	1.522261	29.82320	46.29035	1.744805	.1865665
#1	-.005504	-.006907	.0238310	.0044173	.0031431	.1958751	.3446660
#2	-.004061	-.006220	.0231531	.0082499	.0025685	.1996334	.3458413
#3	-.005340	-.009348	.0232998	.0067943	.0011037	.1928016	.3447980

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000045	.0014505	26.21512	.0012531	.0062222	.0157105	.1764166
Stddev	.000039	.0000737	.05310	.0000387	.0001264	.0002640	.0039582
%RSD	86.35128	5.080449	.2025519	3.088289	2.031759	1.680626	2.243642
#1	-.000000	.0014002	26.15756	.0012799	.0061699	.0154567	.1808309
#2	-.000065	.0014161	26.26220	.0012087	.0061303	.0159837	.1752351
#3	-.000070	.0015351	26.22559	.0012707	.0063663	.0156912	.1731837

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9670018	6.501810	.0053083	.0002423	289.8616	.0008034	.5641175
Stddev	.0032316	.022684	.0001248	.0002974	.6001	.0007564	.0024834
%RSD	.3341820	.3488932	2.350598	122.7712	.2070405	94.15577	.4402240
#1	.9672629	6.491575	.0053123	-.000066	289.7318	.0012687	.5657389
#2	.9700949	6.527808	.0054310	.000528	290.5161	-.000069	.5612586
#3	.9636477	6.486047	.0051816	.000265	289.3371	.001211	.5653552

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.643249	.0907173	.0002166	-.000377	.0026746	2.288114	.1493590
Stddev	.019737	.0004282	.0001106	.000359	.0004471	.011583	.0029580
%RSD	.2970916	.4720437	51.05952	95.32494	16.71672	.5062176	1.980454
#1	6.664268	.0903796	.0003052	-.000289	.0021743	2.284508	.1470632
#2	6.625112	.0911990	.0000926	-.000772	.0030350	2.301071	.1483168
#3	6.640367	.0905734	.0002519	-.000070	.0028144	2.278763	.1526970

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: P5342-08 Acquired: 12/30/2024 14:58:02 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.583864	-.003042	.0915869
Stddev	.008771	.000689	.0002095
%RSD	.5537937	22.63762	.2287926
#1	1.579541	-.003577	.0914965
#2	1.578094	-.003284	.0918264
#3	1.593958	-.002265	.0914377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2317.737	53099.02	11876.15	1765.449	3339.215
Stddev	15.202	65.93	29.85	4.786	24.073
%RSD	.6558976	.1241698	.2513505	.2711124	.7209223
#1	2322.841	53112.17	11910.34	1762.455	3346.420
#2	2329.730	53027.50	11855.23	1762.923	3358.863
#3	2300.640	53157.38	11862.89	1770.969	3312.362

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: P5342-09 Acquired: 12/30/2024 15:02:27 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.005038	-.005004	.0193956	.0053237	.0036559	.1548418	.1950378
Stddev	.002263	.001757	.0010947	.0031202	.0011921	.0098849	.0025075
%RSD	44.92290	35.10843	5.644098	58.60913	32.60814	6.383838	1.285670
#1	-.002916	-.007022	.0182004	.0065639	.0043608	.1538156	.1931871
#2	-.007419	-.004165	.0196369	.0076331	.0022795	.1651997	.1940348
#3	-.004777	-.003823	.0203496	.0017741	.0043275	.1455101	.1978916

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001524	.0036069	41.12065	.0014981	.0064259	.0740544	.0599740
Stddev	.0000413	.0001081	.62640	.0002248	.0002096	.0004352	.0047531
%RSD	27.10214	2.995693	1.523324	15.00846	3.262088	.5877071	7.925240
#1	.0002000	.0035062	40.60677	.0016438	.0061891	.0735782	.0570640
#2	.0001298	.0035935	40.93677	.0016114	.0065879	.0741536	.0573990
#3	.0001273	.0037211	41.81841	.0012392	.0065005	.0744315	.0654589

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5607791	5.148738	.0227418	.0002129	289.8613	.0006310	7.751350
Stddev	.0065246	.103041	.0001788	.0002614	1.6945	.0011720	.024522
%RSD	1.163495	2.001278	.7861981	122.7953	.5845829	185.7354	.3163634
#1	.5561296	5.082127	.0228460	.0004829	288.0883	.0016189	7.723103
#2	.5579699	5.096666	.0225353	-.000039	291.4645	-.000664	7.767191
#3	.5682378	5.267423	.0228440	.000195	290.0310	.000938	7.763755

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.203559	.0471202	-.001136	-.001248	-.000079	2.139639	.0317559
Stddev	.022753	.0006559	.000181	.000819	.000216	.010866	.0014662
%RSD	1.032551	1.392034	15.90338	65.65269	272.6439	.5078641	4.616985
#1	2.195513	.0465496	-.001327	-.000876	.000051	2.127211	.0302103
#2	2.229241	.0469741	-.001113	-.002187	-.000329	2.144358	.0331270
#3	2.185922	.0478368	-.000968	-.000680	.000040	2.147348	.0319303

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: P5342-09 Acquired: 12/30/2024 15:02:27 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.240542	-.005552	.1775534
Stddev	.003622	.000655	.0020696
%RSD	.2919665	11.79933	1.165612
#1	1.238364	-.005496	.1763623
#2	1.238539	-.006233	.1763547
#3	1.244723	-.004927	.1799431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2423.978	53077.39	11874.07	1781.722	3504.860
Stddev	7.378	155.29	176.78	13.513	13.757
%RSD	.3043752	.2925644	1.488778	.7584268	.3925103
#1	2426.369	53252.25	12017.22	1794.261	3511.619
#2	2429.864	53024.35	11928.53	1767.410	3513.931
#3	2415.701	52955.58	11676.47	1783.496	3489.032

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-01 Acquired: 12/30/2024 15:06:52 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0790729	-.027963	.5366162	-.143948	-.019041	250.7896	.8357546
Stddev	.0051358	.003653	.0010198	.004861	.003402	1.8289	.0093051
%RSD	6.495048	13.06364	.1900468	3.376794	17.86401	.7292422	1.113376
#1	.0849910	-.023758	.5368410	-.145226	-.019544	252.4128	.8461936
#2	.0757853	-.030355	.5355027	-.138576	-.022163	251.1479	.8327384
#3	.0764422	-.029776	.5375048	-.148042	-.015416	248.8081	.8283318

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195591	-.013316	27.30511	.5165397	.1717689	.4910591	462.1984
Stddev	.0002645	.000506	.31654	.0027671	.0006373	.0022658	2.3741
%RSD	1.352437	3.797020	1.159270	.5356956	.3710494	.4614213	.5136535
#1	.0198468	-.013317	27.64565	.5185483	.1714678	.4936752	459.8603
#2	.0195041	-.012809	27.24982	.5133834	.1713379	.4897812	462.1280
#3	.0193264	-.013820	27.01985	.5176873	.1725010	.4897208	464.6070

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.347005	54.75909	.2569799	-.046718	1.221925	.8815603	.6519586
Stddev	.037207	.54600	.0005497	.001066	.007851	.0057325	.0049443
%RSD	1.111655	.9970909	.2138926	2.282065	.6425282	.6502668	.7583712
#1	3.387021	55.30782	.2575155	-.047940	1.229629	.8881024	.6548883
#2	3.340539	54.75358	.2570069	-.046238	1.213934	.8791621	.6462501
#3	3.313454	54.21586	.2564172	-.045977	1.222212	.8774164	.6547374

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.75717	.2735309	.0139274	.0172346	8.686078	8.000303	7.348315
Stddev	.25661	.0062462	.0004451	.0019036	.092296	.070057	.011950
%RSD	.8623536	2.283533	3.196138	11.04550	1.062572	.8756847	.1626203
#1	29.78924	.2671970	.0134229	.0192840	8.789153	8.021168	7.349856
#2	29.48603	.2737102	.0140945	.0168981	8.658000	7.922183	7.335669
#3	29.99624	.2796855	.0142649	.0155216	8.611083	8.057557	7.359419

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-01 Acquired: 12/30/2024 15:06:52 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.9751915	.1508300	-.286597
Stddev	.0056192	.0020311	.004257
%RSD	.5762139	1.346613	1.485249
#1	.9816645	.1530652	-.282034
#2	.9723428	.1490973	-.287296
#3	.9715672	.1503276	-.290461

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2811.306	63439.64	13591.12	2125.457	3448.073
Stddev	2.338	349.43	158.37	18.258	4.316
%RSD	.0831788	.5508042	1.165256	.8590155	.1251791
#1	2813.537	63237.51	13430.10	2119.168	3451.149
#2	2808.873	63843.13	13596.54	2146.028	3443.139
#3	2811.509	63238.29	13746.71	2111.174	3449.932

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-02 Acquired: 12/30/2024 15:11:13 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0651719	-.016681	.9368424	-.068190	-.012112	149.3694	.9328148
Stddev	.0031238	.001492	.0016341	.001600	.001145	1.0503	.0076196
%RSD	4.793117	8.941283	.1744281	2.346352	9.456539	.7031365	.8168403
#1	.0619385	-.015285	.9352244	-.069497	-.011083	149.5639	.9343676
#2	.0681731	-.018253	.9368107	-.068667	-.011906	150.3089	.9395383
#3	.0654040	-.016507	.9384922	-.066406	-.013346	148.2355	.9245383

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129096	-.004040	33.15360	.2841826	.1425087	.3000301	249.2298
Stddev	.0001011	.000124	.23595	.0017482	.0005925	.0003484	.6955
%RSD	.7832963	3.076509	.7116798	.6151704	.4157582	.1161177	.2790575
#1	.0129715	-.003970	33.29730	.2860580	.1418422	.3000149	249.2814
#2	.0129645	-.003967	33.28220	.2825980	.1427081	.3003859	248.5099
#3	.0127930	-.004184	32.88129	.2838919	.1429758	.2996896	249.8980

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.763982	31.15483	.1973303	-.023206	.7849800	.4015119	.5944894
Stddev	.019267	.23576	.0007636	.000254	.0036302	.0025057	.0006081
%RSD	.6970619	.7567505	.3869666	1.094393	.4624541	.6240552	.1022970
#1	2.774770	31.33644	.1965511	-.023099	.7821491	.4042025	.5950716
#2	2.775438	31.23967	.1980772	-.023496	.7837181	.4010880	.5938583
#3	2.741738	30.88839	.1973628	-.023023	.7890727	.3992453	.5945382

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.90810	.1638547	.0098746	.0682451	3.902437	3.610853	7.252806
Stddev	.05768	.0019458	.0001183	.0004458	.026994	.023763	.005634
%RSD	.4468291	1.187487	1.197745	.6532844	.6917155	.6580873	.0776824
#1	12.93880	.1626932	.0098310	.0687387	3.908863	3.593047	7.249863
#2	12.84156	.1627700	.0100085	.0678716	3.925637	3.601677	7.259302
#3	12.94393	.1661011	.0097843	.0681251	3.872810	3.637836	7.249251

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-02 Acquired: 12/30/2024 15:11:13 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	2.037086	.1179895	-.034490
Stddev	.009825	.0005873	.002269
%RSD	.4822973	.4977658	6.578301
#1	2.025804	.1182343	-.034223
#2	2.041691	.1184148	-.032366
#3	2.043761	.1173194	-.036881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.198	72058.37	15722.25	2404.757	3526.723
Stddev	4.101	219.20	145.84	2.763	6.366
%RSD	.1283518	.3041958	.9276093	.1148980	.1804978
#1	3199.777	71858.32	15620.22	2406.223	3532.872
#2	3191.863	72292.68	15657.22	2406.479	3520.161
#3	3193.954	72024.10	15889.29	2401.570	3527.135

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-03 Acquired: 12/30/2024 15:15:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0892576	-.008922	.9547570	-.101686	-.012135	188.4577
Stddev	.0023037	.002472	.0069565	.004979	.003038	.7040
%RSD	2.580949	27.70224	.7286143	4.896854	25.03258	.3735416
#1	.0896483	-.006068	.9574377	-.107013	-.009012	188.6339
#2	.0913410	-.010345	.9599743	-.100896	-.015079	187.6824
#3	.0867836	-.010353	.9468590	-.097148	-.012313	189.0569

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.098933	.0135191	-.006016	93.96220	.3636503	.1477418
Stddev	.018422	.0001796	.000474	1.36887	.0074997	.0013941
%RSD	1.676352	1.328519	7.878678	1.456826	2.062347	.9436341
#1	1.111388	.0137078	-.006490	94.91199	.3684580	.1487714
#2	1.077771	.0133502	-.006017	92.39314	.3674842	.1482987
#3	1.107638	.0134992	-.005542	94.58149	.3550086	.1461552

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3444643	326.8808	4.867840	64.16643	.2091151	-.031466
Stddev	.0019855	5.2443	.078681	.91637	.0013772	.001546
%RSD	.5764082	1.604348	1.616342	1.428122	.6585889	4.911829
#1	.3421998	331.4622	4.920957	64.74155	.2098833	-.031414
#2	.3459065	328.0197	4.777449	63.10967	.2099368	-.033038
#3	.3452867	321.1607	4.905115	64.64806	.2075251	-.029948

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7012756	.4981314	.9611524	15.84951	.2012371	.0075712
Stddev	.0132774	.0057577	.0207838	.19824	.0070914	.0001763
%RSD	1.893325	1.155864	2.162382	1.250766	3.523895	2.328343
#1	.7122535	.5029928	.9748837	16.02486	.2059015	.0074256
#2	.7050552	.4917730	.9713323	15.88926	.2047333	.0075208
#3	.6865182	.4996285	.9372411	15.63441	.1930765	.0077672

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5382-03 Acquired: 12/30/2024 15:15:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0496932	4.163269	F 15.87433	8.716407	.9471792	.1373993
Stddev	.0005883	.065283	.22954	.061527	.0077269	.0021246
%RSD	1.183920	1.568068	1.445957	.7058811	.8157832	1.546268
#1	.0490458	4.213232	16.09742	8.781081	.9470392	.1383003
#2	.0498388	4.089404	15.88672	8.709537	.9549751	.1349727
#3	.0501951	4.187171	15.63885	8.658603	.9395232	.1389249

Elem	Sr4077
Units	ppm
Avg	-.089050
Stddev	.007004
%RSD	7.865364
#1	-.091391
#2	-.094584
#3	-.081176

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2887.556	64947.31	14566.71	2159.410	3416.032
Stddev	14.171	914.14	152.94	39.015	21.540
%RSD	.4907610	1.407517	1.049931	1.806764	.6305606
#1	2874.877	64331.57	14454.59	2138.656	3396.729
#2	2884.937	64512.69	14740.93	2135.158	3412.101
#3	2902.853	65997.68	14504.59	2204.416	3439.267

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV02 Acquired: 12/30/2024 15:19:38 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.753700	4.928125	4.858341	4.751816	4.787491	9.463930	9.406112
Stddev	.004235	.054316	.009379	.012978	.017331	.016420	.080979
%RSD	.0890935	1.102158	.1930459	.2731216	.3620153	.1734984	.8609178
#1	4.757709	4.866249	4.865472	4.765844	4.804581	9.450688	9.364607
#2	4.754122	4.950193	4.847717	4.749368	4.787962	9.458799	9.499429
#3	4.749270	4.967933	4.861833	4.740236	4.769928	9.482302	9.354299

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2472855	2.442245	24.06089	1.003823	2.423029	1.201722	4.956186
Stddev	.0002601	.003489	.06256	.001582	.002669	.003927	.022595
%RSD	.1051846	.1428414	.2600147	.1576458	.1101678	.3267535	.4558907
#1	.2475854	2.440979	24.02530	1.002205	2.424284	1.206073	4.943300
#2	.2471222	2.439566	24.02425	1.003894	2.419963	1.200651	4.942983
#3	.2471487	2.446190	24.13313	1.005368	2.424839	1.198442	4.982276

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.387023	24.30910	2.425496	1.243098	24.22126	2.397885	2.458709
Stddev	.009059	.03240	.002327	.003038	.09271	.009717	.007725
%RSD	.3795145	.1332967	.0959373	.2444037	.3827632	.4052424	.3142092
#1	2.384193	24.30236	2.426534	1.240766	24.15835	2.392871	2.449982
#2	2.379716	24.28060	2.422830	1.241995	24.17771	2.391698	2.464674
#3	2.397159	24.34435	2.427123	1.246534	24.32773	2.409085	2.461470

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.26948	4.855692	4.854690	4.866935	4.746490	4.899789	4.858079
Stddev	.13571	.012534	.007303	.013708	.012651	.030864	.021969
%RSD	.5591843	.2581199	.1504393	.2816638	.2665336	.6298955	.4522057
#1	24.13026	4.869740	4.859939	4.857230	4.743899	4.872182	4.833335
#2	24.27678	4.845654	4.846349	4.860959	4.735335	4.894073	4.865612
#3	24.40139	4.851682	4.857782	4.882617	4.760236	4.933110	4.875289

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV02 Acquired: 12/30/2024 15:19:38 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.696206	4.650294	4.773155
Stddev	.003617	.012392	.029165
%RSD	.0770131	.2664682	.6110193
#1	4.694733	4.638613	4.764570
#2	4.700326	4.648977	4.749246
#3	4.693557	4.663291	4.805649

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2515.882	54900.19	11269.68	1844.666	3655.059
Stddev	10.157	181.73	14.51	6.544	9.775
%RSD	.4037028	.3310181	.1287325	.3547628	.2674389
#1	2505.393	55004.07	11262.48	1852.197	3647.553
#2	2525.670	55006.15	11286.38	1841.435	3666.112
#3	2516.584	54690.35	11260.19	1840.365	3651.512

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB02 Acquired: 12/30/2024 15:23:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0019801	-.002539	.0002859	-.000975	-.001736	-.003670	.0026568
Stddev	.0011544	.000755	.0006390	.000961	.002392	.004067	.0003974
%RSD	58.30255	29.71407	223.4939	98.63354	137.7607	110.8053	14.95772
#1	.0015148	-.003363	.0004617	-.000334	-.003585	-.004941	.0024035
#2	.0011309	-.002374	-.000423	-.000510	-.002589	.000880	.0031148
#3	.0032946	-.001881	.000819	-.002080	.000965	-.006949	.0024521

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000279	.0001220	-.001561	-.000351	-.000138	-.000652	-.001294
Stddev	.0000410	.0000556	.003946	.000389	.000193	.000293	.004650
%RSD	147.2275	45.57562	252.8721	111.0286	140.1332	44.98976	359.3057
#1	.0000388	.0000581	-.006094	.000076	-.000360	-.000387	-.006631
#2	-.000018	.0001592	.001102	-.000440	-.000007	-.000601	.001878
#3	.000062	.0001487	.000310	-.000687	-.000047	-.000967	.000871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000989	.0047688	.0000830	.0002097	.0099035	-.000361	-.000509
Stddev	.000141	.0153753	.0002655	.0002049	.0089780	.001802	.000225
%RSD	14.23951	322.4130	319.9256	97.68945	90.65531	499.5798	44.22250
#1	-.001073	.0051228	.0002192	-.000023	.0196388	-.000120	-.000753
#2	-.000826	-.010780	-.000223	.000361	.0019498	-.002271	-.000310
#3	-.001067	.019964	.000253	.000292	.0081219	.001309	-.000463

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193372	.0022755	.0002110	.0027967	.0000304	-.005774	-.001749
Stddev	.0093566	.0004294	.0002280	.0010492	.0003858	.003406	.001870
%RSD	48.38665	18.87014	108.0451	37.51382	1267.930	58.98490	106.9246
#1	.0094783	.0018255	-.000039	.0016685	.0000698	-.005142	.000105
#2	.0280940	.0026808	.000265	.0037431	.0003950	-.002729	-.003635
#3	.0204394	.0023201	.000407	.0029785	-.000373	-.009452	-.001718

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB02 Acquired: 12/30/2024 15:23:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001776	-.000467	.0000009
Stddev	.001979	.000691	.0000361
%RSD	111.4259	148.0094	4270.623
#1	-.003683	-.000991	.0000239
#2	.000268	-.000726	-.000041
#3	-.001915	.000316	.000019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2573.825	57613.91	11750.70	1977.145	3757.987
Stddev	6.233	379.58	99.03	13.939	8.885
%RSD	.2421674	.6588318	.8427958	.7050044	.2364425
#1	2566.655	57179.27	11641.97	1961.857	3747.729
#2	2576.878	57880.21	11774.39	1980.429	3762.926
#3	2577.943	57782.24	11835.75	1989.148	3763.305

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01 Acquired: 12/30/2024 15:28:11 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0420210	-.015948	4.672717	-.061196	-.006935	73.43155	.4931982
Stddev	.0015149	.001476	.014889	.004579	.000606	.54979	.0041394
%RSD	3.605145	9.257711	.3186299	7.483140	8.731553	.7487116	.8392919
#1	.0437584	-.017003	4.681633	-.056290	-.007025	73.70697	.4964527
#2	.0413288	-.014261	4.680989	-.065357	-.006289	72.79848	.4885394
#3	.0409759	-.016581	4.655529	-.061942	-.007490	73.78919	.4946025

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069787	-.002351	17.14036	.1856838	.1218022	4.575233	190.5961
Stddev	.0000495	.000168	.13450	.0006113	.0006661	.014865	.6008
%RSD	.7090114	7.162620	.7847206	.3291881	.5468927	.3249073	.3152240
#1	.0070021	-.002314	17.18492	.1850035	.1218284	4.581957	190.8129
#2	.0069219	-.002204	16.98924	.1858609	.1224549	4.585548	189.9170
#3	.0070122	-.002535	17.24694	.1861869	.1211234	4.558194	191.0585

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.637088	37.75636	.3829288	-.016432	2.433671	.3586553	4.775140
Stddev	.013931	.38410	.0010674	.000384	.013592	.0050619	.021368
%RSD	.8509881	1.017322	.2787369	2.336140	.5585164	1.411367	.4474761
#1	1.648795	37.99241	.3832364	-.016017	2.444271	.3590109	4.760327
#2	1.621680	37.31315	.3838087	-.016505	2.418347	.3534250	4.765459
#3	1.640789	37.96353	.3817415	-.016775	2.438396	.3635302	4.799635

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.93788	.1201556	.0089131	.4476339	3.988186	5.101901	5.566463
Stddev	.03781	.0002818	.0000748	.0022017	.031478	.018814	.020324
%RSD	.2372530	.2345533	.8388828	.4918562	.7892843	.3687644	.3651186
#1	15.91743	.1202935	.0088420	.4475685	4.007173	5.109696	5.543310
#2	15.91470	.1198313	.0089911	.4498676	3.951851	5.080442	5.581361
#3	15.98151	.1203419	.0089063	.4454657	4.005536	5.115564	5.574717

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01 Acquired: 12/30/2024 15:28:11 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7086708	.1039818	-.080116
Stddev	.0032882	.0009580	.000415
%RSD	.4639995	.9213109	.5177178
#1	.7077017	.1044702	-.079653
#2	.7059761	.1028780	-.080454
#3	.7123347	.1045971	-.080241

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2754.412	63013.03	12990.57	2124.248	3567.539
Stddev	8.929	187.61	64.20	12.015	11.839
%RSD	.3241678	.2977349	.4942029	.5656100	.3318620
#1	2746.176	63148.84	12962.09	2131.223	3559.170
#2	2753.158	63091.29	13064.08	2131.148	3562.361
#3	2763.902	62798.96	12945.54	2110.375	3581.085

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01DUP Acquired: 12/30/2024 15:35:17 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0407309	-.016294	4.743854	-.059841	-.004188	73.46544	.4948844
Stddev	.0011605	.005636	.009622	.004742	.000310	.14680	.0016348
%RSD	2.849203	34.58977	.2028225	7.925117	7.397215	.1998275	.3303445
#1	.0414074	-.018606	4.739302	-.060285	-.004389	73.45506	.4963794
#2	.0413944	-.020405	4.754907	-.064345	-.004345	73.32411	.4931387
#3	.0393909	-.009869	4.737352	-.054892	-.003832	73.61717	.4951350

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067194	-.001789	17.19506	.1867552	.1239048	4.677070	193.5593
Stddev	.0000291	.000305	.07407	.0004133	.0002590	.008032	.4690
%RSD	.4333155	17.03094	.4307895	.2213208	.2090664	.1717290	.2422911
#1	.0067529	-.002071	17.23319	.1871719	.1236790	4.668210	194.0765
#2	.0067039	-.001466	17.10969	.1867485	.1241876	4.679126	193.4394
#3	.0067012	-.001831	17.24230	.1863453	.1238479	4.683875	193.1618

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.614433	37.79680	.3897831	-.015341	2.485139	.3590212	4.821074
Stddev	.006778	.08999	.0010594	.000415	.010321	.0021485	.010500
%RSD	.4198073	.2380888	.2717820	2.704698	.4153172	.5984230	.2177995
#1	1.622002	37.80987	.3894206	-.015805	2.496774	.3589260	4.831673
#2	1.608928	37.70098	.3909761	-.015005	2.477089	.3569219	4.820875
#3	1.612368	37.87953	.3889525	-.015213	2.481553	.3612157	4.810675

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.27085	.1203831	.0084413	.4532620	3.998059	5.486557	5.684205
Stddev	.04422	.0004942	.0003576	.0014199	.013727	.010622	.023959
%RSD	.2717780	.4105278	4.236021	.3132730	.3433537	.1935940	.4214995
#1	16.31461	.1209466	.0080589	.4518156	4.007740	5.497488	5.689816
#2	16.27177	.1201790	.0084975	.4546540	3.982349	5.485908	5.704861
#3	16.22618	.1200235	.0087674	.4533163	4.004088	5.476274	5.657939

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01DUP Acquired: 12/30/2024 15:35:17 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7341574	.1029465	-.082671
Stddev	.0051668	.0003499	.000538
%RSD	.7037709	.3398503	.6511304
#1	.7378733	.1032015	-.082800
#2	.7363418	.1030903	-.083134
#3	.7282572	.1025476	-.082080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2670.284	63152.99	13379.47	2080.035	3456.087
Stddev	5.885	78.94	42.67	1.822	2.685
%RSD	.2203953	.1249935	.3188900	.0876137	.0776898
#1	2673.812	63068.17	13359.83	2077.939	3459.132
#2	2673.549	63224.31	13428.42	2080.919	3455.069
#3	2663.490	63166.49	13350.16	2081.246	3454.060

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01LX5 Acquired: 12/30/2024 15:39:23 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0097619	-.003455	.9781640	-.011793	-.002326	16.14920	.1091093
Stddev	.0013697	.001501	.0047326	.002505	.001946	.04146	.0003052
%RSD	14.03093	43.44484	.4838212	21.23725	83.67473	.2567150	.2797597
#1	.0107449	-.001762	.9758922	-.009660	-.002155	16.12497	.1094415
#2	.0081974	-.004622	.9836042	-.011168	-.004352	16.12555	.1090453
#3	.0103435	-.003981	.9749957	-.014551	-.000471	16.19707	.1088411

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015114	-.001081	3.891276	.0411654	.0247707	1.056095	43.00577
Stddev	.0000457	.000117	.017565	.0009689	.0004002	.004695	.65956
%RSD	3.026028	10.87092	.4513964	2.353718	1.615520	.4445695	1.533651
#1	.0015370	-.001120	3.876644	.0418805	.0244849	1.057676	43.48829
#2	.0014586	-.000948	3.886428	.0400627	.0252280	1.059796	42.25422
#3	.0015387	-.001173	3.910756	.0415531	.0245991	1.050814	43.27481

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3664869	8.524297	.0792465	-.003305	.5398208	.0798915	1.110706
Stddev	.0008151	.033939	.0009039	.000249	.0055792	.0005657	.017546
%RSD	.2224212	.3981436	1.140602	7.538320	1.033532	.7081522	1.579695
#1	.3655500	8.508156	.0784064	-.003403	.5424568	.0794431	1.130104
#2	.3670339	8.563295	.0802029	-.003022	.5334119	.0797042	1.095943
#3	.3668768	8.501442	.0791301	-.003490	.5435936	.0805271	1.106073

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.455420	.0231250	.0018810	.0912093	.8914359	1.192281	1.177336
Stddev	.047005	.0006754	.0000954	.0014416	.0026260	.020610	.009713
%RSD	1.360335	2.920478	5.069022	1.580570	.2945777	1.728595	.8249770
#1	3.498925	.0236684	.0018149	.0923651	.8909366	1.205310	1.173654
#2	3.405561	.0223689	.0018378	.0916688	.8890955	1.168520	1.188352
#3	3.461775	.0233377	.0019903	.0895939	.8942757	1.203013	1.170003

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01LX5 Acquired: 12/30/2024 15:39:23 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1525693	.0220126	-.018306
Stddev	.0011465	.0007030	.000642
%RSD	.7514841	3.193841	3.508201
#1	.1512633	.0219820	-.018769
#2	.1534105	.0213254	-.017573
#3	.1530340	.0227304	-.018576

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2518.374	57650.39	12017.53	1964.000	3564.974
Stddev	9.618	962.79	32.80	28.461	17.530
%RSD	.3818959	1.670043	.2729038	1.449144	.4917335
#1	2513.784	56775.29	11980.26	1937.039	3568.369
#2	2511.911	58681.75	12030.34	1993.755	3545.995
#3	2529.427	57494.11	12041.98	1961.208	3580.559

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01MS Acquired: 12/30/2024 15:43:34 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6615216	1.683844	4.765769	1.389112	.2765071	75.32827
Stddev	.0016270	.010136	.006336	.007281	.0018706	1.02423
%RSD	.2459563	.6019769	.1329407	.5241542	.6765266	1.359688
#1	.6597371	1.678572	4.759227	1.381036	.2756400	75.86708
#2	.6629228	1.695530	4.771876	1.391128	.2786540	74.14710
#3	.6619048	1.677430	4.766205	1.395173	.2752273	75.97062

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6176039	.1609250	.1761002	16.28945	.5045091	.2850981
Stddev	.0085623	.0019539	.0001903	.19182	.0006408	.0002460
%RSD	1.386369	1.214191	.1080470	1.177558	.1270037	.0862717
#1	.6206905	.1617964	.1761384	16.35186	.5050138	.2850006
#2	.6079263	.1586870	.1762685	16.07420	.5047254	.2853778
#3	.6241950	.1622916	.1758937	16.44229	.5037882	.2849158

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.581311	165.6226	1.615679	38.19787	.7925575	.0476267
Stddev	.004761	.2305	.022757	.37644	.0008089	.0004231
%RSD	.1329316	.1391701	1.408529	.9855108	.1020672	.8884276
#1	3.576839	165.7622	1.621991	38.33337	.7916593	.0471385
#2	3.586315	165.3566	1.590433	37.77244	.7932285	.0478547
#3	3.580779	165.7491	1.634615	38.48782	.7927847	.0478870

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.628943	.5590703	4.487952	24.40226	.3022256	.3079801
Stddev	.011149	.0083908	.005333	.04159	.0018499	.0002408
%RSD	.2408472	1.500844	.1188248	.1704382	.6120882	.0781991
#1	4.636787	.5608882	4.490268	24.40097	.3023097	.3077525
#2	4.633861	.5499196	4.491734	24.36132	.3003351	.3082323
#3	4.616181	.5664030	4.481852	24.44447	.3040320	.3079554

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01MS Acquired: 12/30/2024 15:43:34 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.9054059	4.086453	7.056225	F 10.58172	.6292202	.2606592
Stddev	.0014050	.057668	.014033	.03189	.0040095	.0033591
%RSD	.1551839	1.411201	.1988670	.3014009	.6372229	1.288691
#1	.9037865	4.107337	7.071932	10.54818	.6269693	.2622019
#2	.9063021	4.021253	7.044925	10.61166	.6338494	.2568058
#3	.9061290	4.130769	7.051817	10.58532	.6268418	.2629698

Elem	Sr4077
Units	ppm
Avg	.0778533
Stddev	.0032741
%RSD	4.205408
#1	.0789315
#2	.0741762
#3	.0804523

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2726.671	62058.07	12816.56	2100.422	3518.216
Stddev	2.476	45.81	163.75	1.777	1.741
%RSD	.0908247	.0738225	1.277616	.0845897	.0494755
#1	2723.819	62048.67	12752.57	2102.182	3516.316
#2	2727.927	62017.68	13002.64	2100.454	3518.600
#3	2728.268	62107.85	12694.47	2098.629	3519.734

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01MSD Acquired: 12/30/2024 15:47:31 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6448850	1.657517	4.690953	1.337204	.2666441	75.12443
Stddev	.0047752	.015710	.045903	.009415	.0022283	.74213
%RSD	.7404774	.9478292	.9785382	.7040522	.8356657	.9878649
#1	.6478630	1.645229	4.693783	1.328988	.2641295	75.27436
#2	.6474149	1.675218	4.735375	1.347477	.2683732	74.31878
#3	.6393771	1.652104	4.643701	1.335147	.2674298	75.78015

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6276177	.1593182	.1713121	16.23285	.5013428	.2811045
Stddev	.0047571	.0010700	.0015611	.12656	.0038839	.0026403
%RSD	.7579691	.6715860	.9112663	.7796325	.7747066	.9392649
#1	.6283216	.1599892	.1712531	16.25492	.5057983	.2813754
#2	.6225479	.1580843	.1729019	16.09670	.4986717	.2835989
#3	.6319837	.1598812	.1697813	16.34691	.4995585	.2783391

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.511660	168.1171	1.631056	37.74504	.7787736	.0479304
Stddev	.029275	.6620	.018167	.28035	.0078160	.0005618
%RSD	.8336650	.3937832	1.113840	.7427470	1.003633	1.172175
#1	3.512756	168.5995	1.632727	37.73662	.7793832	.0480339
#2	3.540373	167.3623	1.612111	37.46900	.7862670	.0473240
#3	3.481852	168.3895	1.648330	38.02951	.7706706	.0484332

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.682522	.5619045	4.488716	24.76173	.3089337	.3066847
Stddev	.017970	.0070254	.031713	.07155	.0012205	.0019272
%RSD	.3837747	1.250280	.7065008	.2889691	.3950858	.6284062
#1	4.701010	.5641382	4.524418	24.83479	.3100195	.3068298
#2	4.665119	.5540339	4.463812	24.69178	.3076126	.3085353
#3	4.681439	.5675415	4.477917	24.75861	.3091688	.3046890

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01MSD Acquired: 12/30/2024 15:47:31 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.8878343	4.112450	7.243596	F 10.22243	.6063343	.2620109
Stddev	.0089663	.036106	.027013	.08019	.0098850	.0022787
%RSD	1.009909	.8779676	.3729188	.7844108	1.630285	.8697030
#1	.8879272	4.120377	7.253530	10.21984	.6084749	.2638584
#2	.8967538	4.073040	7.213023	10.30387	.6149736	.2594646
#3	.8788219	4.143935	7.264236	10.14356	.5955544	.2627097

Elem	Sr4077
Units	ppm
Avg	.0774559
Stddev	.0013585
%RSD	1.753914
#1	.0777312
#2	.0759808
#3	.0786556

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.900	61982.21	12919.65	2105.028	3620.487
Stddev	21.084	272.08	117.55	24.211	35.978
%RSD	.7540872	.4389701	.9098207	1.150144	.9937269
#1	2798.934	61694.74	12859.50	2083.197	3619.679
#2	2773.464	62235.72	13055.10	2131.067	3584.920
#3	2815.302	62016.16	12844.36	2100.819	3656.862

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01A Acquired: 12/30/2024 15:51:29 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6665360	1.682277	4.747445	1.407447	.2780274	74.78967
Stddev	.0033287	.011066	.029973	.015223	.0033989	.26648
%RSD	.4994087	.6578137	.6313504	1.081638	1.222491	.3563034
#1	.6638884	1.679331	4.730918	1.392126	.2741493	74.87884
#2	.6654467	1.672982	4.729374	1.407644	.2794445	74.49005
#3	.6702729	1.694518	4.782044	1.422572	.2804885	75.00014

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6157442	.1556754	.1756011	16.11915	.4910152	.2839701
Stddev	.0012014	.0007777	.0013728	.03928	.0088084	.0017806
%RSD	.1951064	.4995374	.7817790	.2437023	1.793918	.6270460
#1	.6156323	.1563398	.1748581	16.14611	.5006807	.2836349
#2	.6146027	.1548201	.1747598	16.07408	.4889251	.2823809
#3	.6169976	.1558664	.1771852	16.13727	.4834398	.2858945

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.587780	163.7672	1.588141	37.73534	.7888113	.0472421
Stddev	.026128	3.0965	.007657	.05677	.0046841	.0008388
%RSD	.7282535	1.890790	.4821465	.1504348	.5938146	1.775477
#1	3.564295	167.1573	1.595756	37.77073	.7868472	.0482083
#2	3.583121	163.0563	1.580443	37.66987	.7854290	.0467017
#3	3.615924	161.0880	1.588224	37.76543	.7941577	.0468161

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.635867	.5537432	4.374859	24.28404	.2956269	.3089309
Stddev	.061433	.0036754	.067755	.43094	.0043583	.0018123
%RSD	1.325169	.6637388	1.548736	1.774575	1.474256	.5866504
#1	4.705146	.5562061	4.451858	24.73612	.3004634	.3075788
#2	4.614431	.5495186	4.348369	24.23806	.2944134	.3082237
#3	4.588024	.5555051	4.324352	23.87793	.2920040	.3109902

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-01A Acquired: 12/30/2024 15:51:29 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.8986195	4.057358	7.256727	F 10.43404	.6355735	.2579494
Stddev	.0060159	.014444	.116895	.06527	.0059077	.0010835
%RSD	.6694604	.3560041	1.610856	.6255784	.9295137	.4200358
#1	.8971760	4.064556	7.390421	10.43389	.6306449	.2581555
#2	.8934566	4.040729	7.205977	10.36884	.6339534	.2567777
#3	.9052258	4.066789	7.173785	10.49938	.6421223	.2589150

Elem	Sr4077
Units	ppm
Avg	.0785094
Stddev	.0030009
%RSD	3.822341
#1	.0756217
#2	.0782945
#3	.0816119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2720.724	63449.76	13195.42	2121.548	3527.990
Stddev	14.653	1055.57	39.55	31.959	20.282
%RSD	.5385521	1.663628	.2997130	1.506401	.5748875
#1	2734.597	62300.69	13174.92	2088.019	3537.277
#2	2722.173	63672.20	13241.01	2124.960	3541.966
#3	2705.400	64376.37	13170.34	2151.663	3504.728

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-01 Acquired: 12/30/2024 15:55:27 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.001449	.0002122	.1457893	-.036130	.0009332	86.70623
Stddev	.004939	.0021434	.0017255	.002492	.0001153	1.90172
%RSD	.4931796	1010.139	1.183568	6.897628	12.35292	2.193296
#1	1.001738	.0003241	.1477738	-.033340	.0010661	84.53517
#2	1.006236	-.001985	.1446425	-.036915	.0008613	88.07715
#3	.996371	.002297	.1449517	-.038136	.0008720	87.50635

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8062318	.0094008	-.000962	54.83189	.0867229	.0526567
Stddev	.0166327	.0002084	.000203	1.24642	.0006800	.0009234
%RSD	2.063014	2.216570	21.13770	2.273174	.7840550	1.753615
#1	.7874329	.0091740	-.000926	53.45317	.0868654	.0531834
#2	.8190367	.0095837	-.000779	55.87893	.0859829	.0531963
#3	.8122258	.0094447	-.001181	55.16355	.0873203	.0515905

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2524831	120.4477	1.242574	18.51689	.1189456	-.006972
Stddev	.0030074	.1157	.027661	.46194	.0011597	.000301
%RSD	1.191130	.0960176	2.226127	2.494686	.9750117	4.321472
#1	.2541641	120.4919	1.211903	17.99146	.1198107	-.007318
#2	.2542742	120.3165	1.265631	18.85915	.1193984	-.006830
#3	.2490111	120.5348	1.250187	18.70007	.1176278	-.006768

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.58898	.2055852	.6802521	39.28099	.0952982	.0229512
Stddev	.25822	.0043053	.0018681	.25761	.0015285	.0004734
%RSD	.6522566	2.094170	.2746113	.6558215	1.603877	2.062563
#1	39.71345	.2006143	.6823825	39.50272	.0969536	.0224781
#2	39.29210	.2080167	.6794794	38.99839	.0939406	.0234249
#3	39.76139	.2081246	.6788944	39.34185	.0950003	.0229506

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-01 Acquired: 12/30/2024 15:55:27 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0197330	.8848931	F 11.02625	8.347768	2.259619	.0207622
Stddev	.0003563	.0211737	.11870	.115424	.026848	.0011675
%RSD	1.805575	2.392794	1.076509	1.382691	1.188179	5.623099
#1	.0201414	.8610913	10.88977	8.397043	2.280096	.0195788
#2	.0194860	.9016344	11.10540	8.430376	2.269538	.0207947
#3	.0195715	.8919536	11.08357	8.215885	2.229222	.0219130

Elem	Sr4077
Units	ppm
Avg	.9066089
Stddev	.0194330
%RSD	2.143480
#1	.8886601
#2	.9272461
#3	.9039205

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2942.875	65659.83	14439.13	2195.543	3583.923
Stddev	19.415	271.81	287.41	10.098	33.369
%RSD	.6597332	.4139703	1.990517	.4599429	.9310859
#1	2933.197	65365.46	14753.85	2184.096	3567.618
#2	2930.202	65901.30	14190.55	2203.190	3561.840
#3	2965.227	65712.74	14372.98	2199.343	3622.309

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-03 Acquired: 12/30/2024 15:59:42 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0027068	-.005173	.6017286	-.002696	.0114275	2.370848	.1776649
Stddev	.0024793	.001088	.0027386	.001212	.0004629	.050572	.0037694
%RSD	91.59208	21.03424	.4551247	44.97516	4.050363	2.133093	2.121618
#1	.0007865	-.005968	.6034890	-.001302	.0117603	2.396853	.1785161
#2	.0018283	-.003933	.5985734	-.003276	.0108989	2.403126	.1809359
#3	.0055058	-.005618	.6031235	-.003509	.0116232	2.312565	.1735428

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004979	.0007874	12.17894	.0568234	.0045158	.2832367	15.68986
Stddev	.0000134	.0000323	.26311	.0003922	.0001475	.0010240	.05495
%RSD	2.688758	4.105418	2.160358	.6901989	3.265123	.3615350	.3502146
#1	.0005003	.0007547	12.24359	.0572308	.0045244	.2838370	15.69143
#2	.0004835	.0007881	12.40369	.0564484	.0043643	.2820543	15.63414
#3	.0005100	.0008193	11.88953	.0567910	.0046588	.2838187	15.74400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1661231	4.364644	.0209544	-.000358	10.58930	.0250564	.7944735
Stddev	.0039825	.085410	.0001017	.000259	.05749	.0006514	.0037546
%RSD	2.397294	1.956858	.4852932	72.43175	.5429276	2.599778	.4725950
#1	.1669195	4.390848	.0208504	-.000156	10.65293	.0244630	.7973722
#2	.1696473	4.433881	.0209593	-.000267	10.54109	.0257534	.7902322
#3	.1618027	4.269202	.0210536	-.000650	10.57389	.0249527	.7958163

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7766989	.0087955	.0099453	.0233728	.0893453	1.893319	.3972779
Stddev	.0148245	.0001318	.0003865	.0011694	.0058570	.006730	.0009026
%RSD	1.908659	1.498354	3.886492	5.003239	6.555463	.3554431	.2271919
#1	.7623717	.0086437	.0099435	.0245063	.0872363	1.900187	.3970085
#2	.7919752	.0088808	.0103327	.0221705	.0959647	1.886736	.3965406
#3	.7757496	.0088619	.0095596	.0234417	.0848348	1.893035	.3982845

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-03 Acquired: 12/30/2024 15:59:42 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	2.119363	.0005301	.0241290
Stddev	.011918	.0005915	.0009081
%RSD	.5623423	111.5748	3.763564
#1	2.124024	.0007931	.0244269
#2	2.105819	.0009445	.0248508
#3	2.128246	-.000147	.0231094

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2480.343	57354.67	12407.37	1889.626	3650.800
Stddev	4.831	300.89	244.43	8.757	10.168
%RSD	.1947514	.5246168	1.970074	.4634038	.2785037
#1	2475.108	57103.00	12316.90	1881.144	3645.664
#2	2484.628	57687.95	12221.08	1898.633	3662.511
#3	2481.293	57273.05	12684.15	1889.100	3644.225

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5318-01 Acquired: 12/30/2024 16:03:56 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0858738	.0010897	.6960037	-.062219	-.002324	72.10330	.4803493
Stddev	.0011238	.0027224	.0089982	.006558	.001893	.26120	.0008625
%RSD	1.308686	249.8330	1.292842	10.53961	81.45361	.3622633	.1795613
#1	.0846261	-.001224	.6902680	-.061232	-.004501	72.32176	.4810567
#2	.0868065	.004089	.6913686	-.056211	-.001060	71.81398	.4806028
#3	.0861890	.000404	.7063745	-.069214	-.001412	72.17415	.4793885

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067343	-.007312	149.5671	.2259273	.0453228	.1962998	201.2920
Stddev	.0000445	.000323	.4744	.0018037	.0005078	.0027301	1.6102
%RSD	.6605796	4.417063	.3171898	.7983411	1.120354	1.390767	.7999499
#1	.0066989	-.006993	150.0644	.2254989	.0452952	.1951919	200.1960
#2	.0067842	-.007639	149.1195	.2243764	.0448294	.1942979	200.5392
#3	.0067197	-.007303	149.5174	.2279066	.0458438	.1994097	203.1407

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9960620	42.49808	.0907764	-.018258	3.422582	.3267278	.5702567
Stddev	.0055453	.04569	.0012708	.000379	.025701	.0016836	.0047215
%RSD	.5567207	.1075063	1.399896	2.077565	.7509230	.5152894	.8279623
#1	1.002432	42.53083	.0905455	-.017821	3.402018	.3286678	.5687292
#2	.993444	42.51751	.0896369	-.018492	3.414334	.3256501	.5664880
#3	.992310	42.44588	.0921468	-.018463	3.451395	.3258654	.5755528

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.76451	.1724218	.0073836	.0179347	1.336597	9.611452	3.777174
Stddev	.10718	.0021044	.0001638	.0010601	.003916	.079868	.051099
%RSD	.9956953	1.220526	2.218121	5.910984	.2930111	.8309623	1.352848
#1	10.72124	.1708690	.0072704	.0180220	1.340894	9.566972	3.736835
#2	10.68573	.1715794	.0073090	.0168336	1.333227	9.563728	3.760052
#3	10.88656	.1748170	.0075714	.0189485	1.335672	9.703656	3.834636

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5318-01 Acquired: 12/30/2024 16:03:56 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	7.056881	.0314282	.3378257
Stddev	.077136	.0004700	.0026191
%RSD	1.093065	1.495561	.7752716
#1	7.009733	.0310937	.3404460
#2	7.015011	.0312253	.3378233
#3	7.145898	.0319656	.3352079

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2620.980	57647.42	12735.22	1918.224	3586.784
Stddev	20.760	527.21	52.12	16.684	33.336
%RSD	.7920636	.9145345	.4092451	.8697821	.9294241
#1	2631.175	57962.00	12691.93	1929.993	3607.071
#2	2634.671	57941.48	12793.07	1925.549	3604.973
#3	2597.093	57038.77	12720.66	1899.130	3548.310

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5387-01 Acquired: 12/30/2024 16:08:01 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1276739	-.030046	.4147842	-.136773	-.017328	228.9193	1.234142
Stddev	.0060964	.004024	.0010274	.001156	.004018	1.3176	.002333
%RSD	4.775003	13.39193	.2477035	.8451828	23.18712	.5755847	.1890265
#1	.1302574	-.034239	.4158333	-.136351	-.013051	229.8050	1.236768
#2	.1320531	-.026216	.4147393	-.135887	-.017910	229.5477	1.233348
#3	.1207111	-.029684	.4137799	-.138081	-.021023	227.4051	1.232309

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0168760	-.003410	53.83711	.4792305	.3001089	.6670584	406.9471
Stddev	.0001297	.000406	.27749	.0032394	.0004449	.0015854	.7035
%RSD	.7682842	11.91692	.5154295	.6759497	.1482337	.2376736	.1728665
#1	.0169747	-.003735	53.96865	.4826578	.2999568	.6671517	406.9454
#2	.0169242	-.003541	54.02438	.4788145	.3006099	.6654284	407.6515
#3	.0167292	-.002955	53.51831	.4762193	.2997601	.6685951	406.2445

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.901114	122.0346	.4898252	-.042478	18.47789	.7649178	.8307265
Stddev	.047143	.6026	.0005052	.000343	.04887	.0028477	.0030931
%RSD	.5296333	.4938200	.1031390	.8083946	.2644912	.3722938	.3723401
#1	8.935800	122.2769	.4893142	-.042831	18.52654	.7670066	.8336624
#2	8.920105	122.4785	.4903244	-.042457	18.42880	.7660729	.8310202
#3	8.847437	121.3486	.4898369	-.042145	18.47833	.7616740	.8274970

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.65439	.3982192	.0019389	.0219869	7.058512	4.961227	9.792575
Stddev	.21784	.0013145	.0002940	.0017867	.029523	.015704	.016004
%RSD	.3713886	.3300989	15.16357	8.126245	.4182614	.3165250	.1634320
#1	58.85797	.3982416	.0017313	.0240404	7.081285	4.978298	9.774961
#2	58.42466	.3995224	.0022754	.0207878	7.069096	4.957988	9.796537
#3	58.68054	.3968936	.0018101	.0211324	7.025156	4.947396	9.806225

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5387-01 Acquired: 12/30/2024 16:08:01 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.778433	.4166869	.0489704
Stddev	.005872	.0009581	.0010959
%RSD	.3301823	.2299254	2.237968
#1	1.774637	.4177837	.0501802
#2	1.775465	.4162635	.0480438
#3	1.785196	.4160135	.0486873

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3065.733	69827.38	15443.37	2343.919	3344.124
Stddev	7.878	270.03	102.44	13.268	3.789
%RSD	.2569703	.3867044	.6633263	.5660422	.1132943
#1	3073.260	69632.96	15394.33	2335.658	3348.424
#2	3066.395	69713.48	15374.67	2336.876	3342.675
#3	3057.545	70135.69	15561.11	2359.223	3341.274

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV03 Acquired: 12/30/2024 16:12:22 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.847864	4.811483	4.832755	4.957893	4.905227	9.264407	9.204600
Stddev	.018307	.065695	.025561	.026358	.010216	.147853	.117687
%RSD	.3776403	1.365377	.5289079	.5316278	.2082576	1.595926	1.278562
#1	4.867887	4.880551	4.862086	4.985480	4.911668	9.253487	9.171825
#2	4.831980	4.749782	4.815234	4.932967	4.893448	9.122316	9.106776
#3	4.843726	4.804118	4.820946	4.955230	4.910564	9.417417	9.335201

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2415094	2.458042	23.71540	.9804228	2.409699	1.208368	4.743182
Stddev	.0025013	.011128	.35175	.0059444	.012769	.004247	.013085
%RSD	1.035713	.4527101	1.483202	.6063054	.5299189	.3515043	.2758750
#1	.2425997	2.470665	23.69403	.9862110	2.424439	1.213241	4.758168
#2	.2386479	2.449653	23.37483	.9807235	2.402657	1.205456	4.734020
#3	.2432805	2.453808	24.07735	.9743337	2.402001	1.206405	4.737357

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.331954	24.10446	2.419626	1.201745	23.13694	2.351722	2.370667
Stddev	.033906	.28919	.012136	.005095	.10432	.035066	.011290
%RSD	1.453977	1.199716	.5015726	.4239492	.4508755	1.491069	.4762489
#1	2.341107	24.04274	2.433609	1.207483	23.23427	2.355717	2.381064
#2	2.294412	23.85112	2.413429	1.199999	23.02681	2.314829	2.358657
#3	2.360345	24.41952	2.411839	1.197752	23.14974	2.384618	2.372279

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.26267	4.751327	4.786860	4.841489	4.657858	4.706953	4.963890
Stddev	.11830	.047677	.017943	.028069	.066125	.014165	.050679
%RSD	.5085270	1.003452	.3748289	.5797655	1.419654	.3009385	1.020961
#1	23.36967	4.755107	4.807246	4.873600	4.660425	4.708745	5.020991
#2	23.13563	4.701872	4.773466	4.821614	4.590486	4.691978	4.946430
#3	23.28270	4.797001	4.779869	4.829254	4.722662	4.720137	4.924250

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV03 Acquired: 12/30/2024 16:12:22 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.834226	4.542410	4.671783
Stddev	.036841	.069598	.049877
%RSD	.7620965	1.532172	1.067624
#1	4.875494	4.543673	4.667211
#2	4.804647	4.472189	4.624349
#3	4.822537	4.611367	4.723788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2465.925	57090.24	11455.05	1890.605	3576.379
Stddev	7.581	253.95	141.52	11.664	16.465
%RSD	.3074181	.4448191	1.235453	.6169519	.4603899
#1	2457.251	56797.84	11430.86	1879.186	3558.542
#2	2469.237	57255.50	11607.11	1902.499	3579.596
#3	2471.285	57217.40	11327.18	1890.130	3590.998

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB03 Acquired: 12/30/2024 16:16:33 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0011972	-.002369	-.000085	-.001065	-.001841	-.002572	.0005596
Stddev	.0015165	.001950	.000282	.001675	.001309	.001855	.0001987
%RSD	126.6769	82.30106	329.7508	157.3142	71.12678	72.09790	35.49794
#1	-.000022	-.004501	-.000302	.000840	-.003163	-.001492	.0006154
#2	.000719	-.001932	-.000188	-.002310	-.000545	-.001511	.0003390
#3	.002895	-.000675	.000233	-.001725	-.001815	-.004714	.0007244

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000219	.0001408	-.002265	.0001622	-.000132	-.000429	.0119508
Stddev	.0000208	.0001185	.004059	.0000270	.000123	.000039	.0017571
%RSD	94.96422	84.15903	179.1870	16.64790	93.26560	9.105577	14.70270
#1	.0000429	.0000687	-.001826	.0001327	-.000251	-.000384	.0138474
#2	.0000013	.0002776	.001556	.0001682	-.000006	-.000452	.0103783
#3	.0000216	.0000762	-.006526	.0001857	-.000138	-.000451	.0116269

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000980	-.007067	-.000183	.0005039	.0134584	-.000063	-.000202
Stddev	.000083	.008383	.000123	.0002585	.0070912	.000884	.000076
%RSD	8.445016	118.6204	67.36287	51.30294	52.68988	1412.857	37.85825
#1	-.000896	-.016744	-.000162	.0007795	.0066903	-.000828	-.000242
#2	-.000981	-.002027	-.000316	.0004651	.0128512	-.000266	-.000249
#3	-.001062	-.002430	-.000072	.0002670	.0208336	.000906	-.000114

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048358	-.000072	.0002719	.0033866	.0008042	-.005932	-.000703
Stddev	.0239049	.000270	.0002077	.0005704	.0003833	.002691	.000526
%RSD	494.3312	374.7825	76.37230	16.84213	47.65950	45.35789	74.92149
#1	.0110217	-.000370	.0005116	.0027407	.0012325	-.006982	-.000127
#2	-.021554	-.000002	.0001473	.0038211	.0004935	-.007939	-.000821
#3	.025040	.000156	.0001568	.0035981	.0006867	-.002875	-.001160

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB03 Acquired: 12/30/2024 16:16:33 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000793	-.000343	.0000882
Stddev	.001516	.000996	.0000271
%RSD	191.1002	290.1341	30.70207
#1	-.000149	-.000687	.0001149
#2	-.002525	.000779	.0000890
#3	.000294	-.001121	.0000607

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2551.749	59719.39	12163.83	1983.379	3745.625
Stddev	14.060	334.66	8.58	10.916	17.857
%RSD	.5509894	.5603941	.0705518	.5503606	.4767561
#1	2564.750	59487.26	12155.57	1975.324	3760.644
#2	2536.827	60103.02	12163.23	1995.803	3725.880
#3	2553.668	59567.91	12172.70	1979.011	3750.352

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165863BL Acquired: 12/30/2024 16:20:54 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0013647	-.001023	.0000101	.0004168	-.000691	-.003707	.0002248
Stddev	.0013166	.001063	.0009657	.0031964	.000336	.003431	.0006821
%RSD	96.47778	103.9145	9568.051	766.8070	48.61631	92.56030	303.3572
#1	.0011118	-.001661	.0004617	-.003054	-.000341	-.000430	.0003689
#2	.0001928	-.001611	-.001099	.001064	-.000723	-.007274	.0008234
#3	.0027893	.000204	.000667	.003240	-.001011	-.003417	-.000518

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000255	.0000962	-.006241	-.000495	.0000442	-.000423	-.001253
Stddev	.0000112	.0000390	.003076	.000391	.0001164	.000299	.001567
%RSD	43.78357	40.56683	49.28842	78.90248	263.4933	70.77802	125.0690
#1	.0000287	.0000515	-.009313	-.000273	.0000745	-.000630	.000549
#2	.0000131	.0001233	-.006250	-.000267	-.000084	-.000080	-.002296
#3	.0000347	.0001139	-.003161	-.000947	.000142	-.000558	-.002013

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000137	-.008113	.0003623	.0002838	.0328847	.0011677	-.000413
Stddev	.000230	.005826	.0001325	.0001264	.0061072	.0005627	.000156
%RSD	168.4181	71.80957	36.57703	44.55148	18.57168	48.19006	37.80557
#1	-.000256	-.009958	.0002144	.0001403	.0330626	.0015297	-.000237
#2	-.000282	-.012794	.0004702	.0003788	.0389010	.0014541	-.000469
#3	.000129	-.001588	.0004024	.0003322	.0266904	.0005194	-.000534

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0689504	-.002218	-.000086	-.000117	-.000080	-.001567	-.001602
Stddev	.0023375	.000301	.000394	.000118	.000211	.004650	.000262
%RSD	3.390121	13.58975	460.8220	100.8359	263.3329	296.6652	16.35550
#1	.0704667	-.001910	.000279	-.000014	-.000318	-.006045	-.001364
#2	.0662584	-.002231	-.000032	-.000247	.000083	.003237	-.001560
#3	.0701261	-.002513	-.000503	-.000092	-.000005	-.001893	-.001883

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165863BL Acquired: 12/30/2024 16:20:54 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0003258	-.000969	-.000011
Stddev	.0017326	.000950	.000015
%RSD	531.7702	98.10703	134.3313
#1	.0003477	-.000216	-.000009
#2	-.001418	-.000653	.000002
#3	.002047	-.002037	-.000027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2583.170	57984.29	12036.01	1953.748	3809.192
Stddev	9.081	221.48	121.13	9.336	12.053
%RSD	.3515428	.3819712	1.006426	.4778743	.3164062
#1	2592.653	57737.06	12043.72	1943.608	3819.874
#2	2582.302	58164.57	11911.20	1961.988	3811.578
#3	2574.554	58051.26	12153.10	1955.651	3796.126

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165863BS Acquired: 12/30/2024 16:25:14 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7860459	1.885377	.9615738	1.946179	.7615206	1.779763
Stddev	.0038290	.004894	.0025642	.008699	.0018665	.014038
%RSD	.4871248	.2595921	.2666711	.4469973	.2451009	.7887327
#1	.7856990	1.891002	.9612641	1.951433	.7607281	1.781542
#2	.7824020	1.882095	.9591784	1.936138	.7601812	1.792827
#3	.7900365	1.883034	.9642787	1.950967	.7636526	1.764921

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1778341	.1961050	.1992073	.9433556	.4012915	.1946369
Stddev	.0014148	.0007249	.0008996	.0036627	.0013602	.0006997
%RSD	.7955670	.3696509	.4515719	.3882658	.3389553	.3594882
#1	.1782046	.1957859	.1995760	.9429543	.4026553	.1945766
#2	.1790268	.1969347	.1981819	.9472024	.4012842	.1939692
#3	.1762709	.1955945	.1998639	.9399099	.3999349	.1953647

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2944777	2.893017	.1877063	1.894200	.4921426	.0751024
Stddev	.0016318	.018802	.0014090	.005277	.0023508	.0000949
%RSD	.5541407	.6499084	.7506574	.2785879	.4776592	.1263761
#1	.2944700	2.901412	.1882586	1.900281	.4924344	.0751300
#2	.2928497	2.906159	.1887555	1.890831	.4896596	.0749967
#3	.2961134	2.871480	.1861048	1.891487	.4943339	.0751804

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.711434	.2784745	.1957279	8.868763	.2827792	.3829703
Stddev	.017169	.0012294	.0019378	.076898	.0014098	.0015031
%RSD	.6332074	.4414808	.9900300	.8670634	.4985500	.3924902
#1	2.714657	.2786396	.1970744	8.883233	.2812243	.3832382
#2	2.726764	.2796131	.1966023	8.937398	.2839740	.3813512
#3	2.692883	.2771709	.1935070	8.785658	.2831393	.3843215

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165863BS Acquired: 12/30/2024 16:25:14 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6796551	.1824103	F .6910390	5.903310	F -.011505	.1833207
Stddev	.0045844	.0004047	.0014111	.020734	.002309	.0019844
%RSD	.6745177	.2218823	.2041934	.3512247	20.06654	1.082486
#1	.6811284	.1823576	.6897688	5.914889	-.010353	.1840093
#2	.6745151	.1828388	.6907904	5.879373	-.010000	.1848691
#3	.6833217	.1820345	.6925578	5.915669	-.014163	.1810837

Elem	Sr4077
Units	ppm
Avg	.1807046
Stddev	.0010885
%RSD	.6023648
#1	.1806055
#2	.1818392
#3	.1796690

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2547.517	58906.48	11683.66	1986.023	3723.343
Stddev	12.419	261.93	32.71	9.923	17.021
%RSD	.4874864	.4446490	.2799867	.4996450	.4571389
#1	2551.453	58669.86	11692.27	1977.727	3729.247
#2	2557.490	58861.65	11647.51	1983.327	3736.626
#3	2533.607	59187.92	11711.21	1997.016	3704.157

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-02 Acquired: 12/30/2024 16:29:14 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.002633	-.007281	.0861274	.0027591	-.000088	.0770766	.1282643
Stddev	.001299	.001439	.0008059	.0033185	.001061	.0070441	.0015929
%RSD	49.34856	19.75662	.9356705	120.2750	1211.500	9.139050	1.241909
#1	-.002996	-.005620	.0870570	.0065628	-.001305	.0807957	.1286556
#2	-.003711	-.008106	.0856977	.0004564	.000400	.0814818	.1296251
#3	-.001190	-.008118	.0856274	.0012580	.000642	.0689525	.1265122

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000002	.0007416	3.815699	.0006358	.0050551	.1591494	.0619333
Stddev	.000032	.0001025	.018510	.0002226	.0000703	.0011420	.0059043
%RSD	1534.039	13.81442	.4850969	35.01402	1.391059	.7175733	9.533348
#1	.000022	.0007082	3.819046	.0008202	.0051273	.1578326	.0615170
#2	.000010	.0006600	3.832307	.0006989	.0049868	.1598680	.0680348
#3	-.000039	.0008566	3.795744	.0003885	.0050513	.1597477	.0562482

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1080560	.4267917	.0046805	.0001635	283.6147	.0001554	.2173249
Stddev	.0011404	.0115202	.0004019	.0003803	9.4155	.0009239	.0094888
%RSD	1.055404	2.699264	8.586360	232.5413	3.319821	594.5959	4.366159
#1	.1089099	.4155541	.0042238	.0005762	281.3654	.0005448	.2158052
#2	.1084973	.4385752	.0048377	-.000173	293.9512	.0008208	.2274819
#3	.1067609	.4262459	.0049801	.000087	275.5277	-.000899	.2086878

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9602749	.0058047	-.000066	.0006791	.0016611	.3441409	.0167298
Stddev	.0263963	.0008284	.000286	.0006906	.0005326	.0146403	.0012851
%RSD	2.748822	14.27070	430.3198	101.6879	32.06365	4.254142	7.681423
#1	.9735983	.0051086	.000249	.0001070	.0018446	.3538217	.0170120
#2	.9773540	.0067209	-.000310	.0014462	.0020776	.3513026	.0153270
#3	.9298724	.0055845	-.000138	.0004841	.0010610	.3272985	.0178502

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5362-02 Acquired: 12/30/2024 16:29:14 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.4305263	-.002216	.0269521
Stddev	.0024837	.000762	.0002256
%RSD	.5768893	34.40796	.8369575
#1	.4293998	-.002138	.0271564
#2	.4333736	-.001495	.0269899
#3	.4288056	-.003014	.0267100

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2512.670	54935.07	11410.84	1868.430	3619.245
Stddev	16.210	1791.79	57.85	68.006	25.403
%RSD	.6451219	3.261649	.5069385	3.639760	.7018823
#1	2531.287	55073.98	11416.08	1876.943	3646.076
#2	2501.682	53077.87	11350.55	1796.568	3595.564
#3	2505.042	56653.36	11465.88	1931.780	3616.094

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5380-02 Acquired: 12/30/2024 16:33:39 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.005435	-.007929	.0300771	.0040768	.0024404	.3139243	.0731108
Stddev	.002295	.002115	.0009596	.0020356	.0019818	.0047594	.0004955
%RSD	42.22664	26.66684	3.190594	49.93263	81.20875	1.516111	.6777622
#1	-.006604	-.006249	.0290286	.0064123	.0013566	.3098222	.0732303
#2	-.006910	-.007236	.0309118	.0031387	.0012368	.3128082	.0725664
#3	-.002791	-.010304	.0302910	.0026793	.0047278	.3191427	.0735356

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000208	-.000164	11.54528	.0050749	.0005168	.0275485	.5057099
Stddev	.0000611	.000086	.02804	.0000663	.0003465	.0000540	.0028359
%RSD	294.4306	52.25844	.2428641	1.307152	67.05166	.1959685	.5607754
#1	.0000413	-.000092	11.52521	.0051515	.0007051	.0275740	.5029310
#2	.0000689	-.000258	11.53330	.0050343	.0001169	.0275851	.5055989
#3	-.000048	-.000141	11.57731	.0050389	.0007283	.0274865	.5085996

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0439444	.6201925	.0035941	.0001089	284.3184	.0021948	.0530759
Stddev	.0001939	.0035738	.0001323	.0003642	2.3506	.0011889	.0006212
%RSD	.4412328	.5762379	3.680234	334.4545	.8267502	54.17093	1.170335
#1	.0441525	.6214362	.0035418	.0004793	283.9924	.0015243	.0527127
#2	.0439117	.6229783	.0037446	.0000963	286.8150	.0014925	.0537931
#3	.0437688	.6161631	.0034960	-.000249	282.1478	.0035675	.0527219

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3243862	.0050462	.0002882	-.000001	.0017534	1.490307	.0073707
Stddev	.0296825	.0002028	.0001021	.000588	.0003645	.020022	.0011251
%RSD	9.150361	4.019443	35.42759	97227.74	20.78919	1.343483	15.26476
#1	.2977536	.0048962	.0003624	-.000212	.0019613	1.486133	.0064393
#2	.3190188	.0049654	.0001718	-.000454	.0013325	1.512087	.0086208
#3	.3563862	.0052769	.0003306	.000664	.0019663	1.472701	.0070520

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5380-02 Acquired: 12/30/2024 16:33:39 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.5281914	-.003316	.0149530
Stddev	.0053751	.000208	.0000559
%RSD	1.017651	6.285804	.3740284
#1	.5337961	-.003087	.0149974
#2	.5230798	-.003365	.0148902
#3	.5276983	-.003496	.0149715

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2403.871	53952.12	11680.34	1831.108	3415.345
Stddev	5.758	410.79	29.48	10.684	11.583
%RSD	.2395374	.7614047	.2523580	.5834536	.3391411
#1	2399.001	53963.94	11701.76	1827.009	3403.987
#2	2402.386	53535.54	11692.54	1823.080	3414.908
#3	2410.226	54356.88	11646.72	1843.234	3427.140

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-02 Acquired: 12/30/2024 16:38:07 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0165109	-.006830	.0056714	.0029848	.0004390	.1004892	.2194861
Stddev	.0011418	.002401	.0007360	.0025777	.0001417	.0034992	.0016994
%RSD	6.915275	35.15313	12.97792	86.35922	32.28143	3.482167	.7742752
#1	.0177773	-.005087	.0048227	.0023651	.0005569	.0969300	.2213432
#2	.0155602	-.005834	.0060567	.0058159	.0002818	.1006125	.2180086
#3	.0161952	-.009569	.0061349	.0007735	.0004782	.1039252	.2191064

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000028	.0002060	15.19181	.0008427	.0013998	.0136217	.0921951
Stddev	.0000069	.0000583	.06750	.0001682	.0002463	.0001426	.0039564
%RSD	245.3166	28.27299	.4443452	19.95778	17.59429	1.046648	4.291293
#1	-.000003	.0001558	15.24723	.0008481	.0011378	.0134996	.0958974
#2	.000010	.0001925	15.11663	.0010080	.0014350	.0135872	.0880261
#3	.000002	.0002699	15.21158	.0006718	.0016266	.0137784	.0926617

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1183640	2.987511	.0042807	-.000126	284.8459	.0003494	.1720261
Stddev	.0006477	.030646	.0001408	.000151	3.2918	.0016171	.0006931
%RSD	.5472120	1.025794	3.288460	119.7429	1.155629	462.8495	.4029192
#1	.1190914	2.998742	.0042473	.000031	287.8940	.0017515	.1725385
#2	.1178498	2.952834	.0044352	-.000269	285.2883	-.001420	.1723023
#3	.1181509	3.010956	.0041597	-.000140	281.3553	.000716	.1712374

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.19800	.0444305	.0005924	-.000102	.0017502	2.736920	.0475204
Stddev	.06155	.0003976	.0000517	.000775	.0001059	.011011	.0010764
%RSD	.6035113	.8949087	8.724942	763.4912	6.051432	.4023051	2.265148
#1	10.24767	.0444944	.0005468	-.000117	.0018654	2.743057	.0463669
#2	10.21719	.0440049	.0005818	.000681	.0016571	2.743495	.0484980
#3	10.12915	.0447924	.0006485	-.000869	.0017281	2.724208	.0476963

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-02 Acquired: 12/30/2024 16:38:07 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.930990	.0045682	.1215343
Stddev	.005529	.0001055	.0006742
%RSD	.2863473	2.310065	.5547646
#1	1.924631	.0044526	.1222855
#2	1.933675	.0046595	.1209816
#3	1.934665	.0045923	.1213359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.623	53561.58	11577.36	1806.821	3582.074
Stddev	3.573	330.41	61.06	8.670	9.654
%RSD	.1446090	.6168839	.5273704	.4798458	.2695019
#1	2473.622	53309.23	11511.30	1806.502	3592.575
#2	2466.670	53439.93	11631.71	1798.316	3580.064
#3	2471.578	53935.57	11589.08	1815.647	3573.584

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04 Acquired: 12/30/2024 16:42:32 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.002525	-.006111	.0337410	.0024699	.0003868	.0340958	.0340548
Stddev	.001668	.001574	.0009176	.0002939	.0008230	.0026273	.0019090
%RSD	66.04674	25.76315	2.719505	11.90127	212.7774	7.705534	5.605526
#1	-.002643	-.004315	.0332349	.0027788	.0010050	.0371279	.0349448
#2	-.004131	-.007252	.0331879	.0024371	-.000547	.0324945	.0353562
#3	-.000802	-.006767	.0348002	.0021937	.000703	.0326651	.0318634

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000069	-.000013	1.256233	.0010162	-.000296	.0118216	.0407384
Stddev	.000031	.000055	.042918	.0003283	.000091	.0002420	.0012090
%RSD	45.50119	420.7748	3.416384	32.30716	30.71489	2.046700	2.967745
#1	-.000039	-.000010	1.271477	.0011408	-.000333	.0119104	.0407988
#2	-.000065	.000040	1.289448	.0012638	-.000192	.0115478	.0419161
#3	-.000102	-.000069	1.207774	.0006438	-.000363	.0120066	.0395003

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117244	.3417084	.0033478	.0000486	302.8358	-.000233	.0951950
Stddev	.0005485	.0073829	.0003249	.0001523	2.8904	.001010	.0004062
%RSD	4.678002	2.160573	9.703303	313.6018	.9544549	433.4836	.4267581
#1	.0122192	.3375100	.0030141	-.000043	305.0407	.000726	.0955369
#2	.0118194	.3502331	.0036630	.000224	299.5635	-.000138	.0947459
#3	.0111347	.3373822	.0033665	-.000036	303.9033	-.001288	.0953021

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1236742	-.001758	.0001956	.0001885	.0004868	.0441756	.0106552
Stddev	.0209025	.000974	.0002346	.0004429	.0003230	.0053922	.0041059
%RSD	16.90129	55.39533	119.9385	234.9098	66.35344	12.20617	38.53465
#1	.1229442	-.001103	.0003835	.0001797	.0001530	.0394583	.0127903
#2	.1449322	-.001294	-.000067	-.000250	.0005096	.0430149	.0059216
#3	.1031462	-.002877	.000271	.000636	.0007978	.0500536	.0132536

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04 Acquired: 12/30/2024 16:42:32 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1909798	-.002945	.0041970
Stddev	.0042007	.000283	.0000950
%RSD	2.199545	9.603629	2.262718
#1	.1902788	-.002954	.0042705
#2	.1871737	-.003222	.0042308
#3	.1954869	-.002657	.0040898

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2482.244	54372.66	11644.32	1809.268	3595.796
Stddev	10.126	281.84	427.07	10.548	14.874
%RSD	.4079389	.5183425	3.667632	.5829767	.4136368
#1	2486.400	54237.98	11416.63	1806.165	3594.529
#2	2489.631	54696.57	11379.34	1821.019	3611.263
#3	2470.701	54183.43	12136.99	1800.620	3581.597

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04DUP Acquired: 12/30/2024 16:47:00 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.003714	-.006837	.0337392	.0047458	.0010086	.0378336	.0349962
Stddev	.001912	.001504	.0009572	.0027880	.0009119	.0017223	.0001946
%RSD	51.48334	21.99214	2.836928	58.74811	90.41497	4.552293	.5561942
#1	-.004194	-.005275	.0347484	.0024970	.0000560	.0381857	.0349151
#2	-.001607	-.008274	.0336250	.0038750	.0018735	.0359625	.0352182
#3	-.005340	-.006961	.0328443	.0078653	.0010964	.0393527	.0348552

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000073	-.000015	1.265660	.0010918	-.000355	.0118476	.0379066
Stddev	.000027	.000042	.009653	.0003259	.000103	.0002176	.0035128
%RSD	36.88602	277.9767	.7626556	29.84895	29.10706	1.836747	9.267079
#1	-.000097	-.000036	1.261407	.0008388	-.000427	.0118512	.0403670
#2	-.000044	-.000042	1.276708	.0009772	-.000237	.0120634	.0338836
#3	-.000078	.000033	1.258864	.0014596	-.000401	.0116282	.0394692

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0118046	.3361792	.0033250	-.000133	306.3910	.0002672	.0938832
Stddev	.0005507	.0170419	.0001810	.000045	1.4422	.0008584	.0005556
%RSD	4.665335	5.069288	5.443297	34.03047	.4707046	321.2434	.5917738
#1	.0111701	.3456042	.0031914	-.000135	305.4053	.0012503	.0944248
#2	.0120839	.3464267	.0035310	-.000087	308.0463	-.000115	.0933146
#3	.0121596	.3165066	.0032526	-.000178	305.7215	-.000334	.0939101

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1566765	-.001749	.0002424	.0005161	.0001910	.0385340	.0091932
Stddev	.0150291	.000280	.0000240	.0009113	.0004781	.0033070	.0020202
%RSD	9.592464	16.03018	9.911791	176.5798	250.2379	8.582097	21.97459
#1	.1733334	-.001452	.0002693	.0015597	-.000311	.0411137	.0115119
#2	.1525652	-.002009	.0002231	.0001114	.000641	.0396824	.0078130
#3	.1441308	-.001786	.0002348	-.000123	.000244	.0348059	.0082546

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04DUP Acquired: 12/30/2024 16:47:00 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1896689	-.002595	.0043118
Stddev	.0017641	.001050	.0000525
%RSD	.9300858	40.47813	1.217541
#1	.1879898	-.002840	.0042606
#2	.1895096	-.001444	.0043655
#3	.1915072	-.003501	.0043093

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2510.048	54407.43	11797.13	1848.943	3601.311
Stddev	5.659	196.62	30.87	12.232	5.613
%RSD	.2254655	.3613900	.2617118	.6615692	.1558697
#1	2509.822	54183.23	11793.34	1835.356	3596.226
#2	2515.817	54550.51	11829.72	1859.078	3607.334
#3	2504.505	54488.55	11768.32	1852.395	3600.372

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04LX5 Acquired: 12/30/2024 16:51:28 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0027990	-.001890	.0069039	-.000704	-.000367	.0104454	.0101313
Stddev	.0007561	.002259	.0010626	.003472	.000465	.0073384	.0002916
%RSD	27.01470	119.4784	15.39120	493.3244	126.8099	70.25531	2.878080
#1	.0031614	-.004379	.0063947	.001525	.000120	.0133793	.0102372
#2	.0019299	.000029	.0081252	-.004705	-.000807	.0020939	.0103551
#3	.0033057	-.001320	.0061916	.001068	-.000413	.0158630	.0098015

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000008	.0000663	.2603420	.0001965	-.000029	.0020383	.0077092
Stddev	.000049	.0000939	.0079771	.0001930	.000052	.0004010	.0040031
%RSD	636.7069	141.5617	3.064098	98.18901	175.2425	19.67461	51.92598
#1	-.000058	-.000030	.2545675	.0004152	-.000075	.0023141	.0118800
#2	-.000005	.000071	.2570142	.0000501	-.000040	.0015782	.0038981
#3	.000040	.000158	.2694442	.0001242	.000027	.0022225	.0073496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017740	.0594564	.0007093	.0002696	57.81320	.0009551	.0182242
Stddev	.0001378	.0068053	.0001780	.0004527	.58071	.0007673	.0001391
%RSD	7.767604	11.44581	25.10019	167.8974	1.004460	80.33358	.7632732
#1	.0018063	.0660378	.0009078	.0004784	57.91988	.0002677	.0182166
#2	.0016229	.0524475	.0005637	.0005802	58.33318	.0008147	.0183669
#3	.0018927	.0598838	.0006564	-.000250	57.18655	.0017829	.0180890

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0849280	-.005108	.0001416	.0027964	.0002490	.0060694	.0021256
Stddev	.0338595	.001085	.0000296	.0001197	.0004216	.0047592	.0020618
%RSD	39.86851	21.24629	20.93925	4.279954	169.3049	78.41299	97.00030
#1	.0653892	-.006343	.0001742	.0027411	.0002290	.0026156	.0037740
#2	.0653691	-.004672	.0001164	.0029338	.0006803	.0114981	-.000186
#3	.1240256	-.004308	.0001341	.0027144	-.000162	.0040945	.002789

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04LX5 Acquired: 12/30/2024 16:51:28 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0366574	.0034744	.0008304
Stddev	.0040565	.0005719	.0000010
%RSD	11.06608	16.45944	.1227522
#1	.0401513	.0028141	.0008296
#2	.0322086	.0037963	.0008301
#3	.0376123	.0038127	.0008316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.970	57659.32	11462.68	1984.275	3760.488
Stddev	12.655	538.38	20.87	19.765	12.322
%RSD	.4863602	.9337332	.1821059	.9961028	.3276718
#1	2614.560	57547.69	11439.91	1974.432	3774.587
#2	2602.099	57185.49	11467.23	1971.364	3751.784
#3	2589.251	58244.76	11480.91	2007.029	3755.091

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04MS Acquired: 12/30/2024 16:55:48 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7494984	1.786836	.9535219	1.793620	.6685910	1.749662	.2041487
Stddev	.0046815	.006281	.0061912	.009513	.0010427	.009404	.0003628
%RSD	.6246239	.3515408	.6493014	.5303872	.1559478	.5374689	.1777052
#1	.7534811	1.784913	.9590702	1.803115	.6679528	1.758931	.2045083
#2	.7443415	1.793855	.9546522	1.784089	.6697942	1.740129	.2037828
#3	.7506725	1.781741	.9468434	1.793657	.6680260	1.749925	.2041549

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1864992	.1922788	2.132683	.3960471	.1892349	.2800759	2.886808
Stddev	.0010532	.0011652	.014483	.0003829	.0011504	.0018689	.008110
%RSD	.5647057	.6060029	.6790867	.0966673	.6079437	.6672783	.2809225
#1	.1873148	.1933362	2.148383	.3963113	.1903753	.2822329	2.896160
#2	.1853102	.1924705	2.119844	.3962219	.1892548	.2789403	2.882542
#3	.1868725	.1910296	2.129824	.3956080	.1880747	.2790545	2.881721

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1949662	2.180322	.4773039	.0729114	285.1633	.2730914	.2763276
Stddev	.0008489	.010635	.0020701	.0002313	2.3310	.0008703	.0010990
%RSD	.4353992	.4877671	.4337096	.3172795	.8174317	.3186777	.3977227
#1	.1959326	2.182099	.4794100	.0728974	287.8517	.2726089	.2773684
#2	.1943411	2.189957	.4772300	.0731494	283.9350	.2725692	.2764361
#3	.1946249	2.168911	.4752717	.0726873	283.7034	.2740960	.2751784

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.515631	.2511361	.3514173	.6212838	.1657519	.7024421	5.859507
Stddev	.016555	.0025956	.0019519	.0028667	.0003456	.0154514	.027103
%RSD	.1739806	1.033528	.5554427	.4614108	.2085299	2.199664	.4625398
#1	9.528801	.2531865	.3534406	.6245284	.1659953	.6866737	5.883408
#2	9.497046	.2482178	.3495455	.6202290	.1653563	.7175556	5.865053
#3	9.521046	.2520040	.3512658	.6190939	.1659042	.7030971	5.830061

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04MS Acquired: 12/30/2024 16:55:48 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.2062950	.1752851	.1766935
Stddev	.0027496	.0009374	.0004187
%RSD	1.332834	.5347899	.2369495
#1	.2081874	.1762151	.1770399
#2	.2075564	.1743404	.1762282
#3	.2031410	.1752997	.1768122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2412.151	53205.03	10943.96	1815.180	3431.105
Stddev	12.930	149.04	72.70	7.744	18.957
%RSD	.5360172	.2801179	.6643218	.4266148	.5524943
#1	2397.230	53040.88	10861.67	1806.666	3411.066
#2	2420.047	53242.36	10999.50	1817.070	3433.496
#3	2419.177	53331.85	10970.70	1821.804	3448.752

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04MSD Acquired: 12/30/2024 16:59:58 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7433399	1.795479	.9491619	1.793363	.6742868	1.757407	.2037006
Stddev	.0028497	.007276	.0059428	.010018	.0046049	.009266	.0010380
%RSD	.3833622	.4052400	.6261064	.5586124	.6829317	.5272596	.5095512
#1	.7440531	1.789746	.9453144	1.783181	.6708796	1.756835	.2038201
#2	.7457653	1.803665	.9560064	1.803208	.6795257	1.748440	.2026080
#3	.7402014	1.793027	.9461648	1.793700	.6724551	1.766946	.2046736

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1860339	.1922673	2.133276	.3923220	.1893083	.2774658	2.818550
Stddev	.0006470	.0012119	.010225	.0061876	.0014942	.0010285	.028500
%RSD	.3477641	.6303341	.4792884	1.577165	.7893006	.3706799	1.011159
#1	.1854770	.1914260	2.128178	.3855594	.1884123	.2778592	2.785655
#2	.1858812	.1936564	2.126603	.3976999	.1910332	.2782395	2.834156
#3	.1867436	.1917194	2.145048	.3937069	.1884793	.2762986	2.835839

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1939065	2.193834	.4739922	.0714124	278.4284	.2760853	.2722587
Stddev	.0007518	.031280	.0020739	.0011099	5.7032	.0023761	.0046330
%RSD	.3877203	1.425818	.4375343	1.554210	2.048339	.8606266	1.701692
#1	.1938902	2.212413	.4737885	.0702684	272.1984	.2734078	.2669197
#2	.1931630	2.157720	.4761604	.0724848	283.3916	.2769055	.2752217
#3	.1946663	2.211370	.4720277	.0714841	279.6952	.2779426	.2746346

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.272445	.2499590	.3537589	.6201221	.1655113	.6924642	5.755561
Stddev	.153441	.0007538	.0021665	.0030075	.0010029	.0078574	.029763
%RSD	1.654811	.3015837	.6124204	.4849830	.6059604	1.134699	.5171109
#1	9.097525	.2504986	.3525328	.6180363	.1660753	.6872077	5.738066
#2	9.384327	.2490977	.3562604	.6235696	.1643533	.7014968	5.789926
#3	9.335483	.2502808	.3524836	.6187604	.1661052	.6886882	5.738690

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04MSD Acquired: 12/30/2024 16:59:58 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1922898	.1726033	.1758561
Stddev	.0027720	.0015010	.0012390
%RSD	1.441550	.8696168	.7045775
#1	.1924652	.1729389	.1760669
#2	.1949699	.1709629	.1745252
#3	.1894343	.1739081	.1769763

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2441.613	54305.98	10952.42	1838.008	3489.325
Stddev	13.360	785.21	41.90	26.412	19.745
%RSD	.5471710	1.445907	.3825979	1.437011	.5658786
#1	2444.574	55176.53	10956.29	1867.620	3491.993
#2	2427.021	53651.23	10992.25	1816.881	3468.381
#3	2453.244	54090.18	10908.71	1829.523	3507.600

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV04 Acquired: 12/30/2024 17:04:07 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.778041	4.839068	4.903499	4.926630	4.883992	9.369902
Stddev	.022654	.061780	.013561	.025146	.017673	.063983
%RSD	.4741178	1.276701	.2765656	.5104003	.3618478	.6828546
#1	4.760010	4.830949	4.900389	4.919366	4.867304	9.300492
#2	4.803468	4.904507	4.918346	4.954607	4.902507	9.426526
#3	4.770644	4.781749	4.891763	4.905915	4.882166	9.382689

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.093645	.2565628	2.523864	24.49070	1.002999	2.439079
Stddev	.002627	.0014554	.010999	.07721	.002475	.011132
%RSD	.0288845	.5672660	.4358129	.3152562	.2467161	.4563899
#1	9.090634	.2552472	2.518049	24.40474	1.000403	2.432298
#2	9.095465	.2581262	2.536550	24.55416	1.005332	2.451927
#3	9.094836	.2563151	2.516992	24.51320	1.003261	2.433014

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.192266	4.745239	2.352923	25.69821	2.448258	1.215888
Stddev	.004704	.009991	.005303	.12216	.010598	.003480
%RSD	.3945718	.2105489	.2253586	.4753479	.4328779	.2862151
#1	1.189973	4.739487	2.351726	25.56541	2.443470	1.211932
#2	1.197677	4.739455	2.348321	25.80579	2.460405	1.218478
#3	1.189148	4.756776	2.358722	25.72341	2.440899	1.217254

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.80758	2.389667	2.397804	22.91718	4.921532	4.776703
Stddev	.06297	.005648	.011879	.02352	.028315	.025193
%RSD	.2760887	.2363650	.4953999	.1026520	.5753380	.5274110
#1	22.75526	2.383197	2.384103	22.89834	4.890510	4.759434
#2	22.87746	2.393614	2.404093	22.94354	4.945986	4.805611
#3	22.79001	2.392190	2.405216	22.90965	4.928102	4.765065

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV04 Acquired: 12/30/2024 17:04:07 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.924696	4.673924	4.698860	5.021891	4.793673	F 4.474457
Stddev	.028226	.013496	.024727	.021729	.023755	.017052
%RSD	.5731480	.2887541	.5262275	.4326909	.4955398	.3810923
#1	4.910554	4.658411	4.671556	5.011182	4.784411	4.457137
#2	4.957197	4.682972	4.719742	5.046897	4.820663	4.491227
#3	4.906336	4.680388	4.705282	5.007596	4.775945	4.475007

Elem	Sr4077
Units	ppm
Avg	4.680622
Stddev	.012081
%RSD	.2581094
#1	4.666881
#2	4.685403
#3	4.689580

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2486.803	54929.56	10804.50	1866.164	3568.745
Stddev	11.228	94.15	28.67	3.911	16.166
%RSD	.4515082	.1713942	.2653537	.2095711	.4529821
#1	2492.501	54958.29	10824.31	1870.650	3574.803
#2	2473.868	54824.40	10771.62	1863.468	3550.426
#3	2494.039	55006.00	10817.56	1864.375	3581.008

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB04 Acquired: 12/30/2024 17:08:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000230	-.001723	.0001909	-.000287	-.001983	-.006124	.0049503
Stddev	.000753	.002418	.0005298	.001909	.000335	.002320	.0002864
%RSD	326.7301	140.3561	277.4893	664.1214	16.87243	37.87782	5.785405
#1	.000500	-.000800	.0006995	-.001797	-.001981	-.004315	.0048858
#2	-.001003	-.004466	.0002310	.001858	-.001650	-.005318	.0047016
#3	-.000188	.000098	-.000358	-.000923	-.002319	-.008740	.0052634

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000438	.0001838	-.001786	-.000141	-.000204	-.000657	.0019734
Stddev	.0000205	.0000983	.006150	.000274	.000128	.000135	.0005614
%RSD	46.91064	53.47512	344.4367	194.0714	62.48166	20.48033	28.44696
#1	.0000531	.0002480	.002936	-.000041	-.000302	-.000554	.0020845
#2	.0000202	.0002328	-.008740	.000068	-.000060	-.000809	.0013648
#3	.0000579	.0000707	.000447	-.000451	-.000252	-.000607	.0024709

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001034	.0100780	-.000251	.0002447	.0791672	-.000162	-.000328
Stddev	.000245	.0127805	.000026	.0001557	.0006784	.001830	.000202
%RSD	23.69010	126.8158	10.51098	63.63229	.8569306	1128.232	61.52973
#1	-.000835	-.003103	-.000279	.0003207	.0784470	.000935	-.000123
#2	-.001308	.010921	-.000248	.0000656	.0797942	.000853	-.000526
#3	-.000959	.022416	-.000226	.0003477	.0792605	-.002275	-.000335

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1223648	.0015142	.0001018	.0039732	.0010588	-.008024	-.004106
Stddev	.0229290	.0007245	.0001885	.0009457	.0002807	.005962	.003259
%RSD	18.73828	47.84971	185.2045	23.80124	26.51488	74.29692	79.38554
#1	.1010332	.0015604	.0002906	.0032943	.0013214	-.004039	-.004589
#2	.1194487	.0007677	-.000086	.0050533	.0007629	-.014878	-.000632
#3	.1466123	.0022145	.000101	.0035720	.0010920	-.005156	-.007096

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB04 Acquired: 12/30/2024 17:08:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.002158	.0015642	.0002852
Stddev	.001102	.0007475	.0000158
%RSD	51.08798	47.78557	5.525612
#1	-.002854	.0023701	.0003034
#2	-.002732	.0014288	.0002761
#3	-.000887	.0008937	.0002761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.276	58097.18	11332.84	2005.147	3732.955
Stddev	11.016	157.94	90.50	7.701	13.856
%RSD	.4269362	.2718613	.7985510	.3840372	.3711842
#1	2569.651	57989.13	11398.45	1997.307	3720.093
#2	2591.646	58023.97	11370.48	2005.434	3747.627
#3	2579.532	58278.45	11229.60	2012.699	3731.147

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04A Acquired: 12/30/2024 17:12:39 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7413820	1.784741	.9526512	1.759449	.6601756	1.767179	.2060307
Stddev	.0063026	.019731	.0091330	.011607	.0061447	.009774	.0007539
%RSD	.8501125	1.105565	.9586924	.6597214	.9307622	.5530952	.3659263
#1	.7351028	1.763047	.9428925	1.750446	.6542360	1.776642	.2066078
#2	.7477078	1.801617	.9609928	1.772550	.6665066	1.757121	.2051776
#3	.7413354	1.789560	.9540681	1.755351	.6597843	1.767773	.2063065

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1890720	.1911018	2.134333	.3863078	.1893498	.2782256	2.730650
Stddev	.0004167	.0021689	.005248	.0044437	.0024499	.0022299	.036029
%RSD	.2203801	1.134954	.2458731	1.150314	1.293848	.8014825	1.319435
#1	.1889790	.1889425	2.130145	.3812463	.1871179	.2762726	2.693748
#2	.1887097	.1932802	2.132634	.3895685	.1919710	.2806553	2.765738
#3	.1895273	.1910826	2.140220	.3881087	.1889604	.2777489	2.732465

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1971942	2.160401	.4755044	.0710495	268.3903	.2758712	.2681952
Stddev	.0011372	.015162	.0055830	.0011951	3.5888	.0024565	.0052728
%RSD	.5766742	.7018208	1.174122	1.682029	1.337156	.8904629	1.966021
#1	.1981491	2.143095	.4702624	.0699446	264.2478	.2784725	.2627165
#2	.1959362	2.166760	.4813751	.0723179	270.3657	.2735910	.2732345
#3	.1974972	2.171348	.4748757	.0708858	270.5574	.2755503	.2686346

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.041503	.2585114	.3509380	.6194508	.1666534	.6682133	5.908924
Stddev	.095710	.0024161	.0039600	.0081630	.0006175	.0150933	.062770
%RSD	1.058562	.9346186	1.128411	1.317776	.3705283	2.258749	1.062283
#1	8.943725	.2576137	.3472621	.6115484	.1664540	.6507876	5.843040
#2	9.135001	.2566727	.3551313	.6278516	.1661603	.6766724	5.968029
#3	9.045785	.2612479	.3504207	.6189525	.1673460	.6771799	5.915703

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-04A Acquired: 12/30/2024 17:12:39 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.1920666	.1759341	.1777366
Stddev	.0011243	.0013236	.0006784
%RSD	.5853849	.7523074	.3816840
#1	.1926022	.1750702	.1782375
#2	.1907746	.1752741	.1769646
#3	.1928230	.1774578	.1780077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2431.955	55288.91	10677.09	1887.694	3452.115
Stddev	20.913	661.49	35.33	29.891	31.446
%RSD	.8599398	1.196416	.3308524	1.583441	.9109122
#1	2450.663	56007.89	10670.90	1921.447	3481.591
#2	2409.377	54706.13	10715.10	1864.573	3419.014
#3	2435.824	55152.71	10645.26	1877.063	3455.739

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165858TB Acquired: 12/30/2024 17:16:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001677	-.005849	.0011958	.0072833	.0024065	.0014085
Stddev	.000775	.001360	.0004905	.0034261	.0019561	.0091381
%RSD	46.19863	23.24678	41.01756	47.03988	81.28462	648.7678
#1	-.001122	-.006866	.0006903	.0105132	.0046510	.0034625
#2	-.002562	-.006377	.0012273	.0076467	.0015031	-.008582
#3	-.001347	-.004304	.0016698	.0036900	.0010653	.009345

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033692	-.000085	-.000059	.0053798	.0013214	-.000481
Stddev	.0004728	.000069	.000041	.0043959	.0003241	.000121
%RSD	14.03337	81.33721	70.63081	81.71101	24.52953	25.20555
#1	.0039141	-.000164	-.000057	.0007781	.0016013	-.000496
#2	.0031269	-.000038	-.000101	.0058253	.0009663	-.000594
#3	.0030667	-.000052	-.000018	.0095360	.0013967	-.000353

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033600	.0213784	.0129762	.0151871	.0018446	.0003033
Stddev	.0002397	.0036253	.0002271	.0109018	.0000554	.0002496
%RSD	7.132697	16.95787	1.750491	71.78334	3.006331	82.27017
#1	.0030885	.0255641	.0127796	.0027016	.0018859	.0003034
#2	.0035421	.0192277	.0129242	.0200392	.0017816	.0005528
#3	.0034495	.0193435	.0132249	.0228204	.0018663	.0000537

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 253.3187	-.000434	.0040565	.0071128	-.004371	.0001668
Stddev	3.9724	.000952	.0000635	.0460945	.000081	.0002079
%RSD	1.568131	219.0770	1.566453	648.0474	1.849821	124.6677
#1	254.0359	.000107	.0041287	-.006833	-.004282	-.000014
#2	249.0366	.000123	.0040315	-.030399	-.004391	.000120
#3	256.8836	-.001533	.0040092	.058570	-.004440	.000394

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165858TB Acquired: 12/30/2024 17:16:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0010056	-.000170	.0037138	.0028923	F .0856249	-.003069
Stddev	.0003816	.000497	.0053361	.0026404	.0016268	.001129
%RSD	37.94618	292.1590	143.6812	91.28831	1.899941	36.77492
#1	.0008189	.000238	.0087641	-.000065	.0855793	-.004116
#2	.0014446	-.000723	.0042455	.005013	.0840213	-.001873
#3	.0007533	-.000025	-.001868	.003729	.0872740	-.003219

Elem	Sr4077
Units	ppm
Avg	-.000013
Stddev	.000018
%RSD	141.7995
#1	.000007
#2	-.000029
#3	-.000017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2477.411	55061.14	11380.31	1863.258	3545.138
Stddev	7.287	579.33	137.64	17.550	10.661
%RSD	.2941407	1.052159	1.209491	.9419230	.3007320
#1	2471.796	54944.11	11387.53	1861.348	3533.823
#2	2485.646	55690.06	11514.20	1881.685	3554.996
#3	2474.790	54549.26	11239.19	1846.741	3546.596

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165887BL Acquired: 12/30/2024 17:21:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000601	-.000451	.0004780	-.000877	-.001471	-.002688	.0020196
Stddev	.000541	.002667	.0009421	.000870	.001587	.006086	.0002140
%RSD	90.00788	590.7984	197.0814	99.21250	107.8928	226.4258	10.59691
#1	-.000336	-.003021	.0007036	-.001828	-.002159	-.009567	.0021581
#2	-.001222	-.000636	.0012868	-.000681	-.002599	-.000498	.0021277
#3	-.000243	.002303	-.000556	-.000122	.000344	.002000	.0017731

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000432	.0000360	.0006820	-.000268	-.000107	-.000491	-.003832
Stddev	.0000355	.0000537	.0034183	.000158	.000244	.000182	.002726
%RSD	81.99629	149.1863	501.2104	58.94863	228.0576	37.00107	71.12398
#1	.0000361	.0000443	.0035198	-.000095	.000032	-.000540	-.003188
#2	.0000817	.0000850	.0016391	-.000306	.000036	-.000289	-.001486
#3	.0000119	-.000021	-.003113	-.000404	-.000388	-.000642	-.006822

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001004	.0122555	-.000248	.0005076	.1229486	-.000607	-.000851
Stddev	.000250	.0092328	.000046	.0002398	.0091596	.000830	.000025
%RSD	24.89123	75.33629	18.75416	47.24492	7.449945	136.6591	2.899677
#1	-.000926	.0226675	-.000275	.0007814	.1148207	.000053	-.000860
#2	-.000803	.0050653	-.000274	.0003350	.1211516	-.000336	-.000869
#3	-.001284	.0090336	-.000194	.0004063	.1328736	-.001538	-.000823

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0665544	-.004576	.0001038	.0028788	.0006201	-.006105	-.005498
Stddev	.0045015	.000489	.0001516	.0004499	.0002061	.004739	.002328
%RSD	6.763608	10.69286	146.0494	15.62824	33.22848	77.63102	42.34792
#1	.0670951	-.005128	-.000050	.0023629	.0003899	-.003450	-.002837
#2	.0707611	-.004405	.000109	.0031899	.0006834	-.003288	-.007161
#3	.0618070	-.004195	.000253	.0030835	.0007871	-.011577	-.006497

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165887BL Acquired: 12/30/2024 17:21:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001808	.0027553	-.000030
Stddev	.002466	.0001298	.000018
%RSD	136.3807	4.709338	61.10013
#1	-.000609	.0028789	-.000010
#2	-.004645	.0027668	-.000033
#3	-.000171	.0026201	-.000047

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2623.703	58021.32	11851.45	1966.216	3856.052
Stddev	18.258	882.80	31.36	26.633	26.938
%RSD	.6959004	1.521513	.2646272	1.354555	.6985894
#1	2604.878	58379.71	11815.88	1982.604	3826.892
#2	2641.336	57015.68	11863.31	1935.485	3880.010
#3	2624.897	58668.57	11875.15	1980.558	3861.252

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165887BS Acquired: 12/30/2024 17:25:37 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7389869	1.857952	.9287795	1.834706	.7343252	1.752361
Stddev	.0017735	.011106	.0050652	.011262	.0044534	.016607
%RSD	.2399948	.5977732	.5453636	.6138395	.6064613	.9477151
#1	.7378245	1.847256	.9229415	1.823360	.7295080	1.755593
#2	.7381080	1.869428	.9313897	1.834875	.7351756	1.767114
#3	.7410283	1.857172	.9320072	1.845882	.7382921	1.734375

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1754166	.1918046	.1914833	.9380399	.3999249	.1875990
Stddev	.0018681	.0011833	.0007075	.0041975	.0048361	.0007721
%RSD	1.064921	.6169441	.3694851	.4474747	1.209243	.4115659
#1	.1762111	.1921937	.1906905	.9425876	.3993948	.1867310
#2	.1767560	.1927444	.1917091	.9372181	.4050041	.1878569
#3	.1732826	.1904757	.1920504	.9343142	.3953757	.1882092

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2821564	2.864867	.1828927	1.925497	.4713753	.0750673
Stddev	.0026044	.038146	.0011945	.016067	.0015155	.0005520
%RSD	.9230326	1.331509	.6531384	.8344479	.3215086	.7353071
#1	.2793329	2.864718	.1835634	1.943766	.4696309	.0750036
#2	.2826715	2.903086	.1836012	1.913560	.4721268	.0756484
#3	.2844647	2.826795	.1815136	1.919167	.4723682	.0745500

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.813803	.2735239	.1946703	9.092540	.2703342	.3781893
Stddev	.019921	.0018979	.0008783	.080466	.0009325	.0026203
%RSD	.7079683	.6938861	.4511763	.8849700	.3449319	.6928516
#1	2.806116	.2751941	.1940456	9.105231	.2711495	.3752292
#2	2.836422	.2739177	.1956746	9.165907	.2705355	.3791271
#3	2.798871	.2714600	.1942908	9.006483	.2693175	.3802117

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165887BS Acquired: 12/30/2024 17:25:37 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6517379	.1798967	F .7060145	5.360302	F -.012722	.1807664
Stddev	.0024748	.0016314	.0129162	.036436	.000854	.0002756
%RSD	.3797250	.9068755	1.829450	.6797378	6.709296	.1524552
#1	.6488864	.1803604	.6969223	5.320582	-.012806	.1807439
#2	.6533256	.1812460	.7207991	5.368148	-.013530	.1805028
#3	.6530017	.1780836	.7003222	5.392175	-.011829	.1810526

Elem	Sr4077
Units	ppm
Avg	.1783541
Stddev	.0010407
%RSD	.5834785
#1	.1789309
#2	.1789786
#3	.1771527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2670.873	57436.39	11775.28	1942.104	3988.024
Stddev	13.178	502.02	55.71	9.484	13.536
%RSD	.4933812	.8740533	.4731435	.4883168	.3394230
#1	2682.863	57609.53	11746.83	1945.733	3999.237
#2	2672.991	56870.72	11739.54	1931.342	3991.847
#3	2656.765	57828.93	11839.48	1949.238	3972.987

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01 Acquired: 12/30/2024 17:29:36 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.002370	-.008727	.0004768	.0004953	.0020775	.7305308
Stddev	.002335	.001159	.0004600	.0029046	.0004642	.0121375
%RSD	98.52168	13.27725	96.48184	586.4123	22.34378	1.661465
#1	.000227	-.008576	.0003078	.0038106	.0025681	.7227733
#2	-.004295	-.009954	.0009974	-.001602	.0020193	.7243009
#3	-.003041	-.007651	.0001252	-.000723	.0016452	.7445182

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0542178	-.000119	-.000111	64.75763	.0045912	.0006442
Stddev	.0009726	.000034	.000090	.59393	.0001680	.0000430
%RSD	1.793920	28.77108	81.32445	.9171544	3.658682	6.672428
#1	.0550734	-.000158	-.000189	64.62674	.0047720	.0006285
#2	.0531599	-.000104	-.000132	64.24006	.0044399	.0006928
#3	.0544200	-.000095	-.000012	65.40608	.0045619	.0006112

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0136824	1.694152	.7372650	11.22032	.0064634	.0000563
Stddev	.0004600	.025747	.0067565	.13002	.0003567	.0003227
%RSD	3.361793	1.519772	.9164329	1.158754	5.518135	573.0216
#1	.0131557	1.723285	.7365891	11.20331	.0068325	.0002680
#2	.0138860	1.674449	.7308718	11.09965	.0061207	.0002160
#3	.0140054	1.684723	.7443341	11.35801	.0064370	-.000315

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.76240	.0042397	.0388544	1.323554	.3710935	.0060444
Stddev	.42287	.0008720	.0004059	.039370	.0051724	.0001600
%RSD	.9888718	20.56700	1.044807	2.974536	1.393834	2.647615
#1	43.23427	.0049727	.0392568	1.352974	.3693047	.0058999
#2	42.41775	.0044709	.0384450	1.338858	.3670530	.0062164
#3	42.63517	.0032754	.0388613	1.278830	.3769230	.0060170

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01 Acquired: 12/30/2024 17:29:36 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001174	.0178511	8.493421	.0287908	F 31.72413	-.011457
Stddev	.000756	.0005996	.091292	.0020058	.24747	.000824
%RSD	64.38326	3.358820	1.074857	6.966868	.7800589	7.195707
#1	-.000728	.0182967	8.591523	.0310819	31.97561	-.011341
#2	-.000747	.0180873	8.410960	.0279390	31.48088	-.010696
#3	-.002047	.0171694	8.477779	.0273514	31.71590	-.012333

Elem	Sr4077
Units	ppm
Avg	.3364096
Stddev	.0026336
%RSD	.7828430
#1	.3367957
#2	.3336043
#3	.3388288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2458.844	55523.48	11974.12	1842.372	3657.572
Stddev	20.211	473.56	112.04	9.718	29.059
%RSD	.8219626	.8528998	.9357245	.5274870	.7944973
#1	2435.514	55001.70	12016.39	1831.220	3624.038
#2	2470.003	55926.02	12058.89	1849.031	3675.372
#3	2471.016	55642.72	11847.09	1846.864	3673.304

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01DUP Acquired: 12/30/2024 17:33:51 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.003771	-.008026	.0004706	.0008624	.0026618	.7509848
Stddev	.002855	.001688	.0000273	.0013767	.0018923	.0045617
%RSD	75.70111	21.02789	5.801689	159.6325	71.08947	.6074352
#1	-.001097	-.008094	.0005006	.0021144	.0039443	.7457181
#2	-.003440	-.009679	.0004643	-.000612	.0004885	.7536958
#3	-.006778	-.006306	.0004471	.001085	.0035526	.7535404

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0549446	-.000100	-.000111	64.90287	.0043281	.0007116
Stddev	.0005451	.000036	.000112	.12800	.0001075	.0001608
%RSD	.9920374	36.27174	101.1099	.1972124	2.482624	22.59982
#1	.0548716	-.000116	-.000180	65.03621	.0042285	.0005476
#2	.0544397	-.000125	-.000171	64.89142	.0043139	.0007181
#3	.0555225	-.000058	.000018	64.78099	.0044420	.0008690

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0139507	1.636901	.7432392	11.30340	.0065523	.0002084
Stddev	.0001353	.004555	.0014014	.05024	.0001241	.0000920
%RSD	.9700312	.2782570	.1885522	.4444373	1.894369	44.16482
#1	.0140895	1.640335	.7448508	11.32008	.0065643	.0001602
#2	.0139435	1.631734	.7425593	11.24694	.0066700	.0001504
#3	.0138192	1.638634	.7423074	11.34317	.0064226	.0003145

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.81775	.0041882	.0381011	1.273127	.3765379	.0060096
Stddev	.07397	.0011780	.0000906	.028474	.0015040	.0002390
%RSD	.1812263	28.12714	.2376955	2.236531	.3994345	3.977521
#1	40.79441	.0054149	.0380124	1.263034	.3778584	.0060908
#2	40.75827	.0040837	.0381934	1.305272	.3768544	.0057406
#3	40.90058	.0030659	.0380976	1.251074	.3749008	.0061975

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01DUP Acquired: 12/30/2024 17:33:51 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001146	.0192568	8.169382	.0299518	F 31.61069	-.011280
Stddev	.000304	.0013279	.032632	.0027018	.08056	.000666
%RSD	26.55855	6.895631	.3994456	9.020623	.2548513	5.907880
#1	-.001494	.0207772	8.188146	.0327084	31.52824	-.011013
#2	-.000926	.0183243	8.131702	.0298388	31.61460	-.012039
#3	-.001019	.0186689	8.188299	.0273083	31.68922	-.010789

Elem	Sr4077
Units	ppm
Avg	.3351773
Stddev	.0008595
%RSD	.2564258
#1	.3359126
#2	.3353869
#3	.3342324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2488.358	57074.19	11771.89	1889.568	3676.369
Stddev	6.122	202.41	42.11	5.274	1.817
%RSD	.2460094	.3546422	.3577566	.2790854	.0494116
#1	2484.369	57000.03	11724.52	1890.255	3677.797
#2	2485.298	57303.22	11805.08	1894.464	3674.325
#3	2495.406	56919.32	11786.08	1883.984	3676.986

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01LX5 Acquired: 12/30/2024 17:38:06 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0007874	-.003280	-.000053	.0014419	-.000666	.1695243	.0139611
Stddev	.0014197	.000937	.000670	.0037505	.001025	.0025118	.0006157
%RSD	180.3145	28.57633	1261.406	260.1156	153.9369	1.481661	4.410082
#1	.0022041	-.003108	.000028	.0002405	.000517	.1704431	.0145370
#2	-.000635	-.004292	-.000760	.0056459	-.001229	.1714473	.0133121
#3	.000793	-.002441	.000572	-.001561	-.001287	.1666825	.0140341

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000207	.0000367	13.35294	.0008545	-.000059	.0024407	.3420325
Stddev	.0000135	.0000805	.05362	.0003658	.000261	.0004120	.0059925
%RSD	65.37441	219.6758	.4015594	42.81085	442.8921	16.87830	1.752016
#1	.0000054	.0000993	13.38089	.0005448	-.000354	.0029101	.3489047
#2	.0000312	.0000648	13.29112	.0012581	.000040	.0022730	.3392958
#3	.0000253	-.000054	13.38681	.0007605	.000137	.0021391	.3378970

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1543386	2.333023	.0012672	.0002661	8.037087	.0014698	.0075097
Stddev	.0014643	.004355	.0000733	.0001925	.035433	.0023069	.0001422
%RSD	.9487387	.1866646	5.786712	72.34987	.4408683	156.9594	1.893330
#1	.1546812	2.337864	.0012879	.0003076	8.072773	.0009057	.0076193
#2	.1527334	2.329424	.0013279	.0000562	8.036573	.0040064	.0073490
#3	.1556012	2.331781	.0011857	.0004345	8.001913	-.000503	.0075607

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2530004	.0819696	.0011086	.0015079	.0051665	1.653458	.0009555
Stddev	.0085164	.0004551	.0002054	.0005348	.0005105	.025327	.0011065
%RSD	3.366171	.5551693	18.52945	35.46436	9.880743	1.531734	115.7985
#1	.2543795	.0823528	.0013381	.0009513	.0057118	1.682004	-.000110
#2	.2438786	.0820892	.0009419	.0015546	.0046999	1.644689	.002099
#3	.2607431	.0814666	.0010458	.0020178	.0050878	1.633681	.000878

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01LX5 Acquired: 12/30/2024 17:38:06 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	7.105656	-.000695	.0670877
Stddev	.051458	.000712	.0003413
%RSD	.7241856	102.4547	.5087813
#1	7.088754	-.000048	.0673903
#2	7.064774	-.000580	.0667177
#3	7.163439	-.001457	.0671551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2510.827	56981.71	11477.49	1966.712	3635.428
Stddev	10.194	370.23	38.21	12.474	14.903
%RSD	.4060205	.6497380	.3329502	.6342641	.4099447
#1	2518.547	56640.74	11438.06	1955.083	3642.241
#2	2514.662	56928.88	11514.36	1965.167	3645.707
#3	2499.271	57375.53	11480.03	1979.887	3618.336

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01MS Acquired: 12/30/2024 17:42:24 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7556960	1.789995	.9097867	1.777438	.7449901	2.510348
Stddev	.0100985	.025557	.0089193	.020740	.0077436	.009506
%RSD	1.336320	1.427788	.9803675	1.166855	1.039417	.3786678
#1	.7670802	1.818835	.9193847	1.799895	.7528433	2.519158
#2	.7521903	1.780994	.9082222	1.773413	.7447659	2.511612
#3	.7478175	1.770155	.9017532	1.759005	.7373610	2.500273

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2257593	.1880232	.1890812	65.10297	.3959589	.1890096
Stddev	.0004699	.0007694	.0021617	.12617	.0024645	.0023556
%RSD	.2081363	.4092101	1.143283	.1938079	.6224128	1.246265
#1	.2263011	.1886308	.1914645	65.19942	.3987894	.1915202
#2	.2254640	.1871580	.1885323	64.96017	.3947983	.1886607
#3	.2255127	.1882806	.1872468	65.14931	.3942890	.1868480

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2902849	4.365968	.9131166	13.09450	.4743035	.0715540
Stddev	.0039513	.028347	.0030452	.06989	.0057690	.0006271
%RSD	1.361168	.6492635	.3334905	.5337041	1.216302	.8764517
#1	.2944228	4.398682	.9166280	13.14282	.4807125	.0722398
#2	.2898805	4.348693	.9115209	13.01437	.4726720	.0714126
#3	.2865514	4.350527	.9112010	13.12630	.4695259	.0710097

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.40545	.2817993	.2264245	10.32788	.6365692	.3979865
Stddev	.33506	.0011135	.0015806	.07742	.0017951	.0043551
%RSD	.7901459	.3951406	.6980758	.7496404	.2819985	1.094271
#1	42.68988	.2830629	.2282188	10.38050	.6373048	.4029546
#2	42.49037	.2813731	.2258169	10.36416	.6345231	.3961770
#3	42.03609	.2809618	.2252379	10.23898	.6378797	.3948279

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01MS Acquired: 12/30/2024 17:42:24 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6555174	.1937971	8.680162	5.700194	F 30.93567	.1686002
Stddev	.0075800	.0002035	.065163	.070271	.41664	.0011398
%RSD	1.156342	.1049893	.7507064	1.232785	1.346789	.6760470
#1	.6641652	.1937202	8.736197	5.779538	31.40220	.1672928
#2	.6523634	.1940278	8.695633	5.675233	30.80417	.1693851
#3	.6500236	.1936433	8.608657	5.645811	30.60066	.1691228

Elem	Sr4077
Units	ppm
Avg	.5055224
Stddev	.0009671
%RSD	.1913046
#1	.5059914
#2	.5061655
#3	.5044102

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2455.522	55406.18	11226.75	1864.625	3629.454
Stddev	29.243	345.92	22.42	13.535	41.750
%RSD	1.190894	.6243327	.1997151	.7258852	1.150318
#1	2422.771	55046.21	11211.69	1851.183	3583.687
#2	2464.780	55436.24	11252.52	1864.441	3639.221
#3	2479.015	55736.09	11216.05	1878.251	3665.456

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01MSD Acquired: 12/30/2024 17:46:21 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7483938	1.794621	.9068942	1.795938	.7441215	2.547224
Stddev	.0052990	.016374	.0050646	.011380	.0051173	.012412
%RSD	.7080553	.9123679	.5584519	.6336390	.6876937	.4872828
#1	.7425951	1.775822	.9019618	1.792963	.7387558	2.536295
#2	.7496017	1.802279	.9066394	1.786342	.7446611	2.560719
#3	.7529846	1.805763	.9120813	1.808510	.7489476	2.544660

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2245252	.1858934	.1885767	65.11367	.3940183	.1874919
Stddev	.0015225	.0006526	.0013635	.33402	.0009654	.0015493
%RSD	.6780808	.3510662	.7230423	.5129754	.2450104	.8263266
#1	.2249941	.1860209	.1870235	65.15831	.3947690	.1857621
#2	.2257582	.1864727	.1891306	65.42312	.3943566	.1879616
#3	.2228235	.1851864	.1895761	64.75958	.3929293	.1887520

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2875182	4.291370	.9013628	13.23095	.4709253	.0703440
Stddev	.0015209	.022288	.0036779	.10367	.0027397	.0008401
%RSD	.5289586	.5193767	.4080411	.7835351	.5817693	1.194295
#1	.2858249	4.280547	.8994765	13.14846	.4678833	.0709520
#2	.2879616	4.317003	.9056012	13.34732	.4716943	.0706946
#3	.2887680	4.276559	.8990108	13.19707	.4731983	.0693854

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.52990	.2786197	.2259558	10.09044	.6279809	.3935942
Stddev	.23267	.0022382	.0017697	.08522	.0028954	.0020305
%RSD	.5602371	.8033178	.7831977	.8446107	.4610669	.5158793
#1	41.50272	.2804637	.2272641	10.11383	.6287506	.3913466
#2	41.77496	.2792659	.2266610	10.16152	.6304137	.3941400
#3	41.31201	.2761295	.2239422	9.99596	.6247784	.3952959

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01MSD Acquired: 12/30/2024 17:46:21 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6513272	.1977918	8.598055	5.720447	F 31.00654	.1671249
Stddev	.0036355	.0010263	.049823	.047399	.20646	.0029561
%RSD	.5581694	.5188679	.5794691	.8285847	.6658475	1.768819
#1	.6473582	.1980753	8.585980	5.669801	30.77251	.1667452
#2	.6521277	.1986466	8.652806	5.727801	31.08425	.1702525
#3	.6544958	.1966536	8.555379	5.763739	31.16287	.1643769

Elem	Sr4077
Units	ppm
Avg	.5041408
Stddev	.0032096
%RSD	.6366521
#1	.5042775
#2	.5072798
#3	.5008650

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2466.345	56733.09	11320.53	1877.577	3637.530
Stddev	9.976	193.50	44.37	4.733	17.656
%RSD	.4044882	.3410657	.3919390	.2520670	.4853855
#1	2477.564	56662.25	11299.62	1876.308	3657.647
#2	2463.000	56585.00	11290.47	1873.609	3630.343
#3	2458.472	56952.03	11371.49	1882.815	3624.601

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01A Acquired: 12/30/2024 17:50:19 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7518141	1.782639	.9064958	1.786151	.7489762	2.573628
Stddev	.0153213	.030116	.0180637	.027589	.0104254	.017760
%RSD	2.037915	1.689387	1.992696	1.544581	1.391954	.6900624
#1	.7454284	1.775966	.8967443	1.767482	.7447303	2.570260
#2	.7407184	1.756419	.8954034	1.773132	.7413437	2.557793
#3	.7692954	1.815531	.9273396	1.817841	.7608546	2.592830

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2234788	.1877387	.1887533	64.82258	.3989756	.1880717
Stddev	.0012414	.0008642	.0036173	.34221	.0030476	.0041005
%RSD	.5554742	.4603091	1.916399	.5279154	.7638572	2.180261
#1	.2230780	.1875652	.1868635	64.78749	.3968352	.1859784
#2	.2224873	.1869743	.1864724	64.49926	.4024649	.1854404
#3	.2248710	.1886764	.1929240	65.18098	.3976267	.1927963

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2886791	4.396689	.9015486	13.12715	.4718791	.0718052
Stddev	.0058941	.021989	.0018637	.09453	.0094958	.0006460
%RSD	2.041766	.5001191	.2067190	.7201002	2.012333	.8996323
#1	.2851919	4.371511	.8995255	13.08689	.4666735	.0710611
#2	.2853610	4.412112	.9019247	13.05941	.4661244	.0722225
#3	.2954844	4.406446	.9031955	13.23514	.4828392	.0721320

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.33623	.2790007	.2274943	10.27460	.6343505	.3958970
Stddev	.17198	.0023792	.0007597	.08508	.0039163	.0078398
%RSD	.4062150	.8527410	.3339361	.8280308	.6173763	1.980271
#1	42.15943	.2762694	.2280059	10.21083	.6329092	.3914327
#2	42.50293	.2801098	.2278555	10.37120	.6313590	.3913090
#3	42.34634	.2806227	.2266214	10.24176	.6387832	.4049494

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5356-01A Acquired: 12/30/2024 17:50:19 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6531986	.1984267	8.775274	5.648659	F 30.76651	.1677504
Stddev	.0135569	.0018981	.049665	.118058	.55727	.0015230
%RSD	2.075456	.9565694	.5659642	2.090024	1.811303	.9078979
#1	.6470980	.1992240	8.735049	5.581649	30.46982	.1667853
#2	.6437639	.1962600	8.830785	5.579354	30.42035	.1669598
#3	.6687339	.1997961	8.759987	5.784975	31.40937	.1695061

Elem	Sr4077
Units	ppm
Avg	.5016831
Stddev	.0022711
%RSD	.4526992
#1	.5017835
#2	.4993635
#3	.5039024

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2471.593	55573.84	11285.45	1852.606	3654.999
Stddev	44.857	241.34	46.67	7.618	68.955
%RSD	1.814885	.4342656	.4135475	.4112300	1.886603
#1	2495.990	55708.86	11265.53	1849.705	3691.026
#2	2498.965	55295.21	11338.78	1846.863	3698.478
#3	2419.826	55717.45	11252.05	1861.248	3575.492

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV05 Acquired: 12/30/2024 17:54:17 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.787428	4.795360	4.896673	4.952974	4.930477	9.422352	9.077163
Stddev	.006429	.027064	.009025	.011331	.011444	.056967	.038373
%RSD	.1342938	.5643705	.1843131	.2287662	.2321014	.6045957	.4227395
#1	4.794470	4.805493	4.906321	4.965580	4.933900	9.423259	9.120742
#2	4.781872	4.815895	4.895260	4.949705	4.917713	9.478860	9.062310
#3	4.785941	4.764692	4.888438	4.943637	4.939819	9.364937	9.048437

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2566595	2.515461	24.40567	.9987453	2.433580	1.196185	4.739987
Stddev	.0009397	.006471	.10183	.0048702	.004742	.002707	.038548
%RSD	.3661419	.2572580	.4172398	.4876331	.1948487	.2262811	.8132438
#1	.2572722	2.519866	24.41025	.9939145	2.436148	1.197617	4.695888
#2	.2571288	2.518485	24.50513	.9986673	2.436485	1.193063	4.756805
#3	.2555775	2.508031	24.30163	1.003654	2.428108	1.197875	4.767268

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.357499	25.65907	2.440275	1.219461	22.89325	2.387982	2.408929
Stddev	.015440	.08430	.003930	.005700	.13869	.010565	.013683
%RSD	.6549312	.3285233	.1610497	.4673955	.6058070	.4424116	.5680206
#1	2.366138	25.68834	2.443884	1.213615	22.73621	2.392834	2.395003
#2	2.366686	25.72483	2.440852	1.219765	22.94455	2.395250	2.409426
#3	2.339673	25.56404	2.436088	1.225002	22.99897	2.375863	2.422356

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.98702	4.962641	4.788178	4.891036	4.690100	4.698739	4.988358
Stddev	.17233	.012002	.010233	.013539	.022136	.032434	.021839
%RSD	.7496796	.2418530	.2137117	.2768113	.4719691	.6902728	.4377982
#1	22.79402	4.975850	4.799851	4.897427	4.693350	4.668968	5.002713
#2	23.04155	4.959668	4.783932	4.900197	4.710431	4.693946	4.999136
#3	23.12548	4.952404	4.780752	4.875485	4.666518	4.733303	4.963225

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV05 Acquired: 12/30/2024 17:54:17 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.762166	4.543193	4.699396
Stddev	.008875	.015110	.027492
%RSD	.1863686	.3325817	.5850100
#1	4.771975	4.545393	4.728008
#2	4.759830	4.557082	4.673182
#3	4.754692	4.527104	4.696997

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2521.986	55890.76	10973.23	1885.116	3634.388
Stddev	8.478	161.46	57.12	11.285	8.367
%RSD	.3361832	.2888848	.5205383	.5986465	.2302132
#1	2512.381	56073.77	10937.00	1897.459	3625.936
#2	2528.431	55830.08	10943.62	1875.325	3634.559
#3	2525.145	55768.44	11039.08	1882.565	3642.667

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB05 Acquired: 12/30/2024 17:58:28 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0017612	-.001287	-.000117	-.001773	-.000351	-.000729	.0024297
Stddev	.0022392	.001143	.001140	.002192	.001716	.001718	.0004492
%RSD	127.1382	88.76577	972.6336	123.6269	488.2689	235.6704	18.48762
#1	.0043178	-.000035	.000027	.000682	.000197	-.002638	.0019754
#2	.0008175	-.001554	-.001323	-.002467	.001023	.000695	.0028737
#3	.0001484	-.002273	.000944	-.003533	-.002275	-.000245	.0024400

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000192	.0002369	.0020979	-.000507	-.000108	-.000300	-.001154
Stddev	.0000233	.0000921	.0027871	.000305	.000152	.000289	.003277
%RSD	121.1842	38.87704	132.8515	60.11095	140.5238	96.44516	284.0766
#1	.0000108	.0002442	.0053155	-.000686	-.000075	-.000277	-.004870
#2	.0000455	.0001413	.0005402	-.000681	-.000275	-.000022	.001318
#3	.0000013	.0003250	.0004379	-.000155	.000025	-.000599	.000092

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000955	-.002510	-.000236	.0003029	.0472728	.0003344	-.000283
Stddev	.000071	.028739	.000172	.0005375	.0022100	.0009828	.000034
%RSD	7.413189	1144.999	72.58160	177.4814	4.674889	293.9244	12.01550
#1	-.001018	-.014518	-.000435	.0008910	.0467166	-.000683	-.000299
#2	-.000968	.030285	-.000141	-.000163	.0497077	.001278	-.000305
#3	-.000878	-.023297	-.000134	.000181	.0453940	.000408	-.000244

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0778474	.0017724	.0003083	.0025669	.0003494	-.011169	-.002774
Stddev	.0313554	.0003771	.0000137	.0003356	.0000919	.003165	.002196
%RSD	40.27800	21.27613	4.448262	13.07555	26.29985	28.34021	79.15629
#1	.0577447	.0019310	.0003238	.0027502	.0004415	-.014464	-.000239
#2	.0618206	.0020443	.0003030	.0027710	.0002577	-.010893	-.004092
#3	.1139770	.0013419	.0002980	.0021795	.0003491	-.008151	-.003990

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB05 Acquired: 12/30/2024 17:58:28 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0007771	.0001195	.0000354
Stddev	.0004935	.0006568	.0000136
%RSD	63.50166	549.6127	38.30211
#1	.0002103	.0007958	.0000483
#2	.0011112	.0000785	.0000368
#3	.0010099	-.000516	.0000212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2664.907	58290.66	11594.29	2004.137	3904.626
Stddev	15.819	386.11	65.46	27.014	22.112
%RSD	.5936002	.6623906	.5645514	1.347934	.5663044
#1	2681.106	57873.28	11521.46	1974.771	3927.633
#2	2649.497	58635.10	11648.22	2027.930	3883.534
#3	2664.118	58363.60	11613.18	2009.711	3902.710

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5377-02DLX5 Acquired: 12/30/2024 18:02:48 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.007500	.0315513	-.000691	.5023686	-.005730	.0413854	.0336487
Stddev	.001074	.0002569	.000734	.0020167	.000422	.0031239	.0003522
%RSD	14.32539	.8142789	106.2730	.4014382	7.357191	7.548427	1.046810
#1	-.008663	.0315395	-.000127	.5017375	-.006030	.0410753	.0332479
#2	-.007296	.0313005	-.000424	.5046254	-.005913	.0446529	.0337894
#3	-.006543	.0318139	-.001521	.5007430	-.005248	.0384281	.0339089

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001573	-.000237	.3717660	.0001787	.0007636	.0089275	.7221262
Stddev	.0000213	.000033	.0029324	.0001654	.0001943	.0002082	.0088144
%RSD	13.54726	13.76237	.7887792	92.54410	25.43888	2.331986	1.220625
#1	.0001526	-.000235	.3744439	.0003655	.0009572	.0086872	.7285982
#2	.0001806	-.000271	.3722216	.0001197	.0007650	.0090532	.7120873
#3	.0001388	-.000206	.3686324	.0000509	.0005687	.0090420	.7256930

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0124216	.1026091	.0011740	.0006316	8.357216	-.001244	.1352701
Stddev	.0002333	.0078485	.0001150	.0001750	.031068	.000731	.0007313
%RSD	1.878181	7.648930	9.799395	27.70542	.3717521	58.79546	.5406172
#1	.0126069	.0949585	.0012961	.0005175	8.392366	-.001928	.1353082
#2	.0121596	.1106415	.0010676	.0008330	8.345852	-.001331	.1359815
#3	.0124983	.1022274	.0011582	.0005441	8.333430	-.000473	.1345204

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.07715	-.058386	.0037341	.0680558	.0006343	.1447531	7.669008
Stddev	.07998	.000160	.0000840	.0004513	.0001780	.0042318	.025273
%RSD	.2346931	.2745562	2.250124	.6631180	28.05820	2.923472	.3295426
#1	34.16351	-.058208	.0036637	.0680451	.0005942	.1490710	7.649460
#2	34.00563	-.058520	.0037115	.0676099	.0004797	.1445753	7.660017
#3	34.06232	-.058429	.0038271	.0685123	.0008288	.1406129	7.697547

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5377-02DLX5 Acquired: 12/30/2024 18:02:48 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.748463	.0029025	.0028374
Stddev	.005996	.0004065	.0000326
%RSD	.3429370	14.00579	1.149120
#1	1.749238	.0024744	.0028257
#2	1.742118	.0032834	.0028742
#3	1.754035	.0029499	.0028122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2283.529	55374.29	12736.29	1728.245	4099.354
Stddev	16.298	302.36	17.88	7.979	20.200
%RSD	.7137393	.5460221	.1403663	.4616736	.4927564
#1	2296.471	55027.45	12738.49	1719.047	4116.595
#2	2288.892	55582.28	12752.97	1732.390	4104.337
#3	2265.225	55513.13	12717.42	1733.298	4077.128

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-05 Acquired: 12/30/2024 18:07:04 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0613025	-.009128	1.738485	-.005431	.0074169	28.24412
Stddev	.0040841	.002015	.004484	.002051	.0034246	.03475
%RSD	6.662248	22.07975	.2579043	37.76997	46.17291	.1230201
#1	.0659150	-.007757	1.741903	-.003166	.0053198	28.22801
#2	.0598470	-.011442	1.740144	-.005963	.0055620	28.22036
#3	.0581456	-.008184	1.733408	-.007164	.0113688	28.28400

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2411099	.0020292	.0188103	80.38262	.0608296	.0202925
Stddev	.0007716	.0000242	.0000932	.39861	.0005304	.0001918
%RSD	.3200310	1.191927	.4952725	.4958875	.8719818	.9452632
#1	.2419835	.0020555	.0189152	80.68229	.0602237	.0204988
#2	.2405212	.0020080	.0187787	79.93024	.0610552	.0201196
#3	.2408251	.0020240	.0187371	80.53534	.0612101	.0202590

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4050516	41.17669	.4563331	16.08889	.0506169	-.002225
Stddev	.0005176	.01823	.0018550	.08854	.0006613	.000183
%RSD	.1277927	.0442729	.4065089	.5503205	1.306510	8.201579
#1	.4056303	41.15677	.4581769	16.11413	.0508785	-.002267
#2	.4046329	41.19255	.4544670	15.99047	.0511074	-.002383
#3	.4048914	41.18075	.4563553	16.16207	.0498648	-.002025

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	220.1122	.0938048	10.26859	17.04158	.1376702	.0092090
Stddev	1.2426	.0021341	.02093	.06392	.0004599	.0002967
%RSD	.5645521	2.275067	.2038579	.3750955	.3340339	3.222126
#1	219.7281	.0955742	10.29160	16.96834	.1381938	.0095273
#2	219.1070	.0914347	10.26349	17.08616	.1373316	.0089400
#3	221.5016	.0944054	10.25067	17.07023	.1374854	.0091597

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5386-05 Acquired: 12/30/2024 18:07:04 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0039197	.8505450	F 50.47197	1.431777	F 16.13247	.0142909
Stddev	.0012948	.0008172	.18021	.005983	.03533	.0006717
%RSD	33.03278	.0960751	.3570464	.4178646	.2189809	4.699984
#1	.0033924	.8502261	50.27998	1.438328	16.16132	.0146046
#2	.0053950	.8499354	50.49848	1.430402	16.14303	.0147484
#3	.0029718	.8514736	50.63746	1.426602	16.09307	.0135198

Elem	Sr4077
Units	ppm
Avg	.3830423
Stddev	.0007213
%RSD	.1883126
#1	.3835504
#2	.3822167
#3	.3833599

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2449.207	54348.89	11948.77	1810.895	3490.038
Stddev	3.448	85.51	51.73	5.059	12.581
%RSD	.1407627	.1573328	.4328916	.2793909	.3604801
#1	2447.191	54355.60	11889.04	1806.809	3479.944
#2	2447.242	54260.23	11978.49	1809.321	3486.037
#3	2453.188	54430.85	11978.78	1816.554	3504.133

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165879BL Acquired: 12/30/2024 18:11:24 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0003396	-.002551	.0000029	.0013608	-.000135	-.004272	.0027782
Stddev	.0015802	.000900	.0002490	.0013562	.000825	.005190	.0008854
%RSD	465.2933	35.28605	8610.019	99.66355	609.6013	121.4809	31.86871
#1	.0003828	-.002162	-.000061	-.000139	-.000198	-.004733	.0035892
#2	-.001262	-.001911	-.000208	.002500	.000719	.001133	.0029119
#3	.001898	-.003581	.000278	.001721	-.000928	-.009215	.0018336

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000163	.0000379	.0055248	-.000240	-.000154	-.000395	-.000230
Stddev	.0000079	.0000539	.0041736	.000177	.000057	.000285	.001457
%RSD	48.75640	142.1142	75.54285	73.73505	36.71595	72.25784	634.4759
#1	.0000100	.0000004	.0077960	-.000284	-.000201	-.000123	-.001047
#2	.0000136	.0000137	.0080703	-.000392	-.000091	-.000692	.001452
#3	.0000252	.0000997	.0007082	-.000045	-.000170	-.000370	-.001094

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001109	-.003252	-.000122	.0005914	.0496743	.0008793	.0002739
Stddev	.000209	.009862	.000313	.0004357	.0024274	.0004114	.0003640
%RSD	18.87308	303.2837	255.2975	73.68014	4.886583	46.78925	132.8849
#1	-.000941	-.014252	.000158	.0002555	.0475422	.0005869	.0005948
#2	-.001343	.004801	-.000065	.0004349	.0491646	.0013497	-.000122
#3	-.001043	-.000305	-.000460	.0010837	.0523160	.0007012	.000348

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0531302	-.004583	-.000178	.0033665	.0002959	-.008346	-.004678
Stddev	.0173242	.000421	.000230	.0001999	.0005173	.004191	.002358
%RSD	32.60709	9.178118	129.2334	5.936267	174.7837	50.21985	50.40888
#1	.0331290	-.004129	.000077	.0034507	-.000266	-.006267	-.004012
#2	.0628277	-.004959	-.000369	.0035105	.000401	-.013171	-.007298
#3	.0634338	-.004663	-.000242	.0031384	.000753	-.005601	-.002725

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165879BL Acquired: 12/30/2024 18:11:24 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0034008	.0008298	-.000072
Stddev	.0033453	.0008731	.000038
%RSD	98.36885	105.2140	52.19848
#1	.0052649	.0017979	-.000075
#2	-.000461	.0005891	-.000033
#3	.005399	.0001023	-.000109

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2618.295	58854.12	11878.10	2001.634	3825.186
Stddev	40.452	216.29	92.03	14.078	67.324
%RSD	1.544990	.3675083	.7747523	.7033397	1.760006
#1	2650.480	58990.83	11830.74	2015.224	3879.173
#2	2572.886	58966.78	11819.40	2002.565	3749.752
#3	2631.521	58604.75	11984.16	1987.114	3846.633

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165879BS Acquired: 12/30/2024 18:15:45 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7799204	1.898094	.9575557	1.997041	.7804548	1.801329
Stddev	.0018983	.014557	.0023031	.012675	.0029980	.002708
%RSD	.2433931	.7669483	.2405141	.6346932	.3841295	.1503413
#1	.7777308	1.884278	.9565535	1.982785	.7772556	1.802138
#2	.7809269	1.913294	.9601901	2.007039	.7831996	1.803540
#3	.7811033	1.896711	.9559236	2.001299	.7809092	1.798308

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1727059	.2035246	.2019066	.9588999	.4000191	.1935140
Stddev	.0005222	.0002314	.0002391	.0090179	.0012074	.0003032
%RSD	.3023778	.1137119	.1184230	.9404398	.3018320	.1566803
#1	.1725456	.2034169	.2017701	.9486421	.4011400	.1932945
#2	.1722826	.2033666	.2021827	.9624777	.4001766	.1938600
#3	.1732895	.2037902	.2017670	.9655798	.3987407	.1933876

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2908846	2.784898	.1833534	2.055476	.4885765	.0751052
Stddev	.0003447	.012319	.0006726	.019793	.0008405	.0004150
%RSD	.1184970	.4423559	.3668322	.9629353	.1720229	.5525525
#1	.2909475	2.773389	.1825860	2.046598	.4879620	.0746642
#2	.2911935	2.797893	.1836333	2.041677	.4895343	.0754880
#3	.2905128	2.783411	.1838408	2.078154	.4882333	.0751636

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.716105	.2772319	.1949589	8.777253	.2846625	.3812877
Stddev	.011607	.0018703	.0009912	.034356	.0006394	.0003516
%RSD	.4273359	.6746160	.5084150	.3914211	.2246021	.0922103
#1	2.720451	.2752274	.1955574	8.775178	.2850841	.3810177
#2	2.724912	.2789300	.1938148	8.812599	.2839268	.3816852
#3	2.702952	.2775383	.1955045	8.743981	.2849764	.3811600

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165879BS Acquired: 12/30/2024 18:15:45 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6775355	.1807680	F .6908495	5.870325	F -.007857	.1832137
Stddev	.0034202	.0001894	.0107489	.014981	.002681	.0013782
%RSD	.5047984	.1047940	1.555895	.2551968	34.11976	.7522565
#1	.6735969	.1808941	.6949209	5.859857	-.005019	.1831349
#2	.6797555	.1805501	.6786597	5.887486	-.010347	.1846297
#3	.6792542	.1808596	.6989680	5.863632	-.008205	.1818766

Elem	Sr4077
Units	ppm
Avg	.1774146
Stddev	.0007467
%RSD	.4208544
#1	.1765865
#2	.1776206
#3	.1780366

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2581.304	57833.86	11321.50	1952.999	3781.284
Stddev	5.148	130.62	18.83	2.670	8.677
%RSD	.1994276	.2258458	.1663208	.1367328	.2294637
#1	2586.761	57752.62	11321.20	1949.915	3790.107
#2	2576.534	57764.43	11340.48	1954.540	3772.762
#3	2580.617	57984.53	11302.82	1954.540	3780.984

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5390-01 Acquired: 12/30/2024 18:19:45 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0330687	-.005663	.3011406	-.052788	-.007540	94.27232	.4386352
Stddev	.0022662	.001913	.0011019	.004095	.001045	2.43599	.0123933
%RSD	6.853011	33.77945	.3659086	7.756764	13.86447	2.583989	2.825415
#1	.0332395	-.004197	.3024049	-.056281	-.007941	92.70803	.4306071
#2	.0307220	-.007827	.3006325	-.048282	-.008326	93.02991	.4323898
#3	.0352447	-.004965	.3003844	-.053801	-.006354	97.07900	.4529086

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065656	-.005730	43.09248	.1877297	.0944509	.2846227	195.9345
Stddev	.0001931	.000267	1.22939	.0026513	.0002131	.0020806	1.6877
%RSD	2.940343	4.652490	2.852907	1.412296	.2256018	.7309944	.8613641
#1	.0065754	-.005603	42.32678	.1884532	.0942072	.2853944	194.9296
#2	.0063678	-.006037	42.44011	.1899442	.0946020	.2822666	197.8830
#3	.0067535	-.005551	44.51055	.1847918	.0945436	.2862072	194.9910

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.551284	34.34264	.1614812	-.016070	8.608041	.3064578	.4719050
Stddev	.101876	.94444	.0006660	.000508	.102066	.0085522	.0080800
%RSD	2.868717	2.750038	.4124316	3.159013	1.185703	2.790654	1.712216
#1	3.486549	33.80057	.1607869	-.016107	8.571001	.3044252	.4742069
#2	3.498589	33.79418	.1615420	-.016557	8.723455	.2991051	.4785843
#3	3.668715	35.43318	.1621148	-.015544	8.529667	.3158432	.4629238

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.285435	.1207318	.0055610	.0135499	3.347593	5.335835	5.161034
Stddev	.033051	.0040958	.0002009	.0004672	.091611	.063537	.022518
%RSD	.4536585	3.392434	3.611911	3.447918	2.736620	1.190765	.4363031
#1	7.260859	.1207745	.0055220	.0134574	3.284442	5.287100	5.185035
#2	7.323009	.1248061	.0053825	.0140564	3.305672	5.407697	5.157695
#3	7.272437	.1166149	.0057785	.0131359	3.452663	5.312709	5.140373

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5390-01 Acquired: 12/30/2024 18:19:45 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.056164	.0773159	-.053567
Stddev	.003463	.0024480	.004974
%RSD	.1133266	3.166297	9.286124
#1	3.057136	.0757346	-.055365
#2	3.059039	.0760775	-.057392
#3	3.052319	.0801358	-.047944

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2879.080	62896.94	13007.55	2122.197	3709.792
Stddev	2.140	697.96	297.99	27.439	4.194
%RSD	.0743245	1.109694	2.290932	1.292936	.1130630
#1	2881.516	62792.71	13153.09	2109.982	3712.999
#2	2878.219	62256.95	13204.81	2102.986	3711.331
#3	2877.504	63641.16	12664.76	2153.621	3705.045

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01 Acquired: 12/30/2024 18:23:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0328270	.0084962	.1238376	-.029125	-.000567	40.80280
Stddev	.0010722	.0035079	.0017138	.001667	.001394	.20871
%RSD	3.266133	41.28836	1.383885	5.723357	245.7345	.5115149
#1	.0320731	.0111053	.1229062	-.031002	.000116	40.64730
#2	.0323534	.0045084	.1227913	-.028553	-.002171	40.72110
#3	.0340544	.0098750	.1258154	-.027819	.000353	41.04001

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3061303	.0048894	-.000624	616.7305	.1411477	.0603129
Stddev	.0013849	.0000919	.000179	3.3980	.0009556	.0001969
%RSD	.4523967	1.880375	28.72685	.5509731	.6769898	.3265093
#1	.3053297	.0049271	-.000528	616.0742	.1405676	.0601112
#2	.3053318	.0047846	-.000831	613.7085	.1422506	.0603228
#3	.3077295	.0049564	-.000513	620.4088	.1406250	.0605047

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3002662	128.3915	1.517918	415.2796	.1106152	-.009677
Stddev	.0005083	.1843	.011571	2.4937	.0010669	.000158
%RSD	.1692778	.1435633	.7623207	.6004927	.9645301	1.632350
#1	.3000596	128.1833	1.512956	414.4207	.1107440	-.009582
#2	.2998938	128.5341	1.509655	413.3289	.1094896	-.009590
#3	.3008453	128.4569	1.531143	418.0893	.1116118	-.009859

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.495385	.2455978	.2720629	7.104228	.5372261	.0044661
Stddev	.012975	.0036770	.0017520	.030755	.0029601	.0000822
%RSD	.3711954	1.497153	.6439780	.4329156	.5509970	1.840147
#1	3.484081	.2456745	.2700400	7.087922	.5345091	.0045366
#2	3.509552	.2418831	.2730972	7.139703	.5367887	.0043758
#3	3.492520	.2492359	.2730514	7.085060	.5403806	.0044858

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01 Acquired: 12/30/2024 18:23:49 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001585	2.862920	5.828601	2.692536	F 10.38829	-.031007
Stddev	.000691	.021228	.040208	.021292	.03750	.000325
%RSD	43.58364	.7414786	.6898434	.7907828	.3609376	1.047895
#1	-.002306	2.850632	5.782224	2.669475	10.38164	-.031169
#2	-.001520	2.850696	5.853679	2.696681	10.35457	-.030633
#3	-.000929	2.887431	5.849901	2.711450	10.42867	-.031219

Elem	Sr4077
Units	ppm
Avg	.2453837
Stddev	.0016352
%RSD	.6664007
#1	.2444994
#2	.2443810
#3	.2472707

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2297.892	52282.34	11869.35	1745.646	3110.181
Stddev	4.439	124.01	91.02	5.146	8.278
%RSD	.1931622	.2371955	.7668276	.2947714	.2661503
#1	2297.260	52425.46	11920.24	1751.202	3110.670
#2	2302.612	52206.92	11923.53	1741.045	3118.203
#3	2293.803	52214.63	11764.27	1744.692	3101.669

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01DUP Acquired: 12/30/2024 18:28:02 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0235848	-.009252	.1132452	-.045758	.0045426	40.96234	.3096090
Stddev	.0035489	.000795	.0017175	.006506	.0003457	.36436	.0021060
%RSD	15.04744	8.588480	1.516602	14.21942	7.610962	.8894922	.6802297
#1	.0200274	-.009379	.1114626	-.038537	.0041485	41.33527	.3114390
#2	.0271252	-.008401	.1148891	-.051164	.0047949	40.60721	.3073070
#3	.0236017	-.009975	.1133841	-.047572	.0046843	40.94455	.3100810

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034680	-.002105	617.0111	.1356243	.0578281	.2942747	122.6235
Stddev	.0000220	.000384	6.6653	.0023894	.0004569	.0041983	2.0889
%RSD	.6352861	18.26247	1.080263	1.761750	.7901159	1.426662	1.703537
#1	.0034699	-.002298	624.6750	.1364681	.0573349	.2919164	123.2151
#2	.0034451	-.001662	612.5660	.1329275	.0582370	.2991219	120.3026
#3	.0034891	-.002355	613.7925	.1374772	.0579124	.2917859	124.3528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.555003	410.1556	.1044046	-.011162	3.177029	.2441824	.2209475
Stddev	.007540	4.3931	.0007215	.000340	.059928	.0028373	.0059007
%RSD	.4848931	1.071092	.6910600	3.048369	1.886276	1.161957	2.670649
#1	1.559960	415.0266	.1037139	-.011460	3.204232	.2443586	.2218197
#2	1.546326	406.4934	.1051534	-.011235	3.108325	.2412612	.2146592
#3	1.558723	408.9468	.1043464	-.010791	3.218531	.2469276	.2263636

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.581469	.5461368	.0067599	.0022485	2.910996	6.171000	2.563843
Stddev	.142549	.0056472	.0003515	.0005605	.018723	.158064	.018147
%RSD	2.165920	1.034028	5.200264	24.92855	.6431944	2.561402	.7077939
#1	6.555844	.5471105	.0068151	.0024224	2.923126	6.195888	2.545181
#2	6.453470	.5400661	.0063841	.0027016	2.889432	6.001968	2.581427
#3	6.735093	.5512339	.0070806	.0016217	2.920430	6.315143	2.564921

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01DUP Acquired: 12/30/2024 18:28:02 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	9.821923	-.031904	.2507008
Stddev	.059194	.000963	.0012156
%RSD	.6026683	3.017850	.4848914
#1	9.761076	-.032543	.2519764
#2	9.879311	-.032373	.2505704
#3	9.825383	-.030797	.2495556

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2384.925	54294.38	11507.57	1834.874	3207.992
Stddev	10.183	999.27	74.65	29.881	17.437
%RSD	.4269877	1.840468	.6487101	1.628521	.5435383
#1	2391.780	53957.01	11438.65	1825.450	3224.091
#2	2373.223	55418.67	11586.87	1868.331	3189.471
#3	2389.770	53507.46	11497.21	1810.841	3210.415

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01LX5 Acquired: 12/30/2024 18:32:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0065762	-.000888	.0237109	-.009553	-.003447	8.276173	.0645088
Stddev	.0015624	.002754	.0005506	.003507	.000514	.013584	.0002756
%RSD	23.75864	310.2322	2.322211	36.70774	14.91945	.1641297	.4272008
#1	.0083582	-.002613	.0231189	-.011360	-.003974	8.265546	.0648054
#2	.0054413	.002288	.0238061	-.005511	-.003421	8.291478	.0642607
#3	.0059290	-.002338	.0242077	-.011788	-.002947	8.271497	.0644603

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007668	-.000663	129.8904	.0281596	.0113659	.0629045	25.14031
Stddev	.0000180	.000162	.2183	.0002993	.0001964	.0007102	.11678
%RSD	2.348357	24.38903	.1680548	1.063025	1.728317	1.129034	.4645076
#1	.0007747	-.000850	129.7727	.0278180	.0113460	.0622511	25.01490
#2	.0007462	-.000566	130.1423	.0283759	.0115715	.0628021	25.24592
#3	.0007795	-.000574	129.7563	.0282849	.0111801	.0636604	25.16011

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3284470	83.07498	.0210402	-.002030	.6311216	.0516018	.0480597
Stddev	.0005037	.23865	.0001958	.000369	.0104232	.0013009	.0003997
%RSD	.1533591	.2872697	.9305684	18.15758	1.651534	2.520989	.8317374
#1	.3281894	82.79947	.0210397	-.001992	.6204667	.0530812	.0476152
#2	.3281243	83.21772	.0208447	-.001682	.6412965	.0510874	.0483896
#3	.3290274	83.20775	.0212363	-.002416	.6316015	.0506367	.0481744

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.228656	.1125042	.0009490	-.000254	.6043012	1.145236	.4927514
Stddev	.019038	.0006932	.0002264	.000488	.0025688	.020340	.0071520
%RSD	1.549500	.6161137	23.85271	191.9973	.4250880	1.776021	1.451449
#1	1.206690	.1132743	.0009042	-.000808	.6064110	1.163385	.4861806
#2	1.238884	.1123080	.0007484	.000113	.6014407	1.123252	.4917043
#3	1.240394	.1119303	.0011944	-.000068	.6050520	1.149072	.5003693

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01LX5 Acquired: 12/30/2024 18:32:18 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	1.879774	-.008254	.0504288
Stddev	.019375	.000760	.0003192
%RSD	1.030721	9.202870	.6328978
#1	1.862426	-.008514	.0506943
#2	1.876214	-.008849	.0505173
#3	1.900682	-.007398	.0500747

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2509.557	57036.34	11630.37	1922.538	3583.467
Stddev	16.784	272.78	1.96	14.837	23.136
%RSD	.6688131	.4782538	.0168264	.7717310	.6456349
#1	2520.680	57265.71	11630.84	1939.500	3603.169
#2	2517.740	56734.71	11632.04	1911.974	3589.241
#3	2490.251	57108.61	11628.22	1916.140	3557.990

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01MS Acquired: 12/30/2024 18:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7655655	1.809255	1.066350	1.743469	.5595436	41.89808	.4268390
Stddev	.0059329	.018339	.007611	.014961	.0037846	.47607	.0052566
%RSD	.7749671	1.013645	.7137700	.8581051	.6763722	1.136260	1.231521
#1	.7597424	1.788505	1.058246	1.728288	.5566157	42.05299	.4288564
#2	.7653518	1.815965	1.067457	1.743921	.5581979	41.36385	.4208725
#3	.7716024	1.823294	1.073347	1.758199	.5638171	42.27741	.4307880

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1970653	.1966719	843.1857	.5049692	.2378876	.4486325	105.8753
Stddev	.0028628	.0016146	8.6502	.0092800	.0021399	.0043228	2.1637
%RSD	1.452726	.8209794	1.025895	1.837744	.8995217	.9635441	2.043623
#1	.1987376	.1950025	851.3296	.5156776	.2356252	.4450746	108.3539
#2	.1937596	.1967877	834.1054	.4992722	.2381586	.4473795	104.9077
#3	.1986985	.1982256	844.1220	.4999579	.2398791	.4534433	104.3642

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.597588	565.9239	.5698999	.0723085	6.520738	.4597331	.4229048
Stddev	.020811	7.7011	.0032603	.0011939	.120534	.0052405	.0076431
%RSD	1.302662	1.360808	.5720812	1.651079	1.848470	1.139909	1.807279
#1	1.609770	568.9160	.5669684	.0736703	6.656381	.4629199	.4317203
#2	1.573558	557.1758	.5693201	.0714421	6.479918	.4536848	.4188589
#3	1.609437	571.6801	.5734112	.0718131	6.425915	.4625946	.4181351

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.77475	.4214172	.4048765	.7365734	2.359149	6.681430	8.616794
Stddev	.34490	.0043099	.0025234	.0057748	.021271	.140285	.053603
%RSD	2.056085	1.022712	.6232620	.7840045	.9016564	2.099630	.6220800
#1	17.16879	.4246644	.4027674	.7319165	2.368398	6.832835	8.554925
#2	16.62777	.4165276	.4041900	.7347686	2.334819	6.655603	8.646122
#3	16.52768	.4230597	.4076722	.7430350	2.374231	6.555853	8.649333

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01MS Acquired: 12/30/2024 18:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.845734	.1362342	.5122045
Stddev	.032912	.0024276	.0076707
%RSD	.8558144	1.781919	1.497589
#1	3.813807	.1357129	.5126940
#2	3.843846	.1341097	.5043008
#3	3.879550	.1388801	.5196188

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2302.377	50676.23	11195.55	1686.182	3101.223
Stddev	8.880	951.49	138.55	29.325	14.833
%RSD	.3857046	1.877596	1.237576	1.739140	.4783062
#1	2309.180	49604.59	11130.62	1653.259	3114.607
#2	2305.621	51002.19	11354.64	1695.786	3103.788
#3	2292.331	51421.90	11101.38	1709.500	3085.275

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01MSD Acquired: 12/30/2024 18:40:40 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7888042	1.878952	1.101479	1.814914	.5822681	42.22480	.4212782
Stddev	.0029628	.013805	.003743	.009860	.0038946	.14157	.0019854
%RSD	.3756126	.7347439	.3397990	.5432806	.6688755	.3352651	.4712889
#1	.7869837	1.875317	1.097422	1.803529	.5784633	42.29013	.4223025
#2	.7922230	1.867328	1.102216	1.820622	.5862468	42.32190	.4225423
#3	.7872059	1.894212	1.104798	1.820592	.5820943	42.06236	.4189898

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1996300	.2040782	841.6104	.4919024	.2445552	.4675952	100.6094
Stddev	.0002413	.0004388	8.4239	.0207760	.0011817	.0010987	3.7517
%RSD	.1208916	.2149978	1.000930	4.223592	.4832001	.2349578	3.728996
#1	.1995482	.2035757	851.1205	.4680123	.2432045	.4679985	96.2839
#2	.1999016	.2043854	838.6249	.5019531	.2453983	.4684352	102.5655
#3	.1994401	.2042735	835.0858	.5057417	.2450628	.4663519	102.9788

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.592881	567.2070	.5857278	.0700563	6.109067	.4591498	.3803932
Stddev	.008946	2.5678	.0036726	.0022063	.236668	.0008768	.0143609
%RSD	.5616244	.4527035	.6270061	3.149295	3.874037	.1909706	3.775276
#1	1.601301	569.7592	.5814877	.0675133	5.835910	.4600583	.3640434
#2	1.593854	567.2380	.5879068	.0714598	6.238544	.4590825	.3861706
#3	1.583488	564.6239	.5877890	.0711959	6.252748	.4583085	.3909656

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.97169	.4204894	.4203606	.7626726	2.374682	7.366118	8.876058
Stddev	.66427	.0039478	.0017844	.0042002	.007719	.308271	.035807
%RSD	4.159045	.9388626	.4245019	.5507194	.3250493	4.184988	.4034128
#1	15.20566	.4159400	.4183002	.7587385	2.380819	7.012856	8.839654
#2	16.32075	.4230140	.4214126	.7670960	2.366016	7.504856	8.877282
#3	16.38865	.4225143	.4213688	.7621833	2.377210	7.580641	8.911237

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01MSD Acquired: 12/30/2024 18:40:40 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.931341	.1373336	.5109873
Stddev	.014972	.0019247	.0045957
%RSD	.3808357	1.401470	.8993727
#1	3.914598	.1351115	.5153871
#2	3.935980	.1384748	.5113568
#3	3.943444	.1384146	.5062180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2244.109	52382.56	10992.19	1738.756	3019.142
Stddev	7.514	1871.57	66.12	61.675	8.652
%RSD	.3348133	3.572885	.6015556	3.547081	.2865728
#1	2252.318	54535.93	10918.75	1809.488	3029.114
#2	2237.572	51464.05	11010.82	1710.570	3013.622
#3	2242.439	51147.70	11047.00	1696.209	3014.691

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV06 Acquired: 12/30/2024 18:44:47 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.710783	4.788569	4.841950	4.914057	4.900100	9.556378	9.137817
Stddev	.019978	.025426	.023655	.033143	.026538	.034034	.092829
%RSD	.4240839	.5309714	.4885456	.6744475	.5415851	.3561395	1.015882
#1	4.733293	4.794704	4.867985	4.952275	4.930685	9.523597	9.030776
#2	4.695161	4.760637	4.821777	4.896678	4.883176	9.553998	9.196235
#3	4.703895	4.810366	4.836089	4.893219	4.886437	9.591540	9.186440

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2627621	2.493757	24.67523	.9960881	2.409774	1.181529	4.670015
Stddev	.0019891	.013641	.03450	.0065205	.015318	.007634	.045769
%RSD	.7570111	.5470056	.1398353	.6546073	.6356534	.6461466	.9800608
#1	.2650037	2.508896	24.63567	.9990290	2.426396	1.190254	4.627503
#2	.2620749	2.482422	24.69092	.9886151	2.396226	1.176075	4.664080
#3	.2612077	2.489953	24.69910	1.000620	2.406699	1.178258	4.718462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.379395	26.06543	2.412076	1.221987	22.73210	2.407063	2.403925
Stddev	.003747	.02804	.014130	.007697	.12125	.005744	.013857
%RSD	.1574806	.1075802	.5858072	.6298578	.5334066	.2386357	.5764265
#1	2.377548	26.04066	2.427829	1.226162	22.63618	2.400436	2.408931
#2	2.376930	26.05976	2.400519	1.213105	22.69174	2.410614	2.388261
#3	2.383707	26.09588	2.407881	1.226695	22.86839	2.410139	2.414583

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.81913	5.084730	4.763840	4.850021	4.738366	4.673631	4.880681
Stddev	.11544	.043783	.022008	.032877	.006759	.048488	.030011
%RSD	.5058806	.8610627	.4619755	.6778815	.1426501	1.037475	.6149027
#1	22.74042	5.134803	4.789031	4.884777	4.730596	4.628062	4.912511
#2	22.76531	5.065731	4.748349	4.819417	4.742886	4.668243	4.852898
#3	22.95164	5.053656	4.754139	4.845869	4.741617	4.724587	4.876635

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV06 Acquired: 12/30/2024 18:44:47 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	4.669376	4.649217	4.746534
Stddev	.029209	.006953	.024361
%RSD	.6255527	.1495564	.5132346
#1	4.700123	4.642406	4.771022
#2	4.641996	4.656304	4.746277
#3	4.666011	4.648941	4.722303

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2587.988	56441.22	10846.91	1915.319	3735.423
Stddev	14.683	285.01	48.27	13.530	21.930
%RSD	.5673615	.5049621	.4450255	.7064093	.5870732
#1	2571.257	56376.50	10792.05	1912.503	3710.180
#2	2593.976	56753.02	10865.78	1930.035	3749.783
#3	2598.731	56194.14	10882.89	1903.418	3746.305

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB06 Acquired: 12/30/2024 18:48:58 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000047	.0002997	-.000224	-.000200	-.001150	-.004065	.0019180
Stddev	.000752	.0004298	.000949	.002958	.000414	.005104	.0007675
%RSD	1599.004	143.4121	422.8881	1481.161	36.01623	125.5639	40.01710
#1	-.000846	.0001568	.000652	.001569	-.001602	-.005433	.0015196
#2	.000647	.0007826	-.000093	-.003615	-.001061	-.008345	.0014316
#3	.000058	-.000040	-.001232	.001446	-.000788	.001584	.0028028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000010	.0001513	.0031082	-.000296	-.000141	-.000451	-.000776
Stddev	.0000470	.0000795	.0022184	.000322	.000152	.000371	.002541
%RSD	4710.083	52.49450	71.37186	108.9057	107.7363	82.22145	327.5177
#1	.0000052	.0001876	.0010336	.000037	-.000234	-.000052	-.003231
#2	.0000458	.0000602	.0054468	-.000319	.000034	-.000786	.001844
#3	-.000048	.0002062	.0028443	-.000605	-.000223	-.000515	-.000941

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000957	.0059084	.0001670	.0003509	.0326224	-.000458	-.000183
Stddev	.000052	.0255582	.0003143	.0002477	.0092304	.001229	.000156
%RSD	5.485914	432.5705	188.2173	70.56897	28.29483	268.3805	85.17018
#1	-.000918	.0096536	-.000102	.0006319	.0222296	.000770	-.000003
#2	-.000935	-.021316	.000091	.0002568	.0357711	-.000456	-.000266
#3	-.001017	.029387	.000512	.0001642	.0398665	-.001688	-.000280

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082294	.0002802	-.000120	.0031915	.0004286	-.001913	-.002526
Stddev	.0042332	.0003926	.000183	.0002463	.0003128	.005126	.002087
%RSD	51.43985	140.1070	152.4153	7.717603	72.98782	268.0434	82.62862
#1	.0035411	.0006673	-.000162	.0034191	.0003370	-.006804	-.000251
#2	.0093757	-.000118	.000080	.0032254	.0001718	-.002353	-.004352
#3	.0117715	.000291	-.000277	.0029300	.0007771	.003420	-.002975

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB06 Acquired: 12/30/2024 18:48:58 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.001849	.0001207	.0000536
Stddev	.001250	.0006401	.0000037
%RSD	67.63702	530.2692	6.844073
#1	-.002593	-.000307	.0000576
#2	-.000405	-.000187	.0000529
#3	-.002548	.000857	.0000504

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2647.444	58775.22	11651.87	2012.338	3879.590
Stddev	14.908	637.91	494.75	15.569	16.835
%RSD	.5631197	1.085336	4.246072	.7736597	.4339281
#1	2633.642	58351.68	11885.22	2002.419	3863.983
#2	2663.255	58465.07	11986.78	2004.313	3897.430
#3	2645.435	59508.89	11083.60	2030.282	3877.356

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01A Acquired: 12/30/2024 18:53:19 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7787621	1.828235	1.080123	1.787539	.5802375	43.14272	.4341086
Stddev	.0081698	.012862	.005504	.015766	.0014657	.33036	.0040400
%RSD	1.049078	.7035097	.5095802	.8819710	.2525971	.7657277	.9306429
#1	.7866196	1.842913	1.086419	1.805460	.5815495	42.94459	.4321992
#2	.7793544	1.818934	1.077725	1.775805	.5805072	42.95949	.4313772
#3	.7703122	1.822858	1.076224	1.781354	.5786556	43.52409	.4387494

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1955284	.1991481	842.0055	.5079675	.2405003	.4547716	106.5656
Stddev	.0017908	.0012168	6.0000	.0015876	.0014306	.0023373	.9263
%RSD	.9158805	.6109902	.7125855	.3125296	.5948433	.5139574	.8691935
#1	.1948628	.2004296	836.5460	.5098006	.2421398	.4568040	106.6651
#2	.1941657	.1990060	841.0412	.5070410	.2398554	.4552933	105.5936
#3	.1975567	.1980086	848.4292	.5070609	.2395057	.4522175	107.4380

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.595451	567.6117	.5755175	.0725803	6.551314	.4637080	.3954707
Stddev	.019536	6.3900	.0032650	.0000915	.018612	.0039078	.0018489
%RSD	1.224472	1.125769	.5673126	.1260551	.2840934	.8427336	.4675081
#1	1.587111	566.2229	.5792812	.0725162	6.572789	.4644020	.3972797
#2	1.581470	562.0304	.5738261	.0725397	6.539862	.4594997	.3935844
#3	1.617773	574.5820	.5734452	.0726851	6.541291	.4672224	.3955481

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.28615	.4268848	.4140974	.7473004	2.459242	9.322169	8.662493
Stddev	.00853	.0030276	.0023551	.0060310	.014211	.059638	.033140
%RSD	.0493689	.7092316	.5687402	.8070436	.5778789	.6397421	.3825691
#1	17.29537	.4250478	.4168118	.7542598	2.446549	9.360957	8.699107
#2	17.27853	.4252274	.4128833	.7436006	2.456582	9.352052	8.634551
#3	17.28454	.4303793	.4125970	.7440408	2.474596	9.253497	8.653820

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: P5391-01A Acquired: 12/30/2024 18:53:19 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.856910	.1394211	.5175495
Stddev	.024305	.0006058	.0047395
%RSD	.6301748	.4345286	.9157545
#1	3.874216	.1387327	.5149509
#2	3.867391	.1396574	.5146777
#3	3.829122	.1398732	.5230199

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2283.162	51038.10	11345.10	1693.624	3078.675
Stddev	10.434	218.05	94.88	10.964	14.502
%RSD	.4569881	.4272342	.8363144	.6473897	.4710368
#1	2273.474	50860.30	11380.04	1682.050	3063.109
#2	2281.805	51281.39	11417.55	1703.855	3081.115
#3	2294.209	50972.62	11237.70	1694.968	3091.803

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: PB165917BL Acquired: 12/30/2024 18:57:26 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.0004110	-.000685	.0002209	-.001281	.0003594	.0054188	.0016045
Stddev	.0004369	.001185	.0008779	.004206	.0003872	.0077436	.0003910
%RSD	106.3189	173.1656	397.3596	328.2729	107.7471	142.9022	24.36691
#1	.0004152	-.001869	.0011216	-.002790	.0001347	.0129303	.0018290
#2	.0008458	.000501	.0001735	-.004524	.0001370	.0058636	.0011531
#3	-.000028	-.000686	-.000632	.003471	.0008065	-.002538	.0018315

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000633	.0001031	.0639404	-.000200	-.000152	-.000557	.0092275
Stddev	.0000367	.0001128	.0104417	.000269	.000091	.000035	.0041125
%RSD	58.00097	109.3558	16.33037	134.7327	60.03375	6.362680	44.56840
#1	.0000281	.0001758	.0712405	-.000165	-.000229	-.000567	.0129839
#2	.0000605	.0001602	.0686005	-.000485	-.000051	-.000585	.0098653
#3	.0001013	-.000027	.0519801	.000050	-.000174	-.000517	.0048333

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001021	.0415367	-.000272	.0003032	.0283787	.0002972	-.000617
Stddev	.000102	.0118942	.000216	.0002131	.0081600	.0008361	.000174
%RSD	10.02040	28.63548	79.36006	70.30079	28.75397	281.3518	28.19889
#1	-.000903	.0459323	-.000522	.0000605	.0197506	-.000475	-.000420
#2	-.001085	.0506075	-.000154	.0004601	.0294137	.001185	-.000678
#3	-.001075	.0280703	-.000141	.0003888	.0359718	.000181	-.000752

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005667	-.002780	.0001354	.0026323	.0002783	-.000271	-.003114
Stddev	.017229	.000497	.0001459	.0008823	.0002081	.001468	.000839
%RSD	304.0467	17.88886	107.7374	33.51653	74.78903	540.8471	26.93739
#1	.011421	-.002230	.0002212	.0032673	.0003387	.000687	-.002195
#2	-.023034	-.002915	-.000033	.0030047	.0004496	-.001961	-.003839
#3	-.005388	-.003197	.000218	.0016249	.0000467	.000460	-.003309

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Sample Name: PB165917BL Acquired: 12/30/2024 18:57:26 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	-.000203	-.001099	-.000011
Stddev	.004382	.000704	.000035
%RSD	2155.551	64.03873	313.2318
#1	.002757	-.000560	-.000052
#2	-.005238	-.000842	.000013
#3	.001870	-.001896	.000005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2725.542	58100.23	11900.34	2012.073	4008.939
Stddev	18.929	1755.65	20.62	51.578	21.017
%RSD	.6944979	3.021768	.1732518	2.563414	.5242492
#1	2735.893	58701.96	11900.55	2032.888	4020.645
#2	2703.695	59475.90	11920.86	2049.990	3984.676
#3	2737.039	56122.83	11879.62	1953.340	4021.496

Reviewed By:mohan
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LB :LB134129

Sample Name: PB165917BS Acquired: 12/30/2024 19:01:46 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.7352600	1.837360	.9292905	1.844892	.7364457	1.740142
Stddev	.0045013	.010564	.0019581	.003738	.0011190	.024597
%RSD	.6122079	.5749311	.2107134	.2026361	.1519473	1.413490
#1	.7371816	1.835470	.9275883	1.841032	.7366666	1.712186
#2	.7301168	1.827869	.9288527	1.848495	.7352327	1.758461
#3	.7384817	1.848741	.9314305	1.845148	.7374378	1.749780

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1723711	.1948385	.1925698	.9459713	.3911236	.1877197
Stddev	.0019377	.0020337	.0003352	.0116997	.0002996	.0001616
%RSD	1.124141	1.043798	.1740821	1.236791	.0765973	.0860856
#1	.1701612	.1929462	.1922394	.9332071	.3914529	.1875877
#2	.1731726	.1945802	.1925604	.9561860	.3908671	.1876715
#3	.1737794	.1969890	.1929097	.9485208	.3910509	.1878999

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2807035	2.768061	.1809158	1.956148	.4718351	.0737736
Stddev	.0010649	.023509	.0028143	.020222	.0007125	.0003718
%RSD	.3793554	.8493072	1.555564	1.033761	.1510154	.5039956
#1	.2802172	2.745654	.1777314	1.932892	.4713337	.0735911
#2	.2799685	2.792536	.1819473	1.969599	.4715208	.0735282
#3	.2819246	2.765991	.1830688	1.965951	.4726507	.0742014

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.666941	.2716343	.1912221	8.634943	.2746554	.3752181
Stddev	.020233	.0034518	.0014598	.109517	.0038843	.0014477
%RSD	.7586669	1.270745	.7633944	1.268296	1.414261	.3858245
#1	2.645926	.2683132	.1927017	8.559634	.2712929	.3745087
#2	2.686289	.2713864	.1897829	8.760576	.2737660	.3742620
#3	2.668609	.2752034	.1911817	8.584618	.2789073	.3768837

Reviewed By:mohan
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Inst Id :P4
LB :LB134129

Sample Name: PB165917BS Acquired: 12/30/2024 19:01:46 Type: Unk
Method: NON EPA-6010-200.7(v2560) 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	.6547732	.1783421	F .6865686	5.481521	F -.011506	.1767649
Stddev	.0039823	.0026498	.0092099	.011451	.001482	.0023456
%RSD	.6082020	1.485802	1.341442	.2089089	12.87635	1.326943
#1	.6511395	.1752864	.6865328	5.480776	-.010886	.1743411
#2	.6541496	.1800065	.6957965	5.470460	-.010436	.1769299
#3	.6590306	.1797333	.6773767	5.493326	-.013197	.1790236

Elem	Sr4077
Units	ppm
Avg	.1749799
Stddev	.0023659
%RSD	1.352107
#1	.1722549
#2	.1761745
#3	.1765105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2705.399	58966.49	11748.45	2009.282	4011.447
Stddev	2.068	167.92	111.75	.739	2.430
%RSD	.0764522	.2847753	.9512196	.0367875	.0605670
#1	2703.105	59043.52	11867.29	2009.696	4009.314
#2	2707.122	58773.88	11732.59	2008.428	4010.935
#3	2705.970	59082.09	11645.48	2009.721	4014.091

Reviewed By:mohan
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Inst Id :P4
LB :LB134129

Sample Name: LR1 Acquired: 12/30/2024 19:14:45 Type: Unk
Method: NON EPA-6010-200.7(v2574) 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	.0271704	.0893001	.0766346	-.334365	-.015088	1850.438	.0122585
Stddev	.0049124	.0031605	.0047086	.003731	.004823	36.771	.0012408
%RSD	18.08001	3.539157	6.144193	1.115884	31.96802	1.987165	10.12203
#1	.0230784	.0923529	.0787743	-.334890	-.012798	1889.787	.0136912
#2	.0326184	.0860420	.0712361	-.337805	-.011836	1816.948	.0115554
#3	.0258145	.0895053	.0798934	-.330399	-.020629	1844.577	.0115290

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090523	.0015911	1544.526	-.001427	.0320321	-.054159	869.8611
Stddev	.0001103	.0008911	29.519	.000550	.0007547	.007416	8.1517
%RSD	1.218928	56.00334	1.911202	38.51549	2.356135	13.69324	.9371226
#1	.0091234	.0015615	1575.753	-.001656	.0328527	-.058103	876.7455
#2	.0091083	.0024966	1517.080	-.000800	.0313678	-.045604	860.8598
#3	.0089252	.0007152	1540.746	-.001824	.0318758	-.058770	871.9780

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.072476	1731.243	.0212984	-.139038	1721.712	.0751561	.1381946
Stddev	.001050	29.795	.0016273	.000414	24.026	.0036816	.0024381
%RSD	1.448409	1.721045	7.640379	.2977789	1.395444	4.898595	1.764238
#1	-.073227	1765.099	.0196231	-.139461	1745.577	.0788482	.1409571
#2	-.071276	1709.014	.0213992	-.139018	1697.529	.0714851	.1372829
#3	-.072924	1719.615	.0228730	-.138634	1722.029	.0751348	.1363436

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	755.9211	.3408368	-.004283	.0180901	-.036524	.1199628	.0897826
Stddev	3.6279	.0019582	.001822	.0026954	.001354	.0122268	.0017417
%RSD	.4799260	.5745413	42.55212	14.89965	3.706805	10.19215	1.939929
#1	759.6813	.3398474	-.002256	.0156869	-.037768	.1194879	.0881345
#2	752.4419	.3395706	-.005787	.0175790	-.035082	.1324202	.0896085
#3	755.6403	.3430923	-.004805	.0210045	-.036722	.1079804	.0916049

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: LR1 Acquired: 12/30/2024 19:14:45 Type: Unk
Method: NON EPA-6010-200.7(v2574) 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	-.182783	-.242678	-.859930
Stddev	.005218	.005273	.007964
%RSD	2.854694	2.172692	.9260873
#1	-.185518	-.248088	-.866706
#2	-.186064	-.237555	-.851158
#3	-.176766	-.242392	-.861926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1778.004	39035.21	9666.849	1269.914	2401.865
Stddev	5.434	264.22	151.044	15.448	7.789
%RSD	.3056047	.6768762	1.562490	1.216436	.3242747
#1	1771.759	38801.50	9531.860	1252.437	2392.961
#2	1781.649	39321.91	9829.987	1281.741	2407.413
#3	1780.604	38982.21	9638.701	1275.565	2405.220

Reviewed By:mohan
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Inst Id :P4
LB :LB134129

Sample Name: LR2 Acquired: 12/30/2024 19:19:42 Type: Unk
Method: NON EPA-6010-200.7(v2574) 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	.0149127	-.013319	172.0148	.0206058	.0042334	.0936310	^ *****
Stddev	.0022348	.000379	.3635	.0013967	.0013241	.0182076	-----
%RSD	14.98599	2.842073	.2113277	6.778304	31.27690	19.44615	-----
#1	.0126648	-.013348	171.7057	.0207927	.0048116	.1120883	80.05181
#2	.0149392	-.013683	171.9235	.0191251	.0051701	.0931211	79.88231
#3	.0171341	-.012927	172.4153	.0218997	.0027186	.0756838	^ -----

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002967	-.005555	.3760640	.0228959	-.009588	208.7597	.0405603
Stddev	.000039	.000155	.0040204	.0001583	.000146	.9314	.0123405
%RSD	1.328760	2.782210	1.069067	.6912057	1.526805	.4461585	30.42504
#1	-.002936	-.005376	.3806098	.0227769	-.009753	209.5731	.0525869
#2	-.002955	-.005638	.3746064	.0230755	-.009473	207.7437	.0411656
#3	-.003012	-.005649	.3729757	.0228354	-.009538	208.9622	.0279282

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.11156	.0159915	44.03210	.0019719	.3185573	-.014253	23.28787
Stddev	.05027	.0460564	.07716	.0004965	.0145208	.000158	.05723
%RSD	.1285293	288.0052	.1752471	25.17941	4.558309	1.109031	.2457436
#1	39.06545	.0564166	43.97415	.0021328	.3351285	-.014301	23.30112
#2	39.16515	.0257048	44.00245	.0014149	.3124858	-.014077	23.22518
#3	39.10408	-.034147	44.11969	.0023680	.3080577	-.014382	23.33731

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.036824	-.004884	-.005347	-.001678	-.033783	-.007666	3.774664
Stddev	.024091	.000326	.000502	.000428	.000618	.009341	.027990
%RSD	65.42261	6.672509	9.395561	25.52388	1.830546	121.8477	.7415263
#1	-.009149	-.004950	-.004786	-.001424	-.033125	.001472	3.759405
#2	-.048219	-.005172	-.005756	-.001437	-.033871	-.007273	3.757620
#3	-.053104	-.004530	-.005500	-.002173	-.034352	-.017198	3.806968

Reviewed By:mohan
On:12/31/2024
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Inst Id :P4
LB :LB134129

Sample Name: LR2 Acquired: 12/30/2024 19:19:42 Type: Unk
Method: NON EPA-6010-200.7(v2574) 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	.0160444	.0010131	.0019291
Stddev	.0016787	.0003420	.0000302
%RSD	10.46316	33.75534	1.563056
#1	.0178580	.0007698	.0019169
#2	.0145449	.0014041	.0019069
#3	.0157303	.0008654	.0019634

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2224.637	56842.56	10979.29	1881.180	3678.570
Stddev	6.009	664.79	91.54	14.692	8.006
%RSD	.2701129	1.169520	.8337264	.7810033	.2176469
#1	2225.793	57276.20	11067.40	1882.986	3684.908
#2	2229.984	57174.30	10985.78	1894.885	3681.228
#3	2218.134	56077.19	10884.68	1865.668	3669.572

Reviewed By:mohan
On:12/31/2024
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LB :LB134129

Sample Name: CCV07 Acquired: 12/30/2024 19:24:20 Type: Unk
Method: NON EPA-6010-200.7(v2575) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.709548	4.741163	4.866495	4.971428	4.920014	9.398489
Stddev	.041458	.051683	.044462	.058111	.052488	.040152
%RSD	.8802880	1.090084	.9136266	1.168899	1.066832	.4272190
#1	4.664934	4.681514	4.815532	4.906603	4.860899	9.380080
#2	4.716825	4.769391	4.886602	4.988834	4.937993	9.444545
#3	4.746886	4.772585	4.897352	5.018846	4.961150	9.370842

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.772680	.2712568	2.527868	24.98692	1.003407	2.417337
Stddev	.271616	.0057745	.021651	.16510	.009509	.024404
%RSD	2.779340	2.128776	.8565091	.6607366	.9476871	1.009546
#1	10.00632	.2737958	2.503330	24.99658	1.001545	2.389796
#2	9.83706	.2753267	2.535995	25.14698	.994967	2.425943
#3	9.47466	.2646478	2.544281	24.81721	1.013709	2.436273

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.180030	4.613585	2.380078	26.90440	2.422380	1.215591
Stddev	.012098	.119854	.010648	.28823	.023181	.010671
%RSD	1.025236	2.597850	.4473807	1.071319	.9569365	.8778169
#1	1.166225	4.557318	2.375897	27.04892	2.396039	1.211326
#2	1.185078	4.532217	2.392182	27.09179	2.431428	1.207713
#3	1.188787	4.751220	2.372154	26.57250	2.439671	1.227735

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.44742	2.402553	2.367486	26.02889	5.186695	4.719047
Stddev	.83121	.004633	.022806	.86081	.111418	.044460
%RSD	3.142872	.1928176	.9632898	3.307144	2.148153	.9421495
#1	26.08854	2.399602	2.359415	25.65792	5.228723	4.667981
#2	25.85594	2.407892	2.349814	25.41576	5.270986	4.740012
#3	27.39777	2.400164	2.393230	27.01299	5.060375	4.749149

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCV07 Acquired: 12/30/2024 19:24:20 Type: Unk
Method: NON EPA-6010-200.7(v2575) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.868424	4.699642	4.519700	5.027458	4.723395	F 4.448612
Stddev	.044019	.014668	.123914	.058918	.050151	.031690
%RSD	.9041815	.3121136	2.741640	1.171925	1.061752	.7123541
#1	4.819029	4.683185	4.464682	4.959568	4.666095	4.423402
#2	4.882739	4.711338	4.432823	5.065222	4.744791	4.438248
#3	4.903505	4.704404	4.661597	5.057584	4.759299	4.484186

Elem	Sr4077
Units	ppm
Avg	4.610800
Stddev	.140893
%RSD	3.055717
#1	4.690417
#2	4.693861
#3	4.448123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2570.634	55959.16	10464.69	1916.273	3684.652
Stddev	19.183	461.76	247.68	12.297	28.819
%RSD	.7462341	.8251738	2.366856	.6416944	.7821400
#1	2592.499	56032.24	10357.77	1917.740	3717.915
#2	2556.635	56380.03	10288.43	1927.770	3667.169
#3	2562.766	55465.22	10747.88	1903.308	3668.872

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB07 Acquired: 12/30/2024 19:31:40 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000431	-.000839	-.000031	-.000576	-.001453	.0022340	.0028360
Stddev	.001228	.002078	.000172	.002920	.002169	.0101856	.0009957
%RSD	285.1133	247.7635	548.1817	506.7512	149.2473	455.9336	35.10783
#1	-.001487	-.002738	-.000222	.000202	.000758	-.007263	.0039836
#2	.000916	.001381	.000016	.001876	-.001541	.000975	.0022013
#3	-.000721	-.001160	.000112	-.003806	-.003577	.012991	.0023232

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000161	.0001731	-.003757	-.000542	-.000004	-.000164	-.001839
Stddev	.0000383	.0001561	.006395	.000100	.000023	.000164	.002143
%RSD	237.5825	90.19183	170.2134	18.37321	535.9590	100.0006	116.5279
#1	-.000023	.0003354	.003143	-.000542	-.000031	.000025	-.003779
#2	.000054	.0000240	-.004930	-.000642	.000010	-.000268	-.002201
#3	.000017	.0001598	-.009485	-.000443	.000009	-.000250	.000462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000963	-.003852	-.000367	.0004078	.1778302	.0006856	-.000435
Stddev	.000313	.010852	.000496	.0001408	.0067965	.0011416	.000079
%RSD	32.48819	281.7225	135.0398	34.53867	3.821907	166.5110	18.21220
#1	-.001324	.005476	-.000677	.0003502	.1719408	.0003309	-.000371
#2	-.000771	-.015762	-.000630	.0005683	.1852670	-.000237	-.000524
#3	-.000794	-.001271	.000205	.0003049	.1762829	.001963	-.000410

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1116498	-.003189	.0002582	.0030858	.0000736	-.010444	-.007168
Stddev	.0269273	.000601	.0000778	.0005475	.0001342	.002589	.001003
%RSD	24.11769	18.85360	30.14598	17.74307	182.4235	24.78883	13.98716
#1	.0850760	-.002940	.0001918	.0028949	.0001124	-.008950	-.008293
#2	.1109560	-.003875	.0003438	.0037033	-.000076	-.013433	-.006367
#3	.1389173	-.002753	.0002390	.0026594	.000184	-.008949	-.006846

Reviewed By:mohan
On:12/31/2024
11:26:17 PM
Inst Id :P4
LB :LB134129

Sample Name: CCB07 Acquired: 12/30/2024 19:31:40 Type: Unk
Method: NON EPA-6010-200.7(v2560) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000113	.0009719	.0000164
Stddev	.000660	.0006919	.0000467
%RSD	582.8734	71.18869	285.2715
#1	-.000171	.0001829	.0000141
#2	.000574	.0014748	-.000029
#3	-.000743	.0012580	.000064

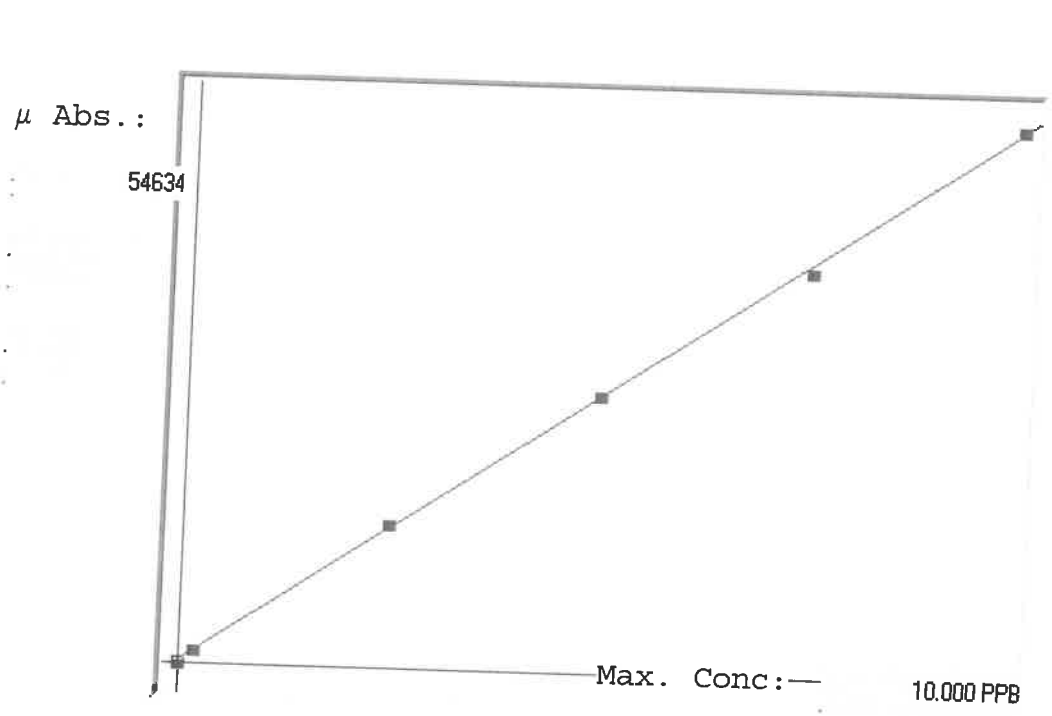
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.762	60330.43	11328.53	2073.057	3833.917
Stddev	6.271	1087.67	122.04	46.075	13.673
%RSD	.2370112	1.802850	1.077305	2.222579	.3566376
#1	2643.093	61371.13	11411.79	2119.453	3823.822
#2	2641.267	59201.21	11385.37	2027.309	3828.452
#3	2652.926	60418.95	11188.44	2072.407	3849.478

Reviewed By:mohan
On:12/20/2024 9:49:50 PM
Inst Id :CV1
LB :LB134050

LB134050

7471B

INSTRUMENT ID: CV1



A= 0.0000e+000

B= 1.8498e-004

C= -5.2781e-002

Rho= 0.9998482

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	0/0 ID
0.0	0.000	-0.035	-0.035	95	0.000	95					1
0.2	0.200	0.198	-0.002	1356	0.0 %	1356					1
2.5	2.500	2.570	0.070	14180	0.0 %	14180					3
5.0	5.000	5.034	0.034	27500	0.0 %	27500					1
7.5	7.500	7.379	-0.121	40177	0.0 %	40177					2
10.0	10.000	10.053	0.053	54634	0.0 %	54634					1

Reviewed By:mohan
On:12/20/2024 9:49:50 PM
Inst Id :CV1
LB :LB134050

LB134050 INSTRUMENT ID : CV1

Method: 7471B Operator: Admin Date of Analysis: 20 Dec 2024 13:55:55

Sample ID	Extended ID	µAbs	Conc	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	S0	95	-	0.00000	7471B	PPB	20 Dec 2024 13:58:41	S	Std
0.2 - 1	S0-2	1356	-	0.20000	7471B	PPB	20 Dec 2024 14:00:58	S	Std
2.5 - 1	S2.5	14180	-	2.50000	7471B	PPB	20 Dec 2024 14:03:15	S	Std
5.0 - 1	S5	27500	-	5.00000	7471B	PPB	20 Dec 2024 14:05:31	S	Std
7.5 - 1	S7.5	40177	-	7.50000	7471B	PPB	20 Dec 2024 14:07:50	S	Std
10.0 - 1	S10	54634	-	10.00000	7471B	PPB	20 Dec 2024 14:10:09	S	Std
ICV28 - 1	ICV28	21957	4.0089		-7471B	PPB	20 Dec 2024 14:13:22	U	SMPL
ICB28 - 1	ICB28	-52	-0.0624		-7471B	PPB	20 Dec 2024 14:15:37	U	SMPL
CCV57 - 1	CCV57	27568	5.0468		-7471B	PPB	20 Dec 2024 14:17:54	U	SMPL
CCB57 - 1	CCB57	-85	-0.0685		-7471B	PPB	20 Dec 2024 14:20:10	U	SMPL
CRA - 1	CRA	1337	0.1945		-7471B	PPB	20 Dec 2024 14:22:29	U	SMPL
HighStd - 1	HighStd	55443	10.2031		-7471B	PPB	20 Dec 2024 14:24:44	U	SMPL
ChkStd - 1	ChkStd	36455	6.6907		-7471B	PPB	20 Dec 2024 14:26:59	U	SMPL
PB165798BL - 1	PBS	-237	-0.0966		-7471B	PPB	20 Dec 2024 14:29:23	U	SMPL
PB165798BS - 1	LCSS	23496	4.2935		-7471B	PPB	20 Dec 2024 14:31:46	U	SMPL
P5316-01 - 1	TT-304-IDWSO-20241217-1	13	-0.0504		-7471B	PPB	20 Dec 2024 14:34:02	U	SMPL
P5339-01 - 1	TR-06-12182024	1565	0.2367		-7471B	PPB	20 Dec 2024 14:36:21	U	SMPL
P5355-01 - 1	RBR251688	5629	0.9885		-7471B	PPB	20 Dec 2024 14:38:38	U	SMPL
P5362-01 - 1	WC-SOIL-20241219	2794	0.4641		-7471B	PPB	20 Dec 2024 14:40:56	U	SMPL
CCV58 - 1	CCV58	26905	4.9241		-7471B	PPB	20 Dec 2024 14:43:13	U	SMPL
CCB58 - 1	CCB58	-113	-0.0737		-7471B	PPB	20 Dec 2024 14:45:28	U	SMPL
P5365-01 - 1	TAPFTA-SB01I-4.5-121924-00-T1	912	0.1159		-7471B	PPB	20 Dec 2024 14:47:47	U	SMPL
P5365-01DUP - 1	TAPFTA-SB01I-4.5-121924-00-T1DUP	922	0.1178		-7471B	PPB	20 Dec 2024 14:50:02	U	SMPL
P5365-01MS - 1	TAPFTA-SB01I-4.5-121924-00-T1MS	22381	4.0873		-7471B	PPB	20 Dec 2024 14:52:18	U	SMPL
P5365-01MSD - 1	TAPFTA-SB01I-4.5-121924-00-T1MSD	23970	4.3812		-7471B	PPB	20 Dec 2024 14:54:34	U	SMPL
P5365-01LX5 - 1		-200	-0.0898		-7471B	PPB	20 Dec 2024 14:56:53	U	SMPL
P5365-01A - 1		23305	4.2582		-7471B	PPB	20 Dec 2024 14:59:12	U	SMPL
CCV59 - 1	CCV59	26801	4.9049		-7471B	PPB	20 Dec 2024 15:01:28	U	SMPL
CCB59 - 1	CCB59	-76	-0.0668		-7471B	PPB	20 Dec 2024 15:03:48	U	SMPL

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165863

SOP ID : M3050B-Digestion-20

SDG No : N/A

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 12/26/2024 **Time :** 14:45 **Temp :** 96 °C

End Digest Date: 12/26/2024 **Time :** 16:55 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. # 3

Dig Technician Signature: SLS.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6000
LFS-2	1.00	M6009
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
1:1 HNO3	10.00	MP83498
Conc. HNO3	5.00	M6126
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6121
PTFE Boiling Stones	N/A	M5585
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#3 CELL #33 Temp: 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/26/24 16:00	SLS. met digestion	
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165863

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P5318-01	AU-06-122024	N/A	2.49	100	Brown	Yellow	Medium	N/A	N/A	1
P5362-01	WC-SOIL-20241219	N/A	2.20	100	Brown	Yellow	Medium	N/A	N/A	2
P5362-01MS	WC-SOIL-20241219MS	N/A	2.19	100	Brown	Yellow	Medium	N/A	M6000,M6009	4
P5362-01MSD	WC-SOIL-20241219MSD	N/A	2.12	100	Brown	Yellow	Medium	N/A	M6000,M6009	5
P5362-01DUP	WC-SOIL-20241219DUP	N/A	2.35	100	Brown	Yellow	Medium	N/A	N/A	3
P5382-01	COMP-1	N/A	2.13	100	Brown	Yellow	Medium	N/A	N/A	6
P5382-02	COMP-2	N/A	2.40	100	Brown	Yellow	Medium	N/A	N/A	7
P5382-03	COMP-3	N/A	2.35	100	Brown	Yellow	Medium	N/A	N/A	8
P5386-01	MOO-24-00398	N/A	2.31	100	White	Yellow	Medium	N/A	N/A	9
P5386-03	MOO-24-00395-96	N/A	2.27	100	White	Yellow	Medium	N/A	N/A	10
P5387-01	TR-05-122624	N/A	2.42	100	Brown	Yellow	Medium	N/A	N/A	11
PB165863BL	PBS863	N/A	2.40	100	Colorless	Colorless	Fine	N/A	N/A	12
PB165863BS	LCS863	N/A	2.40	100	Colorless	Colorless	Fine	N/A	M6000, M6009	13

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB165863 **WorkList ID :** 186628 **Department :** Digestion **Date :** 12-26-2024 13:56:42

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5362-01	WC-SOIL-20241219	Solid	Metals ICP-TAL	Cool 4 deg C	PARS02	N21	12/19/2024	6010D
P5382-01	COMP-1	Solid	Metals ICP-Group1	Cool 4 deg C	POWE02	N31	12/20/2024	6010D
P5382-02	COMP-2	Solid	Metals ICP-Group1	Cool 4 deg C	POWE02	N31	12/20/2024	6010D
P5382-03	COMP-3	Solid	Metals ICP-Group1	Cool 4 deg C	POWE02	N31	12/20/2024	6010D
P5386-01	MOO-24-00398	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	N31	12/26/2024	6010D
P5386-03	MOO-24-00395-96	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	N31	12/26/2024	6010D
P5318-01	AU-06-122024	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	N31	12/20/2024	6010D
P5387-01	TR-05-122624	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	N41	12/26/2024	6010D

Date/Time 12/26/2024 14:20
Raw Sample Received by: SLRG. met digestion
Raw Sample Relinquished by: EPCS-m1

Date/Time 12/26/24 15:20
Raw Sample Received by: EPCS-m1
Raw Sample Relinquished by: SLRG. met digest

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB165798

SOP ID : M7471B-Mercury-18

SDG No : NA

Matrix : SOIL

Pippete ID: HG A

Balance ID : M SC-3

Filter paper ID : NA

pH Strip ID : NA

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 12/20/2024 **Time :** 10:15 **Temp :** 94 °C

End Digest Date: 12/20/2024 **Time :** 10:45 **Temp :** 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: 12

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP83736
CCV	30mL	MP83738
CRA	30mL	MP83740
Blank Spike	0.48mL	MP83729
Matrix Spike	0.48mL	MP83729

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5mL	MP83742
KMnO4 (5%)	4.5mL	MP83692
Hydroxylamine HCL (12%)	2.0mL	MP83694
PTFE Boiling Stones	----------	M4583
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	MP83730
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP83731
2.5 ppb	S2.5	30mL	MP83732
5.0 ppb	S5.0	30mL	MP83733
7.5 ppb	S7.5	30mL	MP83734
10.0 ppb	S10.0	30mL	MP83735
ICV	ICV	30mL	MP83736
ICB	ICB	30mL	MP83737
CCV	CCV	30mL	MP83738
CCB	CCB	30mL	MP83739
CRI	CRI	30mL	MP83740
CHK STD	CHK STD	30mL	MP83741

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/20/24 11:57	MB - Dig - Lab	MB - Hood Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB165798

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
P5316-01	TT-304-IDWSO-20241217-1	0.59	35	NA	N/A	3-1
P5339-01	TR-06-12182024	0.50	35	NA	N/A	2
P5355-01	RBR251688	0.54	35	NA	N/A	3
P5362-01	WC-SOIL-20241219	0.59	35	NA	N/A	4
P5365-01	TAPFTA-SB01I-4.5-121924-00-T1	0.59	35	NA	N/A	5
P5365-01DUP	TAPFTA-SB01I-4.5-121924-00-T1DUP	0.58	35	NA	N/A	6
P5365-01MS	TAPFTA-SB01I-4.5-121924-00-T1MS	0.54	35	NA	MP83729	7
P5365-01MSD	TAPFTA-SB01I-4.5-121924-00-T1MSD	0.56	35	NA	MP83729	8
PB165798BL	PBS798	0.54	35	NA	N/A	9
PB165798BS	LCS798	0.57	35	NA	MP83729	10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 122024_7471 **WorkList ID :** 186532 **Department :** Digestion **Date :** 12-20-2024 09:25:44

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5362-01	WC-SOIL-20241219	Solid	Mercury	Cool 4 deg C	PARS02	N21	12/19/2024	7471B
P5316-01	TT-304-IDWSO-20241217-1	Solid	Mercury	Cool 4 deg C	TETR06		12/17/2024	7471B
P5365-01	TAPFTA-SB01I-4.5-121924-00-T1	Solid	Mercury	Cool 4 deg C	WEST04	N21	12/19/2024	7471B
P5355-01	RBR251688	Solid	Mercury	Cool 4 deg C	PSEG03	N13	12/19/2024	7471B
P5339-01	TR-06-12182024	Solid	Mercury	Cool 4 deg C	PSEG05	N12	12/18/2024	7471B

Date/Time 12/20/24 @ 9:50

Raw Sample Received by: MG - NIA - Lab

Raw Sample Relinquished by: MG - NIA Lab

Date/Time 12/20/24 @ 10:35

Raw Sample Received by: MG - NIA - Lab

Raw Sample Relinquished by: MG - NIA - Lab

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/23/2024

OVENTEMP IN Celsius(°C): 106
Time IN: 16:30
In Date: 12/20/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:27
Out Date: 12/21/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134046

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P5318-01	AU-06-122024	15	1.15	8.84	9.99	8.77	86.2	
P5319-01	AUD-1617	16	1.00	1.00	2.00	2.00	100.0	wipe sample
P5361-01	SB-01-20241219-7.0-7.5	1	1.14	8.41	9.55	8.85	91.7	
P5361-02	SB-01-20241219-9.0-9.5	2	1.19	8.48	9.67	8.58	87.1	
P5362-01	WC-SOIL-20241219	3	1.13	8.70	9.83	9.13	92.0	
P5365-01	TAPFTA-SB01I-4.5-121924-00-T1	4	1.13	8.56	9.69	8.84	90.1	
P5369-05	SVOC-GPC-BLANK	5	1.00	1.00	2.00	2.00	100.0	
P5369-06	PEST-GPC-BLANK	6	1.00	1.00	2.00	2.00	100.0	
P5369-07	PEST-GPC-BLANK-SPIKE	7	1.00	1.00	2.00	2.00	100.0	
P5369-08	PCB-GPC-BLANK	8	1.00	1.00	2.00	2.00	100.0	
P5369-09	PCB-GPC-BLANK-SPIKE	9	1.00	1.00	2.00	2.00	100.0	
P5369-10	SVOC-GPC2-BLANK	10	1.00	1.00	2.00	2.00	100.0	
P5369-11	PEST-GPC2-BLANK	11	1.00	1.00	2.00	2.00	100.0	
P5369-12	PEST-GPC2-BLANK-SPIKE	12	1.00	1.00	2.00	2.00	100.0	
P5369-13	PCB-GPC2-BLANK	13	1.00	1.00	2.00	2.00	100.0	
P5369-14	PCB-GPC2-BLANK-SPIKE	14	1.00	1.00	2.00	2.00	100.0	
P5377-01	GAS-TRE-1119	17	1.00	1.00	2.00	2.00	100.0	wipe sample

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB34046

WorkList Name : %1-122024 **WorkList ID :** 186509 **Department :** Wet-Chemistry **Date :** 12-20-2024 08:05:45

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5318-01	AU-06-122024	Solid	Percent Solids	Cool 4 deg C	PSEG05	N31	12/20/2024	Chemtech -SO
P5319-01	AUD-1617	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	12/20/2024	Chemtech -SO
P5361-01	SB-01-20241219-7.0-7.5	Solid	Percent Solids	Cool 4 deg C	PARS02	N12	12/20/2024	Chemtech -SO
P5361-02	SB-01-20241219-9.0-9.5	Solid	Percent Solids	Cool 4 deg C	PARS02	N12	12/20/2024	Chemtech -SO
P5362-01	WC-SOIL-20241219	Solid	Percent Solids	Cool 4 deg C	PARS02	N21	12/19/2024	Chemtech -SO
P5365-01	TAPFTA-SB01I-4.5-121924-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	N21	12/19/2024	Chemtech -SO
P5369-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5369-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	N22	12/13/2024	Chemtech -SO
P5377-01	GAS-TRE-1119	Solid	Percent Solids	Cool 4 deg C	PSEG03	N13	12/20/2024	Chemtech -SO

Date/Time 12/20/24 16:15

Raw Sample Received by: TB WOC

Raw Sample Relinquished by: CB SM

Date/Time 12/20/24 17:30

Raw Sample Received by: CB SM

Raw Sample Relinquished by: TB WOC

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 # LB134050

Review By	jaswal	Review On	12/20/2024 9:49:17 PM
Supervise By	mohan	Supervise On	12/20/2024 9:49:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP83730,MP83731,MP83732,MP83733,MP83734,MP83735
ICV Standard	MP83736
CCV Standard	MP83738
ICSA Standard	
CRI Standard	MP83740
LCS Standard	
Chk Standard	MP83737,MP83739,MP83741,MP83743

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/20/24 13:58		Mohan	OK
2	S0.2	S0.2	CAL2	12/20/24 14:00		Mohan	OK
3	S2.5	S2.5	CAL3	12/20/24 14:03		Mohan	OK
4	S5	S5	CAL4	12/20/24 14:05		Mohan	OK
5	S7.5	S7.5	CAL5	12/20/24 14:07		Mohan	OK
6	S10	S10	CAL6	12/20/24 14:10		Mohan	OK
7	ICV28	ICV28	ICV	12/20/24 14:13		Mohan	OK
8	ICB28	ICB28	ICB	12/20/24 14:15		Mohan	OK
9	CCV57	CCV57	CCV	12/20/24 14:17		Mohan	OK
10	CCB57	CCB57	CCB	12/20/24 14:20		Mohan	OK
11	CRA	CRA	CRDL	12/20/24 14:22		Mohan	OK
12	HighStd	HighStd	HIGH STD	12/20/24 14:24		Mohan	OK
13	ChkStd	ChkStd	SAM	12/20/24 14:26		Mohan	OK
14	PB165798BL	PB165798BL	MB	12/20/24 14:29		Mohan	OK
15	PB165798BS	PB165798BS	LCS	12/20/24 14:31		Mohan	OK
16	P5316-01	TT-304-IDWSO-2024	SAM	12/20/24 14:34		Mohan	OK
17	P5339-01	TR-06-12182024	SAM	12/20/24 14:36		Mohan	OK
18	P5355-01	RBR251688	SAM	12/20/24 14:38		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134050

Review By	jaswal	Review On	12/20/2024 9:49:17 PM
Supervise By	mohan	Supervise On	12/20/2024 9:49:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP83730,MP83731,MP83732,MP83733,MP83734,MP83735
ICV Standard	MP83736
CCV Standard	MP83738
ICSA Standard	
CRI Standard	MP83740
LCS Standard	
Chk Standard	MP83737,MP83739,MP83741,MP83743

19	P5362-01	WC-SOIL-20241219	SAM	12/20/24 14:40		Mohan	OK
20	CCV58	CCV58	CCV	12/20/24 14:43		Mohan	OK
21	CCB58	CCB58	CCB	12/20/24 14:45		Mohan	OK
22	P5365-01	TAPFTA-SB01I-4.5-12	SAM	12/20/24 14:47		Mohan	OK
23	P5365-01DUP	TAPFTA-SB01I-4.5-12	DUP	12/20/24 14:50		Mohan	OK
24	P5365-01MS	TAPFTA-SB01I-4.5-12	MS	12/20/24 14:52		Mohan	OK
25	P5365-01MSD	TAPFTA-SB01I-4.5-12	MSD	12/20/24 14:54		Mohan	OK
26	P5365-01L	TAPFTA-SB01I-4.5-12	SD	12/20/24 14:56		Mohan	OK
27	P5365-01A	TAPFTA-SB01I-4.5-12	PS	12/20/24 14:59		Mohan	OK
28	CCV59	CCV59	CCV	12/20/24 15:01		Mohan	OK
29	CCB59	CCB59	CCB	12/20/24 15:03		Mohan	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134129

Review By	kareem	Review On	12/31/2024 7:20:20 PM
Supervise By	mohan	Supervise On	12/31/2024 11:26:17 PM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/30/24 13:54		Kareem	OK
2	S1	S1	CAL2	12/30/24 13:58		Kareem	OK
3	S2	S2	CAL3	12/30/24 14:03		Kareem	OK
4	S3	S3	CAL4	12/30/24 14:07		Kareem	OK
5	S4	S4	CAL5	12/30/24 14:11		Kareem	OK
6	S5	S5	CAL6	12/30/24 14:15		Kareem	OK
7	ICV01	ICV01	ICV	12/30/24 14:20		Kareem	OK
8	LLICV01	LLICV01	LLICV	12/30/24 14:24		Kareem	OK
9	ICB01	ICB01	ICB	12/30/24 14:28		Kareem	OK
10	CRI01	CRI01	CRDL	12/30/24 14:32		Kareem	OK
11	ICSA01	ICSA01	ICSA	12/30/24 14:37		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	12/30/24 14:45		Kareem	OK
13	CCV01	CCV01	CCV	12/30/24 14:49		Kareem	OK
14	CCB01	CCB01	CCB	12/30/24 14:53		Kareem	OK
15	P5342-08	CHRT26634	SAM	12/30/24 14:58		Kareem	OK
16	P5342-09	HT2651	SAM	12/30/24 15:02		Kareem	OK
17	P5382-01	COMP-1	SAM	12/30/24 15:06		Kareem	OK
18	P5382-02	COMP-2	SAM	12/30/24 15:11		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134129

Review By	kareem	Review On	12/31/2024 7:20:20 PM
Supervise By	mohan	Supervise On	12/31/2024 11:26:17 PM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

19	P5382-03	COMP-3	SAM	12/30/24 15:15		Kareem	OK
20	CCV02	CCV02	CCV	12/30/24 15:19		Kareem	OK
21	CCB02	CCB02	CCB	12/30/24 15:23		Kareem	OK
22	P5362-01	WC-SOIL-20241219	SAM	12/30/24 15:28		Kareem	OK
23	P5362-01DUP	WC-SOIL-20241219D	DUP	12/30/24 15:35		Kareem	OK
24	P5362-01L	WC-SOIL-20241219L	SD	12/30/24 15:39		Kareem	OK
25	P5362-01MS	WC-SOIL-20241219M	MS	12/30/24 15:43	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
26	P5362-01MSD	WC-SOIL-20241219M	MSD	12/30/24 15:47	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
27	P5362-01A	WC-SOIL-20241219A	PS	12/30/24 15:51	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
28	P5386-01	MOO-24-00398	SAM	12/30/24 15:55		Kareem	OK
29	P5386-03	MOO-24-00395-96	SAM	12/30/24 15:59		Kareem	OK
30	P5318-01	AU-06-122024	SAM	12/30/24 16:03		Kareem	OK
31	P5387-01	TR-05-122624	SAM	12/30/24 16:08		Kareem	OK
32	CCV03	CCV03	CCV	12/30/24 16:12		Kareem	OK
33	CCB03	CCB03	CCB	12/30/24 16:16		Kareem	OK
34	PB165863BL	PB165863BL	MB	12/30/24 16:20		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134129

Review By	kareem	Review On	12/31/2024 7:20:20 PM
Supervise By	mohan	Supervise On	12/31/2024 11:26:17 PM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

35	PB165863BS	PB165863BS	LCS	12/30/24 16:25	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
36	P5362-02	WC-SOIL-20241219	SAM	12/30/24 16:29		Kareem	OK
37	P5380-02	TAPIAL3-IDW-SOIL-1	SAM	12/30/24 16:33		Kareem	OK
38	P5386-02	MOO-24-00398	SAM	12/30/24 16:38		Kareem	OK
39	P5386-04	MOO-24-00395-96	SAM	12/30/24 16:42		Kareem	OK
40	P5386-04DUP	MOO-24-00395-96DU	DUP	12/30/24 16:47		Kareem	OK
41	P5386-04L	MOO-24-00395-96L	SD	12/30/24 16:51		Kareem	OK
42	P5386-04MS	MOO-24-00395-96MS	MS	12/30/24 16:55	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
43	P5386-04MSD	MOO-24-00395-96MS	MSD	12/30/24 16:59	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
44	CCV04	CCV04	CCV	12/30/24 17:04		Kareem	OK
45	CCB04	CCB04	CCB	12/30/24 17:08		Kareem	OK
46	P5386-04A	MOO-24-00395-96A	PS	12/30/24 17:12	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
47	PB165858TB	PB165858TB	MB	12/30/24 17:16	LCS fail for Ba	Kareem	Not Ok
48	PB165887BL	PB165887BL	MB	12/30/24 17:21	LCS fail for Ba	Kareem	Not Ok
49	PB165887BS	PB165887BS	LCS	12/30/24 17:25	LCS fail for Ba	Kareem	Not Ok
50	P5356-01	STAND-PIPE	SAM	12/30/24 17:29		Kareem	OK
51	P5356-01DUP	STAND-PIPEDUP	DUP	12/30/24 17:33		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134129

Review By	kareem	Review On	12/31/2024 7:20:20 PM
Supervise By	mohan	Supervise On	12/31/2024 11:26:17 PM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

52	P5356-01L	STAND-PIPEL	SD	12/30/24 17:38		Kareem	OK
53	P5356-01MS	STAND-PIPEMS	MS	12/30/24 17:42	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
54	P5356-01MSD	STAND-PIPEMSD	MSD	12/30/24 17:46	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
55	P5356-01A	STAND-PIPEA	PS	12/30/24 17:50	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
56	CCV05	CCV05	CCV	12/30/24 17:54		Kareem	OK
57	CCB05	CCB05	CCB	12/30/24 17:58		Kareem	OK
58	P5377-02DL	GAS-TRE-1114DL	SAM	12/30/24 18:02	Confirm wt/vol	Kareem	OK
59	P5386-05	MOO-24-00397	SAM	12/30/24 18:07		Kareem	OK
60	PB165879BL	PB165879BL	MB	12/30/24 18:11		Kareem	OK
61	PB165879BS	PB165879BS	LCS	12/30/24 18:15	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
62	P5390-01	EO-01-12272024	SAM	12/30/24 18:19		Kareem	OK
63	P5391-01	NB-07-12272024	SAM	12/30/24 18:23		Kareem	OK
64	P5391-01DUP	NB-07-12272024DUP	DUP	12/30/24 18:28		Kareem	OK
65	P5391-01L	NB-07-12272024L	SD	12/30/24 18:32		Kareem	OK
66	P5391-01MS	NB-07-12272024MS	MS	12/30/24 18:36	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134129

Review By	kareem	Review On	12/31/2024 7:20:20 PM
Supervise By	mohan	Supervise On	12/31/2024 11:26:17 PM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

67	P5391-01MSD	NB-07-12272024MSD	MSD	12/30/24 18:40	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
68	CCV06	CCV06	CCV	12/30/24 18:44		Kareem	OK
69	CCB06	CCB06	CCB	12/30/24 18:48		Kareem	OK
70	P5391-01A	NB-07-12272024A	PS	12/30/24 18:53	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
71	PB165917BL	PB165917BL	MB	12/30/24 18:57		Kareem	OK
72	PB165917BS	PB165917BS	LCS	12/30/24 19:01	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
73	LR1	LR1	HIGH STD	12/30/24 19:14		Kareem	OK
74	LR2	LR2	HIGH STD	12/30/24 19:19		Kareem	OK
75	CCV07	CCV07	CCV	12/30/24 19:24		Kareem	OK
76	CCB07	CCB07	CCB	12/30/24 19:31		Kareem	OK

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Prep Standard - Chemical Standard Summary

Order ID : P5362

Test : Mercury,Metals ICP-TAL

Prepbatch ID : PB165798,PB165863,

Sequence ID/Qc Batch ID: LB134050,LB134129,LB134129,

Standard ID :
MP83498,MP83500,MP83552,MP83553,MP83554,MP83555,MP83556,MP83557,MP83558,MP83559,MP83560,MP835
61,MP83562,MP83565,MP83566,MP83692,MP83694,MP83729,MP83730,MP83731,MP83732,MP83733,MP83734,MP
83735,MP83736,MP83737,MP83738,MP83739,MP83740,MP83741,MP83742,MP83743,

Chemical ID :
M4371,M4583,M4916,M5062,M5130,M5192,M5218,M5223,M5288,M5295,M5296,M5390,M5393,M5429,M5466,M5467
,M5497,M5515,M5585,M5658,M5697,M5698,M5747,M5748,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M581
4,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5882,M5884,M5953,M5959,M5962,M5970,M5978,M5982,M59
85,M6000,M6009,M6021,M6023,M6028,M6030,M6033,M6121,M6125,M6126,W3112,

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83498	12/09/2024	01/31/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
514	CAL BLK (S0/ICB/CCB)	MP83552	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP83553	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5467 + 5.00000ml of M5802 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5982 + 455.00000ml of MP83500 = Final Quantity: 500.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP83554	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 50.00000ml of MP83500 + 50.00000ml of MP83553 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP83555	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 25.00000ml of MP83553 + 75.00000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP83556	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 16.00000ml of MP83553 + 184.00000ml of MP83500 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP83557	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 0.00600ml of M5816 + 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6033 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M5982 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M5978 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5768 + 1.00000ml of M5806 + 2.00000ml of M5818 + 77.68000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP83558	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 2.00000ml of MP83557 + 98.00000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP83559	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5466 + 0.25000ml of M5218 + 0.25000ml of M5982 + 10.00000ml of M5295 + 89.77500ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83560	12/06/2024	12/28/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP83561	12/06/2024	12/28/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5296 + 0.10000ml of M5970 + 0.10000ml of M5982 + 10.00000ml of M5130 + 10.00000ml of M5223 + 79.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP83562	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 50.00000ml of MP83500 + 50.00000ml of MP83553 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP83565	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP83566	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP83692	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP83694	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP83729	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 12/20/2024

FROM 1.00000ml of M6126 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP83730	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP83731	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP83729 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP83732	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 245.00000ml of W3112 + 2.50000ml of MP83729 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP83733	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 242.50000ml of W3112 + 5.00000ml of MP83729 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP83734	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 240.00000ml of W3112 + 7.50000ml of MP83729 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP83735	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 237.50000ml of W3112 + 10.00000ml of MP83729 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP83736	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M5953 + 2.50000ml of M6126 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP83737	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP83738	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 485.00000ml of W3112 + 5.00000ml of M6126 + 10.00000ml of MP83729 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP83739	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 495.00000ml of W3112 + 5.00000ml of M6126 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP83740	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP83729 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP83741	12/20/2024	12/21/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/20/2024

FROM 2.50000ml of M6126 + 240.50000ml of W3112 + 7.00000ml of MP83729 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
887	AQUA REGIA FOR HG ON 7471A	MP83742	12/20/2024	12/21/2024	Mohan Bera	None	None	Sarabjit Jaswal 12/20/2024

FROM 150.00000ml of M6121 + 50.00000ml of M6126 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP83743	12/20/2024	12/21/2024	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/20/2024

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6121 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Labpure	0919120 / Boiling Stones	26275770	07/07/2025	07/03/2020 / mohan	05/07/2020 / mohan	M4583

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	01/31/2025	05/20/2024 /	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

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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	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

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	01/31/2025	05/20/2024 /	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

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

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.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	02/28/2025	01/20/2024 /	06/12/2023 / jaswal	M5585

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

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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	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

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.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	01/01/2025	07/01/2024 / mohan	03/30/2023 / mohan	M5953

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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	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

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

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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	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6000

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	03/17/2028	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/07/2024 / Jaswal	01/03/2024 / Jaswal	M6033

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)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	05/25/2025	11/26/2024 / Eman	11/22/2024 / Eman	M6125

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

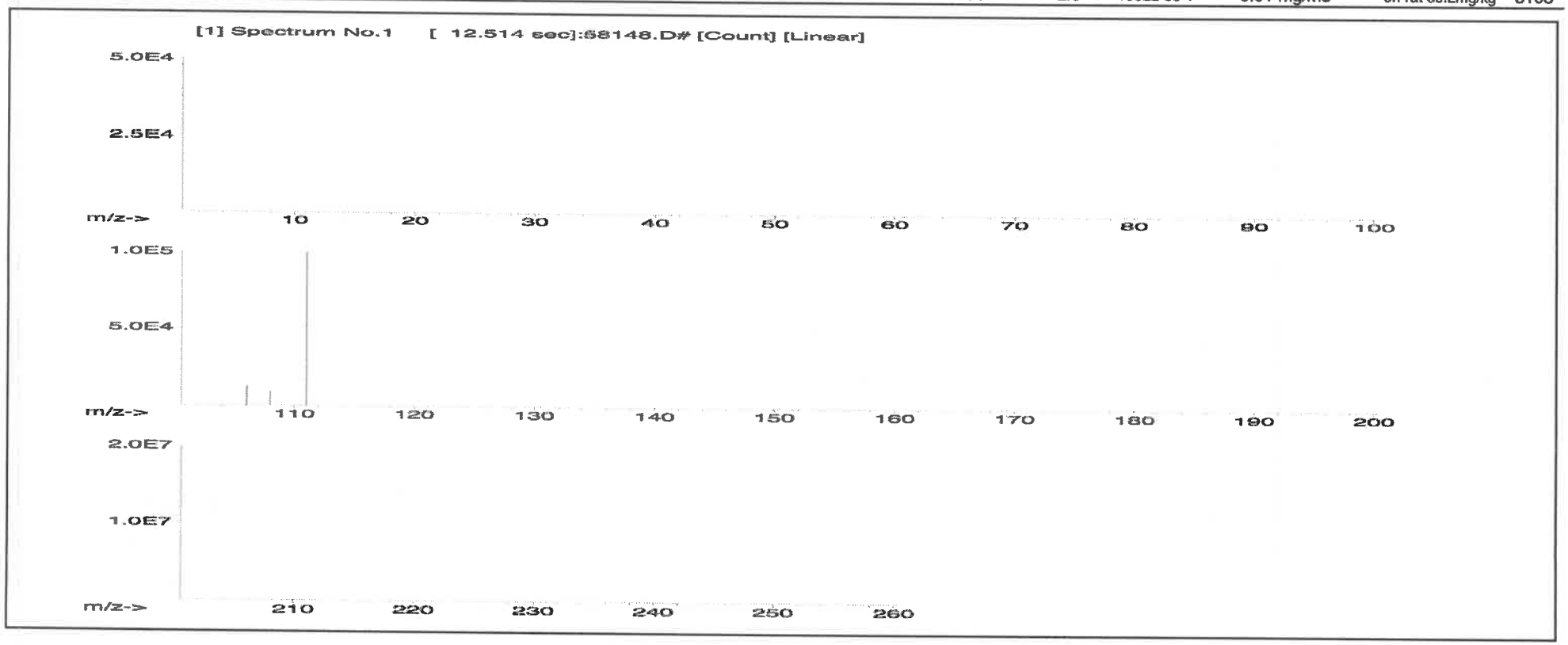
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
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 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

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**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 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

- **November 02, 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:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

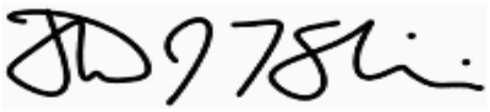
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

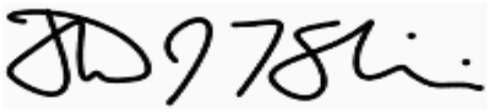
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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RD:05/14/2024

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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:

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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

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Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

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u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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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"

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- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

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



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RD:05/14/2024

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

M45 P3
Expd Dt. 5 7 24
MB

SAINT-GOBAIN

Manufacturer:
Saint-Gobain Performance Plastics
11 Sicho Drive
Poestenkill, NY 12140

Certificate of Conformance

Part Number/ Revision:	D1069103 0	**Customer Part Number/ Revision:**	1069103 N/A
Description:	*PTFE BOILING STONES-450 GRAMS		
Lot Number:	26275770	**Lot Quantity:**	10 EA
Date of Manufacture (MM/DD/YY)	03/23/20	**Expiration Date: (MM/DD/YY)**	N/A
Post Processing Run Number: (Refer to the attached Certificate for Additional Detail)		N/A	

We certify the material listed above confirms in full with the following specifications:

All items have been manufactured, inspected, tested, and accepted in accordance with our Quality Management system, ISO 9001-2015. Documentation substantiating this certification is kept on record per the Company's retention policy and is available for review.
All materials and processes used in manufacturing conform to the materials and/or manufacturing specifications and notes indicated on the purchase order, drawing, specifications, quality assurance requirements, or other applicable documents effective on the date of manufacture.
Saint-Gobain does not warrant the product for any particular application and it is the responsibility of the user to conduct tests that are deemed necessary to determine the suitability of the product for any particular use. Saint-Gobain's sole responsibility shall be for failure to manufacture the product in accordance with specifications and requirements of the buyer, and from defects in material and workmanship. This warranty is expressly made in lieu of any and all other warranties and Saint-Gobain's sole liability shall be to replace any product not in conformance with the specification and requirements of the buyer.

Quality Approval:	Jonathan Kimble	**Date:**	05/13/20

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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.

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

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5192 R: 06/17/22

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

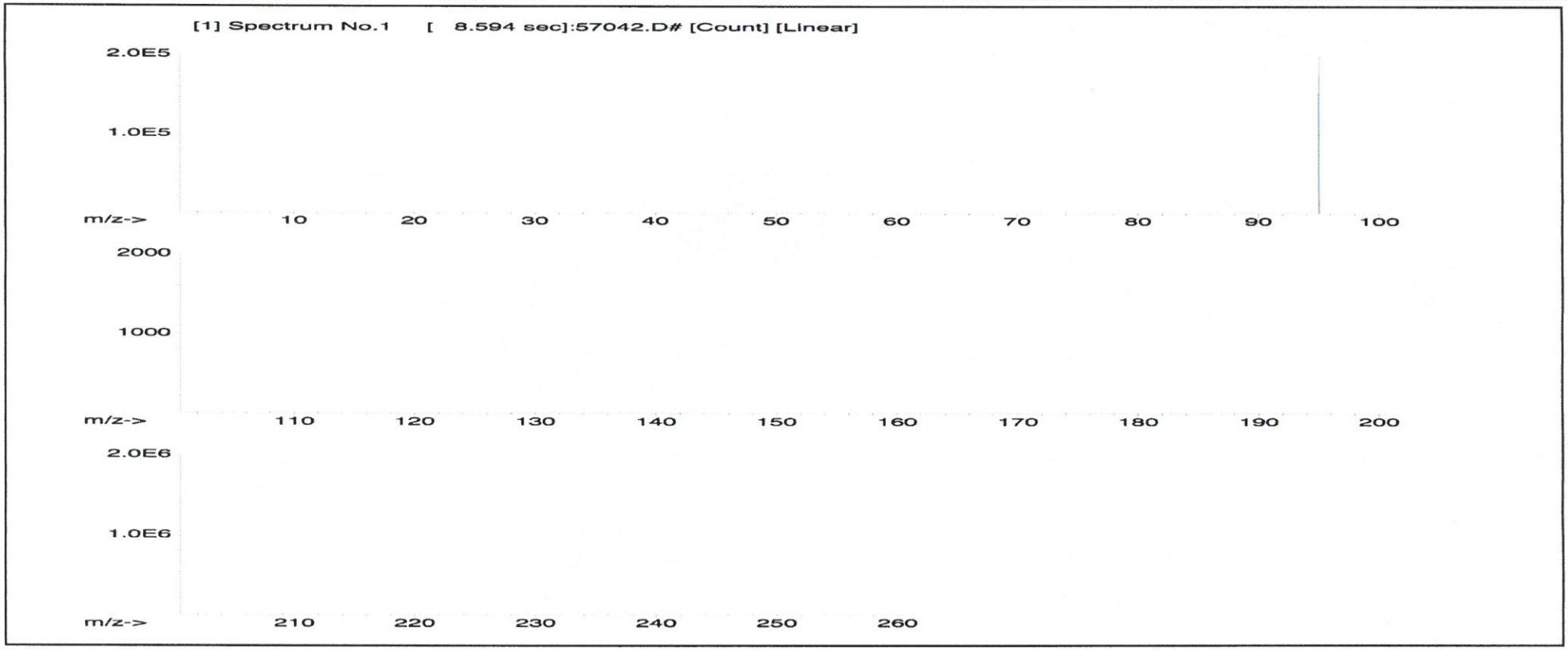
Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)

	Lot #	Solvent:	
	MKBQ8597V	Ammonium hydroxide	
	0.5%	15.0 (mL)	Ammonium hydroxide

Expiration Date: 051725
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): 3000.41 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	051722
Reviewed By:	Pedro L. Rentas	051722

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	022222	0.1000	300.0	0.084	1000	10001.0	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 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	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

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**

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

November 02, 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

- **November 02, 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:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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.

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

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

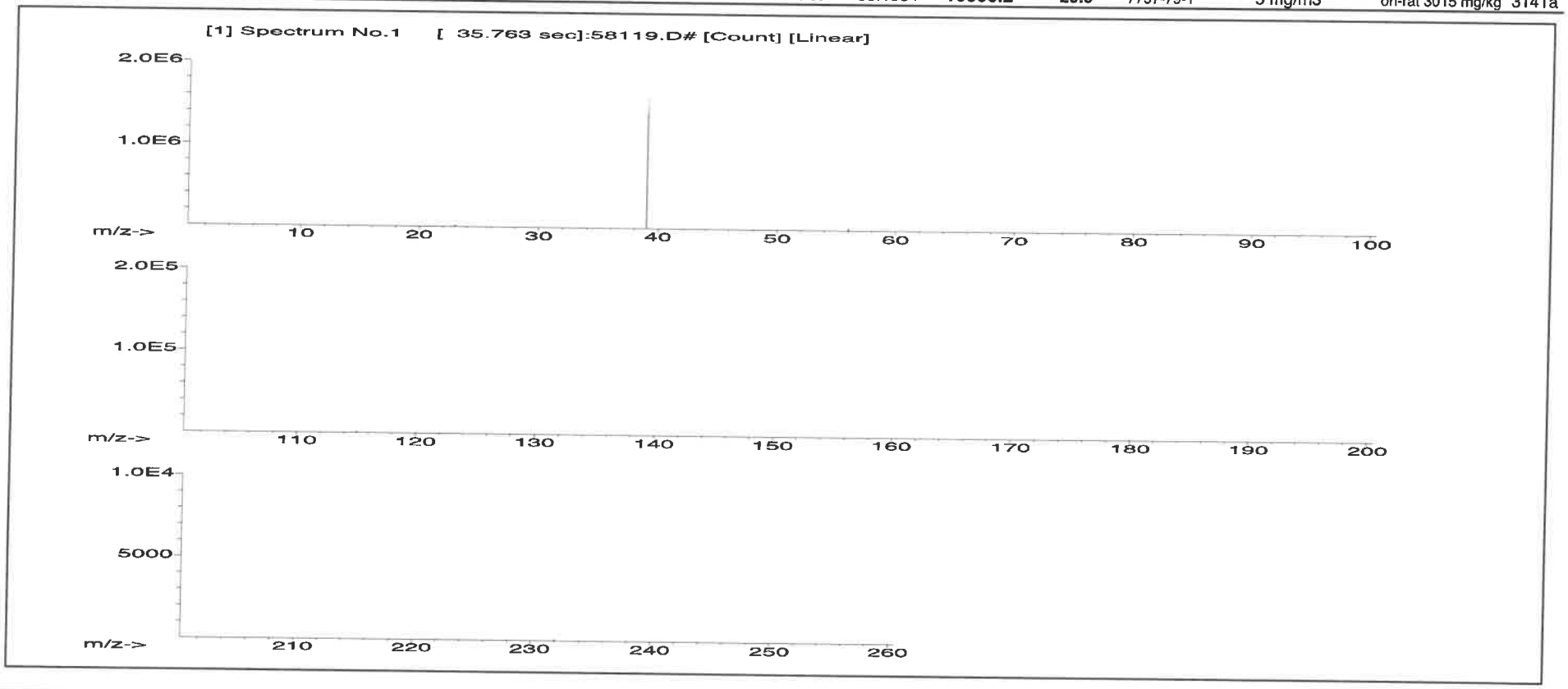
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(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

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R: 09/08/22 (BH)

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M5387 . M5389 . M5390 . M5391 . M5392

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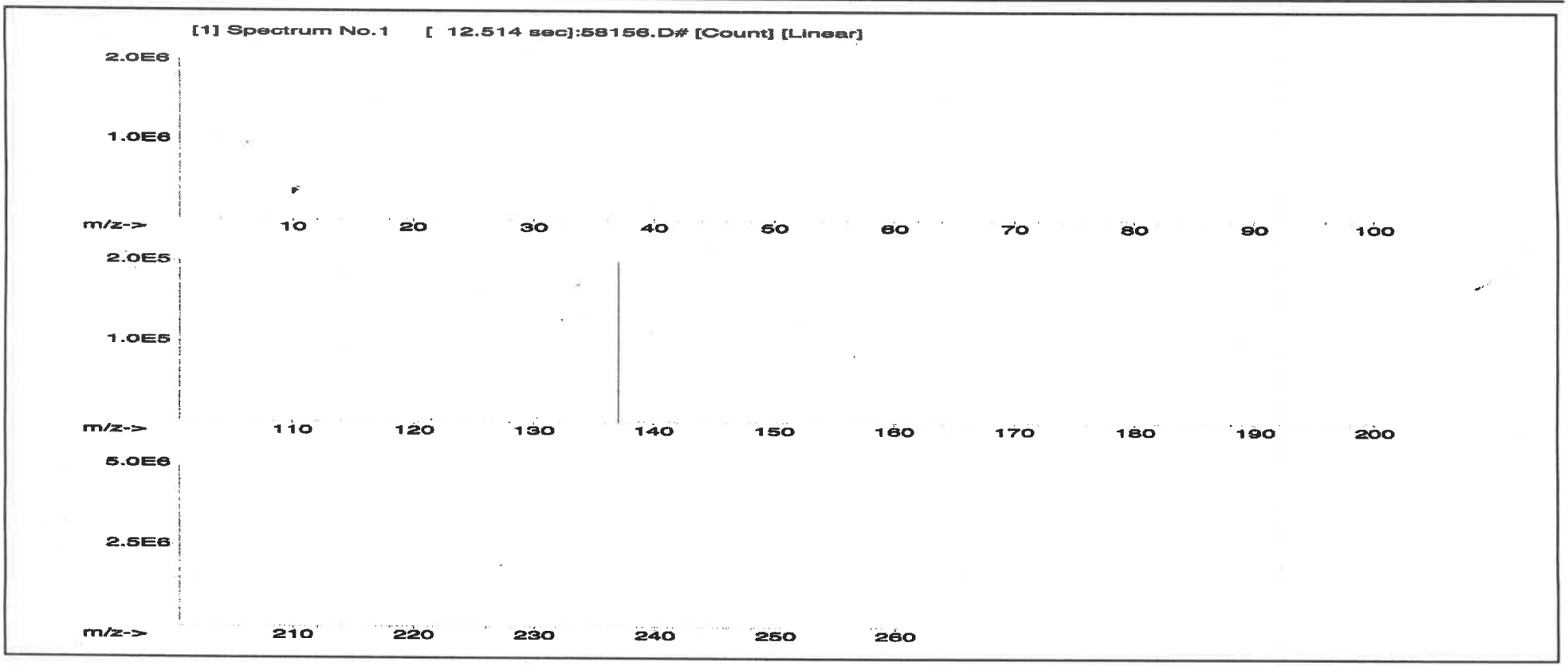
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

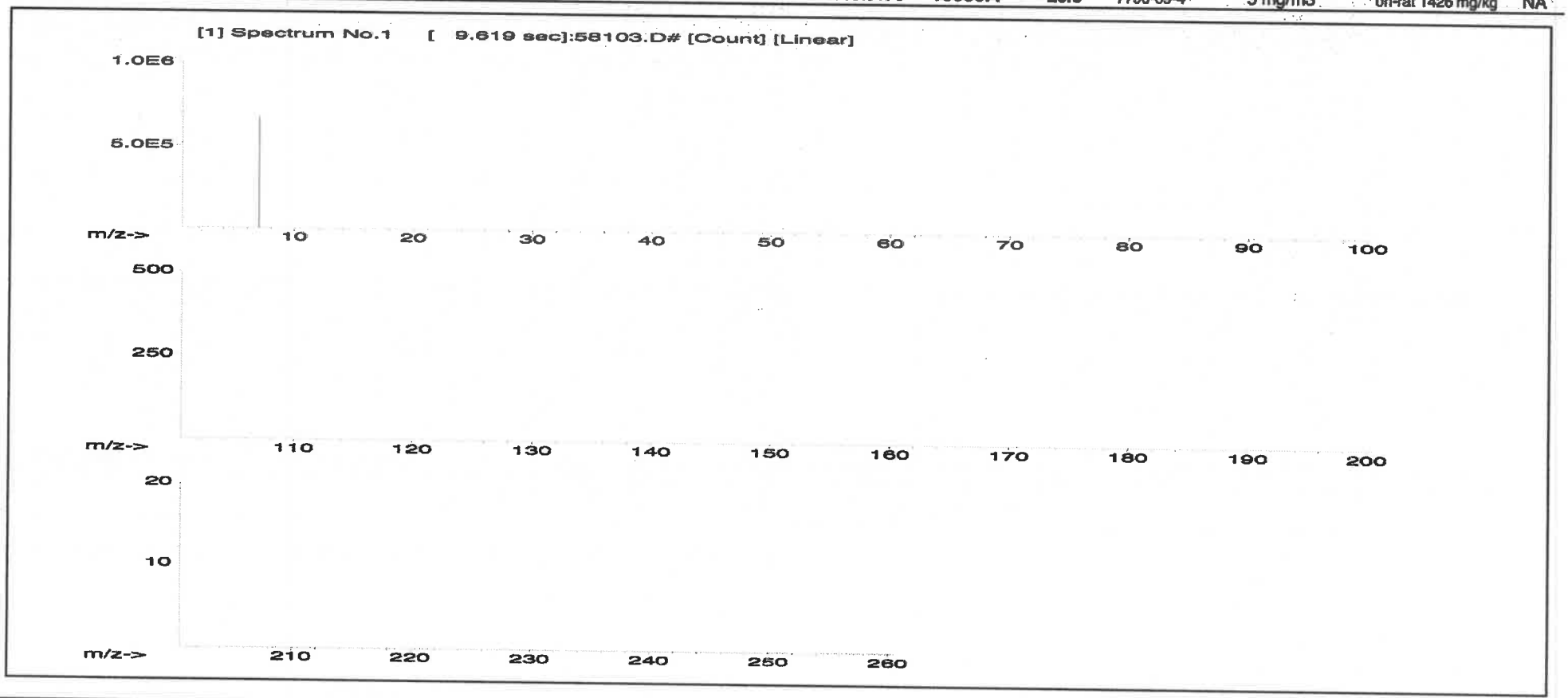
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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).
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 03/01/23 BH

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CERTIFIED WEIGHT REPORT:

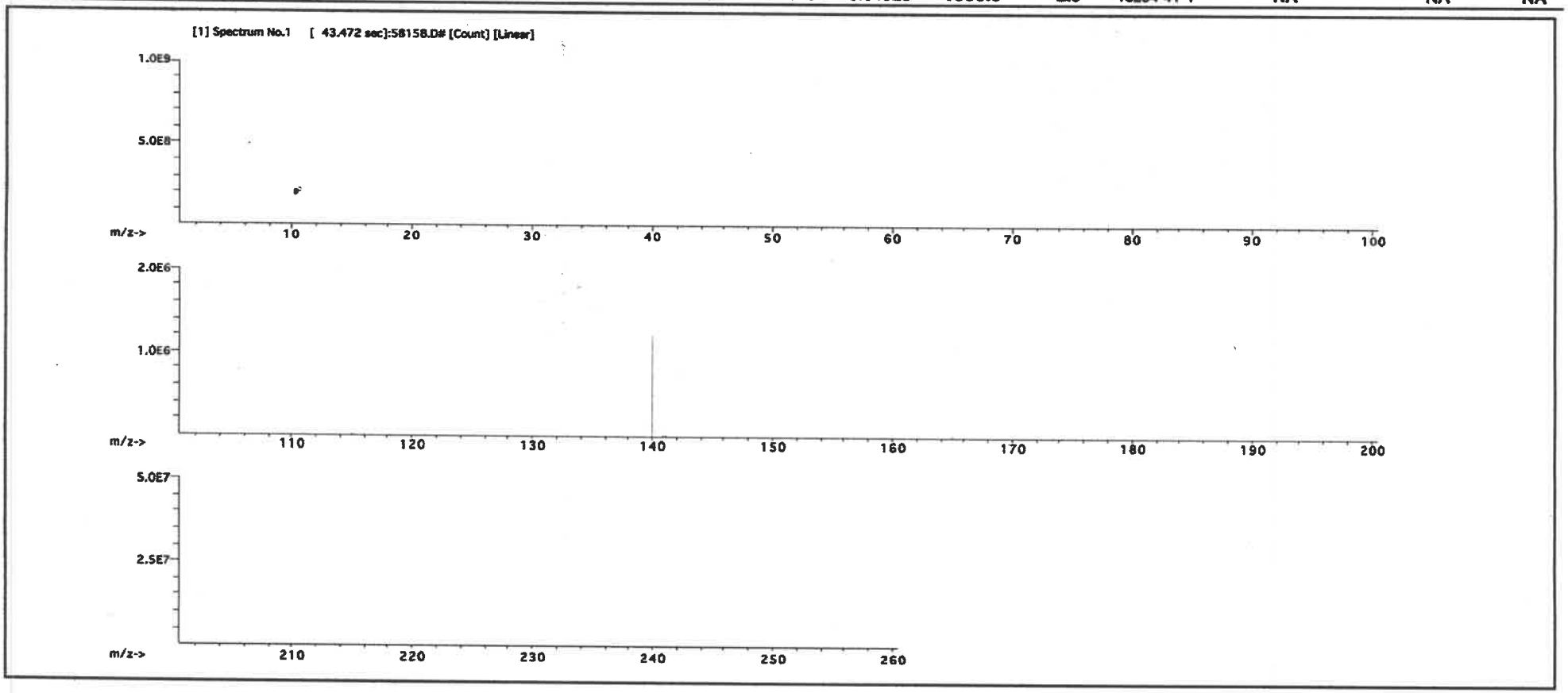
Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #	
Solvent:	20510011	Nitric Acid
2%	20.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5467 R: 03/01/23 (LA)

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

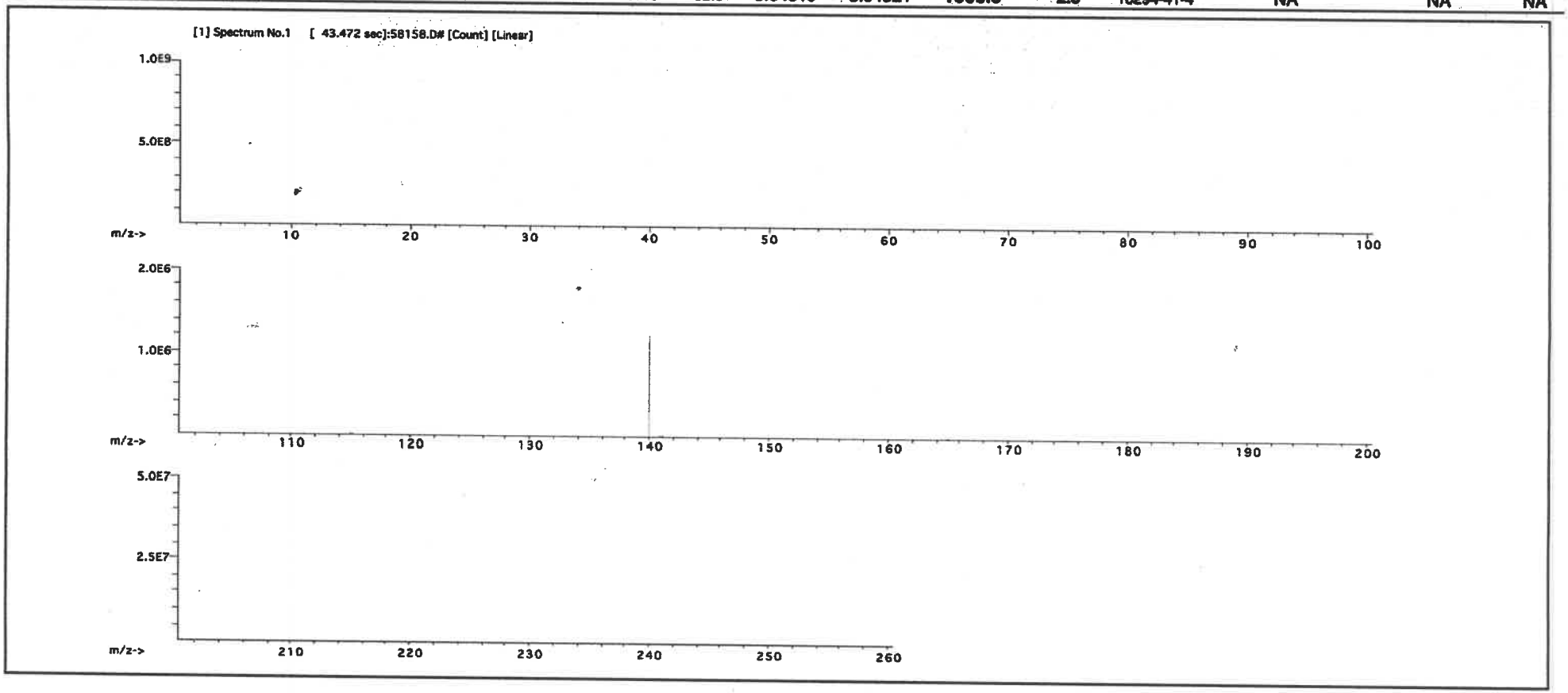
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



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.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

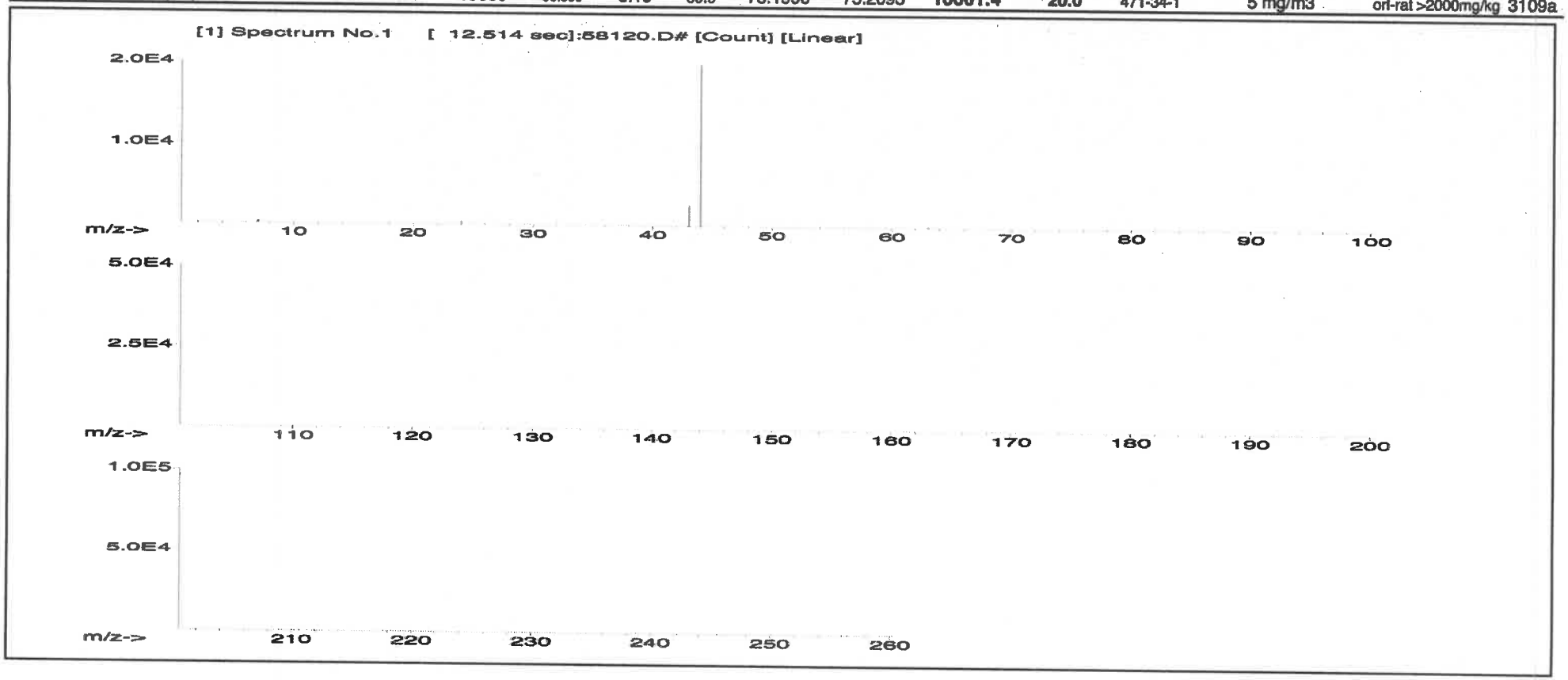
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5514 , M5515 R: 03/17/23

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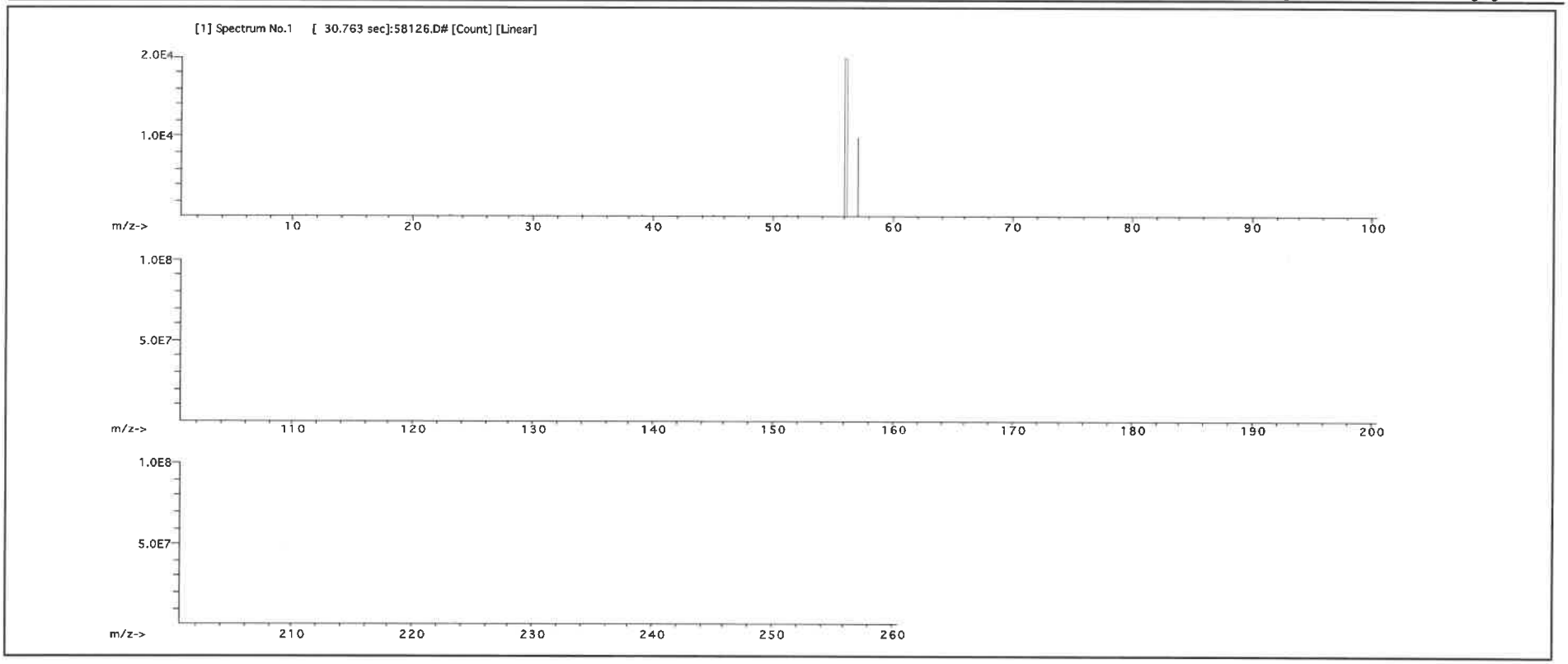
CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**		
Lot Number:	**092122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Iron (Fe)**		7.0%	350.0 (mL)	Nitric Acid
Expiration Date:	092125				
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	092122
Reviewed By:	Pedro L. Rentas	092122

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	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
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:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

RD: 06/12/2023, M5581, M5582, M5583, M5584, M5585

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
CATALOG NO.	BOI5021-450L
PRODUCT DESCRIPTION:	BOILING STONES, TFE, 454GMS
QUANTITY:	10 EACH
LOT NO.	W126678
SPECIFICATION (S):	Made from Virgin PTFE Resin

We certify that we have complied with the terms and conditions of the above Purchase Order and the Part Specifications in the manufacturing of the above product.

Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-68118-BOI5021-061223

3773 NW 126th Avenue • Coral Springs, Florida 33065 • Fax (954) 344-2008 • 1-800 446-3781
Email: jensen@jenseninert.com Visit our Web Site at www.jenseninert.com

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M5658 R ! 8/25/23

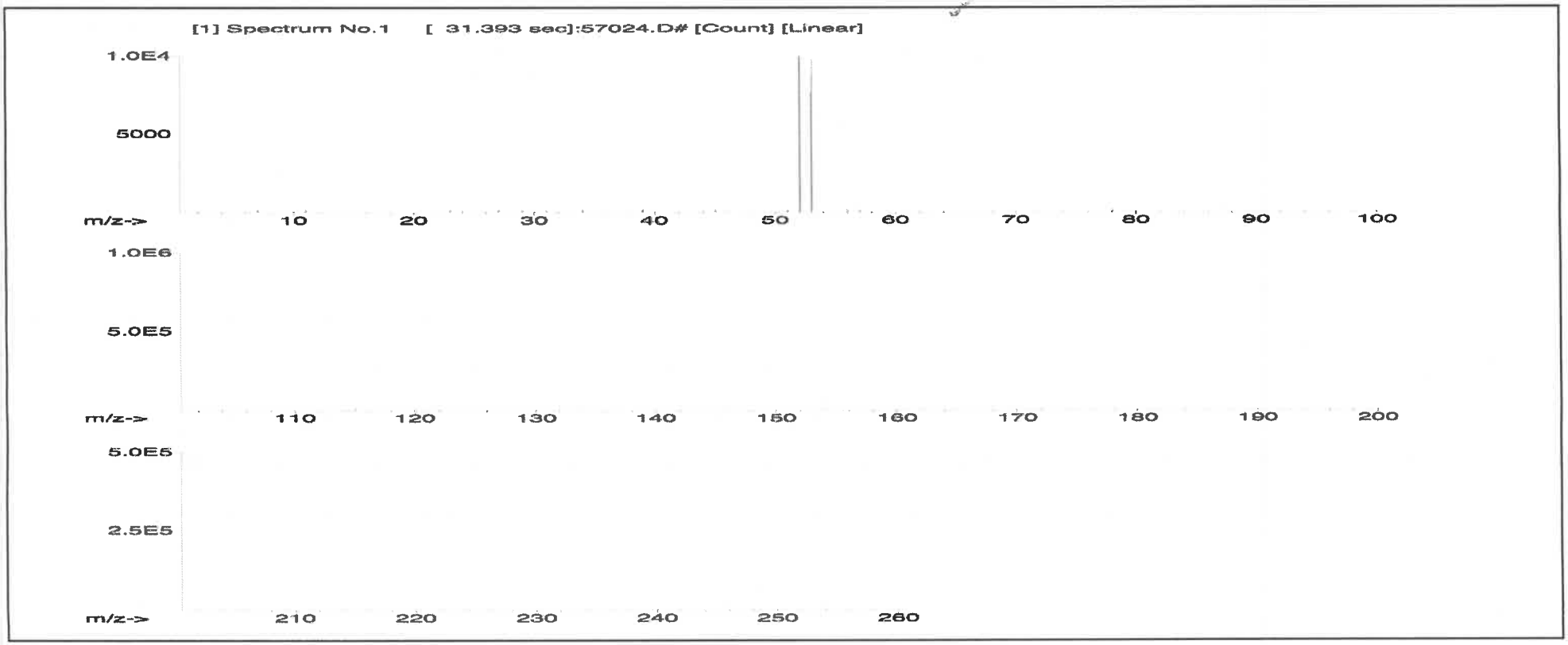
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5697 R: 10/27/23

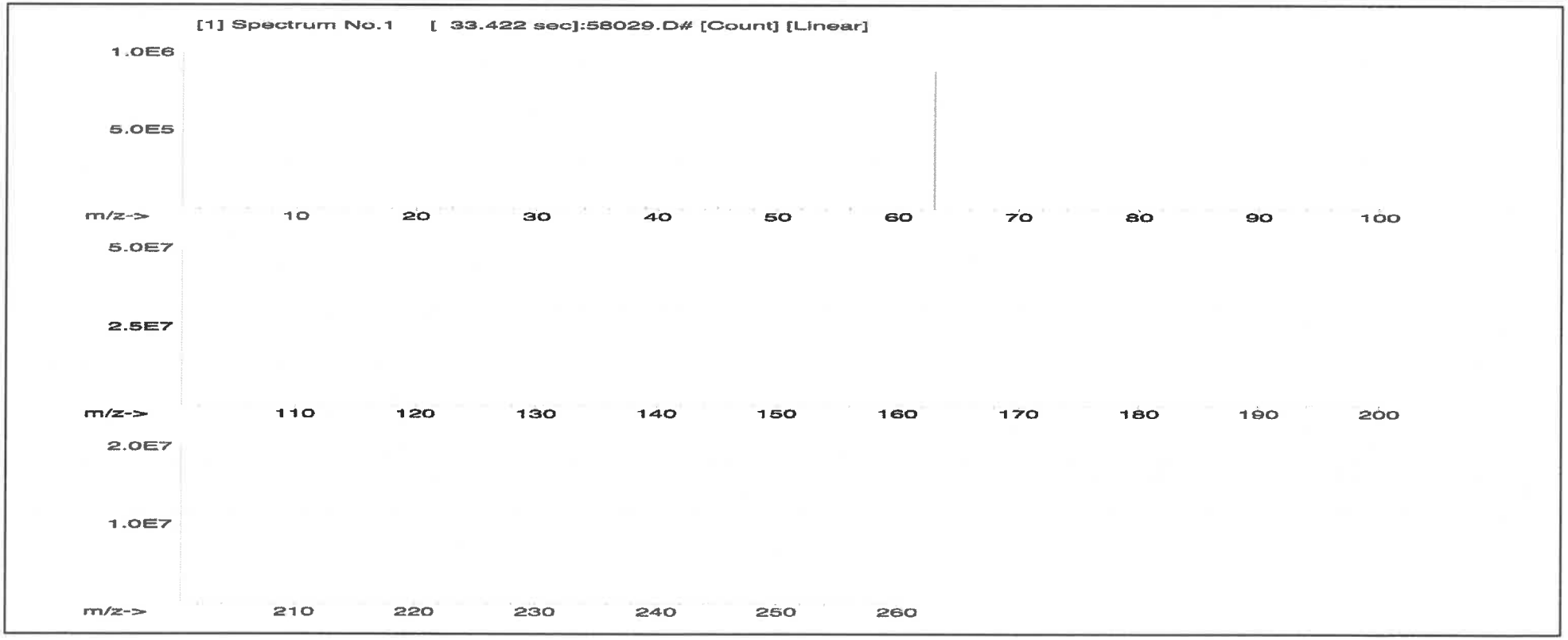
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5648 R: 10/27/23

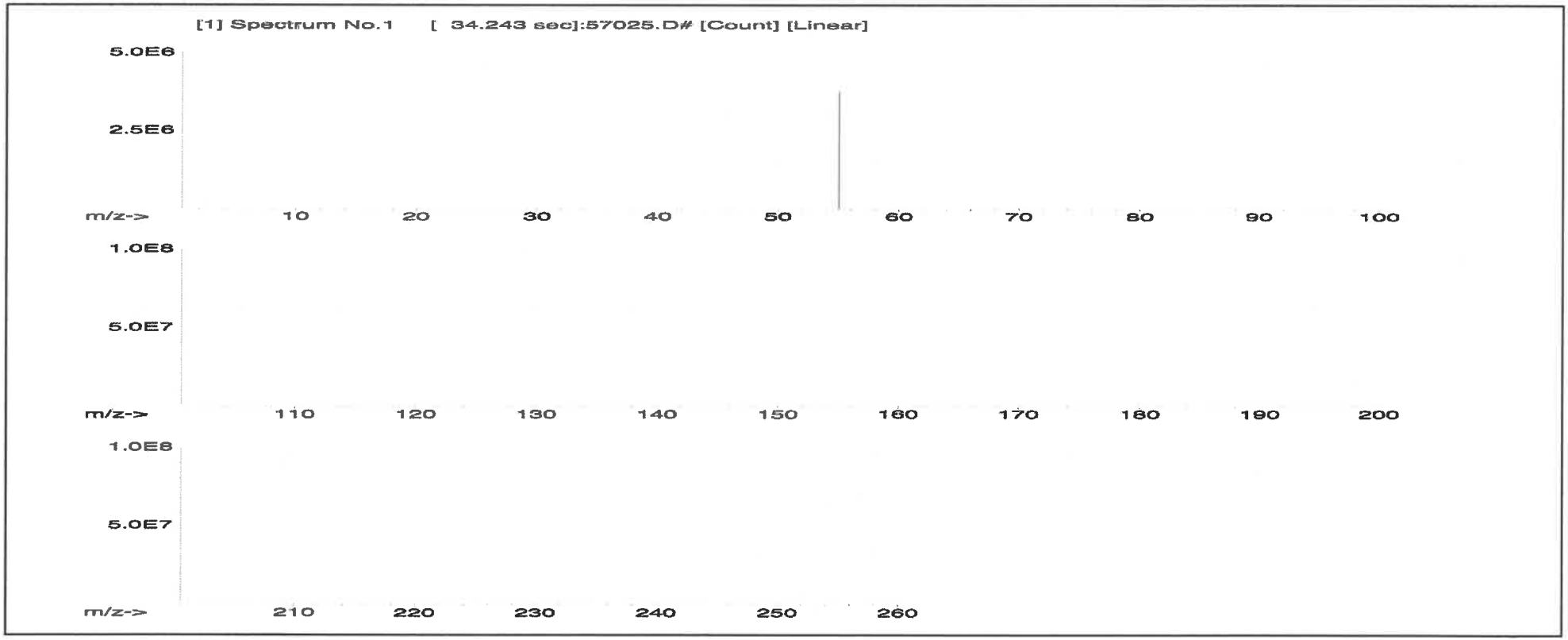
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
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):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

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. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

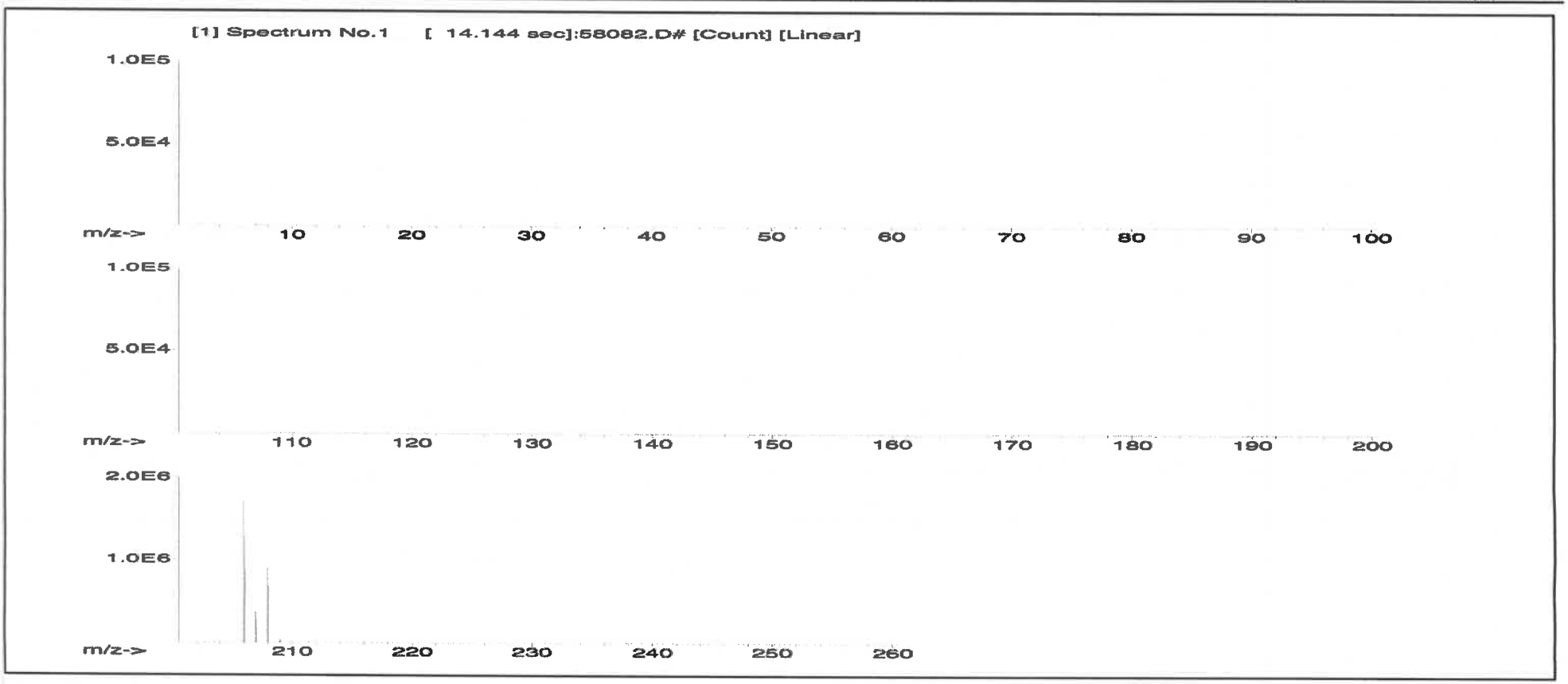
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 12/20/23 M5748

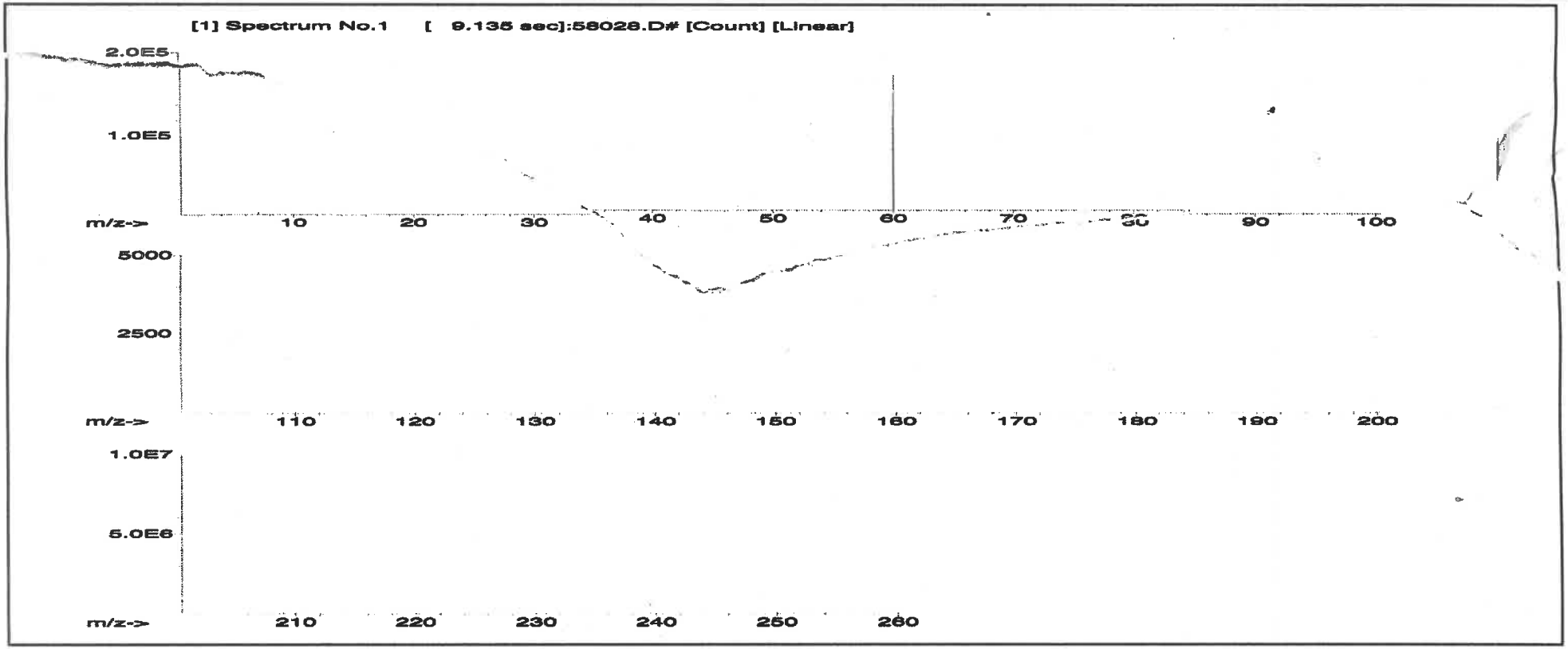
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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	**2.2**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M5768, M5769 (BP) R: 1/3/24

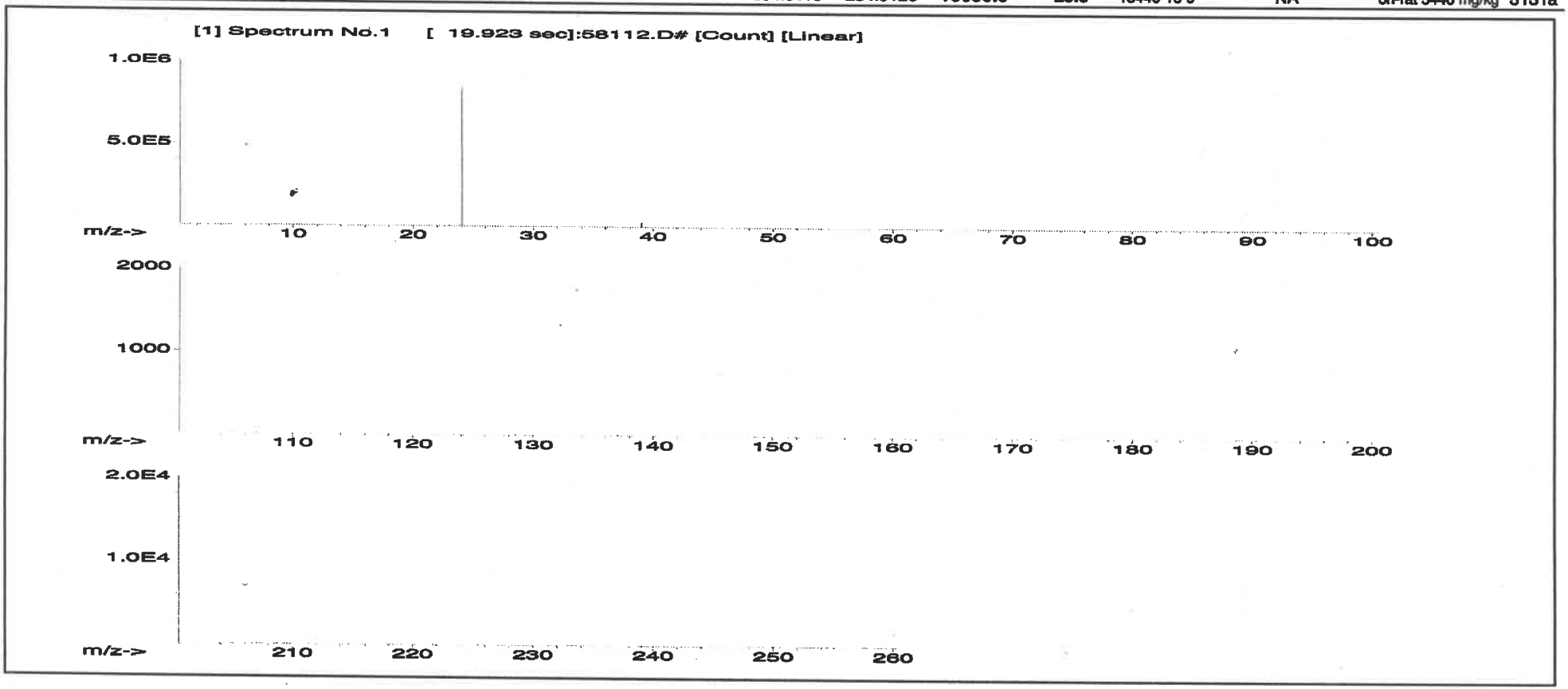
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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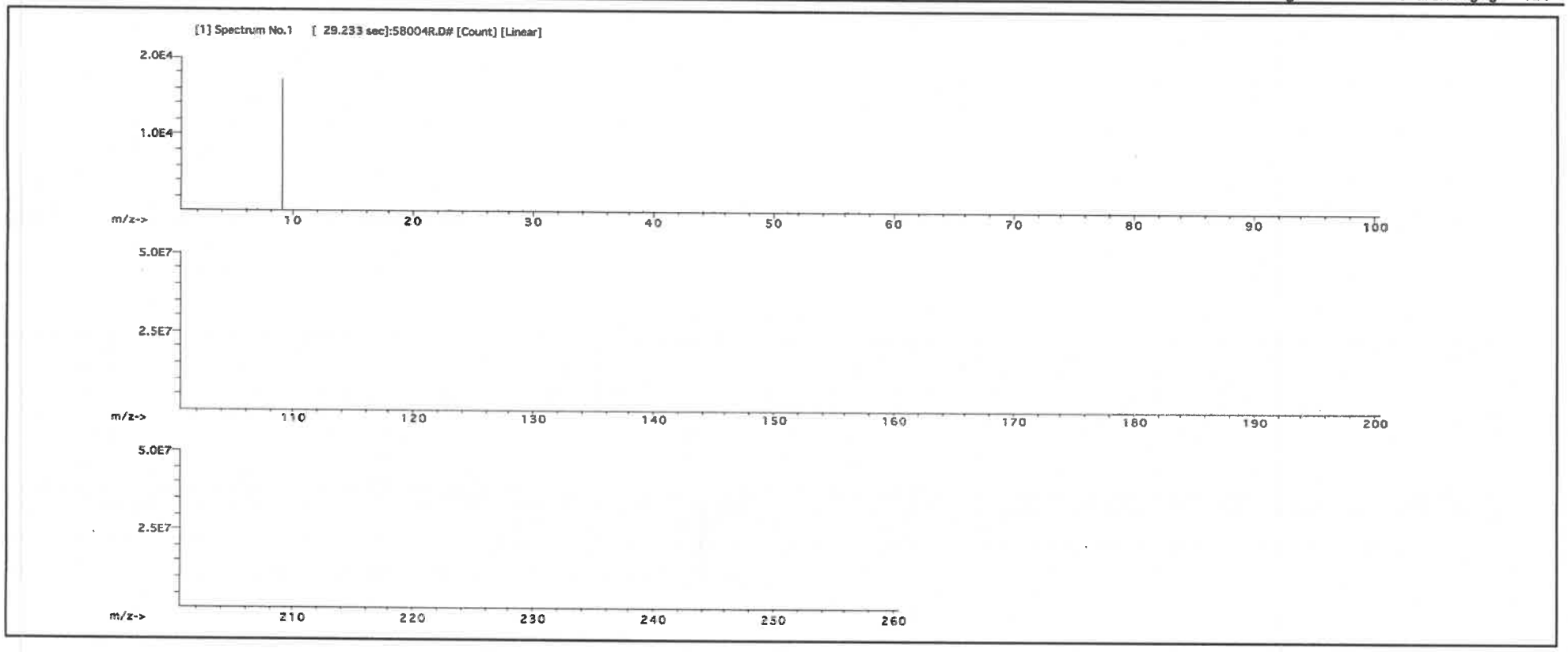
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

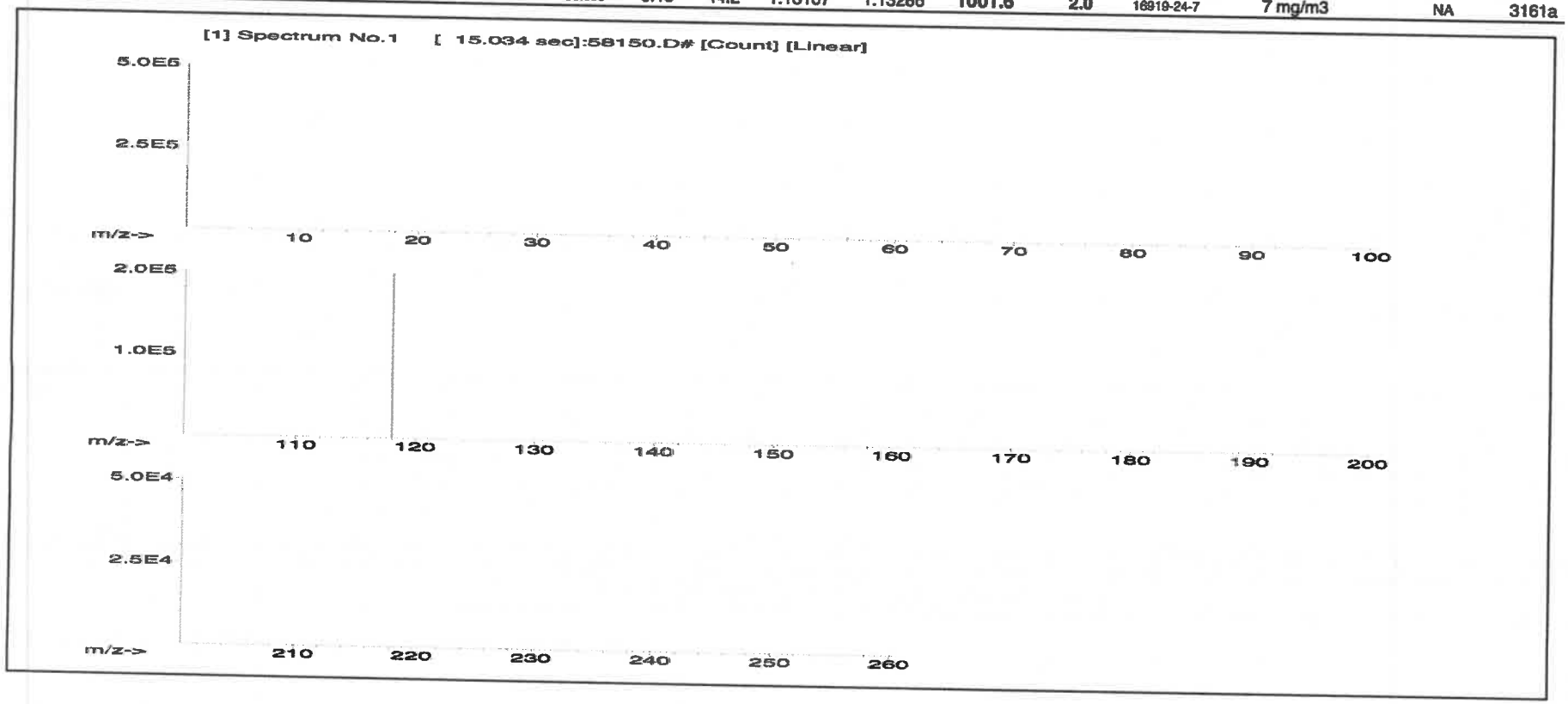
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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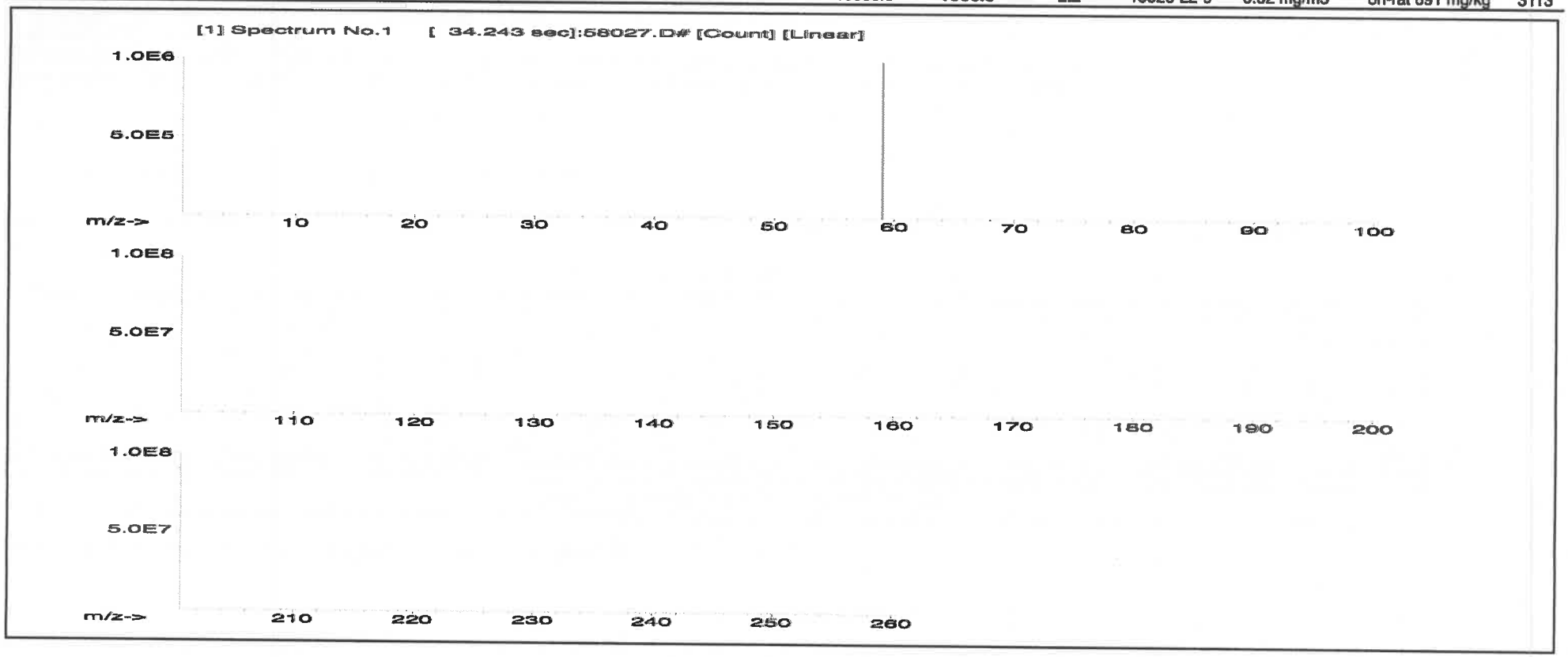
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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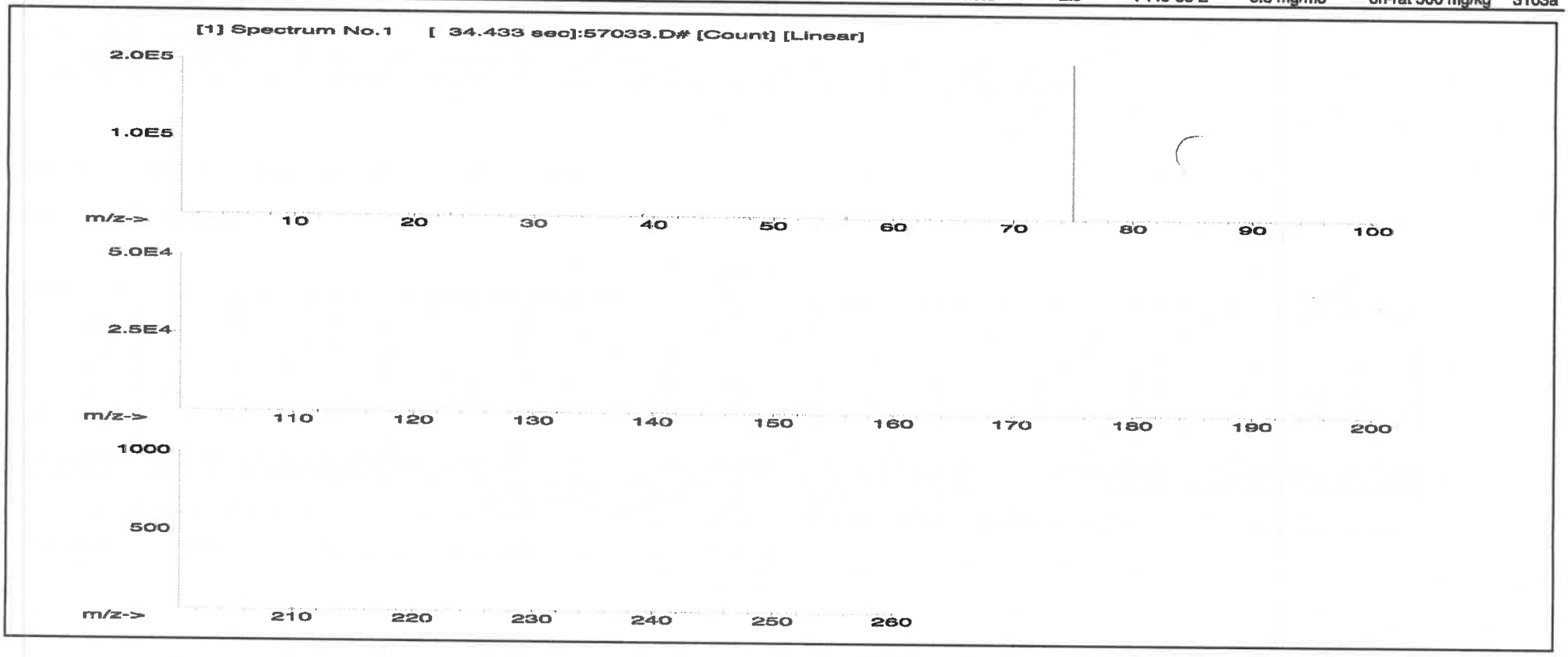
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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.

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A: 02/09/24 M.5814

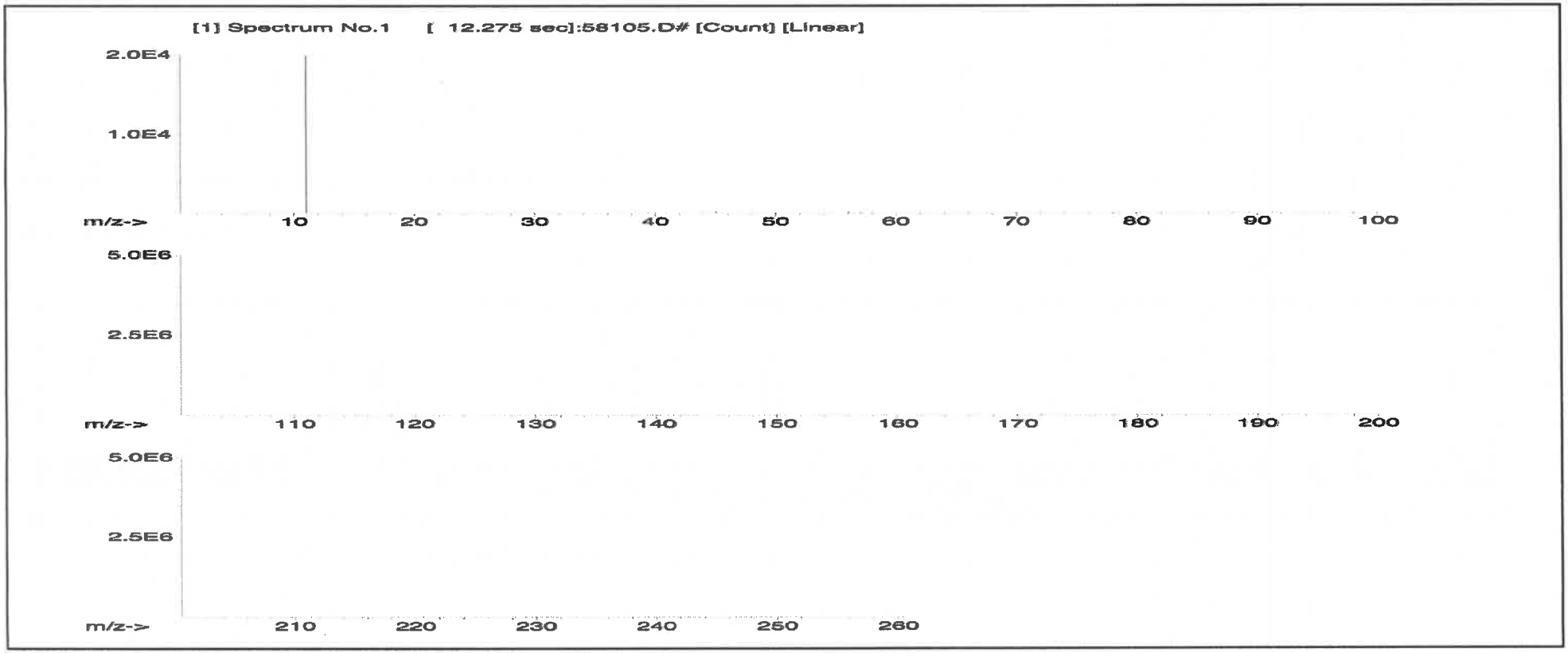
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CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R1 02/09/24. M58165

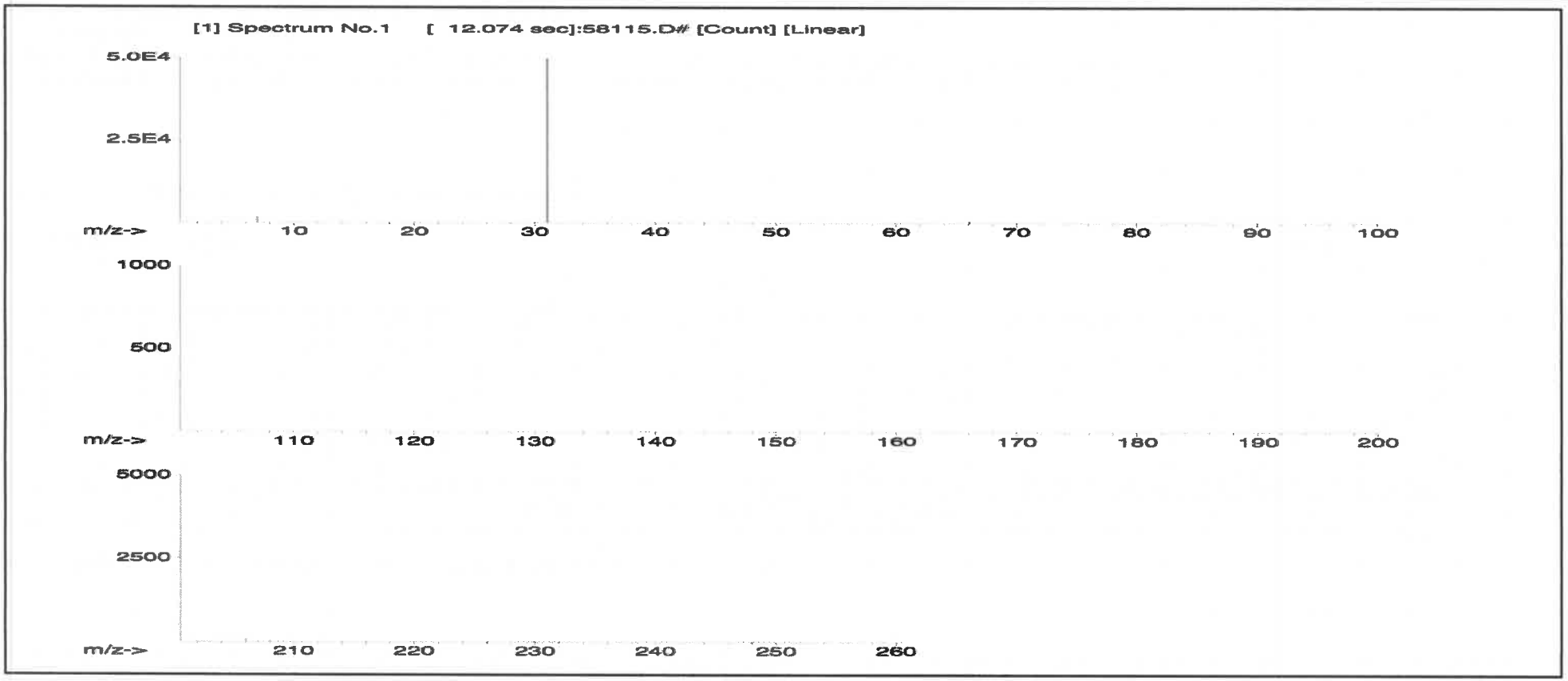
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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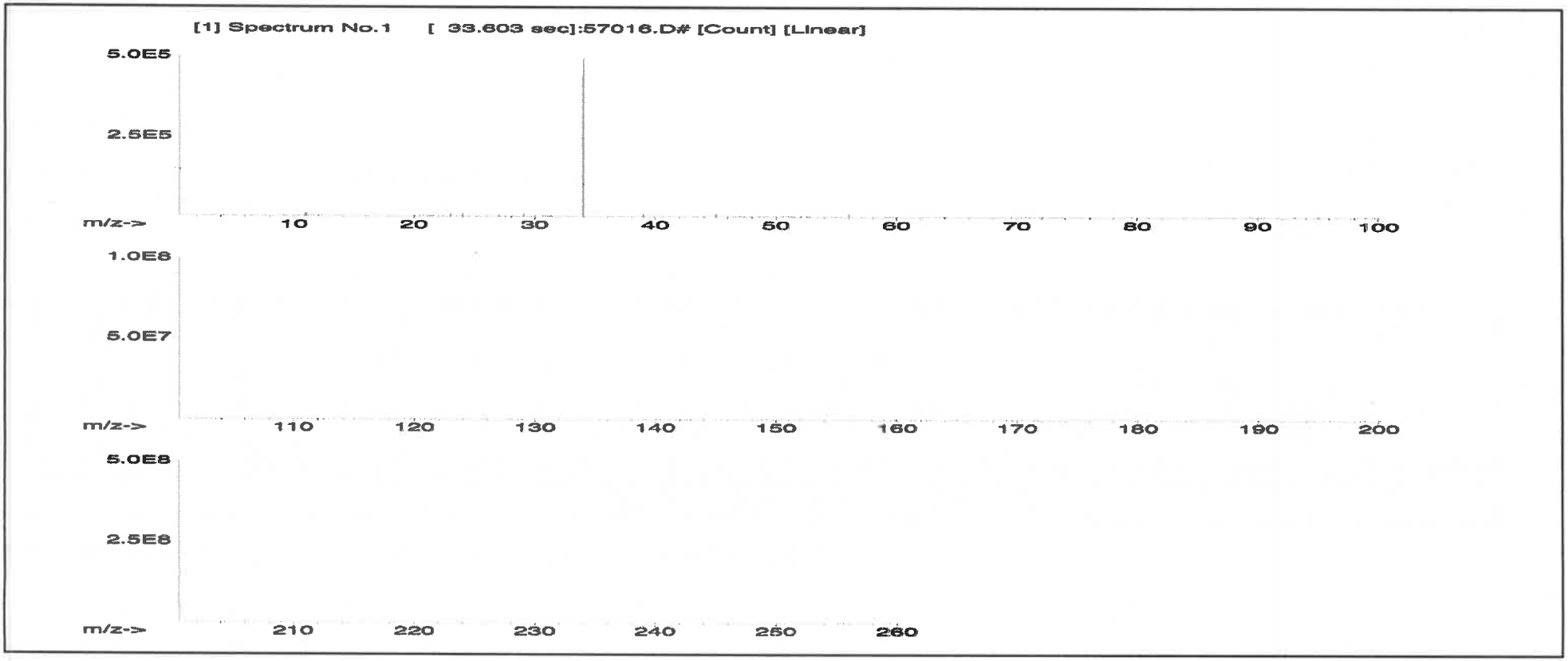
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

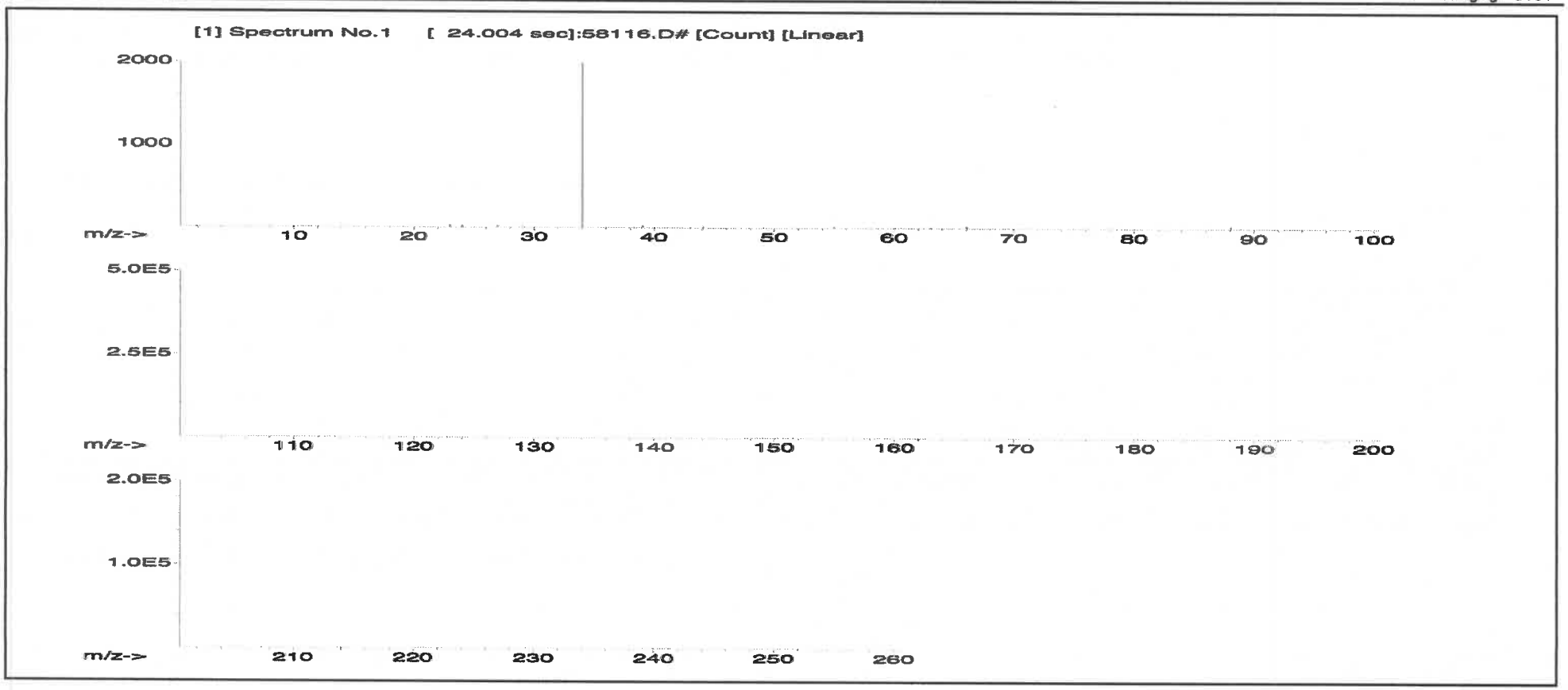
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

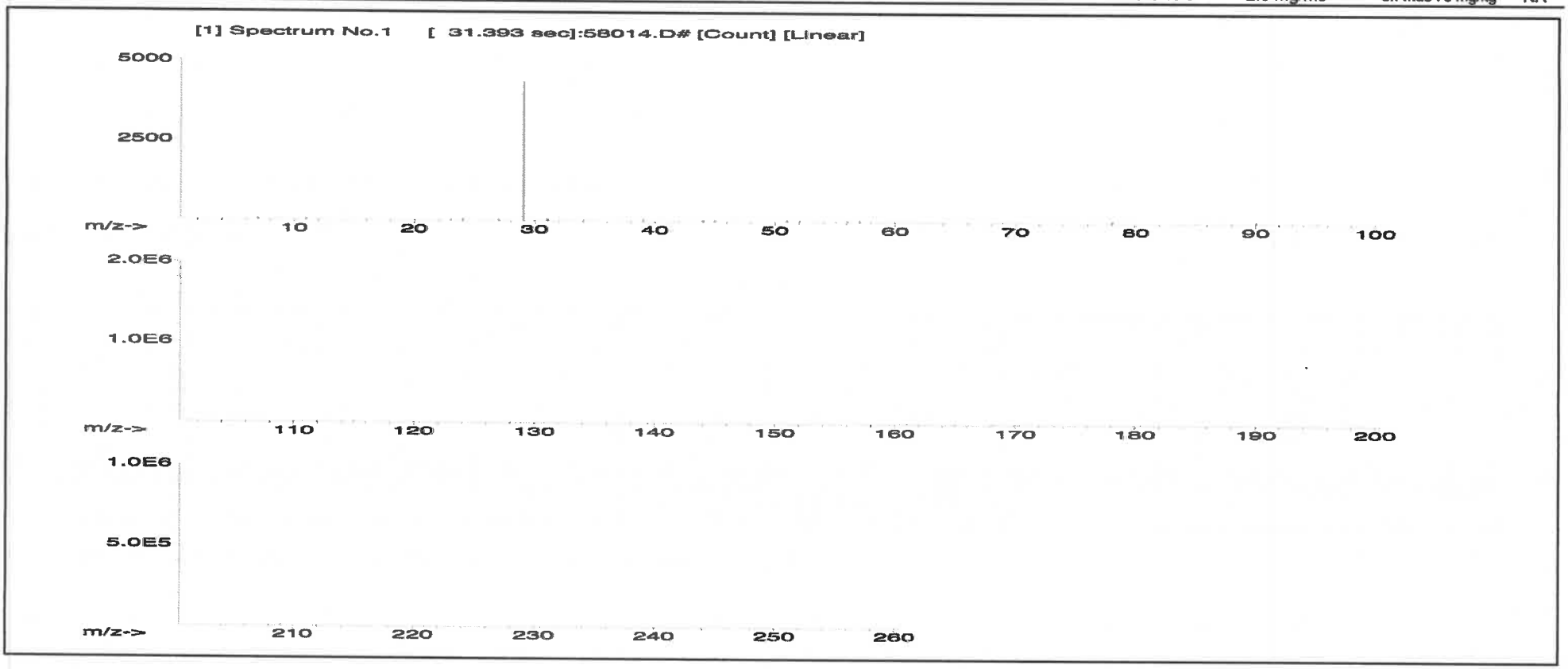
Aleah O'Brady

Formulated By: Aleah O'Brady 122023

Pedro Rentas

Reviewed By: Pedro L. Rentas 122023

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 hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<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	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

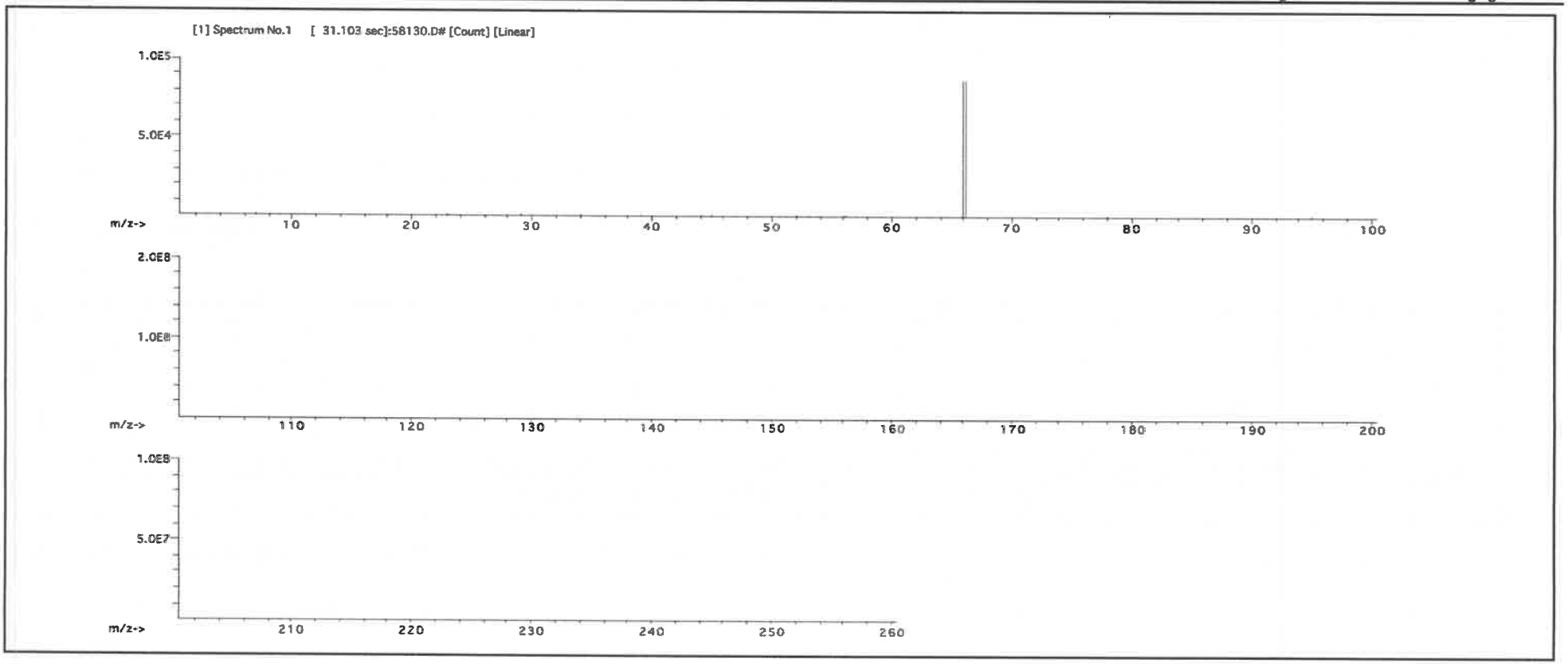
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
	2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

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	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5820

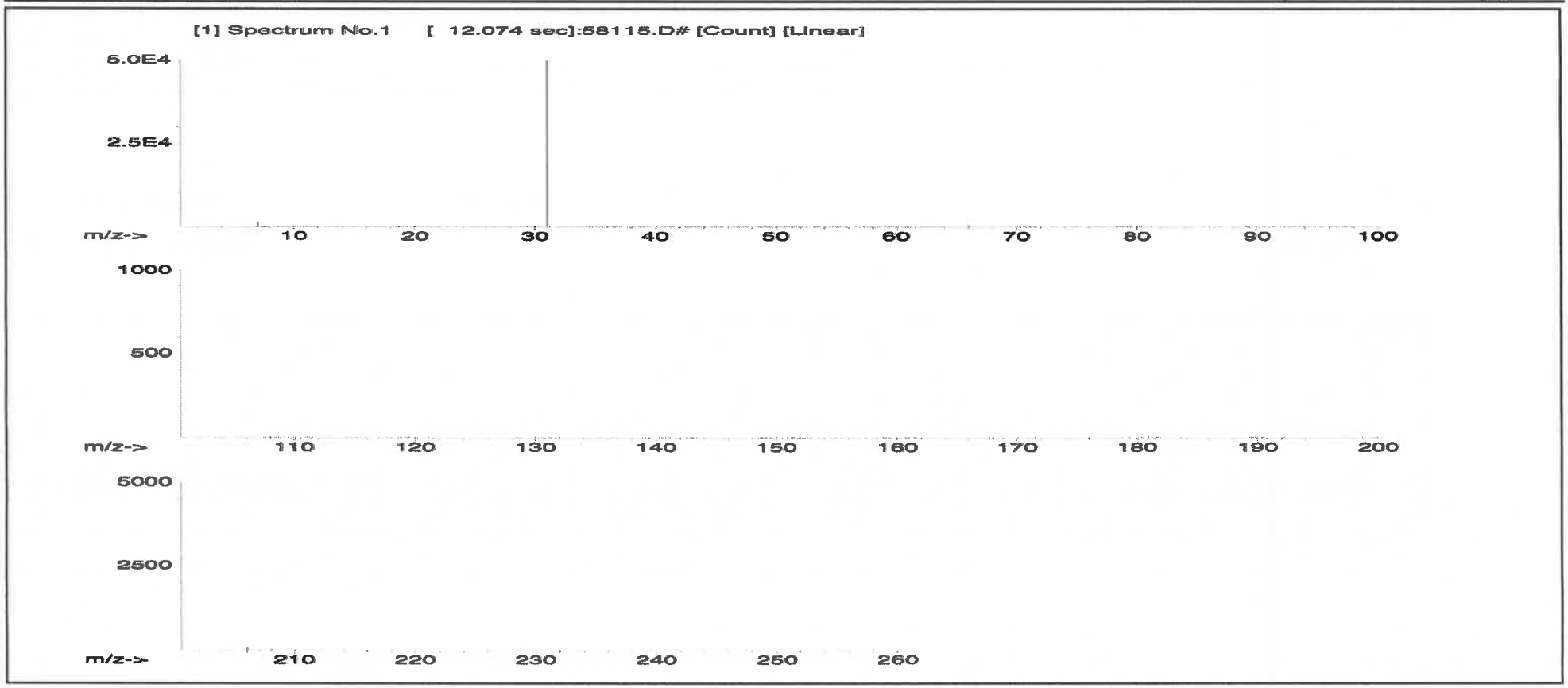
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CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28 - 37 MB MSS53 MB 3/30/23

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.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

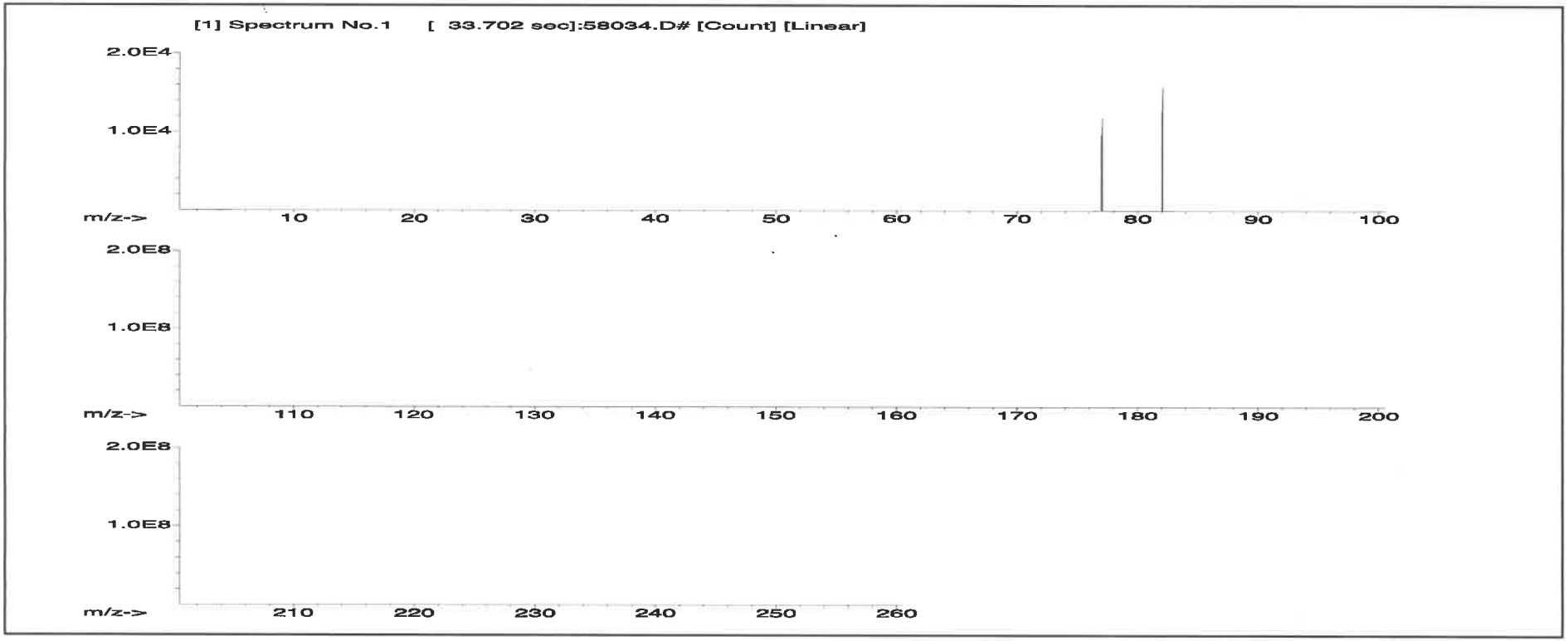
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

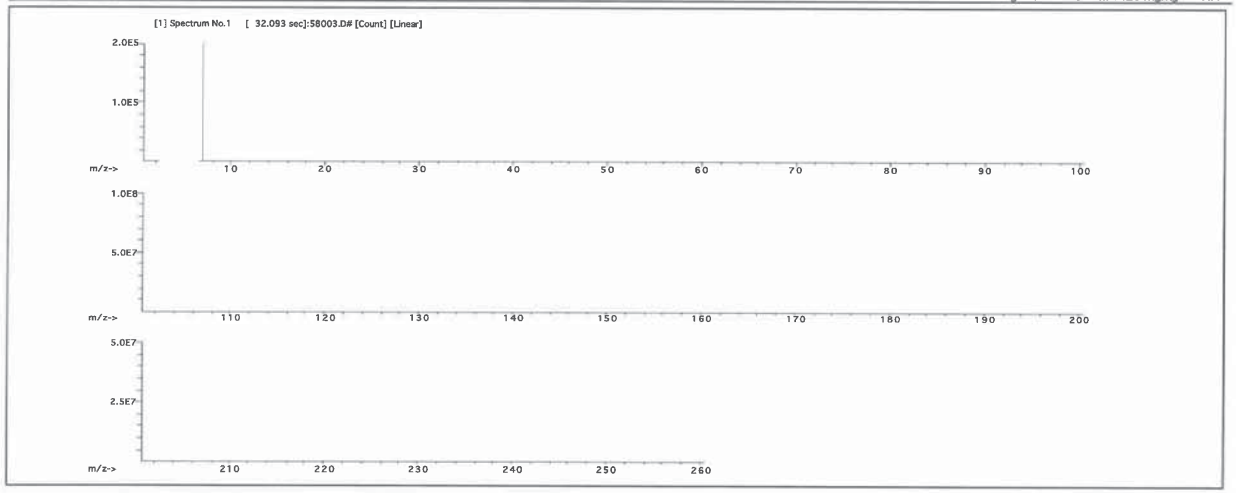
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5978, M5979

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

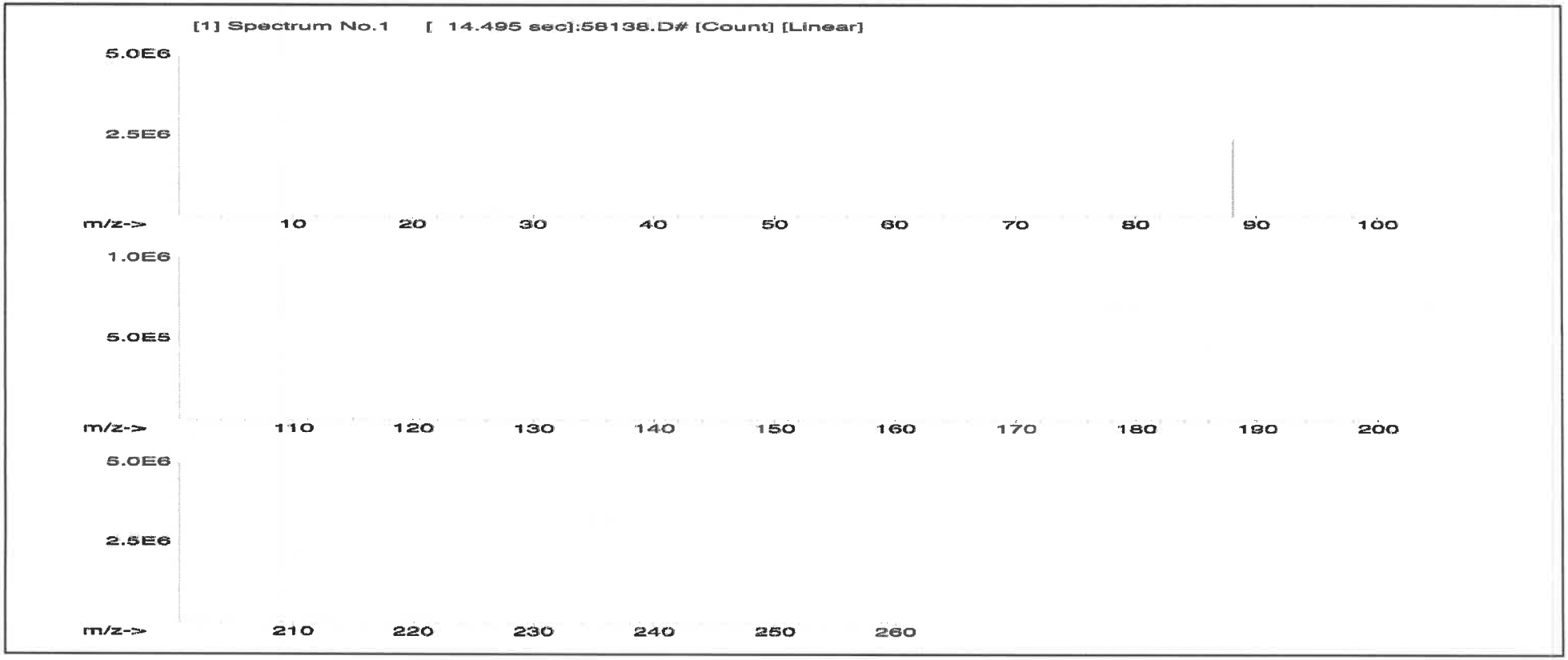
45982 R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:	**57038**		**Lot #**		
Lot Number:	**031524**	**Solvent:**	24002546	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	031527				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M6033

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

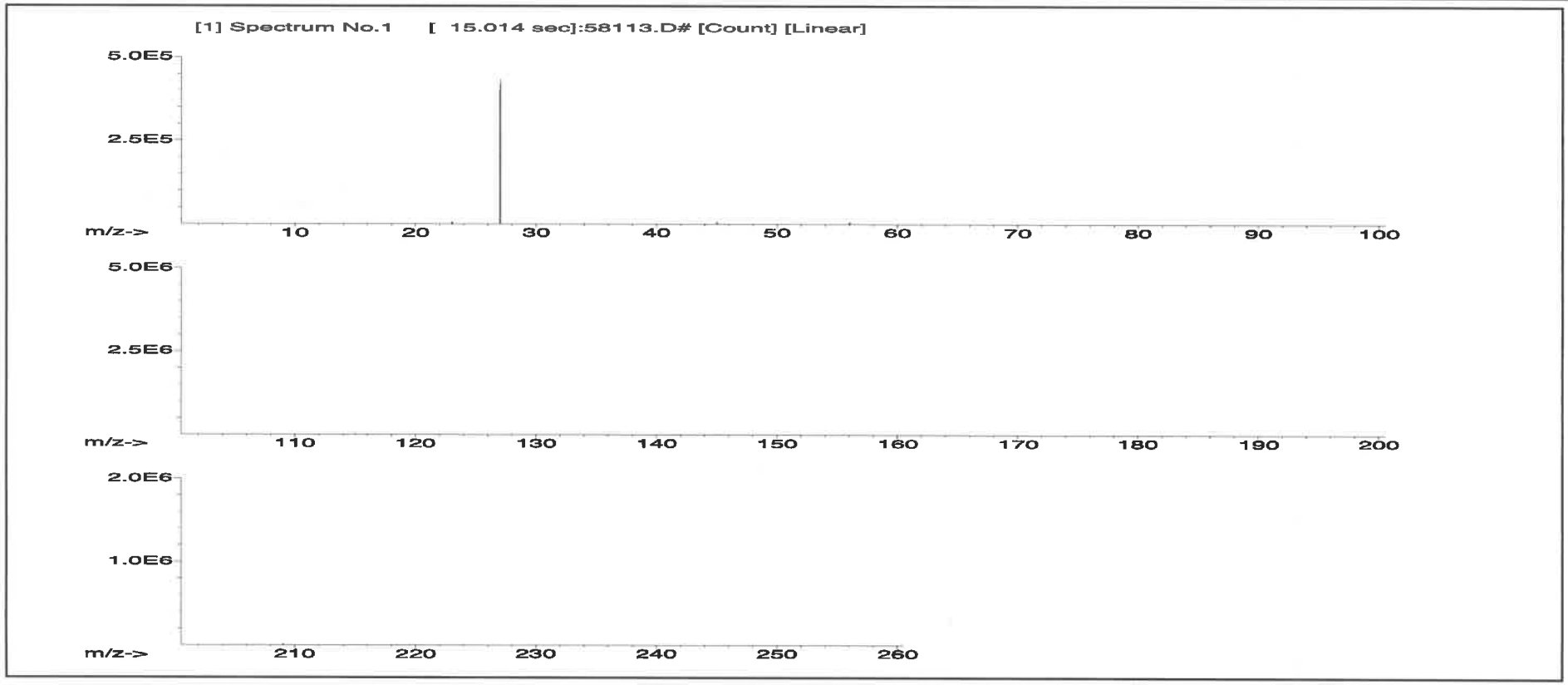
Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Lot #

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6/21

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

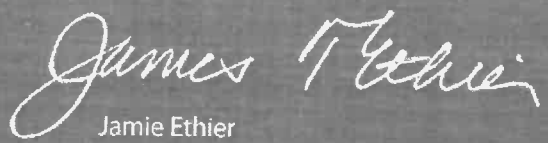
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



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

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

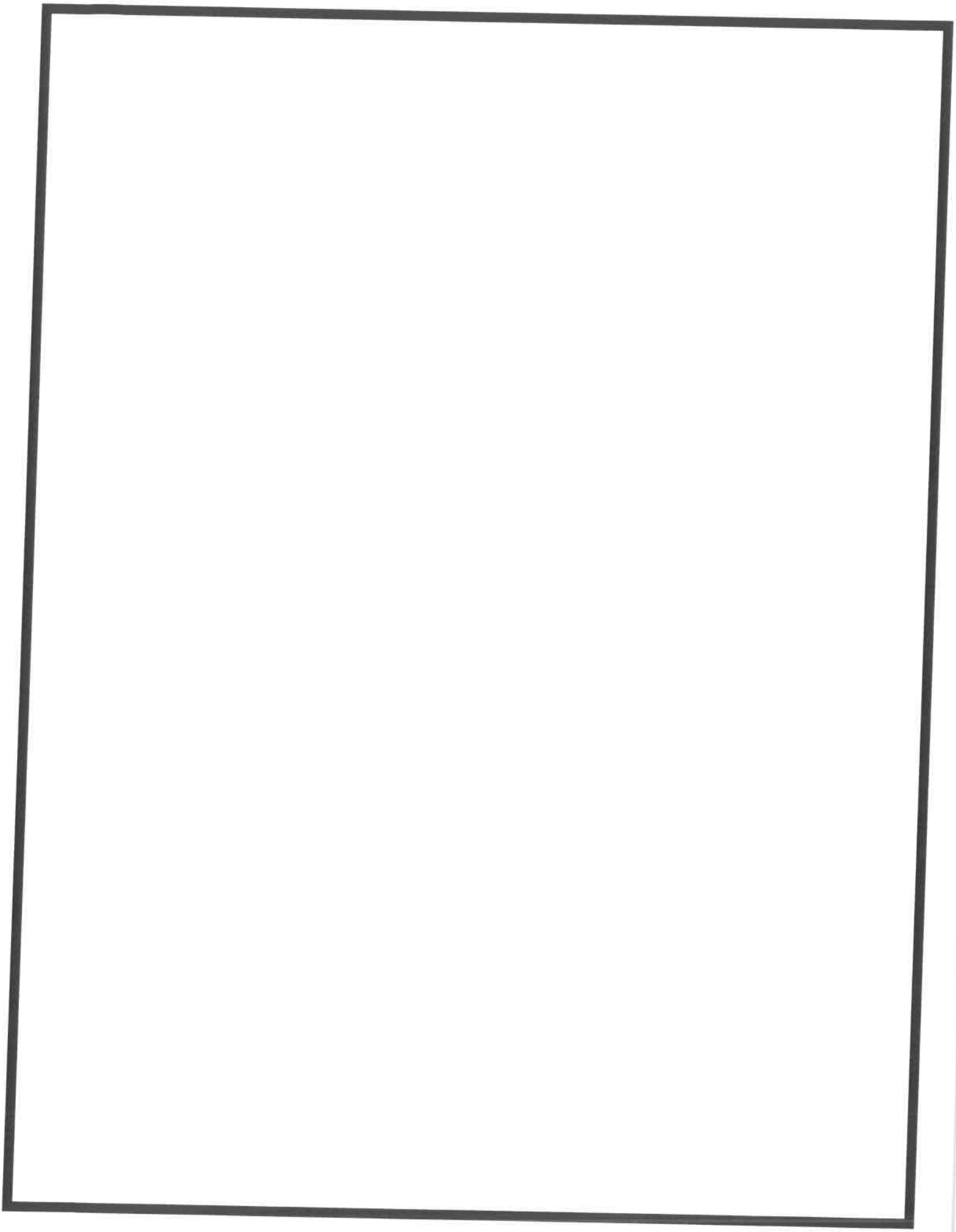
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M5806, M5807

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

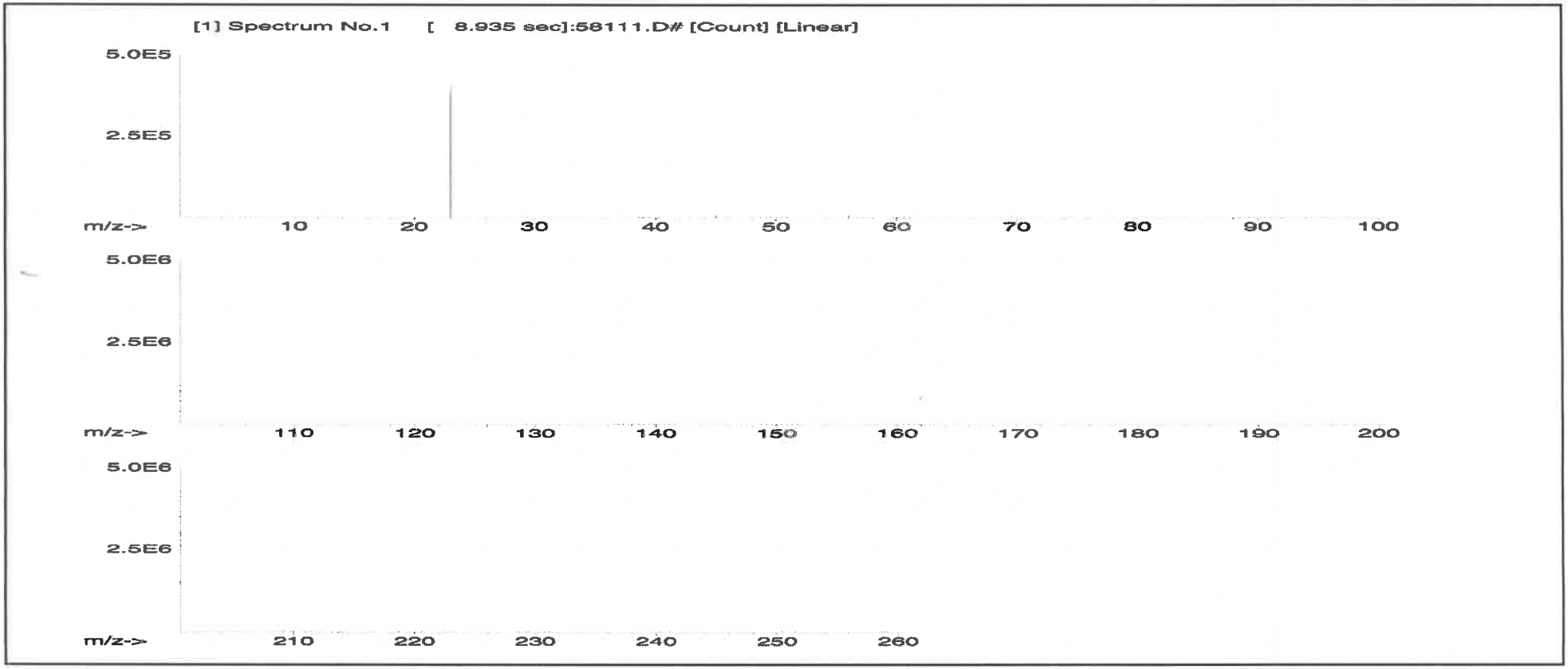
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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AR-1539 Certificate Number
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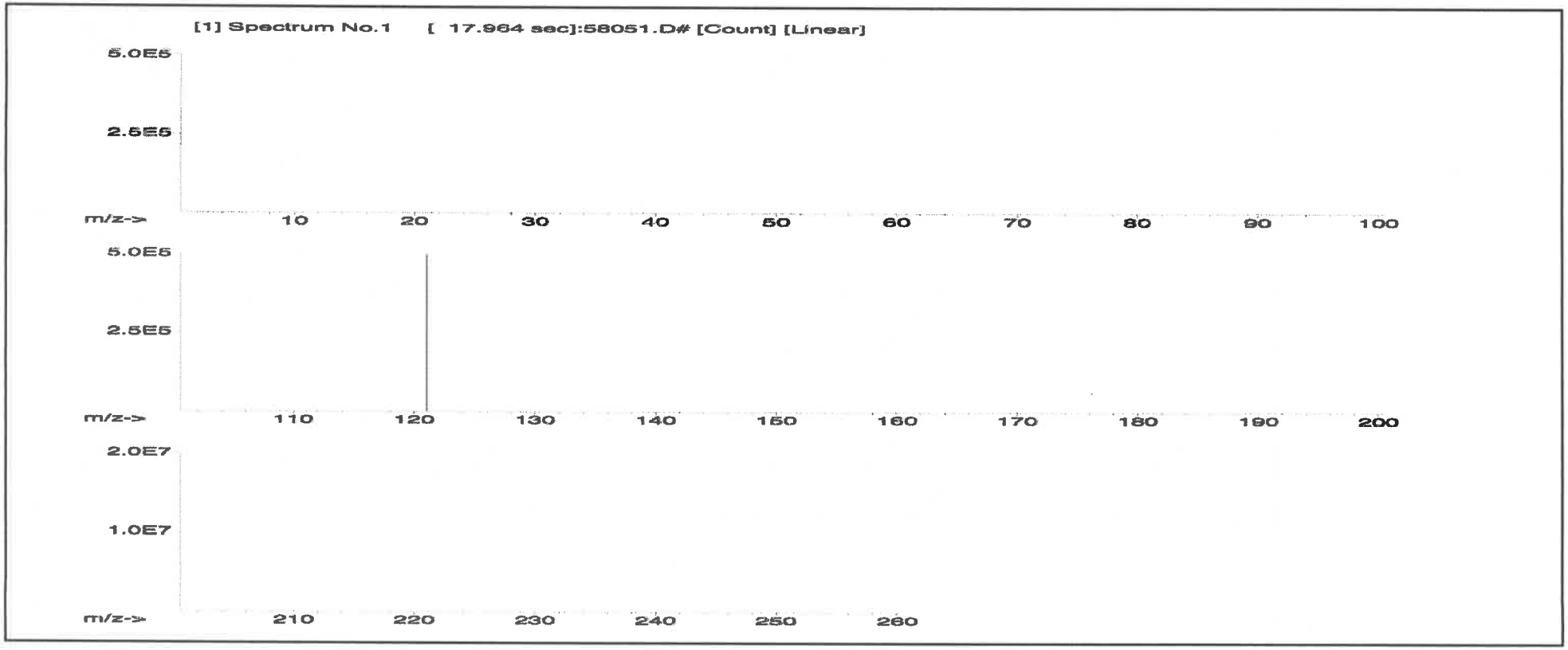
R: 01/03/24 M5802, M5803

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
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):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

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	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

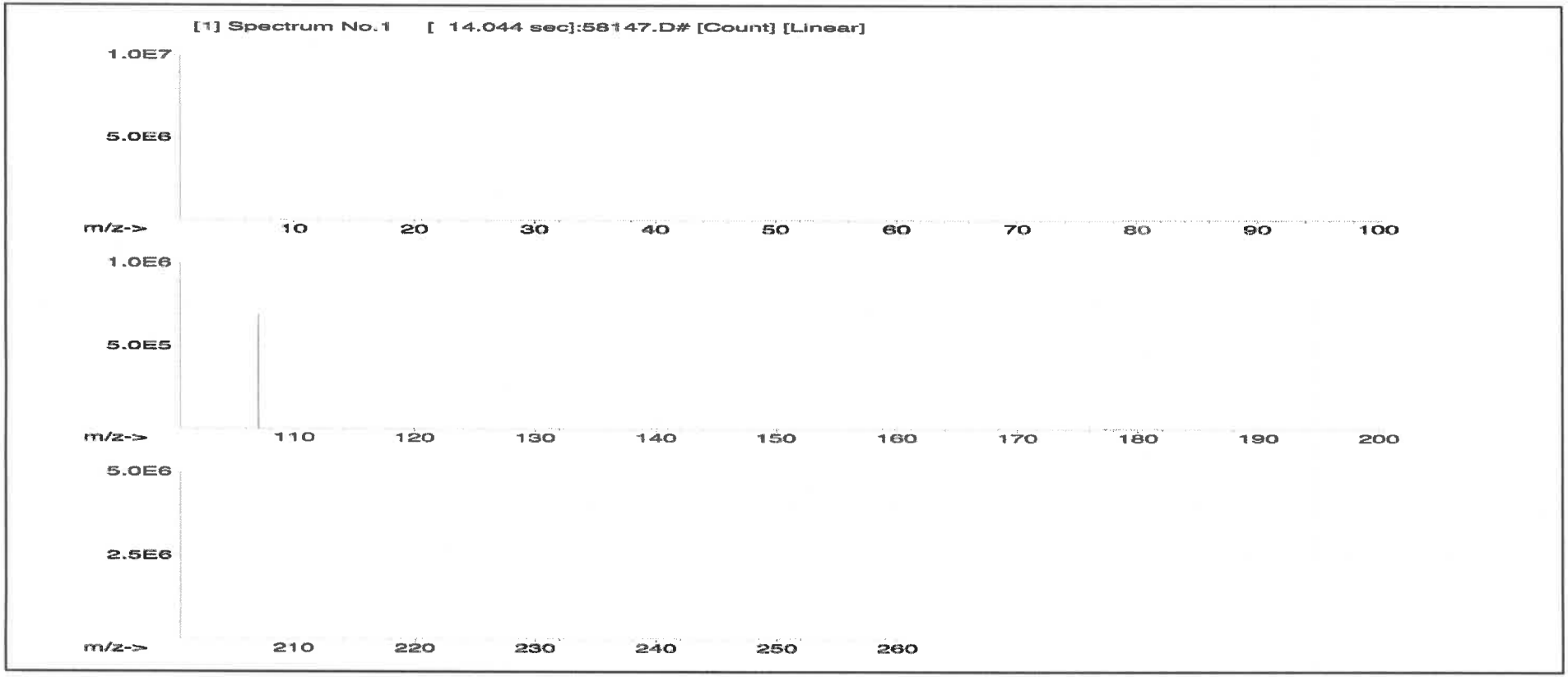
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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Certified Reference Material CRM

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M6023

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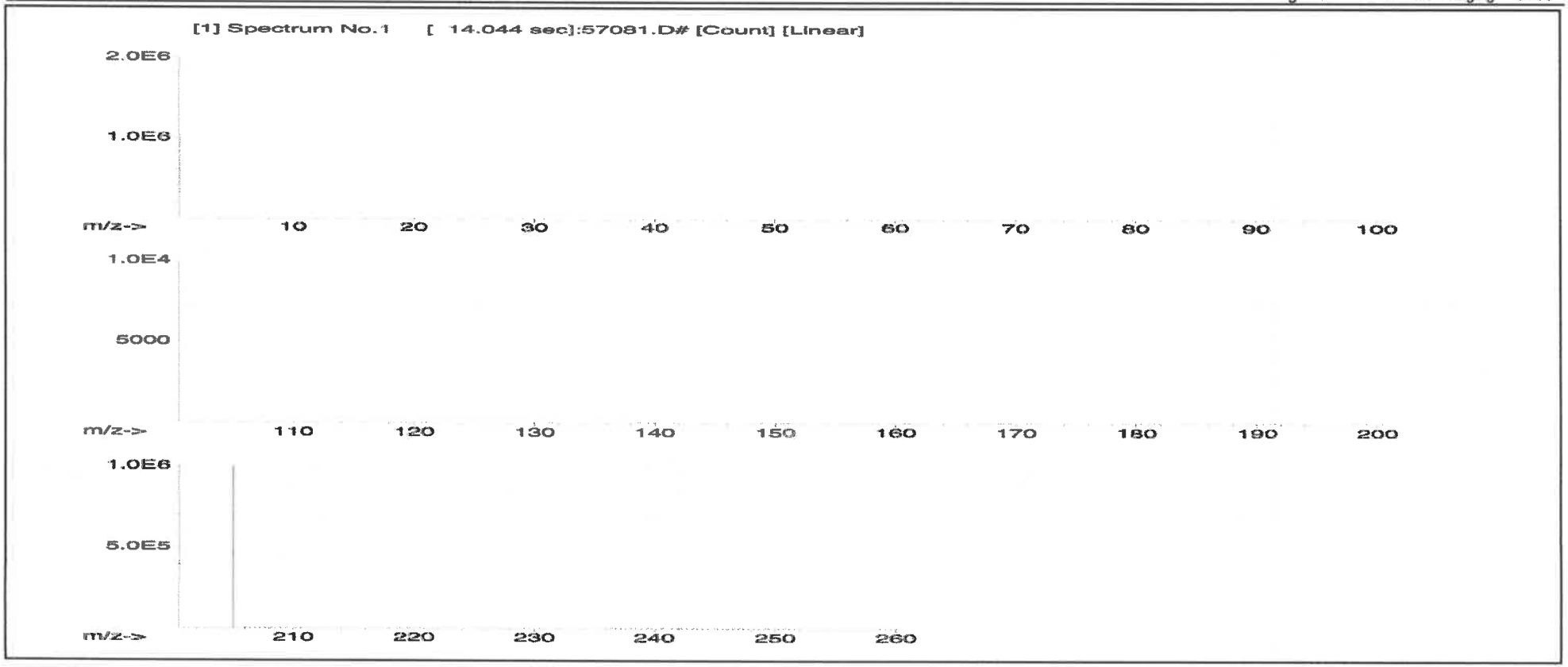
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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M6021

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Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

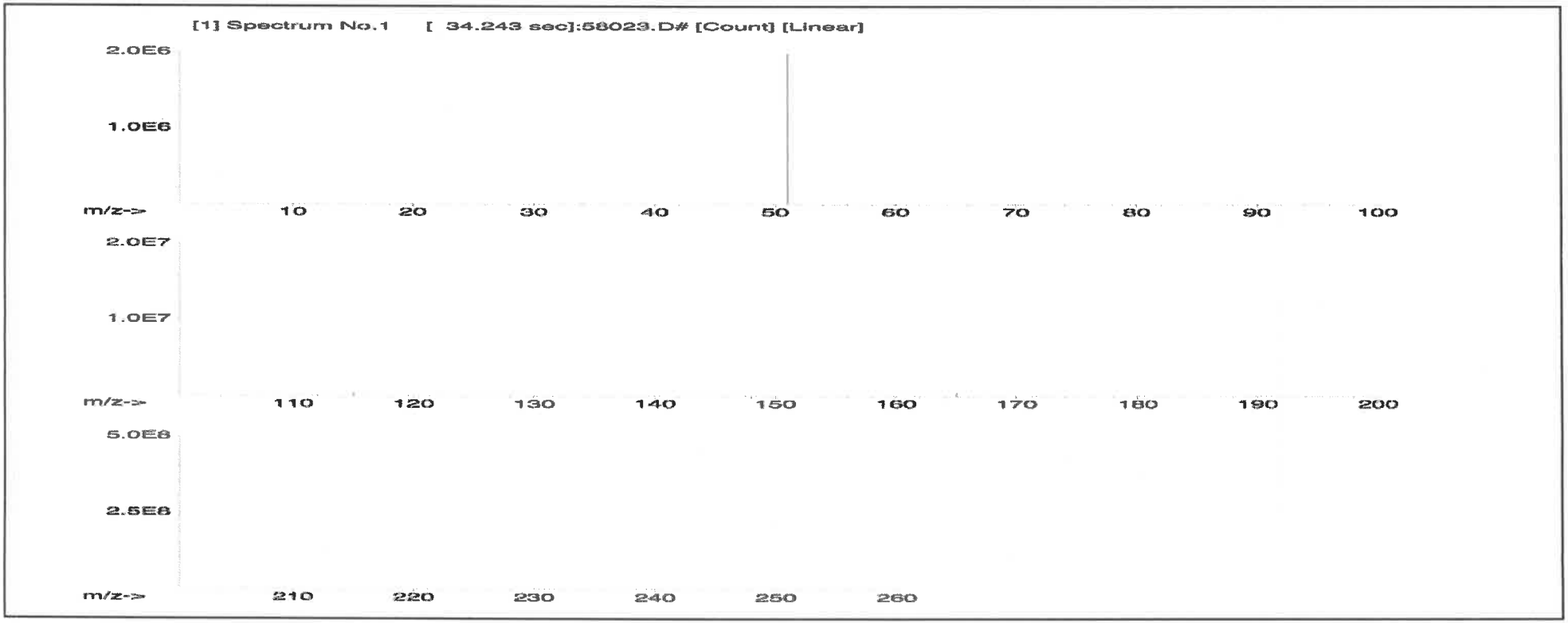
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. P5362
QUOTE NO.
COC Number 2041513

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Parsons
ADDRESS: 301 Plainfield Road
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore
PHONE: (315)418-8767 FAX: —

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed East River SI
PROJECT NO.: 453648 LOCATION: Manhattan NY
PROJECT MANAGER: S. Liberatore
e-mail: Stephen.Liberatore@parsons.com
PHONE: (315)418-8767 FAX: —

CLIENT BILLING INFORMATION

BILL TO: Parsons PO#: 453648
ADDRESS: 301 Plainfield Road
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: S. Liberatore PHONE: (315)418-8767

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 5-day rush DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ❑ Level 1 (Results Only)
- ❑ Level 2 (Results + QC)
- ❑ Level 3 (Results + QC + Raw Data)
- ❑ EDD FORMAT _____
- ❑ Level 4 (QC + Full Raw Data)
- ❑ NJ Reduced ❑ US EPA CLP
- ❑ NYS ASP A ❑ NYS ASP B
- ❑ Other _____

ANALYSIS

1 VOCs, SVOCs
2 TAL metals
3 PCBs, TPH
4 TCLP VOCs, TCLP SVOCs
5 TCLP metals
6 TCLP pest, TCLP herb
7 Ignitability, reactivity
8 Corrosivity, pH
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								E 1	E 2	E 3	E 4	E 5	E 6	E 7	E 8	9	← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER
1.	WC-Soil-20241219	Soil	X		12/19/24	1430	14	X	X	X	X	X	X	X	X		
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. K Valenta	12-19-24/1630	1. 1630 12-19-24
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ❑ COOLER TEMP 5.1 °C
Comments:

Page ____ of ____

CLIENT: ❑ Hand Delivered ❑ Other _____
CHEMTECH: ❑ Picked Up ❑ Field Sampling

Shipment Complete ❑ YES ❑ NO

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WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5362 PARS02
Client Name : PARSONS Main of New Yc
Client Contact : Stephen Liberatore
Invoice Name : PARSONS Main of New Yc
Invoice Contact : Stephen Liberatore

Order Date : 12/20/2024 10:07:00 AM
Project Name : Con Edison Non-MGP - Ea:
Receive DateTime : 12/19/2024 4:30:00 PM
Purchase Order :

Project Mgr :
Report Type : Results Only
EDD Type : NYSDEC EDD V-4
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5362-01	WC-SOIL-20241219	Solid	12/19/2024	14:30					
					VOC-TCLVOA-10		8260D		5 Bus. Days

Relinguished By :
Date / Time : 12-20-24 11:00

Received By :
Date / Time : 12/20/24 11:00

Storage Area : **VOA Refridgerator Room**

DgH 6
FZ2