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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LAB CHRONICLE

OrderID:	Q3391	**OrderDate:**	10/17/2025 2:30:00 PM
Client:	Yannuzzi Group, Inc.	**Project:**	Edison Yard
Contact:	Alyssa Yannuzzi	**Location:**	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3391-01	**RCA**	**Water**			**09/18/25**			**09/29/25**
			SPLP MetalGroup2	6010D		10/29/25	10/31/25	

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Hit Summary Sheet
SW-846

SDG No.: Q3391 **Order ID:** Q3391

Client: Yannuzzi Group, Inc. **Project ID:** Edison Yard

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : RCA								
Q3391-01	RCA	Water	Cobalt	6.57	J	1.13	15.0	ug/L



SAMPLE DATA

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Report of Analysis

Client:	Yannuzzi Group, Inc.	Date Collected:	09/18/25
Project:	Edison Yard	Date Received:	09/29/25
Client Sample ID:	RCA	SDG No.:	Q3391
Lab Sample ID:	Q3391-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-48-4	Cobalt	6.57	J	1	1.13	15.0	ug/L	10/29/25 12:32	10/31/25 13:33	6010D	

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: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cobalt	1920	2000	96	90 - 110	P	10/31/2025	11:34	LB137727

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Yannuzzi Group, Inc.

SDG No.: Q3391

Contract: YANN01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Cobalt	30.1	30.0	100	80 - 120	P	10/31/2025	11:45	LB137727

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Cobalt	2470	2500	99	90 - 110	P	10/31/2025	12:15	LB137727
CCV02	Cobalt	2500	2500	100	90 - 110	P	10/31/2025	13:17	LB137727
CCV03	Cobalt	2440	2500	98	90 - 110	P	10/31/2025	14:09	LB137727
CCV04	Cobalt	2370	2500	95	90 - 110	P	10/31/2025	15:08	LB137727
CCV05	Cobalt	2470	2500	99	90 - 110	P	10/31/2025	15:58	LB137727
CCV06	Cobalt	2480	2500	99	90 - 110	P	10/31/2025	16:48	LB137727
CCV07	Cobalt	2440	2500	98	90 - 110	P	10/31/2025	17:39	LB137727
CCV08	Cobalt	2400	2500	96	90 - 110	P	10/31/2025	18:28	LB137727
CCV09	Cobalt	2410	2500	96	90 - 110	P	10/31/2025	18:45	LB137727

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cobalt	30.3	30.0	101	65 - 135	P	10/31/2025	11:54	LB137727

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	11:50	LB137727

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	12:19	LB137727
CCB02	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	13:21	LB137727
CCB03	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	14:13	LB137727
CCB04	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	15:12	LB137727
CCB05	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	16:02	LB137727
CCB06	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	16:52	LB137727
CCB07	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	17:43	LB137727
CCB08	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	18:32	LB137727
CCB09	Cobalt	2.26	+/-15	U	30.0	P	10/31/2025	18:49	LB137727

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170310BL		**WATER**		**Batch Number:**	**PB170310**		**Prep Date:**	**10/29/2025**	
	Cobalt	1.13	<7.5	U	15.0	P	10/31/2025	14:45	LB137727

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170310TB		**WATER**		**Batch Number:**	**PB170310**		**Prep Date:**	**10/29/2025**	
	Cobalt	1.13	<7.5	U	15.0	P	10/31/2025	16:57	LB137727

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

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

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Cobalt	2.13			-30	30	10/31/2025	11:58	LB137727
ICSAB01	Cobalt	484	476	102	404	548	10/31/2025	12:02	LB137727

METAL
QC
DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Yannuzzi Group, Inc. **level:** low **sdg no.:** Q3391

contract: YANN01 **lab code:** ACE

matrix: Water **sample id:** Q3391-01 **client id:** RCAMS

Percent Solids for Sample: NA **Spiked ID:** Q3391-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cobalt	ug/L	75 - 125	108		6.57	J	100	102		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Yannuzzi Group, Inc. **level:** low **sdg no.:** Q3391

contract: YANN01 **lab code:** ACE

matrix: Water **sample id:** Q3391-01 **client id:** RCAMSD

Percent Solids for Sample: NA **Spiked ID:** Q3391-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cobalt	ug/L	75 - 125	103		6.57	J	100	96		P

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Metals
- 5b -

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

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

Sample ID: **Spiked ID:**

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Yannuzzi Group, Inc. **Level:** LOW **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3391-01 **Client ID:** RCADUP

Percent Solids for Sample: NA **Duplicate ID** Q3391-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cobalt	ug/L	20	6.57	J	6.56	J	0		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: Yannuzzi Group, Inc. **Level:** LOW **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3391-01MS **Client ID:** RCAMSD

Percent Solids for Sample: NA **Duplicate ID** Q3391-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cobalt	ug/L	20	108		103		5		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170310BS							
Cobalt	ug/L	100	99.9		100	80 - 120	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

RCAL

Lab Name: Alliance **Contract:** YANN01

Lab Code: ACE **Lb No.:** lb137727 **Lab Sample ID :** Q3391-01L **SDG No.:** Q3391

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cobalt	6.57	J	6.76	J	3		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Yannuzzi Group, Inc.

SDG No.: Q3391

Contract: YANN01

Lab Code: ACE

Instrument ID:

Date:

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Yannuzzi Group, Inc. **SDG No.:** Q3391

Contract: YANN01 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB170310**						
PB170310BL	PB170310BL	MB	WATER	10/29/2025	50.0	25.0	
PB170310BS	PB170310BS	LCS	WATER	10/29/2025	50.0	25.0	
PB170310TB	PB170310TB	MB	WATER	10/29/2025	50.0	25.0	
Q3391-01	RCA	SAM	WATER	10/29/2025	50.0	25.0	
Q3391-01DUP	RCADUP	DUP	WATER	10/29/2025	50.0	25.0	
Q3391-01MS	RCAMS	MS	WATER	10/29/2025	50.0	25.0	
Q3391-01MSD	RCAMSD	MSD	WATER	10/29/2025	50.0	25.0	

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metals
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ANALYSIS RUN LOG

Client: Yannuzzi Group, Inc. **Contract:** YANN01

Lab code: ACE **Sdg no.:** Q3391

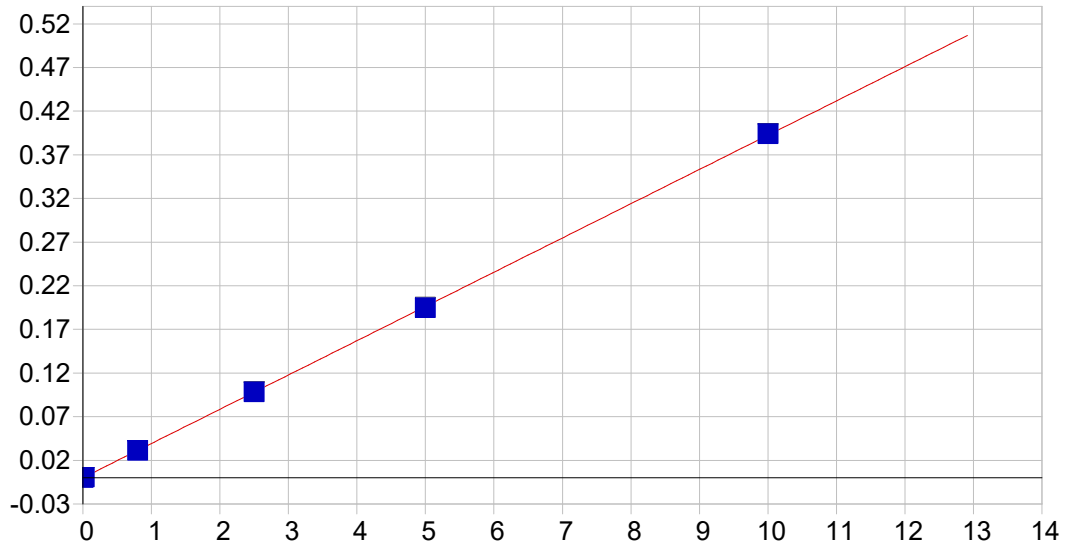
Instrument id number: **Method:** **Run number:** LB137727

Start date: 10/31/2025 **End date:** 10/31/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1109	Co
S1	S1	1	1113	Co
S2	S2	1	1117	Co
S3	S3	1	1121	Co
S4	S4	1	1126	Co
S5	S5	1	1130	Co
ICV01	ICV01	1	1134	Co
LLICV01	LLICV01	1	1145	Co
ICB01	ICB01	1	1150	Co
CRI01	CRI01	1	1154	Co
ICSA01	ICSA01	1	1158	Co
ICSAB01	ICSAB01	1	1202	Co
CCV01	CCV01	1	1215	Co
CCB01	CCB01	1	1219	Co
CCV02	CCV02	1	1317	Co
CCB02	CCB02	1	1321	Co
Q3391-01	RCA	1	1333	Co
CCV03	CCV03	1	1409	Co
CCB03	CCB03	1	1413	Co
Q3391-01DUP	RCADUP	1	1423	Co
Q3391-01L	RCAL	5	1428	Co
Q3391-01MS	RCAMS	1	1432	Co
Q3391-01MSD	RCAMSD	1	1436	Co
PB170310BL	PB170310BL	1	1445	Co
PB170310BS	PB170310BS	1	1449	Co
CCV04	CCV04	1	1508	Co
CCB04	CCB04	1	1512	Co
CCV05	CCV05	1	1558	Co
CCB05	CCB05	1	1602	Co
CCV06	CCV06	1	1648	Co
CCB06	CCB06	1	1652	Co
PB170310TB	PB170310TB	1	1657	Co
CCV07	CCV07	1	1739	Co
CCB07	CCB07	1	1743	Co
CCV08	CCV08	1	1828	Co
CCB08	CCB08	1	1832	Co
CCV09	CCV09	1	1845	Co
CCB09	CCB09	1	1849	Co

METAL
RAW DATA

Reviewed By:
On:
Inst Id :P4
LB :LB137727



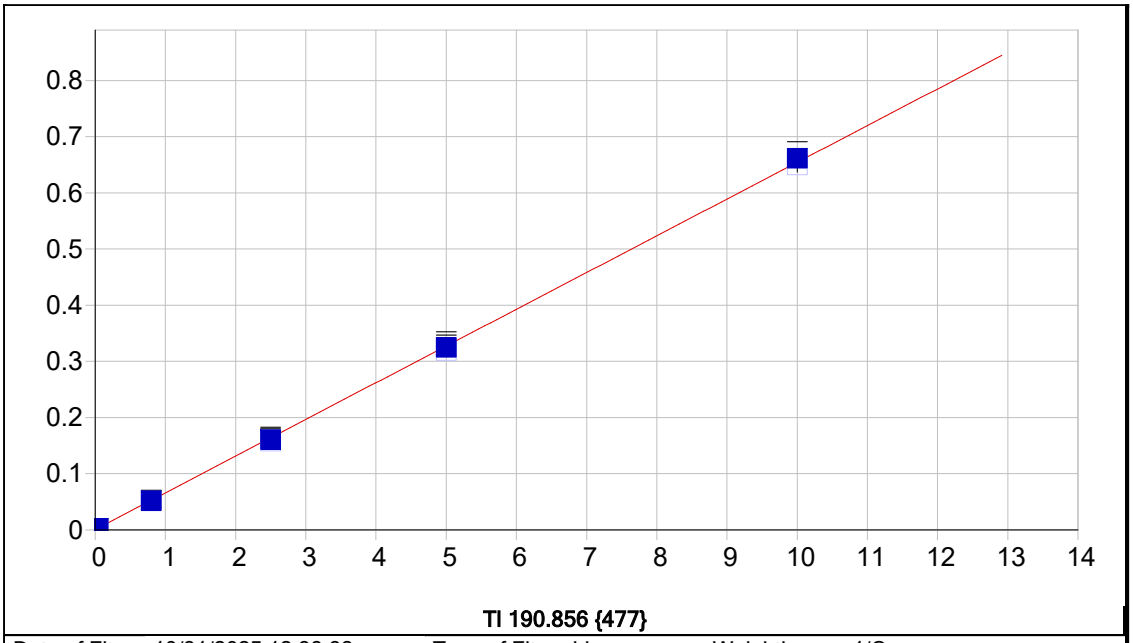
As 189.042 {479}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000014	Re-Slope:	1.000000
A1 (Gain):	0.039246	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.002799		
Predicted MQL:	0.009329		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00001	.000	1
S1	.02000	.01802	-.002	-9.89	.00072	.000	1
S3	2.5000	2.5075	.008	.300	.09832	.000	1
S4	5.0000	4.9637	-.036	-.726	.19462	.001	1
S5	10.000	10.039	.039	.395	.39362	.000	1
S2	.80000	.79129	-.009	-1.09	.03104	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



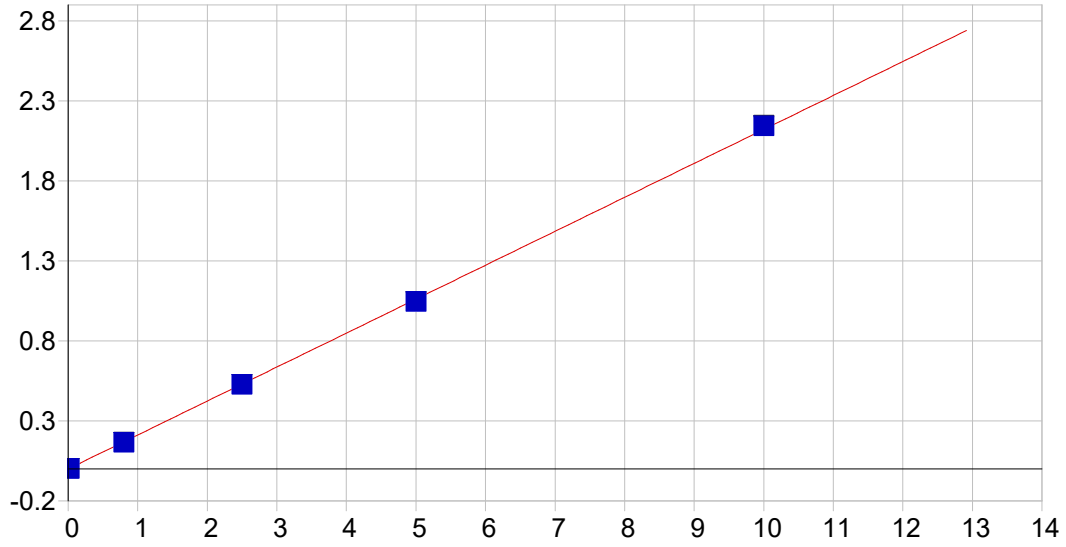
Tl 190.856 {477}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000620	Re-Slope:	1.000000
A1 (Gain):	0.065380	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.002527		
Predicted MQL:	0.008425		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00062	.000	1
S1	.04000	.03752	-.002	-6.19	.00291	.000	1
S3	2.5000	2.4524	-.048	-1.90	.15798	.005	1
S4	5.0000	4.9583	-.042	-.834	.31883	.010	1
S5	10.000	10.105	.105	1.05	.64937	.012	1
S2	.80000	.78663	-.013	-1.67	.05110	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



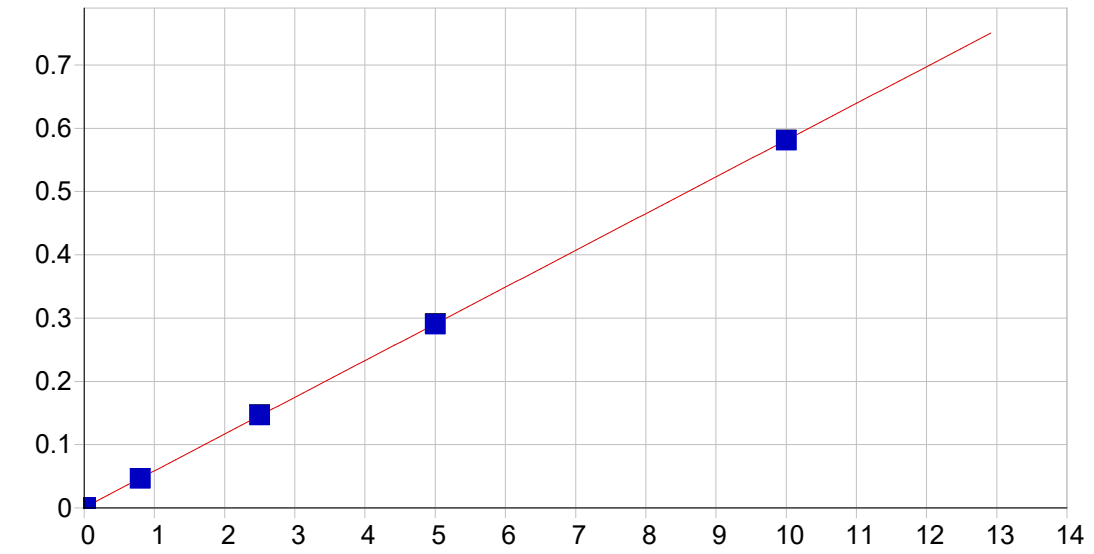
Pb 220.353 {453}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000143	Re-Slope:	1.000000
A1 (Gain):	0.212177	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000047		
Predicted MDL:	0.001294		
Predicted MQL:	0.004314		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.01200	.01221	.000	1.79	.00240	.000	1
S3	2.5000	2.4876	-.012	-.496	.52708	.001	1
S4	5.0000	4.9260	-.074	-1.48	1.0439	.001	1
S5	10.000	10.105	.105	1.05	2.1415	.004	1
S2	.80000	.78130	-.019	-2.34	.16544	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



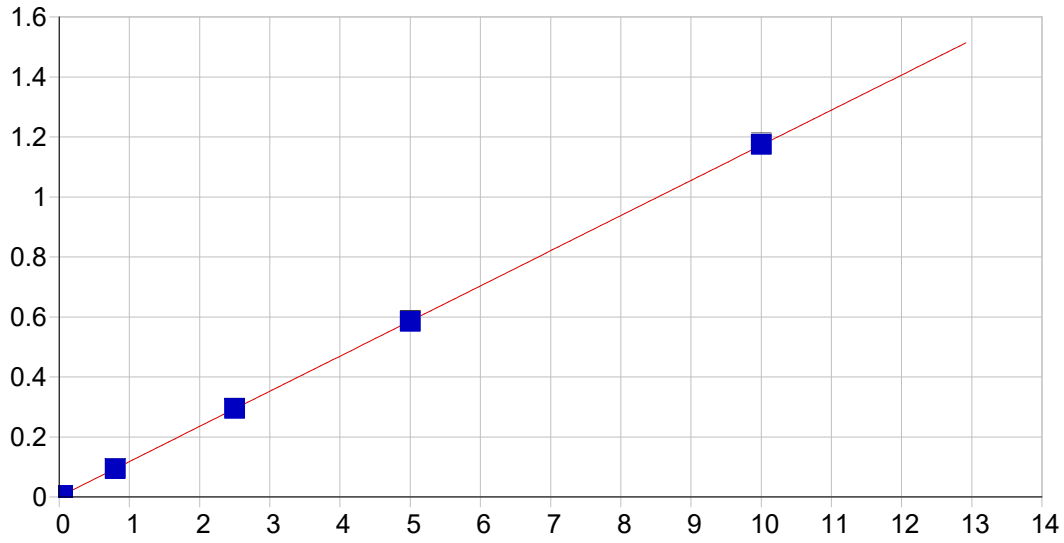
Se 196.090 {472}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000537	Re-Slope:	1.000000
A1 (Gain):	0.058065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.002637		
Predicted MQL:	0.008791		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00054	.000	1
S1	.02000	.01996	-.000	-.211	.00170	.000	1
S3	2.5000	2.5195	.019	.778	.14679	.000	1
S4	5.0000	4.9942	-.006	-.116	.29045	.001	1
S5	10.000	9.9966	-.003	-.034	.58084	.000	1
S2	.80000	.78981	-.010	-1.27	.04638	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



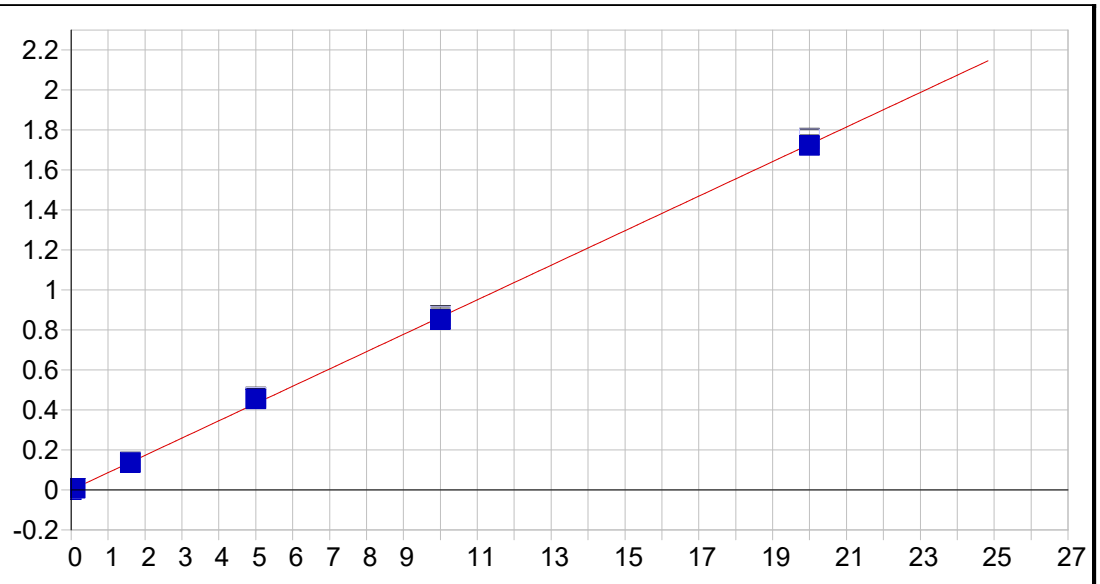
Sb 206.833 {463}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000734	Re-Slope:	1.000000
A1 (Gain):	0.117125	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.001689		
Predicted MQL:	0.005630		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00073	.000	1
S1	.05000	.04695	-.003	-6.09	.00625	.000	1
S3	2.5000	2.5059	.006	.236	.29503	.000	1
S4	5.0000	4.9832	-.017	-.335	.58599	.001	1
S5	10.000	10.018	.018	.180	1.1773	.002	1
S2	.80000	.79587	-.004	-.517	.09420	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



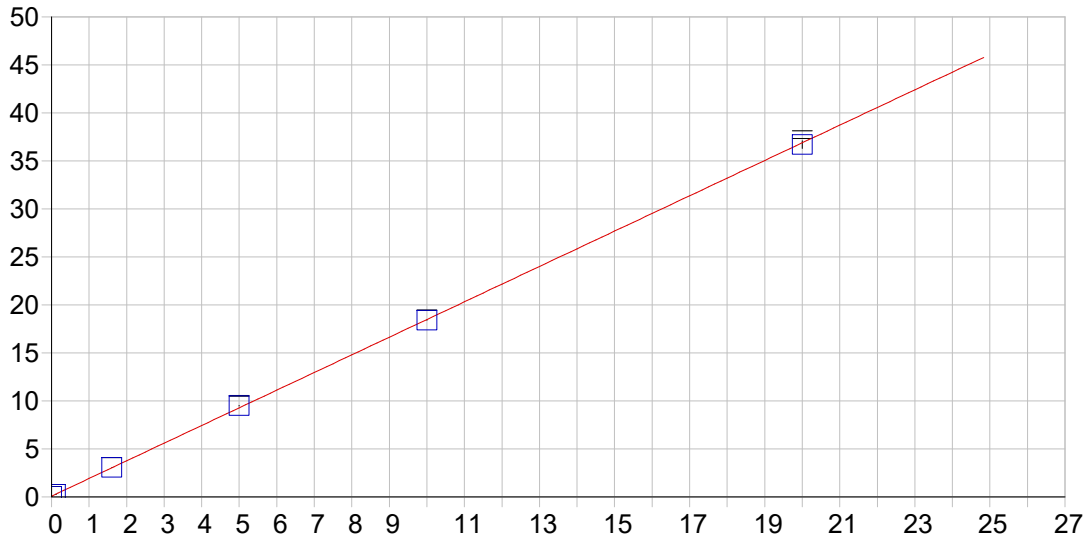
Al 396.152 { 85}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000016	Re-Slope:	1.000000
A1 (Gain):	0.086429	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999789	Status:	OK.
Std Error of Est:	0.000134		
Predicted MDL:	0.013444		
Predicted MQL:	0.044815		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00002	.002	1
S1	.10000	.09307	-.007	-6.93	.00870	.001	1
S3	5.0000	5.2533	.253	5.07	.46241	.002	1
S4	10.000	9.8602	-.140	-1.40	.86896	.003	1
S5	20.000	19.922	-.078	-.390	1.7554	.003	1
S2	1.6000	1.5717	-.028	-1.77	.13851	.002	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



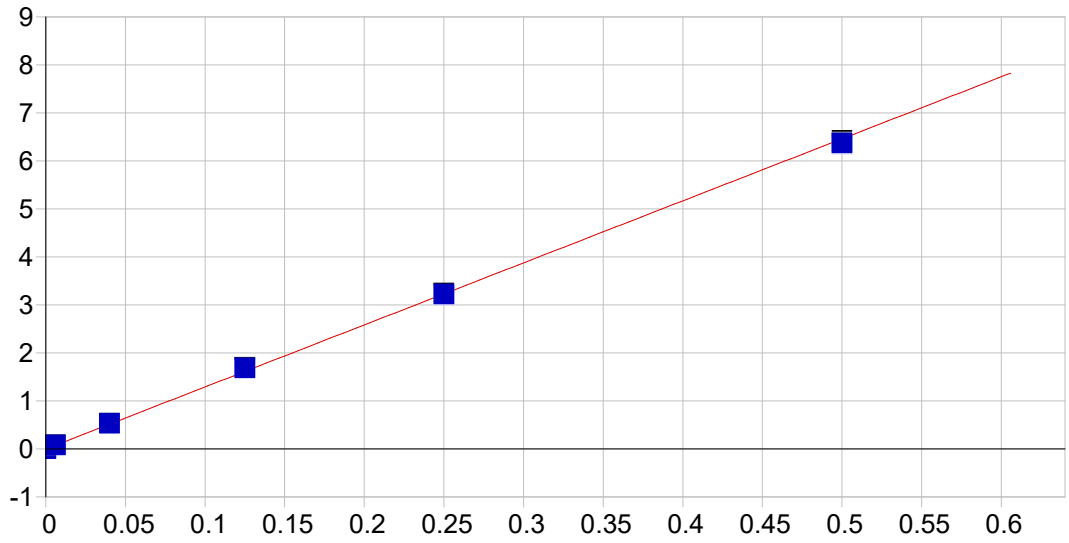
Ba 493.409 { 68}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.079203	Re-Slope:	1.000000
A1 (Gain):	1.840376	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.001489		
Predicted MDL:	0.001673		
Predicted MQL:	0.005577		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.07920	.001	1
S1	.10000	.09641	-.004	-3.59	.25663	.003	1
S3	5.0000	5.1265	.126	2.53	9.5138	.033	1
S4	10.000	9.9559	-.044	-.441	18.402	.016	1
S5	20.000	19.898	-.102	-.508	36.700	.396	1
S2	1.6000	1.6229	.023	1.43	3.0659	.004	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



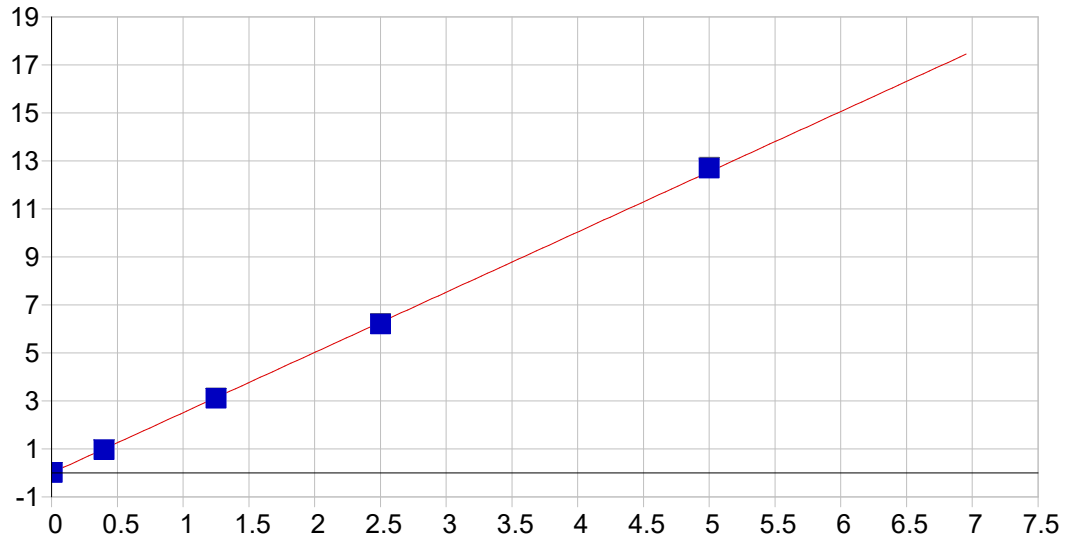
Be 234.861 {144}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001842	Re-Slope:	1.000000
A1 (Gain):	12.925204	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999792	Status:	OK.
Std Error of Est:	0.000756		
Predicted MDL:	0.000057		
Predicted MQL:	0.000192		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00185	.000	1
S1	.00600	.00620	.000	3.25	.07765	.000	1
S3	.12500	.13053	.006	4.43	1.6781	.013	1
S4	.25000	.24955	-.000	-.179	3.2092	.021	1
S5	.50000	.49343	-.007	-1.31	6.3469	.050	1
S2	.04000	.04129	.001	3.23	.52953	.004	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



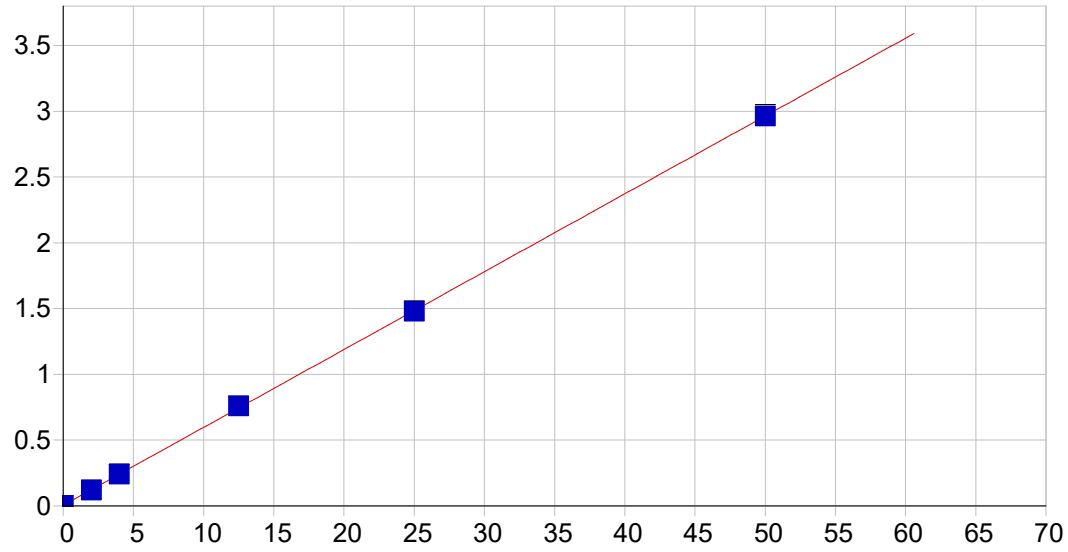
Cd 226.502 {449}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000708	Re-Slope:	1.000000
A1 (Gain):	2.509831	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	0.000314		
Predicted MDL:	0.000088		
Predicted MQL:	0.000295		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00071	.000	1
S1	.00600	.00561	-.000	-6.55	.01341	.000	1
S3	1.2500	1.2381	-.012	-.951	3.1088	.003	1
S4	2.5000	2.4688	-.031	-1.25	6.1996	.001	1
S5	5.0000	5.0582	.058	1.16	12.703	.032	1
S2	.40000	.38533	-.015	-3.67	.96707	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



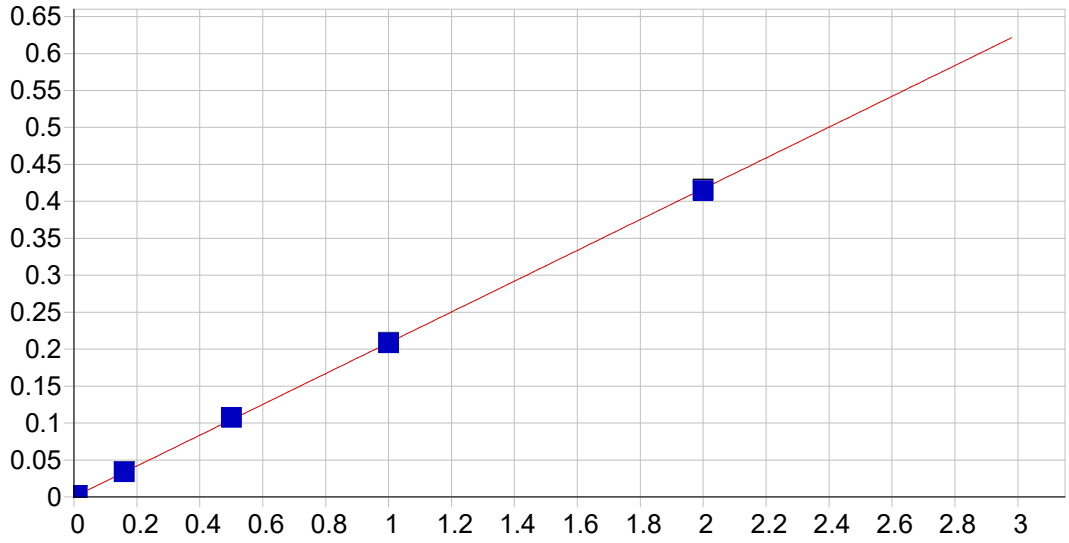
Ca 373.690 { 90}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005242	Re-Slope:	1.000000
A1 (Gain):	0.059179	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000272		
Predicted MDL:	0.015585		
Predicted MQL:	0.051950		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00525	.001	1
S2	4.0000	3.9794	-.021	-.515	.24074	.001	1
S3	12.500	12.719	.219	1.75	.75792	.002	1
S4	25.000	24.910	-.090	-.359	1.4794	.001	1
S5	50.000	49.967	-.033	-.067	2.9622	.012	1
S1	2.0000	1.9252	-.075	-3.74	.11917	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



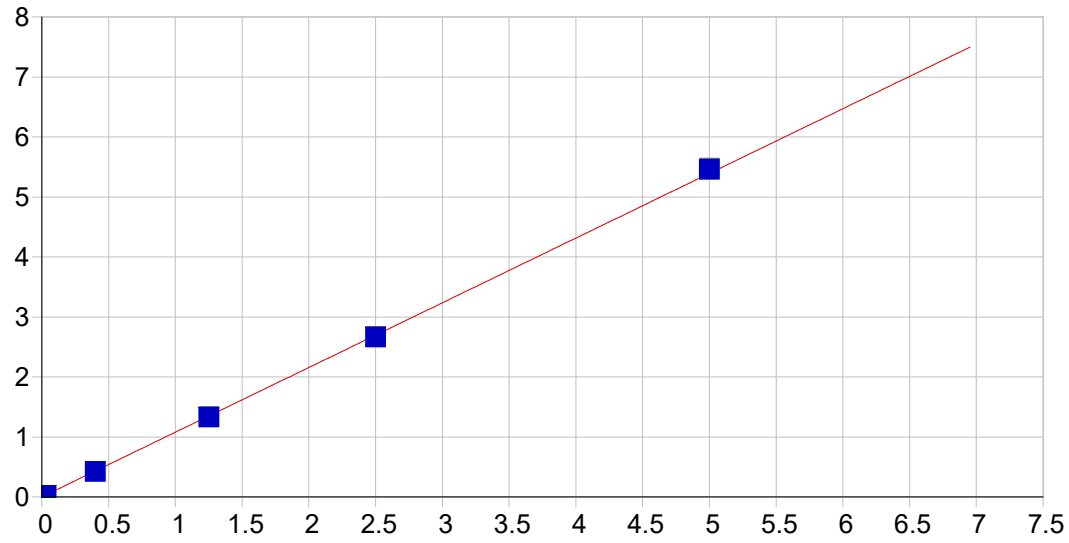
Cr 267.716 {126}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000134	Re-Slope:	1.000000
A1 (Gain):	0.208464	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.000439		
Predicted MQL:	0.001463		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00013	.000	1
S1	.01000	.00947	-.001	-5.28	.00211	.000	1
S3	.50000	.51363	.014	2.73	.10729	.000	1
S4	1.0000	.99810	-.002	-.190	.20837	.001	1
S5	2.0000	1.9871	-.013	-.647	.41470	.002	1
S2	.16000	.16174	.002	1.09	.03388	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



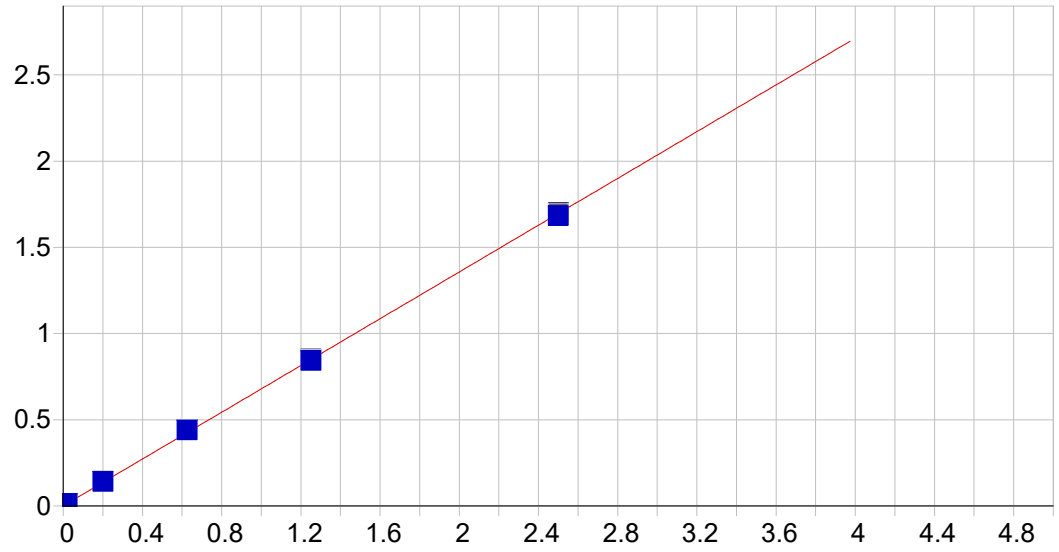
Co 228.616 {448}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000112	Re-Slope:	1.000000
A1 (Gain):	1.078265	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000292		
Predicted MDL:	0.000191		
Predicted MQL:	0.000636		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00011	.000	1
S1	.03000	.02869	-.001	-4.37	.03091	.000	1
S3	1.2500	1.2323	-.018	-1.42	1.3311	.002	1
S4	2.5000	2.4691	-.031	-1.23	2.6671	.002	1
S5	5.0000	5.0596	.060	1.19	5.4648	.013	1
S2	.40000	.39030	-.010	-2.43	.42169	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



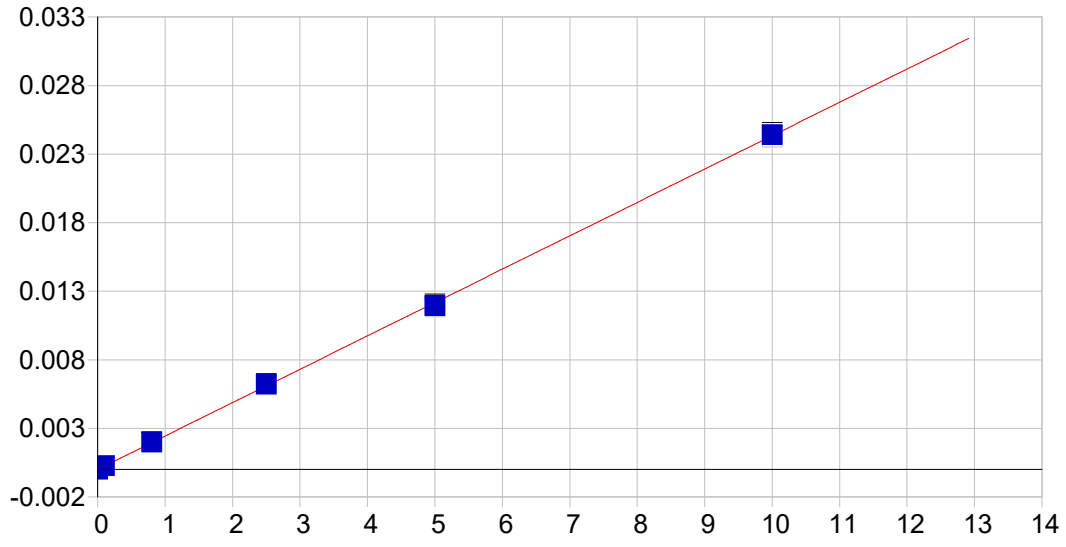
Cu 224.700 {450}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000822	Re-Slope:	1.000000
A1 (Gain):	0.678321	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999870	Status:	OK.
Std Error of Est:	0.000130		
Predicted MDL:	0.000424		
Predicted MQL:	0.001415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00082	.000	1
S1	.02000	.02075	.001	3.75	.01507	.000	1
S3	.62500	.64682	.022	3.49	.44355	.001	1
S4	1.2500	1.2404	-.010	-.765	.85018	.001	1
S5	2.5000	2.4806	-.019	-.777	1.6993	.004	1
S2	.20000	.20642	.006	3.21	.14211	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



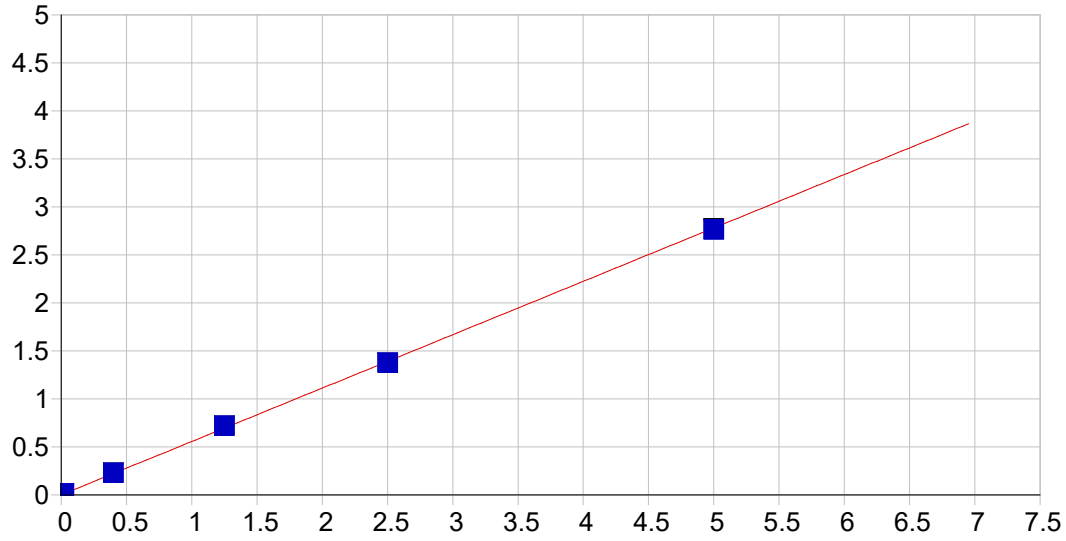
Fe 240.488 {140}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.002434	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999909	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.011584		
Predicted MQL:	0.038612		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00001	.000	1
S1	.10000	.10456	.005	4.56	.00026	.000	1
S3	2.5000	2.5498	.050	1.99	.00616	.000	1
S4	5.0000	4.9048	-.095	-1.90	.01184	.000	1
S5	10.000	10.028	.028	.277	.02420	.000	1
S2	.80000	.81318	.013	1.65	.00197	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



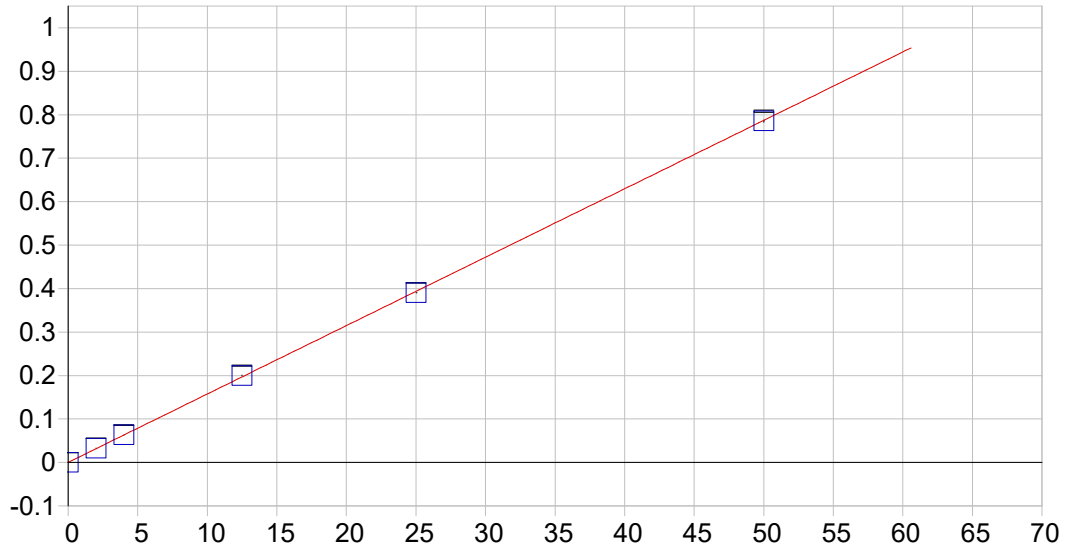
Mn 257.610 {131}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000414	Re-Slope:	1.000000
A1 (Gain):	0.556112	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000146		
Predicted MDL:	0.000629		
Predicted MQL:	0.002098		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00041	.000	1
S1	.02000	.02052	.001	2.58	.01183	.000	1
S3	1.2500	1.2929	.043	3.43	.71957	.003	1
S4	2.5000	2.4766	-.023	-.937	1.3779	.002	1
S5	5.0000	4.9678	-.032	-.644	2.7636	.011	1
S2	.40000	.41217	.012	3.04	.22967	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



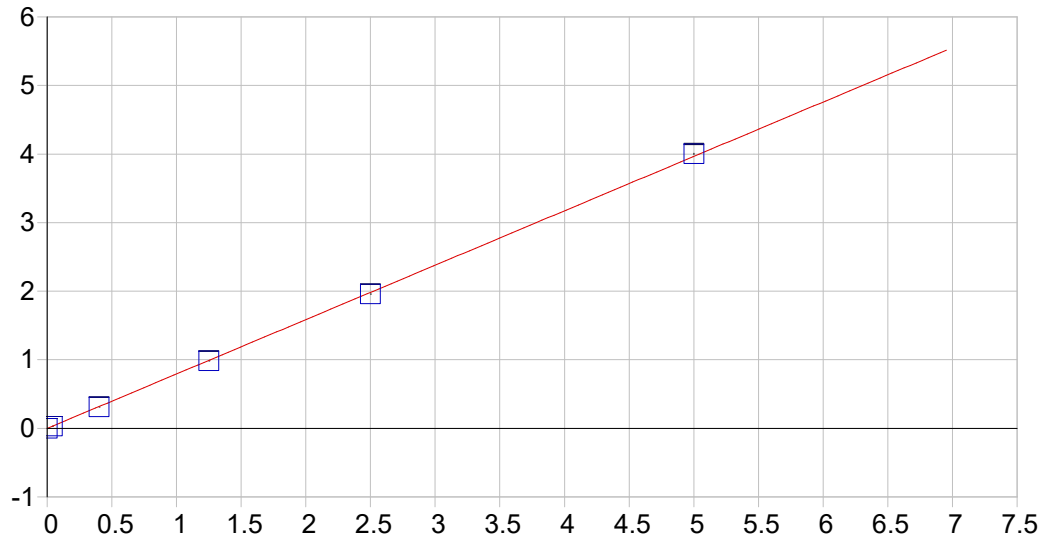
Mg 279.079 {121}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000121	Re-Slope:	1.000000
A1 (Gain):	0.015738	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.028575		
Predicted MQL:	0.095250		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00010	-.000	.000	.00012	.000	1
S2	4.0000	4.0219	.022	.548	.06342	.000	1
S3	12.500	12.698	.198	1.59	.19996	.001	1
S4	25.000	24.794	-.206	-.826	.39031	.000	1
S5	50.000	49.913	-.087	-.173	.78564	.003	1
S1	2.0000	2.0729	.073	3.65	.03274	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



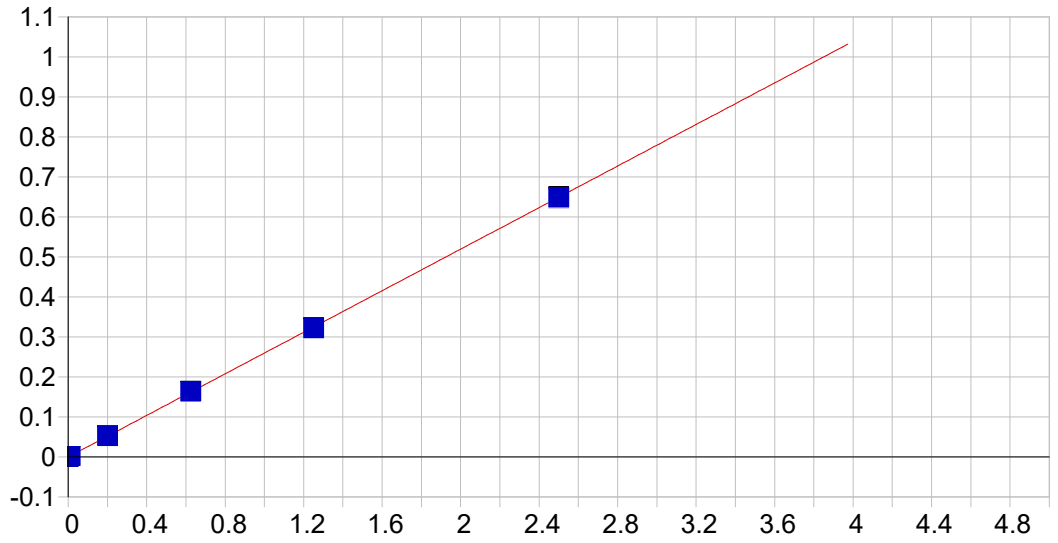
Ni 231.604 {446}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000711	Re-Slope:	1.000000
A1 (Gain):	0.793240	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.000202		
Predicted MDL:	0.000291		
Predicted MQL:	0.000970		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00071	.000	1
S1	.04000	.03865	-.001	-3.37	.02995	.000	1
S3	1.2500	1.2405	-.009	-.759	.98331	.000	1
S4	2.5000	2.4678	-.032	-1.29	1.9568	.000	1
S5	5.0000	5.0486	.049	.972	4.0040	.010	1
S2	.40000	.39446	-.006	-1.38	.31219	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



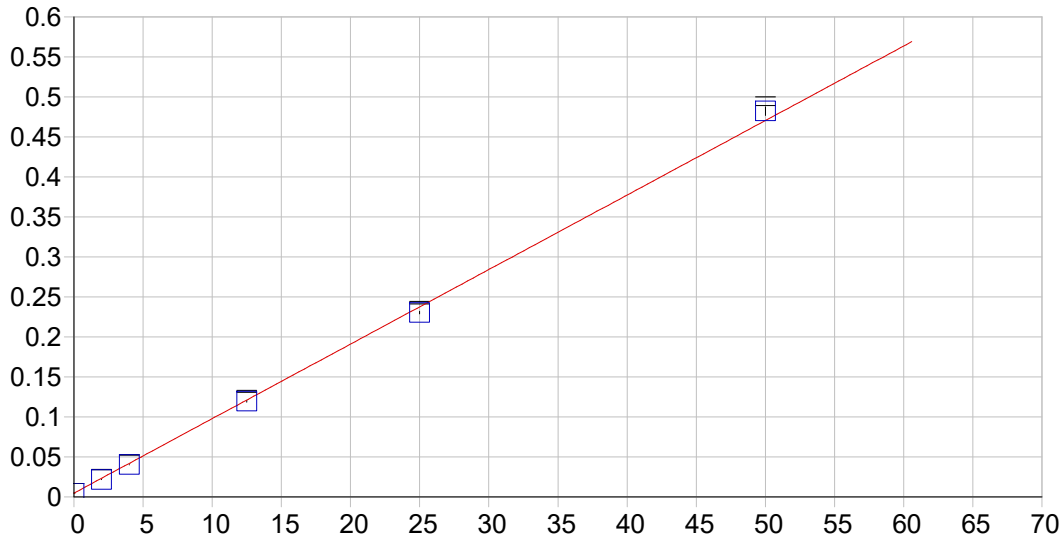
Ag 328.068 {103}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000139	Re-Slope:	1.000000
A1 (Gain):	0.259754	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000578		
Predicted MQL:	0.001925		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.01000	.00977	-.000	-2.25	.00238	.000	1
S3	.62500	.63283	.008	1.25	.16345	.000	1
S4	1.2500	1.2414	-.009	-.690	.32074	.001	1
S5	2.5000	2.4978	-.002	-.086	.64554	.003	1
S2	.20000	.20318	.003	1.59	.05239	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



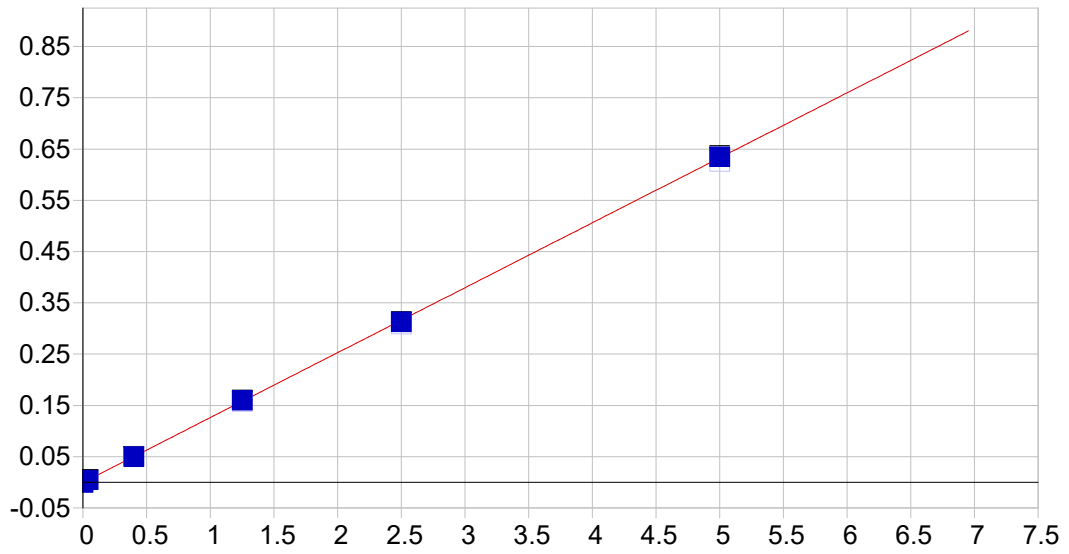
Na 589.592 { 57}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004714	Re-Slope:	1.000000
A1 (Gain):	0.009315	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999570	Status:	OK.
Std Error of Est:	0.000145		
Predicted MDL:	0.022401		
Predicted MQL:	0.074671		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00029	.000	.000	.00472	.000	1
S2	4.0000	3.8228	-.177	-4.43	.04032	.000	1
S3	12.500	12.348	-.152	-1.22	.11973	.001	1
S4	25.000	24.227	-.773	-3.09	.23039	.002	1
S5	50.000	51.272	1.27	2.54	.48231	.005	1
S1	2.0000	1.8305	-.169	-8.47	.02177	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



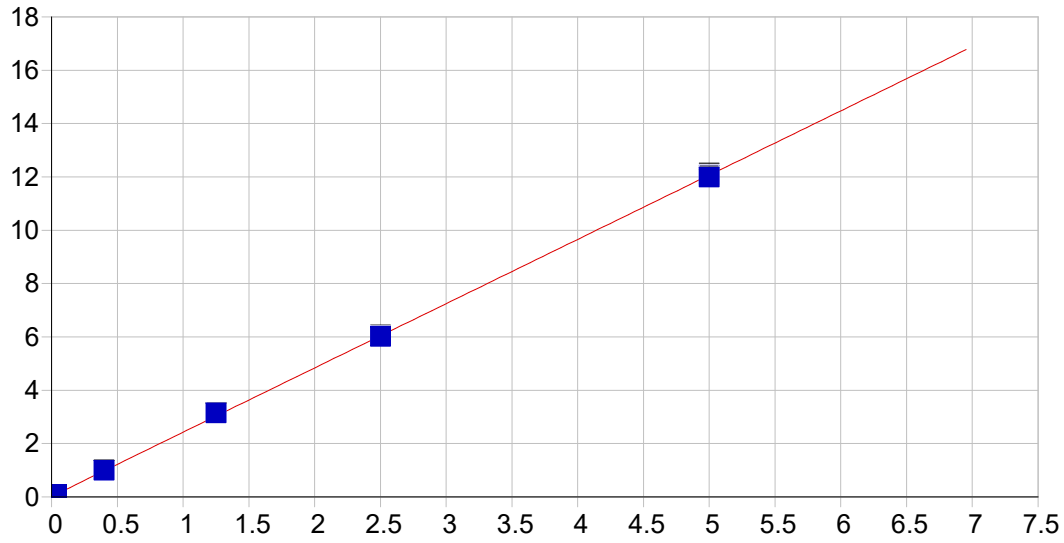
V 292.402 {115}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000566	Re-Slope:	1.000000
A1 (Gain):	0.126699	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.003992		
Predicted MQL:	0.013308		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00057	.000	1
S1	.04000	.04056	.001	1.39	.00438	.000	1
S3	1.2500	1.2643	.014	1.14	.15731	.001	1
S4	2.5000	2.4726	-.027	-1.10	.30809	.001	1
S5	5.0000	5.0123	.012	.246	.62525	.003	1
S2	.40000	.40027	.000	.067	.04941	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



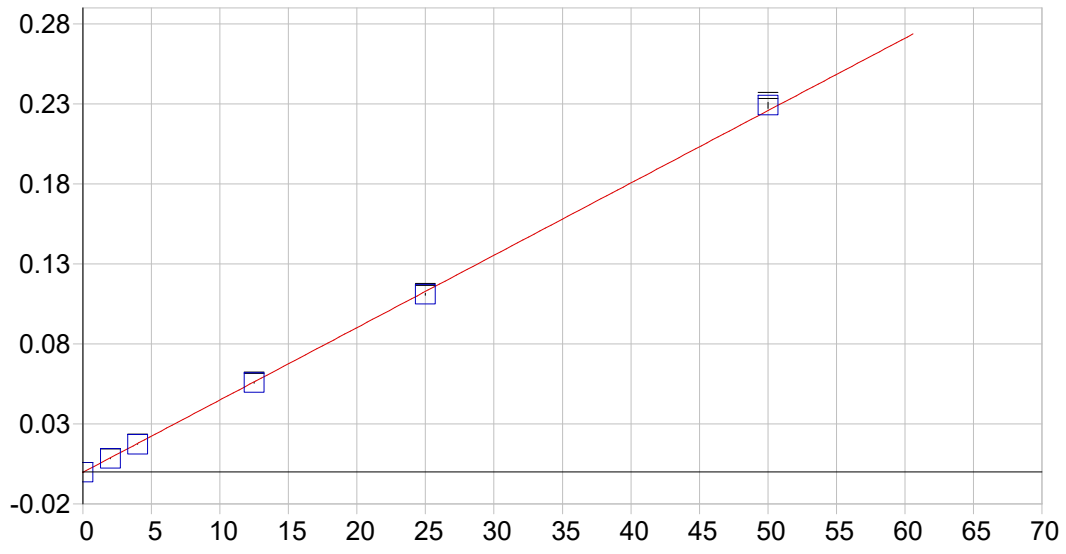
Zn 213.856 {158}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.016178	Re-Slope:	1.000000
A1 (Gain):	2.410193	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999863	Status:	OK.
Std Error of Est:	0.000942		
Predicted MDL:	0.000300		
Predicted MQL:	0.001002		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01619	.001	1
S1	.04000	.03569	-.004	-10.8	.10287	.001	1
S3	1.2500	1.2963	.046	3.70	3.1615	.007	1
S4	2.5000	2.4857	-.014	-.571	6.0492	.022	1
S5	5.0000	4.9670	-.033	-.659	12.072	.068	1
S2	.40000	.40525	.005	1.31	.99961	.003	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



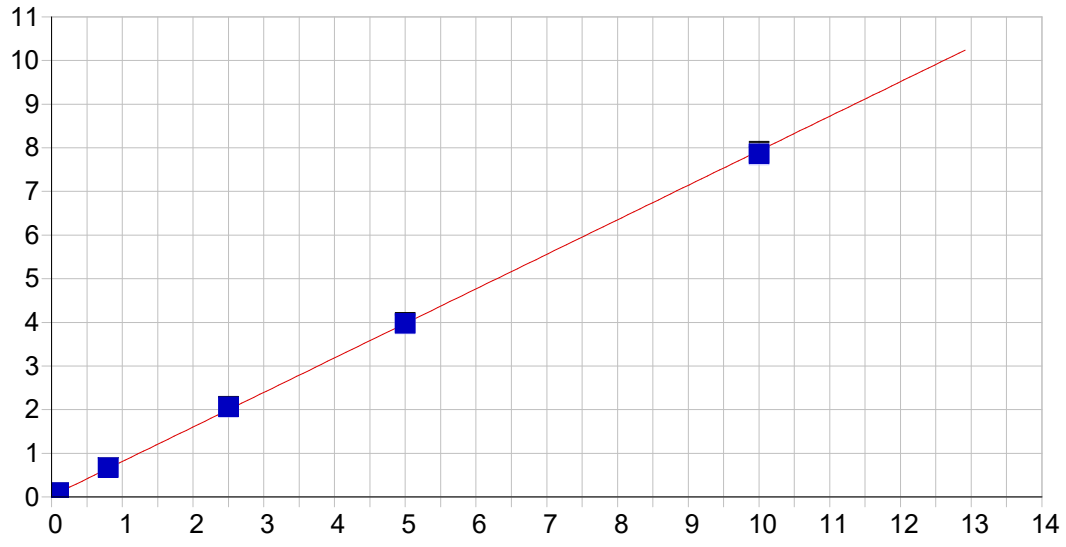
K 766.490 { 44}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000254	Re-Slope:	1.000000
A1 (Gain):	0.004521	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.055183		
Predicted MQL:	0.183945		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00019	.000	.000	-.00025	.000	1
S2	4.0000	3.8656	-.134	-3.36	.01722	.000	1
S3	12.500	12.404	-.096	-.765	.05583	.000	1
S4	25.000	24.604	-.396	-1.58	.11099	.001	1
S5	50.000	50.732	.732	1.46	.22912	.002	1
S1	2.0000	1.8946	-.105	-5.27	.00831	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



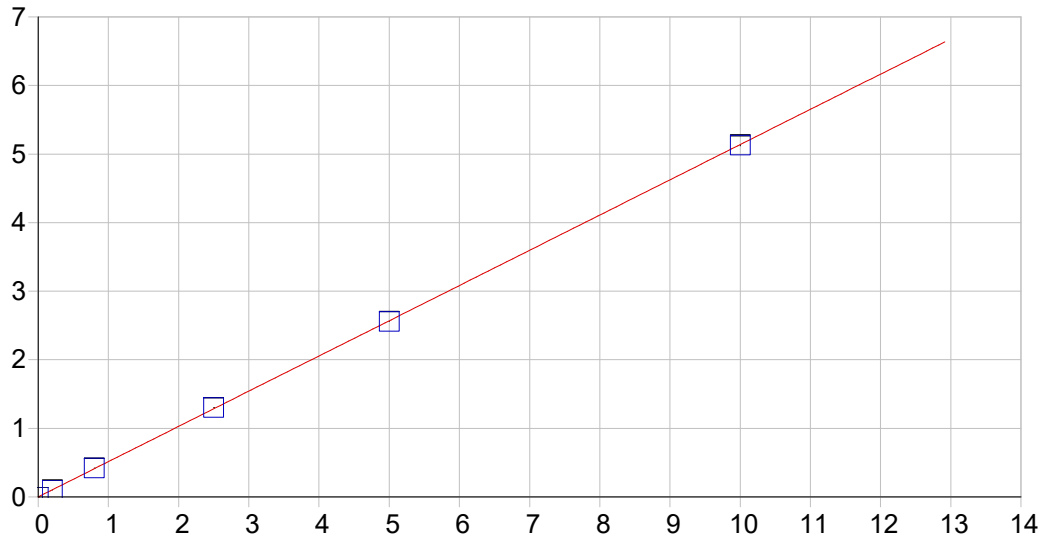
B 249.678 {135}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.019987	Re-Slope:	1.000000
A1 (Gain):	0.791233	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000598		
Predicted MDL:	0.000931		
Predicted MQL:	0.003104		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.01999	.000	1
S1	.10000	.09555	-.004	-4.45	.09512	.001	1
S3	2.5000	2.5770	.077	3.08	2.0519	.018	1
S4	5.0000	4.9976	-.002	-.047	3.9600	.022	1
S5	10.000	9.9109	-.089	-.891	7.8333	.056	1
S2	.80000	.81894	.019	2.37	.66567	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



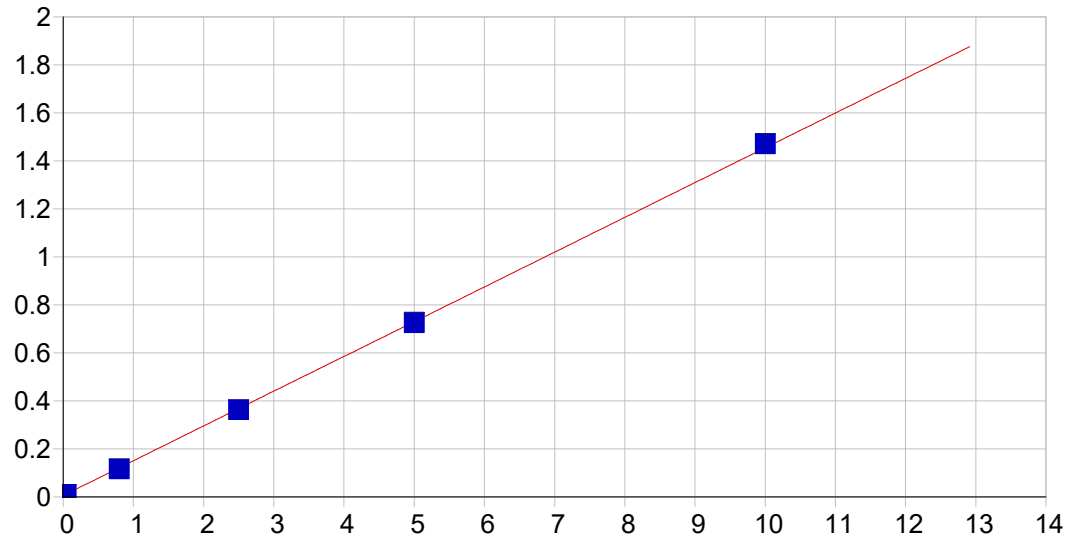
Mo 202.030 {467}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000630	Re-Slope:	1.000000
A1 (Gain):	0.513713	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000286		
Predicted MDL:	0.000327		
Predicted MQL:	0.001091		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00063	.000	1
S1	.20000	.19338	-.007	-3.31	.09997	.000	1
S3	2.5000	2.5323	.032	1.29	1.3015	.001	1
S4	5.0000	4.9780	-.022	-.439	2.5579	.002	1
S5	10.000	9.9816	-.018	-.184	5.1283	.009	1
S2	.80000	.81463	.015	1.83	.41911	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



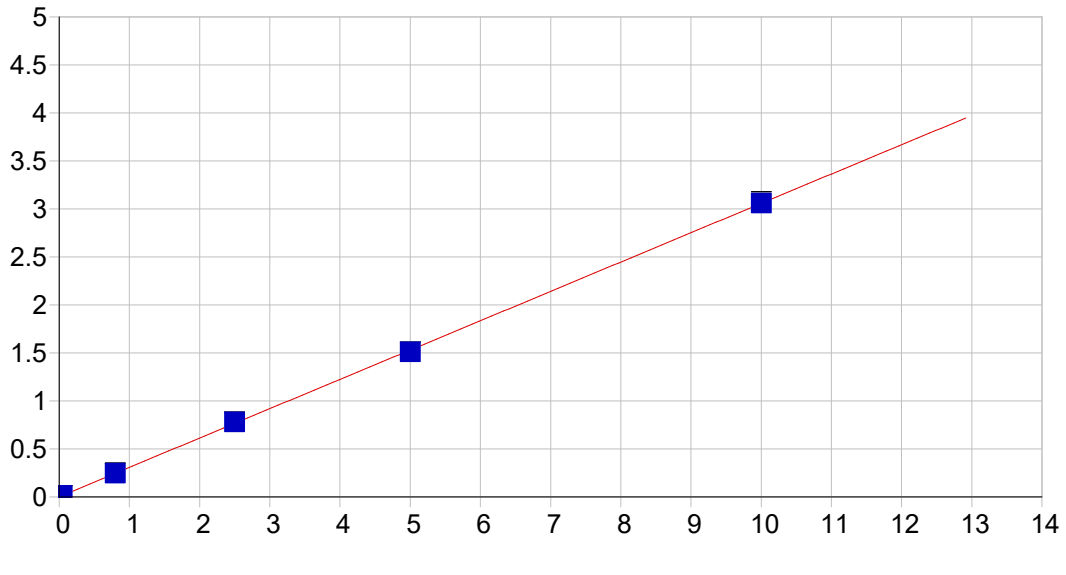
Sn 189.989 {478}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005863	Re-Slope:	1.000000
A1 (Gain):	0.144853	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.000662		
Predicted MQL:	0.002207		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00586	.000	1
S1	.04000	.03408	-.006	-14.8	.01079	.000	1
S3	2.5000	2.4672	-.033	-1.31	.36287	.001	1
S4	5.0000	4.9670	-.033	-.661	.72460	.002	1
S5	10.000	10.115	.115	1.15	1.4696	.002	1
S2	.80000	.75674	-.043	-5.41	.11536	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



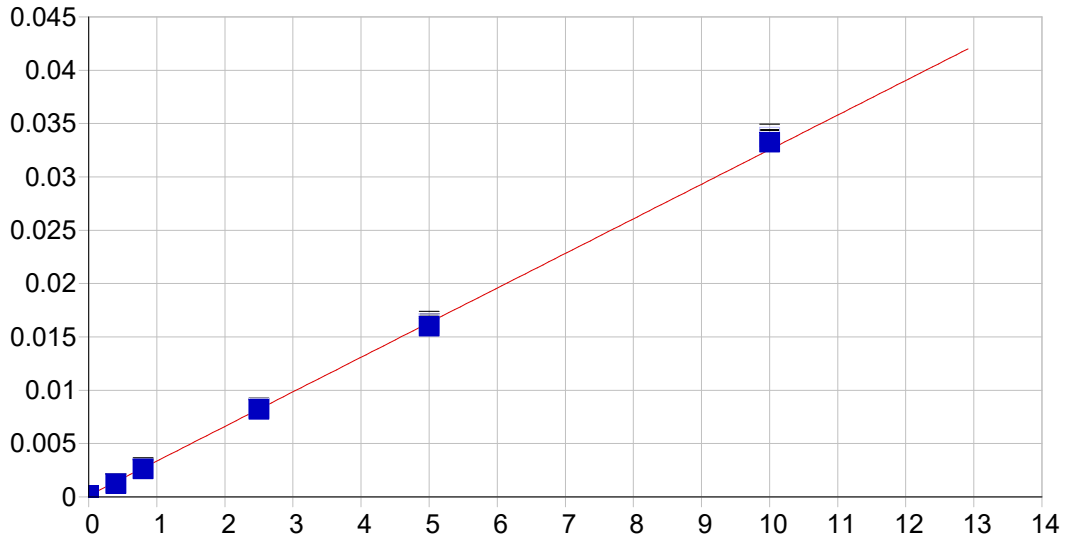
Ti 336.121 {100}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002023	Re-Slope:	1.000000
A1 (Gain):	0.305535	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.002163		
Predicted MQL:	0.007209		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00202	.001	1
S1	.04000	.03661	-.003	-8.48	.01320	.001	1
S3	2.5000	2.5505	.050	2.02	.78101	.003	1
S4	5.0000	4.9382	-.062	-1.24	1.5103	.001	1
S5	10.000	10.009	.009	.091	3.0591	.015	1
S2	.80000	.80562	.006	.703	.24808	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



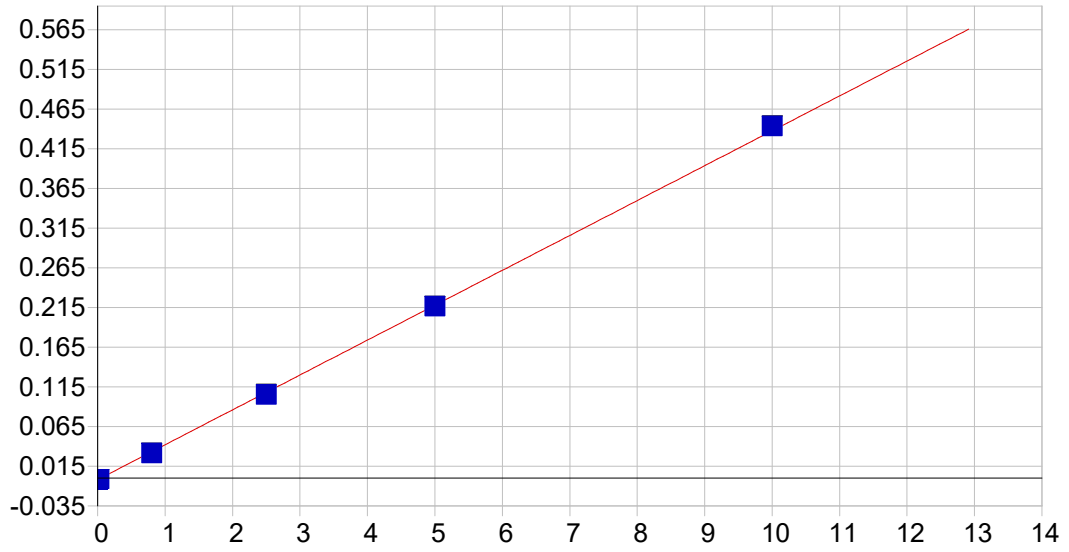
Si 288.158 {117}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000117	Re-Slope:	1.000000
A1 (Gain):	0.003244	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999577	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.016290		
Predicted MQL:	0.054299		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00012	.000	1
S1	.40000	.34176	-.058	-14.6	.00123	.000	1
S3	2.5000	2.4867	-.013	-.530	.00831	.000	1
S4	5.0000	4.8948	-.105	-2.10	.01624	.000	1
S5	10.000	10.207	.207	2.07	.03371	.000	1
S2	.80000	.76864	-.031	-3.92	.00265	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



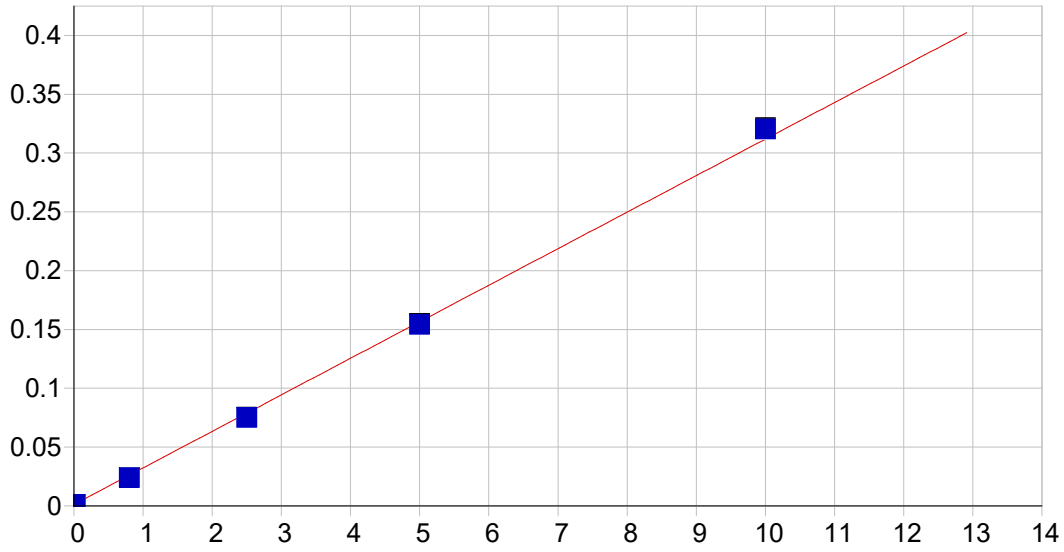
P 177.495 {490}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001880	Re-Slope:	1.000000
A1 (Gain):	0.043967	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	0.001917		
Predicted MQL:	0.006389		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00188	.000	1
S1	.02000	.01737	-.003	-13.1	-.00112	.000	1
S3	2.5000	2.4414	-.059	-2.35	.10544	.000	1
S4	5.0000	4.9673	-.033	-.654	.21648	.000	1
S5	10.000	10.136	.136	1.36	.44372	.000	1
S2	.80000	.75753	-.042	-5.31	.03142	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



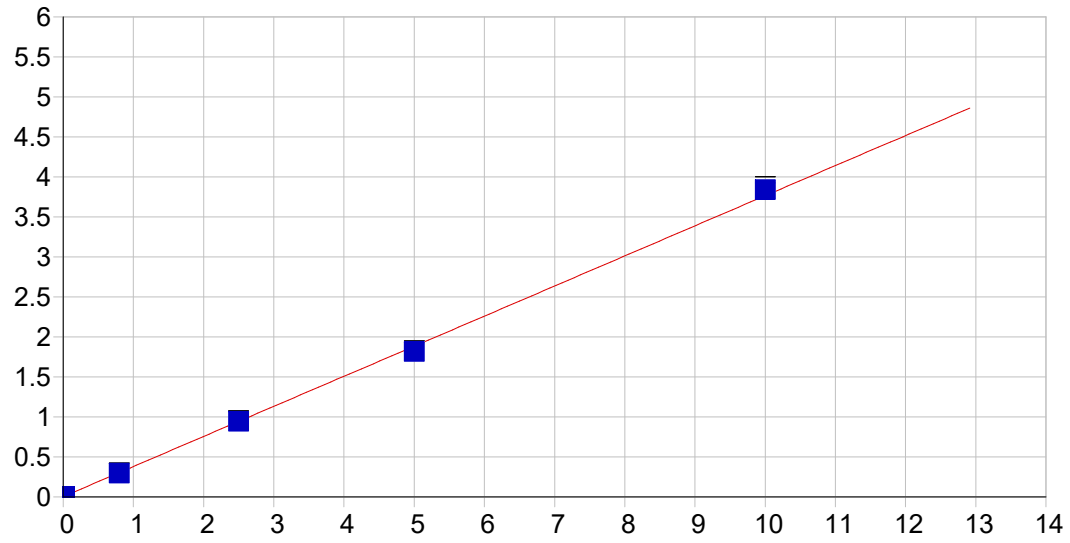
S 182.034 {485}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001272	Re-Slope:	1.000000
A1 (Gain):	0.031062	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999344	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.002851		
Predicted MQL:	0.009503		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00127	.000	1
S1	.02000	.01262	-.007	-36.9	.00164	.000	1
S3	2.5000	2.3731	-.127	-5.08	.07478	.000	1
S4	5.0000	4.9258	-.074	-1.48	.15387	.001	1
S5	10.000	10.277	.277	2.77	.31969	.001	1
S2	.80000	.73097	-.069	-8.63	.02391	.000	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



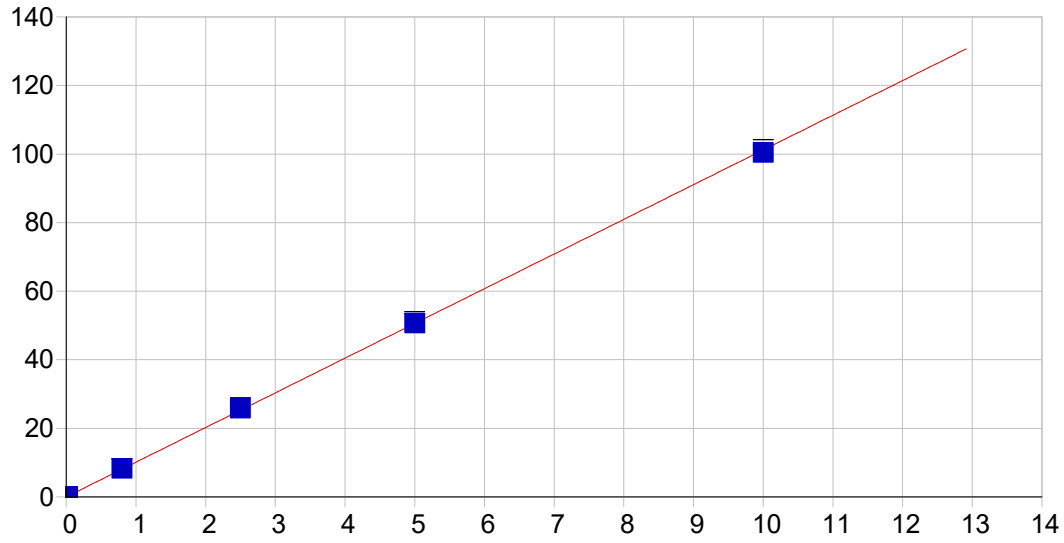
Li 670.784 { 50}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003275	Re-Slope:	1.000000
A1 (Gain):	0.376131	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999691	Status:	OK.
Std Error of Est:	0.000219		
Predicted MDL:	0.006035		
Predicted MQL:	0.020115		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00327	.001	1
S5	10.000	10.196	.196	1.96	3.8412	.037	1
S4	5.0000	4.8213	-.179	-3.57	1.8182	.010	1
S3	2.5000	2.4975	-.002	-.099	.94342	.007	1
S1	.02000	.02378	.004	18.9	.01235	.001	1
S2	.80000	.78165	-.018	-2.29	.29752	.001	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727



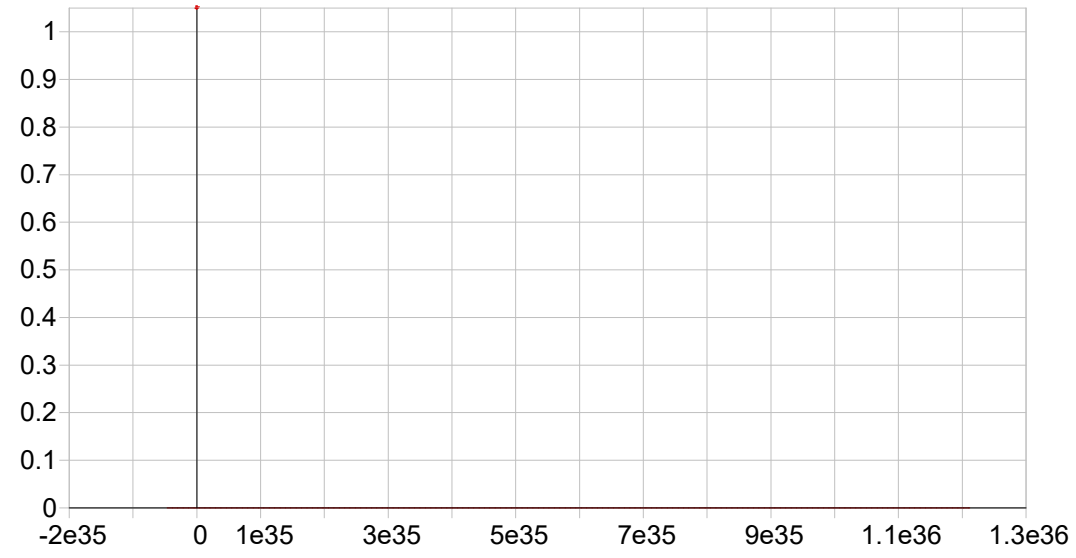
Sr 407.771 { 83}

Date of Fit:	10/31/2025 12:33:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001588	Re-Slope:	1.000000
A1 (Gain):	10.118808	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999943	Status:	OK.
Std Error of Est:	0.002531		
Predicted MDL:	0.000117		
Predicted MQL:	0.000391		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00158	.000	1
S1	.02000	.02048	.000	2.39	.20976	.001	1
S3	2.5000	2.5536	.054	2.14	25.865	.174	1
S4	5.0000	5.0061	.006	.122	50.706	.477	1
S5	10.000	9.9235	-.077	-.765	100.51	.841	1
S2	.80000	.81636	.016	2.05	8.2700	.012	1

Reviewed By:
On:
Inst Id :P4
LB :LB137727

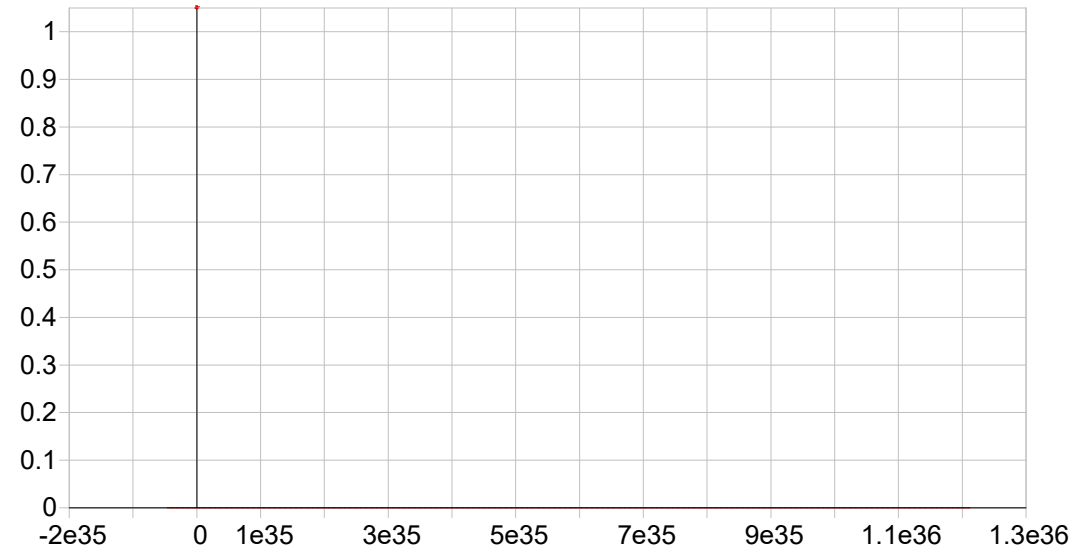


Y 224.306 {450}*

Date of Fit:	10/31/2025 12:33:38	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}*

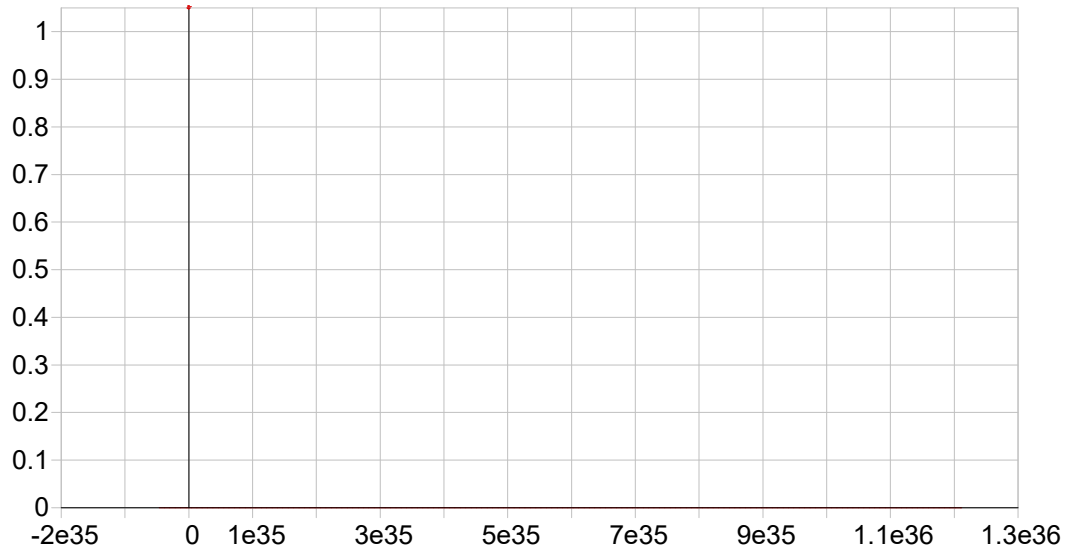
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:
On:
Inst Id :P4
LB :LB137727

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

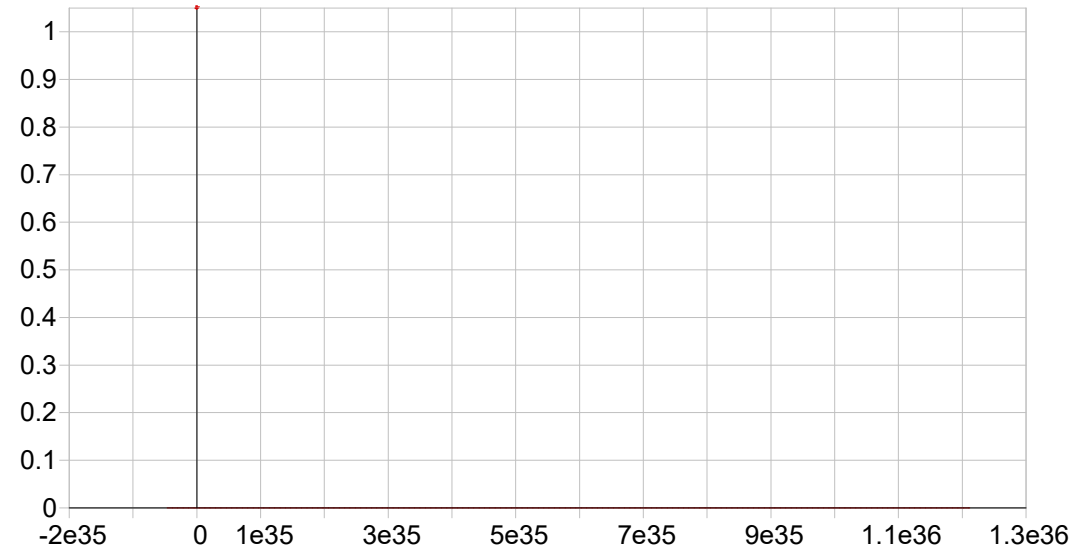


Y 371.030 { 91}*

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:
On:
Inst Id :P4
LB :LB137727

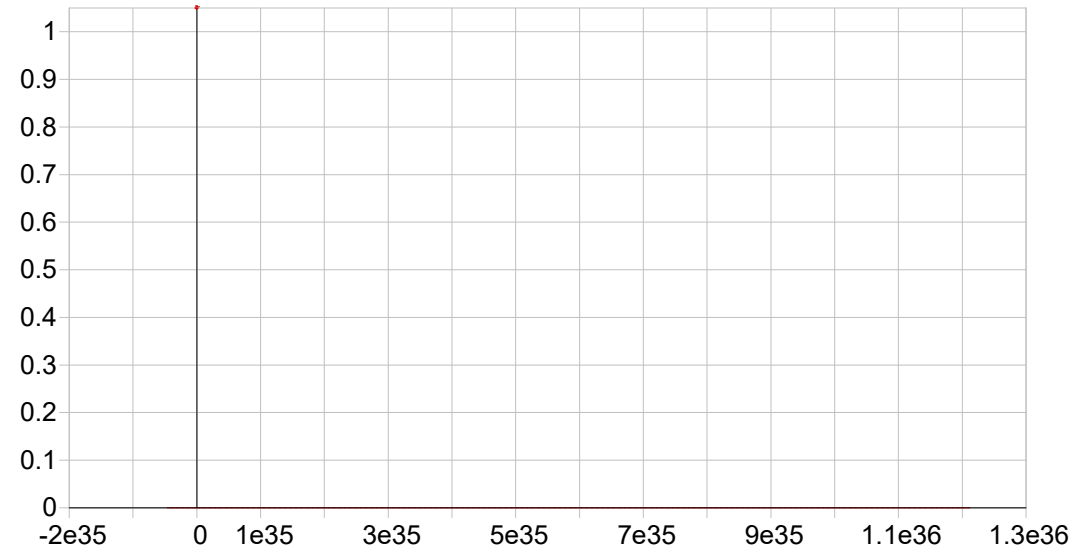


Y 224.306 {150}*

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:
On:
Inst Id :P4
LB :LB137727

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:
On:
Inst Id :P4
LB :LB137727

Sample Name: S0 Acquired: 10/31/2025 11:09:02 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00001	.00062	-.00014	.00054	.00073	-.00002	.07920	-.00185
Stddev	.00005	.00005	.00017	.00003	.00007	.00213	.00102	.00043
%RSD	322.65	8.4993	117.90	5.8015	9.4790	13941.	1.2925	23.449
#1	-.00004	.00065	-.00001	.00051	.00081	.00200	.07894	-.00221
#2	.00005	.00065	-.00033	.00052	.00073	-.00224	.08033	-.00197
#3	.00003	.00056	-.00008	.00057	.00067	.00019	.07834	-.00137

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	-.00071	.00525	.00013	.00011	.00082	.00001	.00041	.00012
Stddev	.00020	.00104	.00006	.00008	.00028	.00003	.00021	.00042
%RSD	28.379	19.839	43.772	67.186	34.541	470.80	50.555	347.82
#1	-.00066	.00405	.00015	.00004	.00106	.00001	.00050	.00006
#2	-.00054	.00596	.00007	.00020	.00051	-.00003	.00017	.00056
#3	-.00093	.00572	.00019	.00011	.00090	.00004	.00056	-.00026

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	-.00071	-.00014	.00472	-.00057	.01619	-.00025	.01999	.00063
Stddev	.00010	.00014	.00011	.00016	.00050	.00019	.00021	.00016
%RSD	13.608	100.39	2.2811	27.957	3.0955	73.934	1.0323	25.909
#1	-.00082	-.00007	.00459	-.00065	.01639	-.00018	.01989	.00047
#2	-.00063	-.00030	.00477	-.00038	.01655	-.00047	.02022	.00062
#3	-.00068	-.00004	.00479	-.00066	.01561	-.00012	.01985	.00080

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	.00586	.00202	.00012	-.00188	.00127	.00327	.00158
Stddev	.00010	.00056	.00003	.00001	.00003	.00133	.00041
%RSD	1.6719	27.608	23.154	.45708	2.5506	40.678	26.163
#1	.00593	.00265	.00015	-.00188	.00126	.00474	.00144
#2	.00575	.00186	.00012	-.00187	.00125	.00214	.00125
#3	.00591	.00156	.00009	-.00189	.00131	.00295	.00204

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S0 Acquired: 10/31/2025 11:09:02 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5707.2	71076.	6784.8	3543.9	7226.2
Stddev	14.2	54.	52.5	17.6	12.3
%RSD	.24955	.07570	.77412	.49785	.16965
#1	5700.1	71030.	6831.6	3553.9	7217.6
#2	5723.6	71135.	6794.9	3554.2	7240.3
#3	5697.9	71064.	6728.0	3523.5	7220.8

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S1 Acquired: 10/31/2025 11:13:27 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00072**	**.00291**	**.00240**	**.00170**	**.00625**	**.00870**	**.25663**	**.07765**
Stddev	.00007	.00008	.00014	.00006	.00004	.00064	.00326	.00010
%RSD	10.019	2.6571	5.9498	3.7950	.57540	7.3904	1.2686	.12460
#1	.00074	.00283	.00229	.00177	.00629	.00915	.25583	.07770
#2	.00077	.00290	.00234	.00164	.00622	.00899	.25386	.07772
#3	.00064	.00299	.00256	.00168	.00623	.00796	.26022	.07754

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	**.01341**	**.11917**	**.00211**	**.03091**	**.01507**	**.00026**	**.01183**	**.03274**
Stddev	.00015	.00080	.00003	.00014	.00009	.00001	.00012	.00052
%RSD	1.0895	.67327	1.6565	.46303	.57465	5.4566	.98520	1.5750
#1	.01358	.11829	.00215	.03098	.01504	.00027	.01171	.03270
#2	.01334	.11986	.00210	.03100	.01500	.00027	.01194	.03225
#3	.01332	.11936	.00209	.03074	.01517	.00024	.01183	.03328

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	**.02995**	**.00238**	**.02177**	**.00438**	**.10287**	**.00831**	**.09512**	**.09997**
Stddev	.00023	.00005	.00027	.00026	.00074	.00018	.00099	.00046
%RSD	.76274	2.0186	1.2381	5.8501	.71997	2.2230	1.0387	.46196
#1	.02986	.00242	.02148	.00412	.10202	.00810	.09625	.09963
#2	.02978	.00233	.02179	.00439	.10322	.00845	.09474	.10050
#3	.03021	.00238	.02202	.00463	.10336	.00839	.09438	.09978

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	**.01079**	**.01320**	**.00123**	**-.00112**	**.00164**	**.01235**	**.20976**
Stddev	.00006	.00053	.00003	.00008	.00004	.00120	.00063
%RSD	.52133	4.0374	2.6221	7.2298	2.6070	9.7175	.29945
#1	.01083	.01373	.00120	-.00118	.00159	.01117	.21048
#2	.01082	.01267	.00126	-.00114	.00168	.01357	.20932
#3	.01073	.01320	.00123	-.00102	.00164	.01232	.20949

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S1 Acquired: 10/31/2025 11:13:27 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5989.1**	**75033.**	**7210.0**	**3741.2**	**7483.0**
Stddev	11.0	280.	47.7	7.1	7.4
%RSD	.18347	.37254	.66202	.18916	.09847
#1	6001.0	75219.	7162.6	3733.0	7485.8
#2	5987.0	74712.	7209.3	3745.9	7488.5
#3	5979.3	75169.	7258.1	3744.6	7474.6

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S2 Acquired: 10/31/2025 11:17:48 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03104	.05110	.16544	.04638	.09420	.13851	3.0659	.52953
Stddev	.00006	.00098	.00048	.00027	.00029	.00158	.0036	.00356
%RSD	.19917	1.9254	.28935	.57171	.30997	1.1387	.11647	.67267
#1	.03108	.05072	.16493	.04615	.09387	.13789	3.0668	.52559
#2	.03107	.05221	.16588	.04667	.09431	.13734	3.0690	.53251
#3	.03097	.05036	.16551	.04633	.09443	.14030	3.0620	.53050

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	.96707	.24074	.03388	.42169	.14211	.00197	.22967	.06342
Stddev	.00054	.00056	.00020	.00049	.00040	.00003	.00095	.00036
%RSD	.05544	.23244	.59445	.11685	.27938	1.2849	.41315	.56716
#1	.96682	.24104	.03366	.42160	.14186	.00194	.22858	.06347
#2	.96769	.24009	.03392	.42222	.14191	.00197	.23018	.06374
#3	.96671	.24109	.03405	.42125	.14257	.00200	.23026	.06303

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	.31219	.05239	.04032	.04941	.99961	.01722	.66567	.41911
Stddev	.00019	.00008	.00018	.00036	.00283	.00011	.00123	.00089
%RSD	.06003	.16013	.45024	.71894	.28277	.62995	.18509	.21228
#1	.31230	.05229	.04027	.04981	.99706	.01710	.66461	.41840
#2	.31230	.05245	.04018	.04927	1.0027	.01728	.66703	.41883
#3	.31198	.05242	.04053	.04914	.99911	.01729	.66538	.42011

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	.11536	.24808	.00265	.03142	.02391	.29752	8.2700
Stddev	.00016	.00081	.00008	.00017	.00021	.00094	.0124
%RSD	.13546	.32526	2.9475	.52752	.87421	.31647	.15052
#1	.11554	.24866	.00269	.03134	.02408	.29855	8.2598
#2	.11525	.24716	.00270	.03161	.02398	.29671	8.2663
#3	.11530	.24842	.00256	.03131	.02368	.29729	8.2839

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S2 Acquired: 10/31/2025 11:17:48 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.8	70625.	6836.1	3551.1	6916.9
Stddev	5.6	200.	25.0	15.1	13.1
%RSD	.09825	.28331	.36574	.42456	.18904
#1	5683.1	70841.	6861.1	3562.5	6920.8
#2	5672.9	70446.	6811.1	3534.0	6902.3
#3	5674.2	70588.	6836.2	3556.8	6927.6

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S3 Acquired: 10/31/2025 11:21:57 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.09832**	**.15798**	**.52708**	**.14679**	**.29503**	**.46241**	**9.5138**	**1.6781**
Stddev	.00011	.00452	.00057	.00027	.00016	.00156	.0332	.0135
%RSD	.10850	2.8617	.10733	.18200	.05521	.33641	.34898	.80413
#1	.09844	.16310	.52643	.14695	.29489	.46066	9.5511	1.6630
#2	.09823	.15628	.52747	.14648	.29500	.46363	9.4873	1.6890
#3	.09831	.15456	.52734	.14693	.29521	.46294	9.5031	1.6823

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1088**	**.75792**	**.10729**	**1.3311**	**.44355**	**.00616**	**.71957**	**.19996**
Stddev	.0033	.00197	.00017	.0018	.00074	.00006	.00300	.00079
%RSD	.10481	.25942	.16226	.13293	.16628	.94185	.41715	.39699
#1	3.1059	.75812	.10735	1.3298	.44282	.00622	.72243	.19980
#2	3.1123	.75977	.10709	1.3331	.44430	.00611	.71983	.20082
#3	3.1082	.75585	.10743	1.3304	.44352	.00615	.71644	.19926

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	**.98331**	**.16345**	**.11973**	**.15731**	**3.1615**	**.05583**	**2.0519**	**1.3015**
Stddev	.00047	.00011	.00126	.00094	.0072	.00040	.0181	.0008
%RSD	.04823	.06526	1.0496	.59709	.22878	.71899	.88397	.06003
#1	.98290	.16337	.12087	.15628	3.1537	.05622	2.0349	1.3021
#2	.98383	.16342	.11838	.15811	3.1679	.05542	2.0710	1.3006
#3	.98320	.16358	.11994	.15755	3.1628	.05586	2.0498	1.3018

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	**.36287**	**.78101**	**.00831**	**.10544**	**.07478**	**.94342**	**25.865**
Stddev	.00069	.00265	.00002	.00050	.00049	.00735	.174
%RSD	.18882	.33942	.29749	.47341	.65725	.77858	.67387
#1	.36337	.78378	.00829	.10488	.07527	.95188	25.719
#2	.36316	.77849	.00829	.10582	.07479	.93981	25.818
#3	.36209	.78076	.00833	.10563	.07429	.93859	26.058

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S3 Acquired: 10/31/2025 11:21:57 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5641.7	69554.	6801.3	3464.9	6699.2
Stddev	14.0	81.	56.1	17.8	18.4
%RSD	.24794	.11620	.82418	.51418	.27460
#1	5657.7	69647.	6857.0	3472.7	6718.7
#2	5631.9	69508.	6744.9	3477.6	6682.2
#3	5635.4	69505.	6802.1	3444.6	6696.8

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S4 Acquired: 10/31/2025 11:26:08 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.19462**	**.31883**	**1.0439**	**.29045**	**.58599**	**.86896**	**18.402**	**3.2092**
Stddev	.00054	.01042	.0010	.00084	.00141	.00277	.016	.0213
%RSD	.27894	3.2682	.09620	.28857	.24078	.31821	.08866	.66496
#1	.19400	.30721	1.0433	.28949	.58439	.87199	18.417	3.2324
#2	.19501	.32735	1.0433	.29106	.58653	.86830	18.384	3.1904
#3	.19484	.32194	1.0450	.29079	.58705	.86658	18.404	3.2048

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.1996**	**1.4794**	**.20837**	**2.6671**	**.85018**	**.01184**	**1.3779**	**.39031**
Stddev	.0015	.0014	.00081	.0024	.00148	.00012	.0023	.00029
%RSD	.02357	.09771	.39092	.08832	.17375	.99170	.16721	.07471
#1	6.1991	1.4811	.20744	2.6652	.84877	.01171	1.3806	.39002
#2	6.1985	1.4785	.20898	2.6663	.85172	.01195	1.3770	.39060
#3	6.2013	1.4786	.20868	2.6697	.85006	.01186	1.3763	.39031

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	**1.9568**	**.32074**	**.23039**	**.30809**	**6.0492**	**.11099**	**3.9600**	**2.5579**
Stddev	.0003	.00058	.00162	.00072	.0219	.00058	.0215	.0021
%RSD	.01379	.18026	.70133	.23213	.36116	.52603	.54312	.08074
#1	1.9566	.32011	.22852	.30726	6.0270	.11037	3.9822	2.5556
#2	1.9568	.32084	.23122	.30847	6.0707	.11153	3.9392	2.5586
#3	1.9571	.32126	.23142	.30853	6.0499	.11106	3.9586	2.5595

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	**.72460**	**1.5103**	**.01624**	**.21648**	**.15387**	**1.8182**	**50.706**
Stddev	.00209	.0014	.00023	.00021	.00082	.0104	.477
%RSD	.28792	.09547	1.3880	.09594	.53494	.57186	.93983
#1	.72219	1.5119	.01599	.21643	.15294	1.8266	50.762
#2	.72586	1.5096	.01631	.21671	.15451	1.8066	50.204
#3	.72574	1.5092	.01642	.21630	.15417	1.8214	51.152

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S4 Acquired: 10/31/2025 11:26:08 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5580.2	69733.	6934.9	3406.6	6467.1
Stddev	6.1	360.	23.1	19.7	5.0
%RSD	.10911	.51558	.33380	.57879	.07761
#1	5576.2	70124.	6909.1	3427.5	6461.4
#2	5577.1	69418.	6941.7	3388.3	6468.9
#3	5587.2	69656.	6953.9	3403.9	6470.9

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S5 Acquired: 10/31/2025 11:30:19 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.39362	.64937	2.1415	.58084	1.1773	1.7554	36.700	6.3469
Stddev	.00043	.01242	.0042	.00015	.0021	.0033	.396	.0502
%RSD	.10906	1.9133	.19551	.02648	.18017	.18910	1.0782	.79025
#1	.39329	.65843	2.1367	.58077	1.1749	1.7526	36.785	6.3990
#2	.39346	.65446	2.1436	.58073	1.1781	1.7544	37.045	6.3426
#3	.39411	.63520	2.1443	.58101	1.1789	1.7591	36.268	6.2990

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	12.703	2.9622	.41470	5.4648	1.6993	.02420	2.7636	.78564
Stddev	.032	.0120	.00184	.0131	.0038	.00018	.0109	.00256
%RSD	.24874	.40637	.44267	.23969	.22381	.72367	.39381	.32523
#1	12.666	2.9503	.41678	5.4501	1.6949	.02401	2.7541	.78403
#2	12.724	2.9621	.41398	5.4693	1.7015	.02424	2.7612	.78429
#3	12.718	2.9743	.41333	5.4751	1.7015	.02436	2.7755	.78858

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	4.0040	.64554	.48231	.62525	12.072	.22912	7.8333	5.1283
Stddev	.0098	.00258	.00536	.00290	.068	.00186	.0560	.0087
%RSD	.24474	.39982	1.1105	.46363	.56168	.81278	.71502	.16949
#1	3.9927	.64852	.47831	.62385	12.146	.22768	7.8894	5.1186
#2	4.0102	.64404	.48022	.62331	12.056	.22846	7.8330	5.1354
#3	4.0092	.64406	.48839	.62858	12.013	.23122	7.7774	5.1310

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	1.4696	3.0591	.03371	.44372	.31969	3.8412	100.51
Stddev	.0016	.0149	.00029	.00043	.00116	.0373	.84
%RSD	.10936	.48536	.86952	.09604	.36434	.97057	.83714
#1	1.4678	3.0450	.03355	.44391	.32098	3.8191	101.39
#2	1.4708	3.0575	.03354	.44323	.31938	3.8202	99.715
#3	1.4701	3.0746	.03405	.44401	.31872	3.8842	100.43

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: S5 Acquired: 10/31/2025 11:30:19 Type: Cal
Method: 6010-200.7 NEW(v330) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5460.5	68246.	6872.3	3318.6	6167.8
Stddev	7.8	170.	44.5	22.3	9.4
%RSD	.14254	.24842	.64815	.67121	.15211
#1	5469.5	68078.	6834.0	3293.9	6178.6
#2	5456.6	68243.	6861.6	3325.0	6161.3
#3	5455.5	68417.	6921.2	3337.0	6163.5

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICV01 Acquired: 10/31/2025 11:34:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.841884**	**3.747607**	**3.946657**	**3.858024**	**3.946922**	**7.714893**
Stddev	.001265	.009437	.002690	.009927	.005188	.050636
%RSD	.0329314	.2518213	.0681496	.2573010	.1314459	.6563355
#1	3.842276	3.756567	3.947131	3.857755	3.941111	7.773140
#2	3.842906	3.737756	3.943762	3.868083	3.948565	7.681365
#3	3.840469	3.748499	3.949078	3.848235	3.951089	7.690173

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.940081**	**.1974262**	**1.900680**	**19.43783**	**.7817291**	**1.915169**
Stddev	.020316	.0010572	.001254	.09009	.0014224	.001652
%RSD	.2558697	.5354897	.0659825	.4634570	.1819539	.0862410
#1	7.961199	.1983864	1.901799	19.51879	.7826397	1.915958
#2	7.938370	.1975989	1.899325	19.34078	.7824575	1.913271
#3	7.920674	.1962933	1.900915	19.45392	.7800900	1.916278

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9802962**	**3.901031**	**1.974173**	**19.35616**	**1.917895**	**.9860252**
Stddev	.0005773	.028616	.009105	.11288	.001591	.0015019
%RSD	.0588875	.7335595	.4612040	.5831591	.0829709	.1523141
#1	.9801015	3.871472	1.984610	19.46978	1.919686	.9850478
#2	.9809457	3.903020	1.970051	19.24404	1.916644	.9877545
#3	.9798415	3.928601	1.967859	19.35466	1.917355	.9852734

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.26544**	**1.932746**	**1.919698**	**19.01148**	**3.901525**	**3.924533**
Stddev	.05445	.005654	.002568	.10878	.013855	.002699
%RSD	.2826179	.2925177	.1337853	.5721760	.3551092	.0687689
#1	19.23423	1.938326	1.919652	18.93270	3.912979	3.921541
#2	19.23379	1.927022	1.922290	18.96615	3.905471	3.926783
#3	19.32831	1.932890	1.917154	19.13560	3.886126	3.925274

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICV01 Acquired: 10/31/2025 11:34:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.892442	3.951575	3.685491	F -.002125	F .0188074	F .0072826
Stddev	.002543	.011210	.011880	.000267	.0015993	.0044812
%RSD	.0653265	.2836744	.3223556	12.54173	8.503280	61.53313
#1	3.894006	3.964373	3.675359	-.002432	.0195185	.0033269
#2	3.893813	3.946858	3.682547	-.001993	.0199278	.0121493
#3	3.889508	3.943495	3.698567	-.001951	.0169760	.0063715

Elem	Sr4077
Units	ppm
Avg	F -.002406
Stddev	.000137
%RSD	5.706659
#1	-.002317
#2	-.002337
#3	-.002564

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5683.149	70048.46	6932.002	3519.678	6667.512
Stddev	8.650	127.09	25.578	14.960	12.207
%RSD	.1522052	.1814311	.3689912	.4250349	.1830878
#1	5688.351	70119.76	6904.749	3508.822	6663.698
#2	5687.934	70123.89	6935.767	3513.470	6681.170
#3	5673.164	69901.73	6955.489	3536.743	6657.666

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LLICV01 Acquired: 10/31/2025 11:45:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204856	.0402223	.0117810	.0208657	.0515859	.1018776	.0982590
Stddev	.0018645	.0020229	.0008326	.0024497	.0011852	.0045047	.0004473
%RSD	9.101528	5.029338	7.067318	11.74030	2.297517	4.421712	.4552178
#1	.0200669	.0423239	.0108402	.0208008	.0525943	.0995256	.0986647
#2	.0188661	.0382885	.0120798	.0184492	.0502804	.0990358	.0983330
#3	.0225239	.0400546	.0124229	.0233473	.0518829	.1070716	.0977794

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063956	.0058007	2.029291	.0102095	.0301081	.0223649	.1081492
Stddev	.0000709	.0000662	.014193	.0005660	.0001271	.0001240	.0101943
%RSD	1.108653	1.141547	.6994047	5.543749	.4220403	.5543206	9.426184
#1	.0064557	.0057318	2.014568	.0099741	.0301622	.0222279	.1069576
#2	.0063174	.0058638	2.042886	.0108552	.0301991	.0223977	.0986030
#3	.0064137	.0058067	2.030419	.0097992	.0299629	.0224692	.1188869

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0208505	2.151599	.0404778	.0107211	1.827092	.0389100	.0384401
Stddev	.0004876	.015281	.0000818	.0003695	.028768	.0021781	.0000478
%RSD	2.338339	.7102178	.2020082	3.446509	1.574515	5.597763	.1244153
#1	.0213123	2.137815	.0403959	.0102952	1.811099	.0413780	.0383912
#2	.0208986	2.168031	.0405594	.0109115	1.860303	.0372568	.0384868
#3	.0203407	2.148950	.0404781	.0109566	1.809874	.0380952	.0384424

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.915305	.1005372	.2045836	.0327576	.0386954	.3733507	.0196066
Stddev	.059935	.0011156	.0002879	.0000921	.0002771	.0132539	.0005962
%RSD	3.129242	1.109627	.1407432	.2812815	.7161473	3.549998	3.040827
#1	1.904911	.1009202	.2042512	.0326914	.0388823	.3640095	.0192881
#2	1.979757	.0992806	.2047426	.0327187	.0388270	.3675227	.0202944
#3	1.861248	.1014110	.2047569	.0328629	.0383771	.3885201	.0192372

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LLICV01 Acquired: 10/31/2025 11:45:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0183890	.0171580	.0211090
Stddev	.0011817	.0065024	.0000909
%RSD	6.426255	37.89732	.4305320
#1	.0196079	.0159249	.0210305
#2	.0183108	.0113605	.0212086
#3	.0172483	.0241888	.0210879

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5705.410	71547.10	7045.474	3502.694	7173.606
Stddev	3.045	404.45	22.386	26.461	3.551
%RSD	.0533700	.5652983	.3177359	.7554589	.0494957
#1	5701.907	71771.53	7027.101	3527.700	7169.515
#2	5706.893	71080.19	7070.407	3474.985	7175.411
#3	5707.429	71789.57	7038.915	3505.398	7175.891

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICB01 Acquired: 10/31/2025 11:50:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001926**	**-.000114**	**.0002574**	**-.000268**	**-.001690**	**.0001768**	**-.001386**
Stddev	.001517	.002678	.0002320	.001432	.000991	.0006637	.001172
%RSD	78.77247	2343.789	90.10464	535.1445	58.61611	375.2964	84.57114
#1	-.002341	-.002659	.0001527	-.001439	-.000599	.0004242	-.002581
#2	-.003192	-.000362	.0005233	-.000691	-.002533	.0006814	-.000239
#3	-.000245	.002679	.0000963	.001328	-.001938	-.000575	-.001336

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000048**	**.0000084**	**-.067537**	**-.000045**	**-.000156**	**-.000419**	**.0050210**
Stddev	.000004	.0000197	.003025	.000379	.000054	.000624	.0060302
%RSD	8.542964	235.1710	4.478413	838.8583	34.82171	148.9818	120.0993
#1	-.000046	.0000292	-.070556	-.000366	-.000157	-.000334	.0109185
#2	-.000053	-.000010	-.067549	.000373	-.000210	.000158	-.001134
#3	-.000046	.000006	-.064507	-.000143	-.000101	-.001081	.005278

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000524**	**-.016322**	**-.000254**	**-.000068**	**-.179950**	**.0056160**	**-.004459**
Stddev	.000512	.012234	.000224	.000166	.015495	.0042154	.000272
%RSD	97.64301	74.95668	88.08013	245.3698	8.610489	75.06169	6.089187
#1	-.000303	-.030385	-.000082	.000017	-.174910	.0064464	-.004485
#2	-.001109	-.008129	-.000507	.000039	-.197337	.0093544	-.004175
#3	-.000160	-.010452	-.000174	-.000259	-.167603	.0010471	-.004716

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.075851**	**-.006271**	**-.000356**	**-.001437**	**-.002027**	**-.000105**	**-.000941**
Stddev	.087239	.000665	.000175	.000764	.002050	.014487	.002099
%RSD	115.0132	10.60602	49.20022	53.18564	101.1529	13752.90	223.0688
#1	-.160442	-.005821	-.000508	-.000571	-.004385	.001688	.000587
#2	.013814	-.005956	-.000397	-.001722	-.001024	-.015405	-.000075
#3	-.080926	-.007035	-.000164	-.002017	-.000671	.013402	-.003335

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICB01 Acquired: 10/31/2025 11:50:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003137	.0009365	-.000173
Stddev	.002064	.0040582	.000012
%RSD	65.81221	433.3320	6.836880
#1	-.000753	.0034977	-.000159
#2	-.004303	-.003742	-.000177
#3	-.004353	.003054	-.000182

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5664.022	71340.12	6911.396	3458.574	7324.759
Stddev	11.018	177.16	31.278	19.794	20.330
%RSD	.1945268	.2483363	.4525535	.5723142	.2775471
#1	5653.027	71544.59	6905.377	3471.104	7302.152
#2	5663.974	71232.45	6945.246	3468.863	7330.587
#3	5675.063	71243.31	6883.565	3435.754	7341.538

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CRI01 Acquired: 10/31/2025 11:54:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198420	.0395849	.0123584	.0217400	.0512610	.1003985	.1016133
Stddev	.0004726	.0039746	.0005736	.0012947	.0024352	.0079099	.0012473
%RSD	2.381748	10.04083	4.641413	5.955202	4.750656	7.878523	1.227549
#1	.0199611	.0429480	.0125723	.0206942	.0534031	.0925053	.1028438
#2	.0193212	.0406081	.0127942	.0213378	.0517675	.1003652	.1003498
#3	.0202436	.0351987	.0117085	.0231881	.0486123	.1083250	.1016463

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064713	.0058492	2.049770	.0106356	.0303383	.0220858	.1116154
Stddev	.0000813	.0000921	.009465	.0002453	.0000565	.0002781	.0057070
%RSD	1.255754	1.574514	.4617515	2.306705	.1863381	1.258991	5.113083
#1	.0064704	.0057584	2.048671	.0107923	.0303547	.0224066	.1124605
#2	.0063905	.0059426	2.059736	.0107616	.0302754	.0219153	.1168528
#3	.0065531	.0058466	2.040902	.0103528	.0303849	.0219353	.1055331

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0218575	2.173401	.0404153	.0104124	1.861117	.0440273	.0389296
Stddev	.0005323	.013234	.0000970	.0002226	.015577	.0009866	.0001816
%RSD	2.435192	.6089231	.2399227	2.138328	.8369701	2.240871	.4665861
#1	.0224167	2.165790	.0403483	.0104115	1.866281	.0440938	.0389142
#2	.0217988	2.188683	.0403711	.0106355	1.873456	.0449790	.0391184
#3	.0213570	2.165731	.0405264	.0101902	1.843614	.0430092	.0387561

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.985356	.0970476	.2049433	.0322649	.0379833	.3796219	.0194837
Stddev	.019072	.0011345	.0003481	.0003694	.0020813	.0115672	.0004646
%RSD	.9606105	1.169023	.1698632	1.145000	5.479570	3.047031	2.384408
#1	2.007278	.0969330	.2052500	.0320748	.0378663	.3720338	.0191967
#2	1.976216	.0959747	.2050150	.0320292	.0359630	.3929352	.0200197
#3	1.972575	.0982351	.2045650	.0326907	.0401207	.3738967	.0192347

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CRI01 Acquired: 10/31/2025 11:54:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0153710	.0230066	.0214956
Stddev	.0009891	.0054788	.0001639
%RSD	6.434954	23.81391	.7624330
#1	.0150002	.0279943	.0215439
#2	.0164920	.0238830	.0213130
#3	.0146209	.0171424	.0216299

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5715.155	71140.45	6974.001	3492.166	7150.754
Stddev	.074	190.35	42.790	3.614	8.706
%RSD	.0012934	.2675627	.6135662	.1034822	.1217467
#1	5715.239	71266.73	6987.624	3488.344	7160.570
#2	5715.126	70921.52	7008.320	3495.527	7143.968
#3	5715.101	71233.11	6926.057	3492.628	7147.725

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSA01 Acquired: 10/31/2025 11:58:40 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106646**	**.0089546**	**-.001436**	**.0062597**	**.0023664**	**284.8009**
Stddev	.0032605	.0019561	.001836	.0030490	.0012575	1.3372
%RSD	30.57289	21.84466	127.8303	48.70887	53.13847	.4695194
#1	.0089787	.0073151	.000503	.0061563	.0037938	286.2088
#2	.0085922	.0111198	-.003146	.0093591	.0014223	284.6459
#3	.0144228	.0084288	-.001665	.0032637	.0018831	283.5480

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002705**	**.0013235**	**.0019806**	**269.4005**	**.0522817**	**.0021306**
Stddev	.0002843	.0000121	.0001058	1.3240	.0005623	.0002740
%RSD	105.1249	.9135058	5.341425	.4914583	1.075433	12.86151
#1	-.000052	.0013161	.0020827	270.8519	.0528490	.0024306
#2	.000485	.0013169	.0018714	269.0905	.0517247	.0020675
#3	.000378	.0013374	.0019876	268.2590	.0522715	.0018936

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0168720**	**110.4112**	**.0072003**	**284.7941**	**.0051844**	**.0084211**
Stddev	.0010069	1.2919	.0010679	1.3147	.0001625	.0004527
%RSD	5.967721	1.170055	14.83155	.4616326	3.134705	5.375164
#1	.0178071	110.4008	.0080161	286.3061	.0051892	.0083359
#2	.0158062	111.7082	.0075933	284.1555	.0053445	.0089102
#3	.0170028	109.1245	.0059916	283.9206	.0050196	.0080170

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1353243**	**.0051029**	**-.000049**	**.0762334**	F **.1301444**	**.0010815**
Stddev	.0170340	.0020268	.000286	.0554253	.0064555	.0000548
%RSD	12.58756	39.71925	587.6886	72.70473	4.960261	5.068110
#1	.1433185	.0029627	.000211	.0686418	.1298233	.0010322
#2	.1468909	.0069932	-.000002	.1350633	.1367544	.0010719
#3	.1157636	.0053527	-.000355	.0249953	.1238554	.0011405

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSA01 Acquired: 10/31/2025 11:58:40 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004937	-.008104	.0159186	.0037638	.0033686	F .1029028
Stddev	.000206	.001042	.0073833	.0010375	.0060456	.0061535
%RSD	4.181376	12.85745	46.38145	27.56504	179.4693	5.979958
#1	-.004822	-.009299	.0141850	.0026658	.0059237	.0994477
#2	-.005175	-.007384	.0240143	.0047277	.0077171	.0992533
#3	-.004813	-.007629	.0095563	.0038980	-.003535	.1100074

Elem	Sr4077
Units	ppm
Avg	.0078502
Stddev	.0011499
%RSD	14.64810
#1	.0084985
#2	.0065226
#3	.0085297

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5249.112	64264.49	6597.061	3243.525	5758.782
Stddev	17.281	76.28	89.251	7.469	8.777
%RSD	.3292118	.1186934	1.352893	.2302885	.1524153
#1	5268.989	64194.91	6551.700	3245.331	5767.273
#2	5237.661	64346.05	6699.883	3249.925	5749.744
#3	5240.685	64252.52	6539.601	3235.318	5759.330

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSAB01 Acquired: 10/31/2025 12:02:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1005105	.1067756	.0440412	.0536691	.5764584	241.6298
Stddev	.0018746	.0032958	.0017184	.0028042	.0015061	.4497
%RSD	1.865036	3.086663	3.901819	5.225064	.2612684	.1861178
#1	.1016934	.1070226	.0420583	.0506832	.5766938	241.2031
#2	.0983491	.1099409	.0450973	.0540771	.5748484	242.0994
#3	.1014889	.1033632	.0449679	.0562470	.5778329	241.5868

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4812018	.4942972	.9528074	229.9866	.5319784	.4839233
Stddev	.0026995	.0022322	.0002125	.3589	.0023581	.0001131
%RSD	.5609963	.4515833	.0223070	.1560591	.4432755	.0233685
#1	.4818349	.4954136	.9525682	230.0139	.5297505	.4838691
#2	.4835285	.4957510	.9528794	230.3311	.5344481	.4838476
#3	.4782420	.4917271	.9529746	229.6148	.5317367	.4840533

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4744130	96.69724	.4855840	242.1733	.9643747	.2076313
Stddev	.0013248	.27587	.0014862	.1613	.0015947	.0008322
%RSD	.2792595	.2852958	.3060664	.0666129	.1653586	.4008057
#1	.4729117	96.43985	.4872965	242.2233	.9625442	.2076755
#2	.4749089	96.98847	.4848248	242.3037	.9651174	.2084405
#3	.4754183	96.66341	.4846308	241.9929	.9654626	.2067779

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0616041	.4673063	.9863926	-.004318	1.068607	.9869789
Stddev	.0128691	.0045765	.0024184	.032258	.005782	.0019806
%RSD	20.89002	.9793393	.2451726	747.0378	.5411060	.2006678
#1	.0618731	.4711587	.9844524	-.038597	1.069922	.9847337
#2	.0743365	.4622474	.9891020	.000201	1.073618	.9877247
#3	.0486025	.4685128	.9856233	.025442	1.062280	.9884782

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSAB01 Acquired: 10/31/2025 12:02:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9912400	.9793630	1.010584	F .0012416	F .0005504	F .0862885
Stddev	.0010699	.0015732	.003301	.0034497	.0034971	.0044015
%RSD	.1079344	.1606395	.3266271	277.8391	635.3531	5.100929
#1	.9924732	.9800641	1.008190	.0028515	.0042526	.0812782
#2	.9906878	.9775611	1.009212	.0035920	-.002697	.0895326
#3	.9905591	.9804637	1.014349	-.002719	.000096	.0880547

Elem	Sr4077
Units	ppm
Avg	F .0043242
Stddev	.0003581
%RSD	8.282201
#1	.0047361
#2	.0041496
#3	.0040867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5399.097	66185.85	6975.844	3349.462	5952.144
Stddev	3.916	195.31	29.443	7.478	2.266
%RSD	.0725289	.2950893	.4220663	.2232613	.0380731
#1	5401.417	66266.02	6962.065	3358.097	5950.822
#2	5394.576	65963.21	6955.818	3345.132	5950.849
#3	5401.299	66328.31	7009.650	3345.157	5954.761

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSA01DLX20 Acquired: 10/31/2025 12:06:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000800**	**.0001968**	**-.000190**	**-.000668**	**-.000806**	**11.34012**	**-.003928**
Stddev	.003846	.0007425	.001341	.001888	.001071	.04428	.000480
%RSD	480.8560	377.3426	704.2161	282.5649	132.8836	.3904332	12.21743
#1	.003396	.0008777	.000356	-.000454	-.000055	11.35697	-.004350
#2	-.004158	.0003076	-.001718	-.002654	-.002032	11.37351	-.003406
#3	-.001637	-.000595	.000791	.001104	-.000330	11.28990	-.004028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001079**	**.0000632**	**11.15024**	**.0024205**	**-.000012**	**.0009418**	**4.449337**
Stddev	.0000455	.0000516	.07454	.0001431	.000126	.0003895	.025377
%RSD	42.21539	81.69861	.6685352	5.912286	1031.408	41.35080	.5703481
#1	.0001315	.0000057	11.14759	.0024545	.000028	.0013612	4.430248
#2	.0000554	.0000782	11.22608	.0022635	-.000154	.0005916	4.478135
#3	.0001367	.0001056	11.07706	.0025435	.000089	.0008727	4.439629

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001295**	**11.65928**	**.0000783**	**.0005102**	**-.127206**	**.0028411**	**-.004416**
Stddev	.0006814	.05514	.0002569	.0001334	.095544	.0037607	.000073
%RSD	526.2321	.4729388	327.9110	26.15455	75.11010	132.3704	1.650388
#1	-.000373	11.65481	.0003738	.0003749	-.171739	.0061296	-.004342
#2	-.000144	11.71652	-.000092	.0005139	-.192354	.0036529	-.004487
#3	.000905	11.60651	-.000046	.0006418	-.017525	-.001259	-.004419

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.076734**	**-.007884**	**-.000307**	**-.001835**	**-.000402**	**-.009369**	**-.000397**
Stddev	.057550	.001686	.000418	.000664	.002083	.020696	.000769
%RSD	74.99989	21.38894	136.2593	36.20710	518.1056	220.9010	193.9969
#1	-.041412	-.009802	-.000758	-.001344	.001714	-.004702	.000491
#2	-.143143	-.006637	-.000229	-.002591	-.000470	-.032000	-.000820
#3	-.045647	-.007213	.000067	-.001570	-.002450	.008595	-.000861

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSA01DLX20 Acquired: 10/31/2025 12:06:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001683**	**.0015784**	**.0002054**
Stddev	.002877	.0057442	.0001409
%RSD	171.0029	363.9316	68.57210
#1	-.003633	.0006963	.0001039
#2	-.003037	-.003674	.0001462
#3	.001622	.007713	.0003662

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5798.773**	**71803.26**	**7098.216**	**3541.470**	**7103.937**
Stddev	6.585	77.36	8.170	2.157	6.221
%RSD	.1135556	.1077388	.1150948	.0609069	.0875779
#1	5803.694	71822.17	7101.330	3543.381	7109.422
#2	5791.293	71869.42	7088.947	3539.131	7097.177
#3	5801.331	71718.21	7104.370	3541.899	7105.211

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSAB01DLX20 Acquired: 10/31/2025 12:11:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005380	.0041203	.0028015	.0031280	.0271443	12.56042	.0222192
Stddev	.0012716	.0012820	.0002303	.0018802	.0003127	.01053	.0004185
%RSD	236.3766	31.11419	8.222165	60.10892	1.152139	.0838628	1.883481
#1	.0009806	.0047222	.0027700	.0048439	.0269490	12.57102	.0226842
#2	-.000896	.0049907	.0025885	.0011181	.0269789	12.54995	.0218727
#3	.001529	.0026481	.0030459	.0034221	.0275051	12.56029	.0221008

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0264231	.0481526	12.28131	.0290268	.0243937	.0263582	4.881903
Stddev	.0001608	.0000944	.01939	.0003400	.0001677	.0002930	.037110
%RSD	.6084778	.1959951	.1579032	1.171470	.6874581	1.111459	.7601499
#1	.0264630	.0480954	12.30229	.0288177	.0242017	.0263283	4.887323
#2	.0262462	.0481008	12.27761	.0294192	.0244679	.0266649	4.916005
#3	.0265602	.0482615	12.26403	.0288435	.0245114	.0260813	4.842381

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250505	12.87483	.0490985	.0103987	-.144188	.0258506	.0468201
Stddev	.0002320	.05157	.0001402	.0002494	.013238	.0047294	.0001203
%RSD	.9262352	.4005471	.2856487	2.398488	9.180770	18.29520	.2570221
#1	.0250161	12.93359	.0489905	.0101230	-.144122	.0212804	.0468974
#2	.0252979	12.85379	.0492570	.0104643	-.157458	.0255469	.0466814
#3	.0248376	12.83711	.0490479	.0106087	-.130983	.0307246	.0468813

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.131862	.0440023	.0526957	.0493713	.0492005	.0410918	-.001667
Stddev	.006317	.0002131	.0001284	.0002360	.0004011	.0169076	.001981
%RSD	4.790278	.4843342	.2435677	.4780206	.8151812	41.14583	118.8713
#1	-.125635	.0439592	.0525560	.0492050	.0494211	.0216737	-.003708
#2	-.138265	.0438141	.0528083	.0492674	.0494428	.0490487	-.001542
#3	-.131686	.0442337	.0527227	.0496414	.0487375	.0525529	.000249

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: ICSAB01DLX20 Acquired: 10/31/2025 12:11:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000859	.0069057	.0001375
Stddev	.000905	.0025350	.0001400
%RSD	105.4020	36.70874	101.8284
#1	-.001601	.0065649	.0000607
#2	.000150	.0095938	.0000527
#3	-.001125	.0045584	.0002991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5658.625	69610.71	6860.554	3427.815	6897.959
Stddev	7.673	328.75	38.547	23.530	3.648
%RSD	.1355942	.4722729	.5618702	.6864564	.0528826
#1	5650.089	69973.15	6886.704	3454.986	6897.032
#2	5664.949	69331.73	6878.673	3414.175	6901.981
#3	5660.837	69527.26	6816.286	3414.286	6894.864

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV01 Acquired: 10/31/2025 12:15:27 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.006827**	**5.063282**	**4.933661**	**5.056940**	**5.033379**	**9.903726**
Stddev	.003581	.015239	.008420	.014529	.010571	.022407
%RSD	.0715298	.3009618	.1706707	.2873012	.2100130	.2262520
#1	5.005742	5.061085	4.939568	5.046260	5.024581	9.898489
#2	5.003914	5.079500	4.924020	5.051076	5.030450	9.928288
#3	5.010826	5.049261	4.937397	5.073484	5.045105	9.884401

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.895462**	**.2470405**	**2.464971**	**24.89657**	**1.016297**	**2.469342**
Stddev	.049598	.0008624	.004763	.04220	.000903	.002765
%RSD	.5012217	.3490713	.1932273	.1695184	.0888965	.1119637
#1	9.952412	.2473613	2.469429	24.89677	1.015388	2.471208
#2	9.861747	.2476964	2.459952	24.93867	1.017195	2.466166
#3	9.872226	.2460637	2.465531	24.85426	1.016309	2.470653

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.246136**	**5.063466**	**2.460636**	**24.79337**	**2.467023**	**1.252668**
Stddev	.001161	.045270	.011023	.04609	.003890	.000395
%RSD	.0931344	.8940607	.4479711	.1859153	.1576881	.0315597
#1	1.247110	5.072830	2.472305	24.74473	2.469730	1.252288
#2	1.244852	5.014245	2.459205	24.83640	2.462565	1.252640
#3	1.246445	5.103322	2.450399	24.79899	2.468774	1.253077

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.54985**	**2.469685**	**2.514643**	**24.96512**	**4.873651**	**5.012994**
Stddev	.17627	.004343	.006218	.08638	.012491	.005820
%RSD	.7180211	.1758489	.2472640	.3459870	.2563053	.1160937
#1	24.70647	2.464701	2.521270	25.05212	4.881157	5.016569
#2	24.35896	2.472658	2.513720	24.87939	4.880566	5.006279
#3	24.58411	2.471694	2.508938	24.96385	4.859231	5.016135

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV01 Acquired: 10/31/2025 12:15:27 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.957856**	**4.938687**	**5.041040**	**5.013093**	**4.974900**	F **4.742971**
Stddev	.006076	.012180	.028750	.005276	.012672	.049910
%RSD	.1225524	.2466155	.5703156	.1052426	.2547252	1.052288
#1	4.959309	4.952265	5.032520	5.007435	4.964297	4.797428
#2	4.951186	4.935074	5.017513	5.013964	4.971466	4.699408
#3	4.963074	4.928723	5.073087	5.017879	4.988935	4.732078

Elem	Sr4077
Units	ppm
Avg	**4.925454**
Stddev	.046335
%RSD	.9407351
#1	4.977086
#2	4.911788
#3	4.887489

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5555.846**	**68427.73**	**7025.422**	**3356.747**	**6466.041**
Stddev	8.001	109.98	29.113	10.970	12.731
%RSD	.1440072	.1607240	.4143948	.3268008	.1968897
#1	5546.654	68354.08	7002.798	3344.087	6451.793
#2	5561.244	68554.15	7015.200	3363.450	6476.300
#3	5559.640	68374.97	7058.267	3362.702	6470.029

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB01 Acquired: 10/31/2025 12:19:34 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001884**	**-.000432**	**.0004681**	**-.000596**	**-.000103**	**.0039407**
Stddev	.001566	.001810	.0007279	.000540	.001356	.0136166
%RSD	83.11413	419.2107	155.5141	90.57060	1312.628	345.5331
#1	-.002151	-.002499	-.000336	-.000861	-.001666	.0102398
#2	-.000202	.000866	.001083	.000025	.000601	.0132673
#3	-.003300	.000338	.000657	-.000954	.000756	-.011685

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003102**	**-.000020**	**.0000316**	**-.068897**	**.0000975**	**.0000810**
Stddev	.001191	.000008	.0000736	.012879	.0001755	.0002330
%RSD	38.38752	42.45909	233.2992	18.69390	179.9811	287.5804
#1	-.003205	-.000010	.0000248	-.083199	.0001333	.0001489
#2	-.001863	-.000023	.0001084	-.065274	.0002523	.0002725
#3	-.004237	-.000026	-.000038	-.058216	-.000093	-.000178

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000045**	**.0324779**	**-.000225**	**-.010962**	**.0000746**	**-.000026**
Stddev	.000195	.0050684	.000365	.012430	.0000513	.000287
%RSD	432.8012	15.60557	162.4982	113.3894	68.74776	1108.657
#1	-.000268	.0336516	-.000635	-.003938	.0000358	.000178
#2	.000041	.0269256	-.000104	-.025315	.0000553	.000099
#3	.000092	.0368564	.000065	-.003635	.0001328	-.000355

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.175902**	**.0011830**	**-.003425**	**-.061756**	**-.005770**	**.0001788**
Stddev	.003323	.0027433	.000269	.023314	.000331	.0003252
%RSD	1.889132	231.9035	7.851242	37.75121	5.739912	181.8878
#1	-.173703	-.001977	-.003734	-.072992	-.006033	.0000553
#2	-.179725	.002571	-.003245	-.034952	-.005398	.0005476
#3	-.174278	.002954	-.003296	-.077324	-.005880	-.000067

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB01 Acquired: 10/31/2025 12:19:34 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.025725	.0002672	.0127129	.0000531	-.002048	.0023314
Stddev	.000541	.0012728	.0102310	.0012946	.001296	.0023727
%RSD	2.103818	476.3199	80.47740	2439.313	63.29249	101.7698
#1	-.026310	.0013981	.0013062	-.000459	-.003082	-.000066
#2	-.025242	.0005147	.0210788	.001525	-.002469	.004678
#3	-.025623	-.001111	.0157537	-.000907	-.000594	.002382

Elem	Sr4077
Units	ppm
Avg	.0002007
Stddev	.0000700
%RSD	34.85889
#1	.0002812
#2	.0001669
#3	.0001541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5854.761	73722.90	7114.367	3586.000	7560.798
Stddev	15.990	104.95	20.272	7.513	21.085
%RSD	.2731080	.1423554	.2849405	.2095200	.2788772
#1	5860.705	73621.36	7128.308	3577.326	7555.492
#2	5866.927	73830.96	7091.112	3590.514	7584.029
#3	5836.650	73716.39	7123.679	3590.159	7542.872

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-1 Acquired: 10/31/2025 12:23:24 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053848	.0104537	.0066362	-.007407	.0168232	.4509958	.0064238
Stddev	.0010957	.0039250	.0046193	.002984	.0011695	.0008666	.0005957
%RSD	20.34821	37.54629	69.60816	40.27839	6.951830	.1921575	9.273419
#1	.0065564	.0102983	.0028991	-.003967	.0154829	.4511581	.0057756
#2	.0043853	.0066088	.0052087	-.008979	.0173504	.4500595	.0069472
#3	.0052126	.0144542	.0118008	-.009277	.0176364	.4517698	.0065486

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010595	.0022238	2168.820	.1026746	.0085988	.0131125	1.142794
Stddev	.0000779	.0000785	1.697	.0003469	.0000624	.0005885	.019389
%RSD	7.349549	3.530633	.0782513	.3378494	.7260118	4.488216	1.696666
#1	.0010071	.0022199	2168.467	.1023256	.0086686	.0133907	1.121484
#2	.0011490	.0021474	2170.666	.1030193	.0085792	.0124365	1.159396
#3	.0010225	.0023042	2167.327	.1026790	.0085484	.0135103	1.147501

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0344869	2198.471	.0730477	.0067958	2305.133	.0163969	.0813205
Stddev	.0006689	33.589	.0001004	.0005165	29.209	.0022645	.0005657
%RSD	1.939498	1.527849	.1373877	7.600969	1.267132	13.81042	.6955784
#1	.0346085	2219.912	.0729828	.0073786	2317.084	.0182706	.0817010
#2	.0337655	2215.740	.0731633	.0066143	2271.844	.0138806	.0815899
#3	.0350866	2159.760	.0729971	.0063945	2326.472	.0170397	.0806705

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.285111	-.000280	.0215378	-.024817	-.108115	-.001597	.0216057
Stddev	.342483	.000246	.0007754	.000233	.001031	.015931	.0031669
%RSD	10.42532	87.81055	3.600134	.9392546	.9540333	997.7588	14.65790
#1	2.912838	-.000437	.0217289	-.024554	-.107452	.016798	.0225431
#2	3.355687	-.000406	.0206847	-.024900	-.109304	-.010677	.0180759
#3	3.586809	.000003	.0221998	-.024998	-.107590	-.010911	.0241981

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-1 Acquired: 10/31/2025 12:23:24 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2508476	.9700288	.0585079
Stddev	.0081846	.0163187	.0004720
%RSD	3.262799	1.682294	.8067067
#1	.2415018	.9791193	.0580372
#2	.2567372	.9511894	.0589811
#3	.2543038	.9797778	.0585054

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3952.227	51404.45	6537.737	2447.409	4201.801
Stddev	3.638	26.82	21.007	19.393	5.741
%RSD	.0920508	.0521712	.3213154	.7924041	.1366327
#1	3955.073	51384.56	6551.748	2429.253	4201.692
#2	3953.480	51393.83	6513.583	2445.133	4207.595
#3	3948.128	51434.95	6547.879	2467.839	4196.115

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-2 Acquired: 10/31/2025 12:28:03 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1125417	-.118325	.0971311	.0803068	.0448696	1898.852	.0240400
Stddev	.0043221	.000295	.0027945	.0083638	.0053243	12.181	.0019844
%RSD	3.840448	.2492169	2.877044	10.41483	11.86612	.6414720	8.254456
#1	.1146249	-.118335	.0974415	.0898926	.0506586	1909.834	.0238581
#2	.1154277	-.118615	.0997574	.0765321	.0437677	1885.751	.0221528
#3	.1075726	-.118025	.0941943	.0744956	.0401825	1900.972	.0261090

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0294834	.0842502	-1.09419	-.308319	.0778955	1.354611	2754.843
Stddev	.0002106	.0018785	.07368	.001671	.0005114	.003138	22.609
%RSD	.7144479	2.229637	6.733369	.5419912	.6565338	.2316254	.8207060
#1	.0296844	.0820830	-1.14815	-.310031	.0780896	1.353125	2777.295
#2	.0292643	.0852562	-1.12417	-.306693	.0773155	1.358216	2732.080
#3	.0295016	.0854115	-1.01025	-.308233	.0782815	1.352493	2755.152

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.249913	1.844604	.0499557	^ *****	4.919818	.0198646	.0576811
Stddev	.001861	.044091	.0004720	-----	.043763	.0011277	.0014150
%RSD	.7444881	2.390270	.9447646	-----	.8895329	5.676940	2.453141
#1	-.251825	1.894366	.0500194	^ -----	4.968213	.0193312	.0565974
#2	-.249804	1.829043	.0503926	^ -----	4.908218	.0211600	.0592819
#3	-.248109	1.810404	.0494552	^ -----	4.883024	.0191025	.0571640

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1950.034	^ *****	-.017467	.0042005	.0034892	.5039960	.0660818
Stddev	16.317	-----	.001059	.0008305	.0007977	.0250744	.0031380
%RSD	.8367631	-----	6.063203	19.77218	22.86133	4.975113	4.748675
#1	1935.480	^ -----	-.017503	.0034955	.0042871	.5325580	.0693714
#2	1946.949	^ -----	-.016391	.0039899	.0034889	.4938235	.0657528
#3	1967.674	^ -----	-.018508	.0051160	.0026917	.4856064	.0631213

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-2 Acquired: 10/31/2025 12:28:03 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.518642	.2901220	-2.64119
Stddev	.016258	.0025537	.02164
%RSD	3.134658	.8802106	.8191929
#1	-.534830	.2928085	-2.66268
#2	-.502315	.2898316	-2.61941
#3	-.518780	.2877259	-2.64148

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4803.230	57404.45	6730.683	2888.474	4542.534
Stddev	4.837	80.85	32.328	10.295	5.163
%RSD	.1007130	.1408398	.4803077	.3564004	.1136539
#1	4798.014	57403.67	6701.996	2879.270	4544.454
#2	4804.107	57324.00	6765.712	2899.591	4546.462
#3	4807.569	57485.69	6724.340	2886.561	4536.686

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170328BL Acquired: 10/31/2025 12:37:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003031**	**-.002254**	**.0005697**	**-.002667**	**-.001843**	**-.005494**
Stddev	.002676	.001230	.0008105	.000974	.001188	.012901
%RSD	88.30653	54.54657	142.2681	36.51756	64.45724	234.8139
#1	-.003834	-.003246	-.000353	-.001606	-.003150	-.020355
#2	-.005214	-.000878	.001169	-.003521	-.000829	.002825
#3	-.000045	-.002639	.000893	-.002875	-.001550	.001049

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002308**	**-.000076**	**-.000031**	**-.082795**	**.0010475**	**-.000102**
Stddev	.001497	.000023	.000034	.004517	.0004821	.000218
%RSD	64.87816	30.91846	108.5105	5.455534	46.02476	213.4269
#1	-.001387	-.000050	-.000056	-.083818	.0010766	-.000275
#2	-.001501	-.000081	.000007	-.086713	.0015143	.000143
#3	-.004036	-.000096	-.000045	-.077855	.0005514	-.000174

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000722**	**.0022148**	**.0008756**	**-.019779**	**-.000068**	**-.000245**
Stddev	.0002971	.0002106	.0004567	.019324	.000150	.000476
%RSD	411.4288	9.510771	52.15791	97.69981	220.2213	194.2556
#1	.0003995	.0023558	.0014029	-.000004	-.000234	-.000319
#2	-.000002	.0023158	.0006190	-.020715	.000059	-.000680
#3	-.000180	.0019726	.0006049	-.038617	-.000030	.000264

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.441810**	**.0039924**	**-.003696**	**-.172501**	**-.016528**	**-.000313**
Stddev	.006242	.0003970	.000238	.014113	.000397	.000227
%RSD	1.412811	9.943107	6.443563	8.181346	2.399204	72.59286
#1	-.437219	.0037362	-.003445	-.156942	-.016197	-.000567
#2	-.448917	.0037913	-.003919	-.176084	-.016420	-.000130
#3	-.439293	.0044497	-.003723	-.184477	-.016968	-.000241

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170328BL Acquired: 10/31/2025 12:37:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.039233	.0001511	.0014245	-.000598	F -.010076	-.002120
Stddev	.000080	.0021890	.0186186	.001033	.000966	.002973
%RSD	.2045025	1448.952	1307.054	172.7373	9.589338	140.2454
#1	-.039162	.0024798	-.016096	-.001348	-.008978	-.001810
#2	-.039320	-.001864	-.000605	.000580	-.010795	.000686
#3	-.039218	-.000162	.020975	-.001026	-.010455	-.005236

Elem	Sr4077
Units	ppm
Avg	-.000225
Stddev	.000073
%RSD	32.43233
#1	-.000252
#2	-.000281
#3	-.000143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5856.043	72774.83	7021.549	3518.049	7540.999
Stddev	48.092	560.96	22.979	36.056	58.510
%RSD	.8212316	.7708165	.3272634	1.024880	.7758884
#1	5841.268	72188.16	7042.022	3482.613	7523.415
#2	5909.789	73305.95	6996.695	3554.694	7606.285
#3	5817.072	72830.37	7025.930	3516.840	7493.298

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170328BS Acquired: 10/31/2025 12:41:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7499299**	**1.864059**	**.8980138**	**1.858585**	**.7487025**	**1.938528**
Stddev	.0017958	.027296	.0025741	.005805	.0005660	.012475
%RSD	.2394569	1.464309	.2866441	.3123498	.0755971	.6435237
#1	.7503143	1.867450	.8999886	1.854378	.7480511	1.927797
#2	.7479731	1.889501	.8989502	1.865208	.7489818	1.952216
#3	.7515024	1.835227	.8951025	1.856168	.7490746	1.935573

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1935957**	**.1968015**	**.1790240**	**.9080506**	**.4016801**	**.1857739**
Stddev	.0006258	.0004302	.0003876	.0103101	.0009038	.0001815
%RSD	.3232336	.2185697	.2165013	1.135413	.2249972	.0976872
#1	.1928927	.1965782	.1788566	.9193073	.4021645	.1856849
#2	.1938021	.1965290	.1794672	.9057786	.4022385	.1859827
#3	.1940921	.1972974	.1787483	.8990660	.4006374	.1856541

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2953402**	**2.841941**	**.1979369**	**1.966247**	**.4633372**	**.0694439**
Stddev	.0007478	.007301	.0007690	.023290	.0007642	.0002620
%RSD	.2531831	.2568953	.3885218	1.184499	.1649397	.3772526
#1	.2946071	2.834147	.1986140	1.976399	.4629606	.0692612
#2	.2961018	2.848620	.1980959	1.982739	.4642167	.0697441
#3	.2953117	2.843058	.1971008	1.939605	.4628344	.0693265

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **2.301082**	**.2935160**	**.1931248**	**8.917036**	**.2635801**	**.4055680**
Stddev	.018558	.0028551	.0012244	.059194	.0016625	.0011159
%RSD	.8064712	.9727390	.6339811	.6638276	.6307533	.2751365
#1	2.307976	.2923292	.1917298	8.927775	.2654921	.4047076
#2	2.315206	.2967731	.1936237	8.970126	.2624759	.4068289
#3	2.280064	.2914456	.1940210	8.853208	.2627721	.4051676

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170328BS Acquired: 10/31/2025 12:41:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6105751**	**.1872977**	**.8481645**	**5.116850**	F **-.010406**	**.1848671**
Stddev	.0020723	.0012760	.0075956	.007639	.000693	.0043757
%RSD	.3393983	.6812730	.8955332	.1492888	6.658405	2.366933
#1	.6125010	.1858567	.8549769	5.123974	-.009902	.1881413
#2	.6108420	.1882843	.8399743	5.117792	-.011196	.1798974
#3	.6083823	.1877520	.8495422	5.108783	-.010120	.1865627

Elem	Sr4077
Units	ppm
Avg	**.1887577**
Stddev	.0001264
%RSD	.0669876
#1	.1886800
#2	.1889036
#3	.1886895

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5847.506**	**72258.08**	**6888.576**	**3550.606**	**7294.800**
Stddev	12.688	203.73	6.100	6.980	11.016
%RSD	.2169785	.2819546	.0885559	.1965864	.1510169
#1	5856.910	72161.73	6895.593	3543.445	7298.375
#2	5833.075	72120.39	6884.528	3550.984	7282.441
#3	5852.533	72492.12	6885.609	3557.389	7303.586

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-3 Acquired: 10/31/2025 12:50:45 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0757556**	**.0272887**	**223.7190**	**.0061547**	**.0825752**	**.0726275**	**-.003256**
Stddev	.0030254	.0008914	3.7585	.0016224	.0100346	.0064135	.001797
%RSD	3.993662	3.266642	1.680017	26.36083	12.15211	8.830664	55.18909
#1	.0791027	.0274453	225.0818	.0045181	.0795051	.0798402	-.003764
#2	.0749488	.0263293	226.6060	.0061834	.0937862	.0675667	-.004744
#3	.0732154	.0280914	219.4692	.0077626	.0744342	.0704757	-.001260

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005951**	**-.005386**	**.1633080**	**23.47446**	**.0053955**	**52.81554**	**2.231684**
Stddev	.000133	.000040	.0037805	.06300	.0001696	.97206	.026668
%RSD	2.234501	.7485699	2.314951	.2683930	3.143866	1.840484	1.194959
#1	-.005870	-.005384	.1592563	23.54313	.0055853	52.88295	2.261668
#2	-.005879	-.005346	.1639266	23.46092	.0053426	53.75214	2.222764
#3	-.006105	-.005427	.1667410	23.41933	.0052587	51.81152	2.210619

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**52.61056**	**-.133221**	**23.34767**	**.0019238**	**.1127775**	**-.075500**	**32.23587**
Stddev	.73558	.045909	.36545	.0003376	.0099607	.004921	.27738
%RSD	1.398164	34.46064	1.565266	17.54784	8.832159	6.518375	.8604557
#1	51.90505	-.082358	23.38917	.0020516	.1023773	-.073764	32.18039
#2	52.55372	-.171588	23.69061	.0021788	.1137242	-.071681	32.53680
#3	53.37292	-.145716	22.96324	.0015410	.1222311	-.081054	31.99044

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0629357**	**-.016325**	**-.017766**	**-.009928**	**-.036223**	**-.185172**	**-.117452**
Stddev	.0391425	.000437	.000272	.000989	.001790	.014524	.005851
%RSD	62.19442	2.677712	1.529805	9.960797	4.940968	7.843653	4.981970
#1	.1017661	-.016305	-.017453	-.009591	-.036642	-.168712	-.117808
#2	.0234884	-.016772	-.017921	-.009151	-.037767	-.190617	-.123117
#3	.0635527	-.015898	-.017926	-.011041	-.034261	-.196187	-.111431

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: LR-3 Acquired: 10/31/2025 12:50:45 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0637121	.0006239	-.000667
Stddev	.0084908	.0036467	.000048
%RSD	13.32678	584.4509	7.231400
#1	.0701551	-.001072	-.000689
#2	.0668904	-.001866	-.000701
#3	.0540907	.004810	-.000612

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5021.606	70423.43	6783.729	3100.392	6823.196
Stddev	81.505	150.88	85.339	4.307	91.798
%RSD	1.623094	.2142419	1.257991	.1389316	1.345385
#1	5012.236	70302.87	6847.871	3101.912	6801.152
#2	4945.191	70374.78	6816.443	3095.531	6744.427
#3	5107.392	70592.63	6686.874	3103.734	6924.010

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04 Acquired: 10/31/2025 13:00:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004518**	**-.005637**	**.0050974**	**.0033196**	**-.000495**	**.0658994**	**.0106380**
Stddev	.001301	.001030	.0003310	.0009902	.001106	.0018347	.0009657
%RSD	28.79857	18.26549	6.494040	29.83004	223.5893	2.784044	9.077571
#1	-.005641	-.006810	.0054269	.0040295	.000782	.0669009	.0095502
#2	-.004821	-.005215	.0051005	.0037409	-.001141	.0637820	.0109699
#3	-.003092	-.004885	.0047649	.0021884	-.001125	.0670155	.0113940

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000112**	**-.000133**	**29.51790**	**.0016489**	**.0005852**	**.1486203**	**.4986831**
Stddev	.000011	.000031	.12275	.0004008	.0003472	.0002686	.0153490
%RSD	9.805998	23.39293	.4158329	24.30763	59.33152	.1807505	3.077897
#1	-.000112	-.000164	29.49806	.0012241	.0003552	.1485692	.4915655
#2	-.000124	-.000102	29.40628	.0020204	.0004158	.1483809	.4881851
#3	-.000102	-.000132	29.64935	.0017024	.0009846	.1489108	.5162988

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0573648**	**7.228794**	**.0053768**	**-.000304**	**752.8224**	**-.000011**	**.3506329**
Stddev	.0004340	.018754	.0004126	.000694	11.4718	.003142	.0010150
%RSD	.7564715	.2594329	7.674388	228.2109	1.523841	29017.69	.2894769
#1	.0570486	7.210817	.0055638	.000063	764.6845	-.002721	.3506514
#2	.0578595	7.227328	.0049038	-.001104	751.9972	-.000745	.3516386
#3	.0571863	7.248238	.0056628	.000129	741.7854	.003434	.3496088

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.236089**	**.0088425**	**.0013597**	**-.038539**	**.0006558**	**3.200739**	**2.946744**
Stddev	.026156	.0009707	.0001629	.000643	.0024113	.034072	.003273
%RSD	.6174457	10.97777	11.98145	1.669355	367.6950	1.064495	.1110853
#1	4.234787	.0079828	.0011872	-.039262	.0033459	3.239688	2.948530
#2	4.210608	.0086495	.0015110	-.038030	-.000067	3.176457	2.948735
#3	4.262871	.0098952	.0013807	-.038325	-.001312	3.186072	2.942966

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04 Acquired: 10/31/2025 13:00:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**7.736544**	**-.000906**	**.1069000**
Stddev	.018197	.005537	.0004914
%RSD	.2352119	610.9669	.4596484
#1	7.755577	.005485	.1065239
#2	7.734737	-.004257	.1067203
#3	7.719318	-.003946	.1074560

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5355.458**	**65579.88**	**7310.652**	**3251.424**	**6063.443**
Stddev	7.304	390.60	62.559	17.167	10.641
%RSD	.1363829	.5956100	.8557215	.5279735	.1754955
#1	5362.784	65168.22	7378.374	3238.475	6072.890
#2	5348.176	65626.13	7255.022	3244.900	6051.915
#3	5355.413	65945.30	7298.561	3270.896	6065.524

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04LX5 Acquired: 10/31/2025 13:04:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003105**	**-.005973**	**.0008049**	**.0002695**	**-.001539**	**.0115668**	**-.001352**
Stddev	.001128	.001247	.0010458	.0013906	.001067	.0071504	.004169
%RSD	36.31164	20.88628	129.9200	516.0065	69.34864	61.81838	308.3969
#1	-.002705	-.006034	.0011340	.0018055	-.002770	.0039288	-.003579
#2	-.002232	-.007188	.0016466	-.000904	-.000893	.0126702	.003457
#3	-.004378	-.004696	-.000366	-.000093	-.000953	.0181014	-.003934

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000145**	**-.000032**	**6.350526**	**.0004743**	**-.000058**	**.0315166**	**.0918315**
Stddev	.000064	.000055	.424888	.0004204	.000178	.0003157	.0016680
%RSD	44.12589	170.1537	6.690599	88.63934	306.0321	1.001745	1.816360
#1	-.000108	-.000016	6.020309	.0004091	-.000043	.0311888	.0917610
#2	-.000219	-.000094	6.829876	.0000903	.000112	.0315423	.0935337
#3	-.000108	.000013	6.201394	.0009236	-.000244	.0318187	.0902000

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0120640**	**1.539903**	**.0008088**	**.0001152**	**147.5137**	**.0029775**	**.0676463**
Stddev	.0012107	.106700	.0001520	.0002098	3.5611	.0055644	.0002057
%RSD	10.03539	6.928990	18.78989	182.0944	2.414068	186.8862	.3040531
#1	.0114836	1.449781	.0008252	-.000022	149.9720	-.001528	.0678516
#2	.0134556	1.657720	.0006493	.000011	143.4299	.009197	.0676471
#3	.0112529	1.512209	.0009519	.000357	149.1391	.001263	.0674402

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5663568**	**-.012360**	**.0002680**	**-.038807**	**-.001213**	**.6075388**	**.5521358**
Stddev	.0198164	.000991	.0001763	.000181	.001231	.0220959	.0022987
%RSD	3.498921	8.018132	65.77765	.4655603	101.4553	3.636948	.4163241
#1	.5513320	-.012376	.0002378	-.038622	-.001761	.6225839	.5523830
#2	.5888151	-.011361	.0004573	-.038983	.000196	.5821708	.5497235
#3	.5589233	-.013343	.0001087	-.038816	-.002076	.6178619	.5543009

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04LX5 Acquired: 10/31/2025 13:04:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.500378	-.001305	.0232055
Stddev	.012081	.000167	.0014273
%RSD	.8051840	12.80499	6.150769
#1	1.513931	-.001132	.0220943
#2	1.490742	-.001318	.0248152
#3	1.496461	-.001465	.0227069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5642.869	70813.48	7163.996	3450.557	6746.609
Stddev	12.099	369.33	612.178	30.677	16.616
%RSD	.2144035	.5215601	8.545196	.8890487	.2462805
#1	5656.305	70552.63	7599.806	3425.344	6765.642
#2	5632.837	70651.71	6464.102	3441.615	6734.998
#3	5639.467	71236.10	7428.080	3484.712	6739.186

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-05 Acquired: 10/31/2025 13:08:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8078365	1.822797	.9227125	2.006990	.8110088	1.977582	.2008726
Stddev	.0030451	.034570	.0004658	.005680	.0014730	.012114	.0010315
%RSD	.3769393	1.896544	.0504804	.2830354	.1816275	.6125800	.5135068
#1	.8105501	1.819558	.9232407	2.007539	.8118540	1.975574	.1996825
#2	.8084161	1.858873	.9223606	2.012376	.8093079	1.966597	.2015086
#3	.8045433	1.789961	.9225361	2.001055	.8118645	1.990574	.2014267

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1845725	.1942071	31.46507	.3977245	.1985291	.4422396	3.685292
Stddev	.0009953	.0003405	.06258	.0000655	.0002274	.0006701	.018460
%RSD	.5392387	.1753111	.1988873	.0164669	.1145208	.1515257	.5009064
#1	.1834648	.1939696	31.42773	.3976492	.1983103	.4426987	3.704262
#2	.1853916	.1945972	31.43016	.3977562	.1987641	.4414707	3.667389
#3	.1848610	.1940546	31.53732	.3977681	.1985131	.4425496	3.684224

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2515903	8.848274	.4973370	.0739652	731.9149	.2918504	.5541011
Stddev	.0007814	.011053	.0009662	.0002424	6.2101	.0060350	.0021679
%RSD	.3105808	.1249172	.1942741	.3277608	.8484749	2.067835	.3912437
#1	.2507086	8.859468	.4962808	.0737872	734.6688	.2950074	.5553673
#2	.2518649	8.847987	.4981765	.0738673	736.2718	.2848918	.5515979
#3	.2521973	8.837368	.4975536	.0742413	724.8041	.2956521	.5553381

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.16749	.2592781	.4209597	.6657303	.1956497	4.052434	8.994954
Stddev	.07848	.0014910	.0005860	.0014798	.0005651	.016073	.010516
%RSD	.5174528	.5750691	.1391988	.2222805	.2888376	.3966353	.1169085
#1	15.24677	.2575590	.4212724	.6665433	.1963000	4.070664	8.984079
#2	15.08983	.2602196	.4213229	.6666254	.1953709	4.040305	9.005070
#3	15.16586	.2600558	.4202837	.6640223	.1952781	4.046331	8.995714

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-05 Acquired: 10/31/2025 13:08:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.604277	.1963267	.3025254
Stddev	.038101	.0038849	.0004497
%RSD	.5010415	1.978768	.1486406
#1	7.592855	.1923189	.3026731
#2	7.646783	.1965855	.3020204
#3	7.573195	.2000757	.3028826

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5283.382	65524.00	7259.542	3266.394	5962.539
Stddev	4.205	144.32	33.983	5.759	5.190
%RSD	.0795953	.2202513	.4681135	.1763250	.0870471
#1	5285.775	65366.75	7293.356	3262.032	5968.530
#2	5285.846	65554.85	7225.393	3272.922	5959.396
#3	5278.527	65650.40	7259.878	3264.227	5959.691

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-06 Acquired: 10/31/2025 13:12:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7932311	1.761644	.9045745	1.952988	.7915730	1.929808	.1963672
Stddev	.0006617	.020472	.0011895	.002841	.0047297	.008899	.0002762
%RSD	.0834176	1.162090	.1314989	.1454707	.5975123	.4611325	.1406384
#1	.7932109	1.784690	.9037101	1.953112	.7892814	1.919554	.1964941
#2	.7939027	1.745565	.9040824	1.950086	.7884255	1.935520	.1965570
#3	.7925798	1.754677	.9059312	1.955764	.7970120	1.934349	.1960504

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1814900	.1907425	31.26228	.3911207	.1944843	.4362277	3.559285
Stddev	.0011118	.0000136	.10966	.0009681	.0002225	.0005907	.019617
%RSD	.6125919	.0071521	.3507831	.2475158	.1144059	.1354065	.5511460
#1	.1806681	.1907533	31.24392	.3900443	.1945107	.4359388	3.575739
#2	.1827550	.1907472	31.37997	.3919201	.1946925	.4369072	3.537576
#3	.1810469	.1907272	31.16296	.3913976	.1942499	.4358371	3.564540

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2468567	8.797208	.4876578	.0726495	736.3891	.2859032	.5509876
Stddev	.0006313	.031307	.0001230	.0003622	2.0903	.0065368	.0004754
%RSD	.2557364	.3558727	.0252136	.4985625	.2838545	2.286384	.0862783
#1	.2463941	8.780561	.4875180	.0722456	734.2118	.2923981	.5513807
#2	.2475759	8.833321	.4877491	.0727574	738.3798	.2793252	.5504592
#3	.2466000	8.777741	.4877062	.0729455	736.5757	.2859863	.5511228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.58910	.2530025	.4098807	.6473083	.1900518	4.015993	8.869109
Stddev	.12024	.0017765	.0001977	.0022985	.0010461	.015782	.040248
%RSD	.8241855	.7021660	.0482287	.3550903	.5504009	.3929793	.4537974
#1	14.69643	.2517650	.4097319	.6495538	.1892447	4.028847	8.908307
#2	14.45916	.2550381	.4098052	.6474110	.1912336	3.998379	8.827887
#3	14.61173	.2522045	.4101050	.6449601	.1896772	4.020752	8.871134

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-06 Acquired: 10/31/2025 13:12:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.578636	.1949692	.2981512
Stddev	.013618	.0004347	.0005928
%RSD	.1796951	.2229666	.1988346
#1	7.591049	.1944681	.2987606
#2	7.564068	.1951944	.2975764
#3	7.580790	.1952451	.2981167

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5379.407	66631.44	7355.047	3303.971	6060.597
Stddev	10.524	236.14	72.885	5.355	10.366
%RSD	.1956332	.3544022	.9909518	.1620754	.1710311
#1	5380.722	66773.59	7407.795	3302.362	6056.729
#2	5368.287	66358.85	7271.880	3299.606	6052.721
#3	5389.211	66761.88	7385.466	3309.946	6072.340

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV02 Acquired: 10/31/2025 13:17:00 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.001675**	**4.887497**	**4.964843**	**4.996751**	**4.988712**	**10.20822**	**10.18982**
Stddev	.012447	.092714	.004457	.013055	.007895	.10150	.06247
%RSD	.2488586	1.896972	.0897803	.2612743	.1582662	.9942936	.6130349
#1	4.994919	4.912528	4.959822	4.988072	4.979663	10.16565	10.14790
#2	4.994067	4.784837	4.966373	4.990416	4.994195	10.13493	10.15994
#3	5.016040	4.965127	4.968334	5.011765	4.992279	10.32407	10.26162

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2580841**	**2.507497**	**25.50150**	**1.022188**	**2.504973**	**1.263668**	**5.033370**
Stddev	.0022965	.003111	.25445	.002205	.001708	.000725	.022918
%RSD	.8898103	.1240610	.9977859	.2157183	.0681995	.0573805	.4553223
#1	.2563173	2.505077	25.38424	1.020699	2.503682	1.262903	5.054747
#2	.2572550	2.506407	25.32683	1.024721	2.504327	1.263757	5.009172
#3	.2606800	2.511006	25.79344	1.021143	2.506910	1.264344	5.036191

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.543043**	**25.48033**	**2.503183**	**1.260967**	**26.92966**	**2.553350**	**2.471613**
Stddev	.019038	.32628	.002909	.001377	.17325	.021825	.006221
%RSD	.7486155	1.280528	.1162245	.1092180	.6433301	.8547585	.2516983
#1	2.532935	25.34226	2.499875	1.259396	27.06495	2.543999	2.477254
#2	2.531192	25.24579	2.504325	1.261969	26.98965	2.537758	2.472643
#3	2.565003	25.85295	2.505347	1.261535	26.73440	2.578292	2.464941

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.69448**	**5.078249**	**5.069437**	**5.014717**	**5.085441**	**5.016560**	**5.111358**
Stddev	.02565	.062708	.007163	.009956	.041042	.029730	.008952
%RSD	.0998137	1.234841	.1412979	.1985285	.8070456	.5926282	.1751373
#1	25.72395	5.029296	5.066141	5.012469	5.061492	5.044538	5.103498
#2	25.67722	5.056520	5.064516	5.006078	5.062000	5.019799	5.109474
#3	25.68227	5.148932	5.077655	5.025605	5.132831	4.985344	5.121102

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV02 Acquired: 10/31/2025 13:17:00 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.964636	4.998893	5.097654
Stddev	.019550	.026792	.030130
%RSD	.3937893	.5359607	.5910561
#1	4.959071	4.977574	5.062990
#2	4.948472	4.990137	5.117552
#3	4.986365	5.028967	5.112423

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5479.662	67336.79	6665.035	3315.843	6353.715
Stddev	6.854	80.26	51.364	26.064	9.464
%RSD	.1250885	.1191902	.7706534	.7860461	.1489467
#1	5487.194	67248.53	6697.786	3296.494	6364.504
#2	5478.000	67356.46	6691.483	3305.553	6349.823
#3	5473.791	67405.39	6605.836	3345.481	6346.817

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB02 Acquired: 10/31/2025 13:21:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003295**	**-.002578**	**-.000423**	**-.000325**	**-.001948**	**-.020851**
Stddev	.000542	.000713	.001337	.000665	.001261	.011344
%RSD	16.44235	27.67601	315.9082	204.5145	64.75832	54.40358
#1	-.003919	-.002013	.001104	-.000835	-.000492	-.027947
#2	-.003027	-.002341	-.000989	-.000568	-.002637	-.026838
#3	-.002940	-.003380	-.001384	.000427	-.002714	-.007768

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001635**	**-.000089**	**-.000014**	**-.082729**	**.0008290**	**-.000037**
Stddev	.000448	.000067	.000028	.005133	.0000097	.000062
%RSD	27.41102	75.58094	196.2558	6.204561	1.170533	166.9185
#1	-.001189	-.000083	.000018	-.086050	.0008372	-.000103
#2	-.002086	-.000025	-.000028	-.076817	.0008316	.000020
#3	-.001631	-.000159	-.000032	-.085320	.0008183	-.000029

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000054**	**-.004459**	**.0002414**	**-.026076**	**.0000285**	**-.000021**
Stddev	.000245	.007252	.0005910	.010054	.0002412	.000341
%RSD	451.4735	162.6366	244.8369	38.55796	847.8124	1662.386
#1	.000172	.003419	-.000381	-.035854	-.000079	-.000353
#2	-.000315	-.005939	.000795	-.015767	.000305	-.000037
#3	-.000020	-.010857	.000310	-.026607	-.000140	.000329

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.273679**	**.0026662**	**-.004281**	**-.122378**	**-.010784**	**.0006952**
Stddev	.031546	.0017223	.000129	.033666	.000545	.0001682
%RSD	11.52663	64.59688	3.004679	27.51019	5.051720	24.19235
#1	-.305584	.0020840	-.004181	-.118168	-.010167	.0005333
#2	-.272948	.0013104	-.004426	-.157951	-.010987	.0006833
#3	-.242505	.0046041	-.004235	-.091014	-.011199	.0008690

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB02 Acquired: 10/31/2025 13:21:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.021595	-.000912	.0037857	.0000845	F .0103760	.0026245
Stddev	.000666	.002659	.0087423	.0018816	.0015982	.0025841
%RSD	3.083374	291.4828	230.9327	2226.808	15.40259	98.45953
#1	-.020854	.000918	.0048042	-.002084	.0097316	.0046540
#2	-.021785	.000307	-.005421	.001287	.0092006	-.000284
#3	-.022144	-.003962	.011974	.001050	.0121958	.003504

Elem	Sr4077
Units	ppm
Avg	-.000084
Stddev	.000039
%RSD	45.92213
#1	-.000042
#2	-.000094
#3	-.000117

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5713.911	70718.45	6852.736	3445.150	7323.898
Stddev	37.421	220.26	42.625	9.778	67.226
%RSD	.6549020	.3114625	.6220072	.2838223	.9178974
#1	5671.456	70690.30	6824.794	3439.946	7247.504
#2	5742.099	70951.44	6901.797	3456.430	7374.021
#3	5728.179	70513.62	6831.617	3439.074	7350.170

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04A Acquired: 10/31/2025 13:25:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8041772	1.772917	.9139453	2.008633	.7983249	1.982992	.2013634
Stddev	.0024532	.014916	.0007556	.007369	.0025624	.060188	.0060304
%RSD	.3050535	.8413225	.0826747	.3668499	.3209697	3.035206	2.994769
#1	.8067312	1.789494	.9141278	2.013966	.7984931	2.052471	.2080699
#2	.8018392	1.768679	.9131152	2.000225	.7956825	1.946815	.1996326
#3	.8039612	1.760579	.9145930	2.011708	.8007990	1.949690	.1963877

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1863123	.1925915	30.69862	.3898072	.1961093	.4282221	3.660904
Stddev	.0041786	.0002955	.92468	.0009738	.0000787	.0008093	.036779
%RSD	2.242811	.1534228	3.012115	.2498115	.0401072	.1889989	1.004637
#1	.1907102	.1929326	31.76454	.3888671	.1960215	.4286172	3.683855
#2	.1858321	.1924283	30.21936	.3908115	.1961333	.4272911	3.618483
#3	.1823944	.1924136	30.11195	.3897429	.1961732	.4287581	3.680374

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2520085	9.103313	.4934634	.0519609	748.3862	.2969585	.5497374
Stddev	.0076750	.232136	.0005852	.0005628	6.6411	.0076268	.0011359
%RSD	3.045515	2.550012	.1185874	1.083045	.8873922	2.568313	.2066299
#1	.2607244	9.366197	.4935034	.0515350	743.1118	.3054926	.5510180
#2	.2490398	9.017217	.4940276	.0525989	755.8442	.2908086	.5493426
#3	.2462614	8.926526	.4928593	.0517487	746.2027	.2945743	.5488515

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.34411	.2694703	.4077381	.6489985	.1942620	4.089163	8.902546
Stddev	.17622	.0074728	.0010711	.0005373	.0059558	.019827	.021949
%RSD	1.148466	2.773145	.2626888	.0827853	3.065871	.4848761	.2465462
#1	15.47087	.2774675	.4078418	.6483920	.2011179	4.112042	8.925152
#2	15.14288	.2682783	.4066189	.6491885	.1903653	4.078459	8.901168
#3	15.41858	.2626652	.4087536	.6494149	.1913029	4.076989	8.881319

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04A Acquired: 10/31/2025 13:25:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.787079	.2028051	.2981414
Stddev	.012569	.0071471	.0088109
%RSD	.1614050	3.524098	2.955277
#1	7.772682	.2108695	.3083153
#2	7.792692	.1972548	.2930763
#3	7.795864	.2002911	.2930325

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5391.114	67270.15	7338.942	3289.359	6072.036
Stddev	4.401	216.92	161.181	1.778	6.561
%RSD	.0816347	.3224657	2.196239	.0540671	.1080490
#1	5386.870	67481.13	7176.316	3290.610	6071.174
#2	5395.657	67047.74	7341.873	3290.144	6065.948
#3	5390.814	67281.57	7498.638	3287.323	6078.985

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03 Acquired: 10/31/2025 13:29:35 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004998**	**-.003641**	**.0073221**	**.0012918**	**.0004517**	**.0089024**	**.0500515**
Stddev	.000755	.001463	.0002551	.0030856	.0012280	.0026948	.0016670
%RSD	15.10754	40.18121	3.483996	238.8606	271.8882	30.27051	3.330553
#1	-.004164	-.004805	.0071348	-.001265	-.000304	.0075222	.0483545
#2	-.005636	-.004119	.0076127	.004719	.001869	.0120078	.0501132
#3	-.005192	-.001999	.0072189	.000422	-.000210	.0071774	.0516867

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000092**	**.0000132**	**47.18133**	**.0028236**	**-.000192**	**.0069856**	**2.137311**
Stddev	.000040	.0001666	.12953	.0000997	.000054	.0005024	.006790
%RSD	43.89256	1262.105	.2745349	3.529523	28.36996	7.191656	.3177120
#1	-.000054	.0002046	47.03594	.0028901	-.000251	.0066588	2.129536
#2	-.000134	-.000066	47.22360	.0027090	-.000179	.0075640	2.142081
#3	-.000088	-.000099	47.28443	.0028716	-.000145	.0067339	2.140316

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0852106**	**18.29449**	**.0023180**	**.0001987**	**121.5918**	**.0002892**	**.2303925**
Stddev	.0004474	.08081	.0002803	.0002884	.0537	.0013354	.0007552
%RSD	.5250101	.4417016	12.09081	145.1797	.0441824	461.7595	.3277661
#1	.0847192	18.20495	.0022016	-.000117	121.5971	.0015371	.2310893
#2	.0855943	18.36199	.0021146	.000449	121.5356	.0004498	.2304980
#3	.0853182	18.31655	.0026377	.000263	121.6426	-.001119	.2295901

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.285741**	**.0536758**	**.0008565**	**-.039804**	**-.000689**	**5.411178**	**.0081664**
Stddev	.047253	.0007608	.0001744	.000505	.001508	.009304	.0016092
%RSD	.8939684	1.417433	20.35710	1.269844	218.8327	.1719434	19.70468
#1	5.332115	.0528078	.0008853	-.040360	-.001892	5.421827	.0092965
#2	5.287453	.0542271	.0010146	-.039373	-.001178	5.407081	.0063240
#3	5.237656	.0539925	.0006695	-.039679	.001003	5.404624	.0088787

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03 Acquired: 10/31/2025 13:29:35 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**6.874918**	**.0192455**	**.1945290**
Stddev	.063189	.0032671	.0007529
%RSD	.9191269	16.97584	.3870193
#1	6.947757	.0227872	.1938776
#2	6.834797	.0185999	.1943562
#3	6.842199	.0163494	.1953533

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5548.759**	**69970.86**	**7084.564**	**3438.291**	**6609.863**
Stddev	14.664	269.19	59.988	2.951	20.249
%RSD	.2642720	.3847123	.8467419	.0858354	.3063388
#1	5564.996	70278.16	7153.218	3440.799	6630.731
#2	5544.799	69776.73	7058.202	3439.037	6608.561
#3	5536.482	69857.69	7042.270	3435.039	6590.297

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01 Acquired: 10/31/2025 13:33:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007862**	**-.003449**	**-.004257**	**-.004755**	**.0022518**	**.0407929**
Stddev	.000922	.002373	.001884	.001420	.0021898	.0033180
%RSD	11.72985	68.80203	44.24451	29.87321	97.24878	8.133837
#1	-.008817	-.000759	-.006423	-.006172	.0032822	.0372471
#2	-.006976	-.004345	-.003352	-.003331	.0037363	.0438226
#3	-.007793	-.005244	-.002998	-.004762	-.000263	.0413089

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4306158**	**-.000188**	**-.000109**	**1172.799**	**.6656272**	**.0131483**
Stddev	.0024773	.000007	.000063	19.579	.0032731	.0000662
%RSD	.5752903	3.802345	57.88723	1.669455	.4917276	.5038624
#1	.4324557	-.000193	-.000059	1192.624	.6623675	.0131890
#2	.4315926	-.000192	-.000089	1153.475	.6656007	.0131840
#3	.4277990	-.000180	-.000180	1172.297	.6689135	.0130718

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020899**	**.1006123**	**.0016576**	**.0121745**	**.0056327**	**-.001293**
Stddev	.0003614	.0036050	.0003505	.0344650	.0001502	.000446
%RSD	17.29456	3.583113	21.14314	283.0907	2.667510	34.47373
#1	.0021323	.1046332	.0014655	.0519076	.0057586	-.001294
#2	.0024284	.0995352	.0020621	-.009640	.0054664	-.000847
#3	.0017092	.0976686	.0014451	-.005744	.0056733	-.001739

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**80.73303**	**.0017285**	**.0417848**	**79.48610**	**.0208168**	**.0308413**
Stddev	.78699	.0005337	.0003434	.73512	.0007101	.0001743
%RSD	.9748056	30.87937	.8219150	.9248358	3.410985	.5649769
#1	80.09645	.0017335	.0413962	78.82693	.0214905	.0307753
#2	81.61295	.0022597	.0419105	80.27884	.0200753	.0310389
#3	80.48969	.0011922	.0420476	79.35252	.0208847	.0307097

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01 Acquired: 10/31/2025 13:33:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.040804	-.051442	1.991296	.0124873	F 312.9585	.3609787
Stddev	.000705	.001422	.004862	.0021557	1.0067	.0043824
%RSD	1.727680	2.764636	.2441492	17.26319	.3216729	1.214045
#1	-.040798	-.052894	1.996855	.0134238	311.8187	.3613602
#2	-.041511	-.050052	1.987835	.0100218	313.7259	.3651579
#3	-.040101	-.051381	1.989199	.0140165	313.3310	.3564180

Elem	Sr4077
Units	ppm
Avg	F 20.30183
Stddev	.34713
%RSD	1.709866
#1	20.70147
#2	20.12870
#3	20.07531

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4794.126	61540.16	6428.609	3043.242	5458.249
Stddev	2.061	218.19	61.785	17.824	2.268
%RSD	.0429836	.3545481	.9610896	.5857026	.0415493
#1	4791.869	61719.46	6369.298	3046.859	5459.989
#2	4795.908	61603.79	6492.601	3058.981	5455.684
#3	4794.602	61297.23	6423.928	3023.887	5459.074

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-02 Acquired: 10/31/2025 13:38:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003587**	**-.002894**	**.0224033**	**.0001669**	**-.000585**	**.1276740**	**.1676032**
Stddev	.001597	.002534	.0006920	.0017846	.002064	.0092705	.0028234
%RSD	44.53535	87.55571	3.088842	1068.956	352.8846	7.261061	1.684567
#1	-.004444	-.001845	.0217411	.0006772	-.002935	.1170482	.1643692
#2	-.004573	-.005783	.0223473	.0016408	.000934	.1341096	.1695776
#3	-.001744	-.001053	.0231217	-.001817	.000246	.1318642	.1688627

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000012**	**-.000010**	**5.381204**	**.0062895**	**-.000078**	**.0134942**	**.1199852**
Stddev	.000035	.000050	.079156	.0001617	.000106	.0004737	.0058343
%RSD	281.7159	524.6795	1.470977	2.570824	136.2664	3.510689	4.862529
#1	.000028	.000043	5.289949	.0061269	.000033	.0140411	.1209133
#2	-.000036	-.000015	5.431305	.0064502	-.000179	.0132283	.1252998
#3	-.000028	-.000057	5.422360	.0062914	-.000088	.0132131	.1137425

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0692945**	**1.317281**	**.0028174**	**-.000320**	**283.6981**	**.0045091**	**.0389891**
Stddev	.0013255	.032929	.0000149	.000082	4.0750	.0037733	.0005423
%RSD	1.912904	2.499744	.5307413	25.68657	1.436372	83.68243	1.390786
#1	.0677684	1.299550	.0028247	-.000245	282.2559	.0061208	.0383776
#2	.0699561	1.355276	.0028273	-.000307	280.5403	.0001976	.0394114
#3	.0701591	1.297018	.0028002	-.000408	288.2980	.0072090	.0391783

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4698969**	**-.001544**	**.0002092**	**.0196129**	**.0030041**	**.8764557**	**.0135719**
Stddev	.0484889	.001188	.0002392	.0005608	.0013833	.0383205	.0003876
%RSD	10.31904	76.95421	114.3287	2.859358	46.04700	4.372208	2.856192
#1	.4229115	-.000356	-.000067	.0199301	.0015618	.8324739	.0131526
#2	.4670183	-.001544	.000335	.0189653	.0031308	.8942443	.0136460
#3	.5197609	-.002732	.000359	.0199431	.0043196	.9026490	.0139172

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-02 Acquired: 10/31/2025 13:38:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1935439	-.002249	.0184706
Stddev	.0006547	.003499	.0003565
%RSD	.3382472	155.5798	1.930044
#1	.1930555	.001368	.0180741
#2	.1942878	-.002498	.0187646
#3	.1932884	-.005617	.0185732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5487.856	67775.89	6736.153	3358.222	6424.991
Stddev	14.922	138.18	188.250	21.599	17.694
%RSD	.2719075	.2038834	2.794617	.6431530	.2753964
#1	5471.227	67719.36	6519.617	3370.932	6405.532
#2	5500.078	67933.38	6860.913	3370.450	6440.115
#3	5492.263	67674.94	6827.930	3333.283	6429.325

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03DUP Acquired: 10/31/2025 13:42:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005570**	**-.003737**	**.0063371**	**.0012900**	**-.001893**	**.0113239**	**.0504758**
Stddev	.001691	.001374	.0008098	.0012380	.000496	.0119328	.0029147
%RSD	30.36548	36.77760	12.77914	95.96492	26.20111	105.3768	5.774545
#1	-.006652	-.003204	.0055827	.0015222	-.001405	.0246625	.0476570
#2	-.003621	-.005298	.0062357	-.000048	-.002397	.0076463	.0534779
#3	-.006437	-.002709	.0071928	.002395	-.001878	.0016628	.0502926

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000106**	**-.000055**	**47.05045**	**.0032997**	**-.000360**	**.0069849**	**2.055294**
Stddev	.000008	.000075	.03143	.0001212	.000198	.0002305	.025727
%RSD	7.634416	135.5176	.0668095	3.672820	55.11764	3.300438	1.251742
#1	-.000112	-.000057	47.01427	.0032958	-.000219	.0067223	2.029953
#2	-.000097	.000020	47.07104	.0031805	-.000587	.0070786	2.054540
#3	-.000110	-.000130	47.06605	.0034228	-.000274	.0071539	2.081390

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0835831**	**18.45205**	**.0026314**	**.0003073**	**114.8234**	**.0000591**	**.2304900**
Stddev	.0009710	.06637	.0003071	.0004034	.5729	.0023578	.0010543
%RSD	1.161754	.3597131	11.67020	131.2659	.4989336	3988.643	.4574147
#1	.0825139	18.40076	.0025695	.0006270	114.2938	.0027781	.2297397
#2	.0838250	18.52702	.0029647	.0004407	114.7448	-.001179	.2300350
#3	.0844102	18.42838	.0023600	-.000146	115.4315	-.001421	.2316954

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.021264**	**.0533227**	**.0007935**	**-.040255**	**.0002336**	**5.353075**	**.0091591**
Stddev	.052153	.0012718	.0001272	.000573	.0008650	.028048	.0010200
%RSD	1.038644	2.385184	16.03487	1.422760	370.2925	.5239584	11.13677
#1	4.961331	.0542964	.0008391	-.040244	.0009982	5.327220	.0103333
#2	5.056323	.0518837	.0008917	-.040833	-.000705	5.349110	.0086523
#3	5.046139	.0537880	.0006498	-.039688	.000408	5.382894	.0084917

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03DUP Acquired: 10/31/2025 13:42:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**6.914885**	**.0192333**	**.1892194**
Stddev	.040197	.0041952	.0002071
%RSD	.5813121	21.81224	.1094411
#1	6.868670	.0239846	.1890900
#2	6.941721	.0176755	.1891099
#3	6.934265	.0160399	.1894582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5538.953**	**69008.65**	**6874.776**	**3368.822**	**6598.996**
Stddev	13.885	93.72	12.155	16.277	12.133
%RSD	.2506716	.1358126	.1768091	.4831714	.1838675
#1	5531.008	69094.55	6860.747	3386.822	6586.230
#2	5554.985	69022.71	6881.428	3364.506	6610.378
#3	5530.865	68908.70	6882.154	3355.137	6600.380

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03LX5 Acquired: 10/31/2025 13:47:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002543**	**-.001522**	**.0011988**	**-.000937**	**.0000420**	**-.012855**	**.0090948**
Stddev	.002450	.001004	.0001353	.000864	.0006797	.003254	.0005744
%RSD	96.32179	65.98256	11.28706	92.14873	1617.175	25.31384	6.315958
#1	-.004938	-.000670	.0013134	-.001577	.0007999	-.015729	.0096647
#2	-.000042	-.002629	.0012335	.000045	-.000514	-.009322	.0085159
#3	-.002650	-.001266	.0010496	-.001280	-.000160	-.013515	.0091038

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000040**	**.0000398**	**9.667225**	**.0005307**	**-.000136**	**.0013337**	**.4141083**
Stddev	.000057	.0000552	.014572	.0002947	.000126	.0001283	.0078332
%RSD	141.9616	138.8561	.1507348	55.53195	92.07909	9.617524	1.891574
#1	-.000103	-.000022	9.654208	.0008497	-.000230	.0012378	.4229416
#2	.000008	.000058	9.682967	.0004739	-.000185	.0014794	.4080070
#3	-.000026	.000084	9.664499	.0002686	.000006	.0012838	.4113763

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0168935**	**3.791356**	**.0003299**	**.0002059**	**23.64044**	**.0014790**	**.0423184**
Stddev	.0006078	.020932	.0000569	.0001025	.16160	.0017509	.0008984
%RSD	3.597936	.5520978	17.25629	49.79718	.6835595	118.3852	2.123047
#1	.0175257	3.782389	.0003588	.0001959	23.81343	.0002739	.0415628
#2	.0163135	3.815278	.0002643	.0001087	23.61451	.0006756	.0420807
#3	.0168413	3.776402	.0003667	.0003131	23.49338	.0034873	.0433118

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.415838**	**-.004164**	**.0001338**	**-.030767**	**-.001746**	**1.058976**	**-.000434**
Stddev	.023093	.000546	.0001725	.000211	.001532	.018365	.001358
%RSD	1.631036	13.11750	128.9593	.6864594	87.72959	1.734265	312.6442
#1	1.393347	-.004793	.0002834	-.031010	-.002847	1.080149	-.001968
#2	1.439489	-.003891	.0001729	-.030634	-.002396	1.047349	.000045
#3	1.414678	-.003809	-.000055	-.030656	.000003	1.049431	.000619

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03LX5 Acquired: 10/31/2025 13:47:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.442554	.0165066	.0393460
Stddev	.007865	.0081414	.0001861
%RSD	.5451937	49.32221	.4728837
#1	1.439116	.0169576	.0393560
#2	1.436993	.0244131	.0395268
#3	1.451552	.0081490	.0391551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5598.389	69460.56	6815.251	3422.317	6827.001
Stddev	.560	298.87	8.479	24.444	3.569
%RSD	.0099994	.4302776	.1244148	.7142584	.0522719
#1	5598.759	69123.34	6820.882	3394.943	6823.106
#2	5597.745	69565.62	6819.373	3441.964	6830.114
#3	5598.663	69692.72	6805.499	3430.043	6827.782

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03MS Acquired: 10/31/2025 13:51:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7811231**	**1.805686**	**.9126219**	**1.914134**	**.7878759**	**1.941571**	**.2477058**
Stddev	.0034191	.040159	.0009165	.005978	.0011005	.012328	.0021173
%RSD	.4377133	2.224022	.1004295	.3123087	.1396732	.6349402	.8547427
#1	.7775336	1.851166	.9127000	1.914886	.7883695	1.930285	.2501050
#2	.7814942	1.775107	.9116688	1.907816	.7866151	1.954727	.2460995
#3	.7843415	1.790785	.9134969	1.919701	.7886431	1.939702	.2469128

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1968033**	**.1889749**	**49.47198**	**.4076623**	**.1937107**	**.2970093**	**5.079844**
Stddev	.0017908	.0002027	.20051	.0014513	.0004562	.0003754	.073509
%RSD	.9099403	.1072630	.4052953	.3560139	.2355145	.1263838	1.447075
#1	.1952398	.1891652	49.67335	.4093357	.1935820	.2972995	5.161671
#2	.1987571	.1887617	49.47024	.4067464	.1933327	.2965854	5.019389
#3	.1964132	.1889977	49.27235	.4069049	.1942175	.2971430	5.058473

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2773028**	**20.87093**	**.4833457**	**.0666635**	**122.8312**	**.2977966**	**.4369430**
Stddev	.0019105	.05774	.0013968	.0004736	2.1851	.0017923	.0007198
%RSD	.6889612	.2766604	.2889941	.7103748	1.778983	.6018402	.1647473
#1	.2794056	20.88660	.4837479	.0672068	125.2970	.2962383	.4372111
#2	.2756737	20.80698	.4817919	.0663379	121.1350	.2997552	.4361276
#3	.2768293	20.91923	.4844973	.0664458	122.0615	.2973963	.4374903

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.09231**	**.3271231**	**.4268881**	**.6587509**	**.1944297**	**6.374650**	**5.833963**
Stddev	.20358	.0017128	.0002714	.0027363	.0001479	.126108	.040394
%RSD	1.348893	.5235840	.0635709	.4153722	.0760754	1.978273	.6924010
#1	15.31116	.3253322	.4271413	.6590042	.1945907	6.503857	5.826174
#2	14.90856	.3287452	.4266016	.6558968	.1942999	6.251887	5.798030
#3	15.05721	.3272918	.4269214	.6613517	.1943986	6.368208	5.877684

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03MS Acquired: 10/31/2025 13:51:26 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.087615	.2045824	.3860490
Stddev	.058792	.0030395	.0025707
%RSD	.8295005	1.485710	.6658962
#1	7.119937	.2080919	.3889857
#2	7.019754	.2027919	.3842061
#3	7.123155	.2028635	.3849551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5534.428	68842.44	6872.889	3380.729	6516.162
Stddev	3.204	588.28	34.180	15.298	1.262
%RSD	.0578873	.8545367	.4973156	.4525006	.0193664
#1	5537.807	68164.68	6890.705	3364.064	6516.237
#2	5534.043	69141.89	6833.482	3394.135	6517.384
#3	5531.435	69220.76	6894.480	3383.987	6514.864

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03MSD Acquired: 10/31/2025 13:55:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7675949	1.842455	.8939830	1.878897	.7690344	1.913676	.2532551
Stddev	.0035489	.041126	.0022012	.001761	.0011894	.003362	.0011997
%RSD	.4623339	2.232146	.2462212	.0936991	.1546611	.1756716	.4736909
#1	.7692578	1.867446	.8914418	1.880499	.7678697	1.916192	.2545823
#2	.7635199	1.794988	.8952976	1.877012	.7689863	1.914977	.2522478
#3	.7700070	1.864930	.8952095	1.879180	.7702471	1.909858	.2529352

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1952415	.1847309	48.40685	.3915352	.1895168	.2909355	5.071882
Stddev	.0012261	.0001289	.09397	.0014023	.0003090	.0006543	.045190
%RSD	.6280003	.0697919	.1941305	.3581576	.1630334	.2249014	.8909983
#1	.1941052	.1846891	48.44784	.3928329	.1893437	.2902640	5.123573
#2	.1950782	.1848755	48.29935	.3900476	.1893333	.2909713	5.039859
#3	.1965411	.1846281	48.47337	.3917250	.1898736	.2915712	5.052213

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2793142	20.38819	.4719137	.0658119	121.0462	.2946615	.4227688
Stddev	.0003883	.06037	.0009000	.0008114	1.0564	.0013097	.0017495
%RSD	.1390161	.2960885	.1907133	1.232845	.8727205	.4444716	.4138148
#1	.2790732	20.35462	.4713960	.0649254	122.2613	.2937282	.4223025
#2	.2791074	20.35207	.4713921	.0659927	120.5317	.2940977	.4247042
#3	.2797622	20.45788	.4729529	.0665177	120.3456	.2961587	.4212997

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.73712	.3250526	.4174953	.6438246	.1949146	6.107356	5.774925
Stddev	.07146	.0025412	.0011245	.0007582	.0010705	.080153	.015176
%RSD	.4849041	.7817778	.2693549	.1177600	.5492196	1.312393	.2627973
#1	14.81827	.3225473	.4163262	.6429493	.1960568	6.199770	5.768935
#2	14.68360	.3249824	.4175904	.6442475	.1939342	6.065528	5.792182
#3	14.70949	.3276282	.4185692	.6442769	.1947528	6.056771	5.763658

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03MSD Acquired: 10/31/2025 13:55:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.954393	.2100853	.3838244
Stddev	.022372	.0043169	.0008739
%RSD	.3216965	2.054848	.2276849
#1	6.955484	.2093859	.3848329
#2	6.931495	.2147093	.3832896
#3	6.976199	.2061608	.3833508

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5559.203	69695.60	6797.394	3472.392	6541.717
Stddev	3.037	216.15	35.561	14.472	3.251
%RSD	.0546317	.3101413	.5231502	.4167703	.0496895
#1	5559.769	69449.50	6833.264	3458.392	6545.187
#2	5561.917	69854.69	6796.769	3471.490	6541.220
#3	5555.923	69782.60	6762.151	3487.293	6538.744

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03A Acquired: 10/31/2025 13:59:22 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7661054**	**1.762069**	**.9070208**	**1.893430**	**.7672780**	**1.949764**	**.2477868**
Stddev	.0064783	.084833	.0018499	.021741	.0005895	.011056	.0026256
%RSD	.8456178	4.814402	.2039481	1.148217	.0768316	.5670613	1.059617
#1	.7713429	1.853402	.9077782	1.912988	.7679447	1.939761	.2496679
#2	.7588612	1.685737	.9049124	1.870021	.7670636	1.961636	.2489053
#3	.7681122	1.747068	.9083717	1.897280	.7668258	1.947896	.2447872

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1982486**	**.1869456**	**47.50446**	**.3987041**	**.1909719**	**.2939469**	**4.894863**
Stddev	.0001954	.0003382	.04532	.0009555	.0002646	.0004472	.010100
%RSD	.0985739	.1809117	.0954090	.2396542	.1385540	.1521349	.2063365
#1	.1982710	.1871263	47.49021	.3995380	.1908759	.2941158	4.906477
#2	.1980430	.1865554	47.55520	.3976615	.1907686	.2934399	4.888129
#3	.1984319	.1871550	47.46798	.3989127	.1912711	.2942851	4.889984

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2808365**	**20.10909**	**.4784131**	**.0587457**	**118.4743**	**.2965157**	**.4228811**
Stddev	.0014248	.06173	.0002663	.0014432	.8209	.0008800	.0011898
%RSD	.5073547	.3069962	.0556539	2.456732	.6928988	.2967863	.2813635
#1	.2811154	20.03781	.4781057	.0589966	118.9360	.2975217	.4218060
#2	.2821013	20.14573	.4785611	.0571934	118.9604	.2958889	.4226778
#3	.2792929	20.14372	.4785724	.0600469	117.5265	.2961363	.4241595

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.64949**	**.3294188**	**.4160190**	**.6403158**	**.1928114**	**6.107924**	**5.770159**
Stddev	.09778	.0005766	.0006039	.0032066	.0033074	.037000	.037119
%RSD	.6674933	.1750330	.1451721	.5007787	1.715366	.6057753	.6432896
#1	14.76134	.3292574	.4161912	.6412669	.1950029	6.081403	5.789095
#2	14.60696	.3300589	.4153477	.6367413	.1944244	6.092175	5.727391
#3	14.58017	.3289402	.4165182	.6429393	.1890070	6.150193	5.793991

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3477-03A Acquired: 10/31/2025 13:59:22 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.737988	.2081195	.3796552
Stddev	.082226	.0032272	.0024140
%RSD	1.220337	1.550642	.6358408
#1	6.804930	.2093021	.3800107
#2	6.646205	.2105885	.3818718
#3	6.762827	.2044678	.3770832

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5525.791	68797.07	6717.432	3410.638	6517.193
Stddev	8.136	297.87	24.838	16.506	9.667
%RSD	.1472427	.4329685	.3697582	.4839542	.1483297
#1	5531.052	68480.32	6696.380	3396.722	6525.117
#2	5529.902	68839.33	6711.088	3428.875	6520.041
#3	5516.419	69071.55	6744.826	3406.319	6506.422

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3475-01 Acquired: 10/31/2025 14:03:20 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1311322**	**-.375801**	**.3888656**	**-.164386**	**.0506398**	**3.106468**
Stddev	.0034085	.002726	.0047150	.004653	.0049113	.012177
%RSD	2.599252	.7255091	1.212506	2.830400	9.698535	.3919868
#1	.1350234	-.377909	.3928311	-.168326	.0560536	3.112272
#2	.1296975	-.372722	.3901134	-.159253	.0464704	3.114657
#3	.1286756	-.376772	.3836521	-.165581	.0493955	3.092475

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.147810**	**.0505759**	**.2765009**	**31.94454**	**.3518305**	**.1796436**
Stddev	.020342	.0002734	.0030369	.17249	.0011538	.0010874
%RSD	.3951641	.5406240	1.098330	.5399627	.3279360	.6053296
#1	5.170254	.0508654	.2789189	32.09790	.3515730	.1805587
#2	5.142591	.0503221	.2730924	31.75780	.3508272	.1784414
#3	5.130586	.0505401	.2774913	31.97791	.3530913	.1799305

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.768419**	F **4328.939**	**17.10389**	**91.10531**	**.2028817**	^ *****
Stddev	.020163	18.819	.07123	.33780	.0006330	-----
%RSD	.5350393	.4347286	.4164422	.3707833	.3119863	-----
#1	3.781132	4313.512	17.18611	91.49474	.2024353	^ -----
#2	3.778954	4323.399	17.06098	90.89139	.2026037	^ -----
#3	3.745171	4349.906	17.06459	90.92980	.2036061	^ -----

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**206.4881**	**.0361748**	**1.227313**	**15.38405**	^ *****	**-.043523**
Stddev	.1163	.0065592	.005575	.14492	-----	.000687
%RSD	.0563224	18.13187	.4542696	.9420425	-----	1.578792
#1	206.4698	.0412959	1.220913	15.22638	^ -----	-.043631
#2	206.6124	.0384468	1.231119	15.51145	^ -----	-.042788
#3	206.3820	.0287817	1.229907	15.41431	^ -----	-.044150

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3475-01 Acquired: 10/31/2025 14:03:20 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0143055	.1751482	F 12.13021	1.134155	2.860614	.5084494
Stddev	.0017670	.0004244	.04962	.004316	.018556	.0088645
%RSD	12.35194	.2423348	.4090285	.3805226	.6486870	1.743438
#1	.0162899	.1756302	12.09142	1.129818	2.866422	.4989861
#2	.0137240	.1748302	12.11309	1.134200	2.839848	.5165595
#3	.0129025	.1749842	12.18612	1.138449	2.875572	.5098024

Elem	Sr4077
Units	ppm
Avg	F -3.87653
Stddev	.01873
%RSD	.4831225
#1	-3.86083
#2	-3.87150
#3	-3.89726

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4361.311	58779.53	6594.345	2565.154	4479.795
Stddev	5.146	108.65	37.442	5.690	2.110
%RSD	.1179963	.1848477	.5677935	.2218195	.0470965
#1	4358.814	58787.81	6551.917	2568.835	4478.187
#2	4357.888	58883.81	6622.758	2568.028	4482.184
#3	4367.229	58666.98	6608.360	2558.601	4479.014

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV03 Acquired: 10/31/2025 14:09:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.889695**	**4.821921**	**4.850272**	**4.904360**	**4.885027**	**9.626796**
Stddev	.002742	.185219	.004923	.020153	.003748	.052147
%RSD	.0560737	3.841189	.1014957	.4109177	.0767269	.5416906
#1	4.888385	4.869352	4.848308	4.894684	4.880703	9.590147
#2	4.887854	4.617599	4.846635	4.890870	4.887027	9.603744
#3	4.892846	4.978813	4.855874	4.927526	4.887351	9.686497

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.589272**	**.2467617**	**2.440339**	**24.21767**	**.9892099**	**2.438606**
Stddev	.073733	.0016340	.002965	.10873	.0030197	.001565
%RSD	.7689139	.6621821	.1214992	.4489675	.3052611	.0641693
#1	9.504401	.2456563	2.440155	24.10306	.9866146	2.437921
#2	9.625844	.2459902	2.437471	24.23058	.9884909	2.437500
#3	9.637569	.2486386	2.443392	24.31937	.9925241	2.440396

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.225109**	**5.138283**	**2.394557**	**24.14211**	**2.436526**	**1.216934**
Stddev	.002122	.033178	.019355	.09714	.002281	.000763
%RSD	.1732012	.6456967	.8082798	.4023796	.0936344	.0626844
#1	1.223695	5.143265	2.372994	24.07237	2.434449	1.216084
#2	1.227549	5.168688	2.410426	24.10090	2.436163	1.217161
#3	1.224083	5.102896	2.400251	24.25307	2.438968	1.217558

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.58211**	**2.400051**	**2.414508**	**23.95953**	**4.857951**	**4.919283**
Stddev	.13226	.008275	.004665	.10637	.035892	.005821
%RSD	.5608680	.3448052	.1931969	.4439423	.7388218	.1183262
#1	23.44533	2.390503	2.411889	23.83672	4.823439	4.920182
#2	23.70934	2.405155	2.411742	24.01944	4.855336	4.913064
#3	23.59166	2.404496	2.419894	24.02244	4.895079	4.924601

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV03 Acquired: 10/31/2025 14:09:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.892373**	**4.775374**	**4.767802**	**4.972561**	**4.888969**	F **4.452542**
Stddev	.009542	.030822	.018720	.012634	.026895	.059063
%RSD	.1950477	.6454428	.3926279	.2540647	.5501062	1.326501
#1	4.887548	4.740052	4.765022	4.958861	4.882011	4.384364
#2	4.886208	4.796811	4.787757	4.975068	4.866237	4.485118
#3	4.903365	4.789261	4.750628	4.983752	4.918659	4.488143

Elem	Sr4077
Units	ppm
Avg	**4.802782**
Stddev	.139209
%RSD	2.898503
#1	4.664357
#2	4.801227
#3	4.942761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5721.118**	**70593.32**	**7060.570**	**3464.928**	**6625.412**
Stddev	4.845	121.28	54.395	8.972	4.659
%RSD	.0846778	.1717963	.7703998	.2589482	.0703133
#1	5723.523	70723.44	7110.685	3471.691	6630.791
#2	5715.542	70573.10	7068.301	3468.345	6622.715
#3	5724.290	70483.43	7002.723	3454.750	6622.730

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB03 Acquired: 10/31/2025 14:13:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001604**	**.0000441**	**-.000504**	**-.000280**	**-.000575**	**-.004477**
Stddev	.001089	.0009159	.000964	.001847	.000454	.008405
%RSD	67.85934	2077.144	191.3603	660.3501	79.00633	187.7199
#1	-.002839	.0006271	.000536	.001836	-.000930	-.008626
#2	-.000784	-.001012	-.000680	-.001101	-.000732	.005195
#3	-.001190	.000517	-.001367	-.001574	-.000063	-.010000

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002103**	**-.000035**	**.0000312**	**-.077918**	**-.000147**	**.0000334**
Stddev	.001681	.000075	.0000636	.018189	.000059	.0000567
%RSD	79.94277	215.7155	203.8438	23.34441	39.85810	169.9983
#1	-.000171	-.000072	-.000028	-.073024	-.000183	.0000797
#2	-.002900	.000051	.000099	-.098053	-.000079	.0000502
#3	-.003237	-.000084	.000023	-.062676	-.000179	-.000030

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001396**	**.0270105**	**-.000272**	**.0128621**	**-.000025**	**.0002610**
Stddev	.0007104	.0103932	.000390	.0140850	.000219	.0004042
%RSD	508.8622	38.47839	143.6813	109.5079	867.6108	154.8826
#1	.0009029	.0178390	.000149	-.000235	.000227	.0003784
#2	.0000184	.0248931	-.000343	.011060	-.000165	-.000189
#3	-.000502	.0382994	-.000622	.027762	-.000138	.000594

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4496083**	**.0015053**	**-.003165**	**.2679695**	**-.010688**	**.0002764**
Stddev	.0009038	.0070730	.000367	.0129424	.000537	.0001880
%RSD	.2010232	469.8624	11.60573	4.829820	5.023591	68.02153
#1	.4501363	-.003787	-.003535	.2623875	-.010753	.0002240
#2	.4501240	.009539	-.002801	.2827662	-.011189	.0001202
#3	.4485647	-.001236	-.003160	.2587548	-.010121	.0004851

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB03 Acquired: 10/31/2025 14:13:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028248	-.000116	.0074376	-.001585	F .0257654	F .0151666
Stddev	.000199	.000451	.0247378	.001871	.0005173	.0036941
%RSD	.7046596	388.4722	332.6059	118.0505	2.007767	24.35713
#1	-.028151	-.000617	.0290244	.000321	.0262289	.0120611
#2	-.028477	.000011	-.019557	-.001658	.0258600	.0192518
#3	-.028116	.000258	.012845	-.003419	.0252074	.0141868

Elem	Sr4077
Units	ppm
Avg	.0003182
Stddev	.0000788
%RSD	24.75012
#1	.0002559
#2	.0002920
#3	.0004067

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5633.260	69425.19	6546.558	3469.947	7146.528
Stddev	5.087	239.63	32.326	25.953	5.911
%RSD	.0902952	.3451648	.4937803	.7479485	.0827151
#1	5639.047	69485.74	6529.280	3469.111	7152.580
#2	5629.494	69161.09	6526.543	3444.422	7146.238
#3	5631.240	69628.74	6583.851	3496.309	7140.768

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04DUP Acquired: 10/31/2025 14:18:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005424**	**-.003875**	**.0041067**	**.0032200**	**-.001128**	**.0750867**	**.0102897**
Stddev	.002170	.001621	.0014971	.0005714	.000572	.0112871	.0008171
%RSD	39.99975	41.83157	36.45528	17.74388	50.69441	15.03209	7.940844
#1	-.007644	-.002003	.0029766	.0029984	-.000911	.0789073	.0112324
#2	-.003308	-.004813	.0035389	.0027927	-.001777	.0623852	.0097855
#3	-.005320	-.004809	.0058047	.0038690	-.000697	.0839676	.0098512

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000147**	**-.000075**	**30.50374**	**.0013400**	**.0007300**	**.1513393**	**.5074650**
Stddev	.000046	.000050	.13256	.0003217	.0000889	.0001199	.0081248
%RSD	31.07020	67.23367	.4345638	24.00812	12.17056	.0792115	1.601046
#1	-.000125	-.000070	30.61914	.0010482	.0006651	.1512772	.4981092
#2	-.000117	-.000127	30.35895	.0016850	.0006936	.1512633	.5127453
#3	-.000200	-.000027	30.53312	.0012869	.0008313	.1514775	.5115405

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0605729**	**7.422026**	**.0053428**	**.0002073**	**796.4525**	**.0030385**	**.3556282**
Stddev	.0003588	.053756	.0001884	.0004114	14.9602	.0007699	.0035868
%RSD	.5923725	.7242739	3.527008	198.4554	1.878359	25.33851	1.008583
#1	.0609388	7.483943	.0055007	.0006684	813.4241	.0028442	.3564338
#2	.0602216	7.387271	.0051341	.0000755	790.7560	.0023844	.3587437
#3	.0605583	7.394865	.0053934	-.000122	785.1773	.0038870	.3517071

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.301076**	**.0124308**	**.0013459**	**-.038267**	**.0006219**	**3.206399**	**3.030764**
Stddev	.053879	.0004234	.0002355	.000397	.0014284	.018405	.005590
%RSD	1.252695	3.406417	17.49516	1.038376	229.6824	.5740119	.1844351
#1	4.280205	.0126842	.0014384	-.037964	-.000036	3.188717	3.024310
#2	4.362269	.0119420	.0015210	-.038717	-.000359	3.225451	3.034075
#3	4.260755	.0126662	.0010782	-.038120	.002261	3.205031	3.033906

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3385-04DUP Acquired: 10/31/2025 14:18:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.018942	.0063392	.1130652
Stddev	.052115	.0030500	.0006101
%RSD	.6499040	48.11329	.5395743
#1	8.004115	.0035258	.1134490
#2	7.975847	.0059112	.1123617
#3	8.076864	.0095806	.1133849

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5277.126	64884.04	6989.028	3261.236	5974.237
Stddev	3.859	498.89	39.662	23.424	8.148
%RSD	.0731356	.7688910	.5674850	.7182617	.1363812
#1	5274.603	65045.85	6964.603	3263.662	5965.188
#2	5275.207	64324.34	7034.791	3236.694	5976.534
#3	5281.569	65281.95	6967.690	3283.353	5980.990

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01DUP Acquired: 10/31/2025 14:23:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008081**	**-.005710**	**-.004504**	**-.005972**	**.0006231**	**-.036622**
Stddev	.006354	.006045	.002187	.002311	.0022241	.015425
%RSD	78.63025	105.8661	48.54801	38.69989	356.9568	42.11886
#1	-.010767	-.004057	-.005291	-.007032	.0028279	-.040950
#2	-.000825	-.012409	-.006189	-.003321	.0006612	-.019495
#3	-.012650	-.000664	-.002033	-.007564	-.001620	-.049419

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4218836**	**-.000095**	**-.000114**	**1170.407**	**.6813164**	**.0131181**
Stddev	.0041256	.000034	.000115	10.546	.0012464	.0002061
%RSD	.9778935	35.68921	100.5087	.9010628	.1829414	1.570848
#1	.4262088	-.000133	-.000243	1168.431	.6816058	.0130055
#2	.4179919	-.000067	-.000072	1160.988	.6799507	.0129928
#3	.4214502	-.000086	-.000026	1181.801	.6823926	.0133559

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015038**	**.0952776**	**.0019415**	**.0493998**	**.0054826**	**-.001043**
Stddev	.0001742	.0052915	.0002809	.0181945	.0002951	.000251
%RSD	11.58424	5.553758	14.46645	36.83122	5.383074	24.01748
#1	.0013111	.0892127	.0018616	.0343557	.0056369	-.000869
#2	.0016501	.0976682	.0022536	.0696221	.0056686	-.001330
#3	.0015504	.0989520	.0017092	.0442215	.0051423	-.000929

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**78.87949**	**.0007942**	**.0426091**	**78.90577**	**.0210003**	**.0306138**
Stddev	1.07822	.0037711	.0003131	.83344	.0007955	.0003299
%RSD	1.366920	474.8393	.7348159	1.056245	3.787840	1.077589
#1	80.12412	.0045133	.0422724	79.86383	.0209432	.0302569
#2	78.23017	-.003027	.0426635	78.50550	.0202350	.0306767
#3	78.28419	.000896	.0428915	78.34797	.0218228	.0309077

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01DUP Acquired: 10/31/2025 14:23:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.040927	-.050349	2.009350	.0113756	F 312.0788	.3754499
Stddev	.000300	.000546	.026902	.0024512	1.7512	.0145981
%RSD	.7339211	1.084035	1.338849	21.54784	.5611412	3.888170
#1	-.040638	-.050554	2.023959	.0132566	313.5015	.3850649
#2	-.041237	-.049730	2.025786	.0122668	312.6118	.3826328
#3	-.040906	-.050762	1.978304	.0086035	310.1230	.3586520

Elem	Sr4077
Units	ppm
Avg	F 20.06672
Stddev	.35208
%RSD	1.754571
#1	20.46424
#2	19.79415
#3	19.94177

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4902.185	61304.22	6487.001	2998.637	5590.933
Stddev	24.356	241.22	54.617	5.543	22.984
%RSD	.4968326	.3934807	.8419404	.1848572	.4110922
#1	4891.750	61105.76	6499.937	3003.696	5588.792
#2	4930.020	61572.71	6533.989	2999.502	5614.912
#3	4884.786	61234.18	6427.078	2992.712	5569.094

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01LX5 Acquired: 10/31/2025 14:28:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002440**	**.0000999**	**-.001605**	**-.000798**	**-.001387**	**-.007231**
Stddev	.001333	.0025445	.000464	.002278	.001502	.016791
%RSD	54.62559	2548.216	28.88214	285.3430	108.2650	232.2007
#1	-.003627	.0009247	-.001941	.000177	-.000286	-.007258
#2	-.002696	-.002755	-.001799	.000830	-.000777	.009573
#3	-.000998	.002130	-.001076	-.003402	-.003098	-.024008

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0840354**	**-.000038**	**-.000117**	**245.8285**	**.1465018**	**.0027045**
Stddev	.0014851	.000024	.000022	1.2891	.0001428	.0002120
%RSD	1.767247	62.10989	18.40415	.5243778	.0975013	7.837231
#1	.0844310	-.000014	-.000131	247.2128	.1464923	.0025611
#2	.0852826	-.000040	-.000128	244.6625	.1466491	.0026044
#3	.0823925	-.000061	-.000093	245.6102	.1463639	.0029480

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002243**	**.0252138**	**-.000103**	**-.005965**	**.0014729**	**-.000524**
Stddev	.0002270	.0101698	.000438	.027992	.0003611	.000660
%RSD	101.2180	40.33418	426.2701	469.2304	24.51420	125.7845
#1	-.000006	.0178199	.000260	-.037360	.0013872	-.001286
#2	.000232	.0210099	-.000590	.003073	.0018691	-.000145
#3	.000447	.0368115	.000021	.016390	.0011624	-.000142

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.06880**	**-.000341**	**.0047310**	**15.50654**	**-.010425**	**.0060681**
Stddev	.10270	.005021	.0004395	.11891	.000033	.0002364
%RSD	.6815287	1474.291	9.290494	.7668131	.3199687	3.894942
#1	15.15380	.001716	.0048813	15.53856	-.010456	.0062943
#2	15.09792	.003326	.0050757	15.60617	-.010429	.0058228
#3	14.95469	-.006064	.0042360	15.37491	-.010390	.0060873

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01LX5 Acquired: 10/31/2025 14:28:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.032763	-.011148	.3918807	-.000033	F 64.09111	.0842351
Stddev	.000735	.002979	.0062807	.002416	.18651	.0044749
%RSD	2.244171	26.72018	1.602697	7431.175	.2910151	5.312350
#1	-.032802	-.014586	.3862939	-.000473	64.30623	.0819896
#2	-.032009	-.009528	.3906695	-.002198	63.97456	.0813276
#3	-.033478	-.009330	.3986788	.002573	63.99255	.0893881

Elem	Sr4077
Units	ppm
Avg	4.251521
Stddev	.038403
%RSD	.9032807
#1	4.239754
#2	4.220378
#3	4.294431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5358.759	66288.27	6794.142	3239.597	6310.403
Stddev	10.873	229.65	70.738	4.924	11.504
%RSD	.2028948	.3464375	1.041159	.1519871	.1822964
#1	5370.195	66023.28	6724.220	3234.462	6311.958
#2	5357.526	66412.24	6865.668	3240.051	6321.050
#3	5348.555	66429.29	6792.536	3244.278	6298.201

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01MS Acquired: 10/31/2025 14:32:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8632371	1.816697	.9469639	2.155195	.8664274	1.959299
Stddev	.0069774	.051138	.0051780	.021129	.0092960	.010691
%RSD	.8082839	2.814908	.5467996	.9803675	1.072906	.5456700
#1	.8711711	1.865563	.9512967	2.178745	.8769729	1.956835
#2	.8604841	1.820972	.9412293	2.148941	.8628891	1.950055
#3	.8580562	1.763555	.9483656	2.137900	.8594201	1.971007

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6193249	.1954493	.1999484	1156.849	1.069577	.2162409
Stddev	.0041193	.0011996	.0009785	15.701	.002902	.0008163
%RSD	.6651235	.6137505	.4893593	1.357220	.2713682	.3774767
#1	.6161060	.1948547	.2010466	1153.644	1.068652	.2171788
#2	.6179017	.1946632	.1991695	1142.998	1.072830	.2158525
#3	.6239671	.1968301	.1996290	1173.906	1.067250	.2156913

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2993764	3.141052	.1934373	1.912395	.5026045	.0776829
Stddev	.0006734	.020755	.0013061	.006277	.0029043	.0005698
%RSD	.2249248	.6607734	.6752188	.3282337	.5778408	.7334950
#1	.3000421	3.127605	.1921113	1.913455	.5059172	.0774119
#2	.2993916	3.164955	.1934780	1.918074	.5004964	.0772993
#3	.2986956	3.130594	.1947226	1.905655	.5013999	.0783376

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	81.33457	.2923243	.2644440	90.20754	.2958953	.4663274
Stddev	.59998	.0046493	.0004979	.57703	.0011767	.0028207
%RSD	.7376638	1.590455	.1882739	.6396728	.3976643	.6048662
#1	80.70357	.2881686	.2640486	89.79224	.2961511	.4695475
#2	81.89776	.2914586	.2642803	90.86643	.2946118	.4642938
#3	81.40239	.2973455	.2650031	89.96396	.2969230	.4651410

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01MS Acquired: 10/31/2025 14:32:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6921467	.1456517	3.006017	6.477348	F 320.5775	.5958988
Stddev	.0035500	.0021937	.032384	.049701	3.2427	.0058068
%RSD	.5128970	1.506138	1.077313	.7673105	1.011518	.9744563
#1	.6962109	.1463805	2.983634	6.532097	324.1870	.6024766
#2	.6905769	.1431863	3.043150	6.464878	319.6353	.5937355
#3	.6896522	.1473882	2.991267	6.435069	317.9103	.5914841

Elem	Sr4077
Units	ppm
Avg	F 19.99438
Stddev	.48577
%RSD	2.429529
#1	19.68069
#2	20.55393
#3	19.74853

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4901.719	61869.28	6626.049	3019.170	5566.428
Stddev	13.760	167.85	28.024	7.836	20.588
%RSD	.2807248	.2713024	.4229423	.2595343	.3698514
#1	4889.456	61902.74	6638.633	3023.192	5553.862
#2	4916.601	61687.21	6645.575	3010.140	5590.187
#3	4899.099	62017.87	6593.938	3024.177	5555.235

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01MSD Acquired: 10/31/2025 14:36:53 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8246549	1.729907	.8937246	2.055523	.6218476	1.846215
Stddev	.0019806	.081414	.0014769	.018888	.0032916	.005754
%RSD	.2401744	4.706237	.1652539	.9189066	.5293238	.3116393
#1	.8257820	1.661492	.8942596	2.039002	.6181159	1.850615
#2	.8223680	1.708278	.8920548	2.051452	.6243382	1.839704
#3	.8258148	1.819951	.8948595	2.076115	.6230887	1.848326

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6214366	.1866268	.1894399	1181.246	1.060787	.2060123
Stddev	.0060628	.0037419	.0003408	9.030	.002305	.0002689
%RSD	.9756147	2.005017	.1798726	.7644701	.2173374	.1305225
#1	.6166198	.1843946	.1895360	1191.623	1.061952	.2057174
#2	.6194453	.1845392	.1890615	1176.947	1.062277	.2060757
#3	.6282446	.1909468	.1897224	1175.169	1.058131	.2062438

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2851382	3.048432	.1891428	1.837083	.4795276	.0746593
Stddev	.0009992	.024846	.0015864	.014786	.0014578	.0004520
%RSD	.3504361	.8150318	.8387344	.8048545	.3040088	.6054430
#1	.2848035	3.041471	.1874455	1.836886	.4785169	.0741384
#2	.2843494	3.076015	.1905881	1.851966	.4788671	.0749476
#3	.2862619	3.027809	.1893948	1.822396	.4811987	.0748921

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	83.12104	.2841639	.2544202	91.19610	.2810801	.3430517
Stddev	.87476	.0049828	.0007678	.98130	.0070615	.0013988
%RSD	1.052387	1.753514	.3017745	1.076038	2.512262	.4077424
#1	83.60329	.2792824	.2537712	91.86334	.2756334	.3424374
#2	83.64853	.2892422	.2542216	91.65560	.2785484	.3420652
#3	82.11130	.2839671	.2552678	90.06935	.2890584	.3446525

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01MSD Acquired: 10/31/2025 14:36:53 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4800360	.0912507	2.763488	6.266649	F 321.0214	.5745438
Stddev	.0013120	.0006384	.030680	.042591	3.5460	.0027146
%RSD	.2733216	.6996109	1.110177	.6796429	1.104595	.4724814
#1	.4786818	.0918614	2.783788	6.221304	317.3929	.5716288
#2	.4801251	.0905878	2.778482	6.272832	321.1926	.5750033
#3	.4813013	.0913029	2.728195	6.305810	324.4787	.5769994

Elem	Sr4077
Units	ppm
Avg	F 20.11799
Stddev	.22758
%RSD	1.131231
#1	20.29059
#2	19.86008
#3	20.20330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4878.959	60588.16	6480.584	2988.232	5549.880
Stddev	11.839	682.53	42.642	26.349	14.005
%RSD	.2426542	1.126508	.6579904	.8817674	.2523447
#1	4886.074	60122.72	6501.761	2975.934	5560.217
#2	4885.509	60270.10	6508.493	2970.280	5555.481
#3	4865.292	61371.68	6431.500	3018.481	5533.941

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01A Acquired: 10/31/2025 14:41:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8427798**	**1.819409**	**.9271326**	**2.101301**	**.8490473**	**1.959056**
Stddev	.0032235	.025579	.0081809	.006051	.0033366	.017697
%RSD	.3824779	1.405911	.8823874	.2879792	.3929811	.9033638
#1	.8449676	1.844237	.9207518	2.096429	.8457857	1.943219
#2	.8390781	1.820852	.9242905	2.099401	.8489020	1.978159
#3	.8442937	1.793140	.9363555	2.108075	.8524541	1.955791

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6291738**	**.1961311**	**.1957734**	**1148.262**	**1.049010**	**.2118018**
Stddev	.0033332	.0016533	.0010690	18.635	.001805	.0014318
%RSD	.5297798	.8429295	.5460360	1.622872	.1720206	.6760100
#1	.6319168	.1980401	.1948903	1166.983	1.046981	.2109730
#2	.6254641	.1951825	.1954680	1129.714	1.049616	.2109773
#3	.6301406	.1951707	.1969619	1148.088	1.050434	.2134551

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2949500**	**3.183692**	**.2017601**	**1.948047**	**.4999917**	**.0751048**
Stddev	.0012134	.037062	.0008345	.035312	.0032435	.0003403
%RSD	.4113776	1.164109	.4135948	1.812710	.6487188	.4531489
#1	.2939407	3.154623	.2010688	1.913253	.4981221	.0747929
#2	.2946131	3.171026	.2015246	1.947033	.4981161	.0754678
#3	.2962962	3.225426	.2026871	1.983856	.5037371	.0750536

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**82.04414**	**.2981107**	**.2580403**	**88.87530**	**.3001203**	**.4586009**
Stddev	.74931	.0039237	.0005452	.93274	.0025967	.0009184
%RSD	.9132961	1.316200	.2112959	1.049497	.8652049	.2002703
#1	81.22412	.3023225	.2576144	87.79986	.3031182	.4577494
#2	82.21513	.2945587	.2578518	89.36233	.2986633	.4584791
#3	82.69318	.2974508	.2586548	89.46372	.2985793	.4595741

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3391-01A Acquired: 10/31/2025 14:41:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6804892	.1472078	2.963202	6.469974	F 309.6076	.5541291
Stddev	.0039388	.0026404	.023534	.013194	.5831	.0081422
%RSD	.5788267	1.793632	.7942169	.2039211	.1883315	1.469377
#1	.6767275	.1465144	2.945789	6.463721	310.2781	.5451328
#2	.6801560	.1449832	2.953842	6.461069	309.2190	.5609929
#3	.6845841	.1501256	2.989977	6.485131	309.3259	.5562615

Elem	Sr4077
Units	ppm
Avg	F 20.16379
Stddev	.13524
%RSD	.6706844
#1	20.22408
#2	20.00890
#3	20.25840

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4846.857	61488.05	6390.138	3057.384	5509.367
Stddev	11.964	50.43	60.928	3.714	19.688
%RSD	.2468376	.0820115	.9534657	.1214918	.3573493
#1	4859.928	61467.15	6319.807	3061.426	5529.319
#2	4844.194	61451.43	6423.767	3054.121	5508.827
#3	4836.449	61545.56	6426.839	3056.605	5489.955

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170310BL Acquired: 10/31/2025 14:45:28 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001624**	**-.002093**	**.0002170**	**-.000883**	**-.000407**	**.0025694**
Stddev	.001706	.000476	.0001068	.001973	.000515	.0127366
%RSD	105.0410	22.72501	49.21146	223.3577	126.4598	495.7036
#1	.000212	-.001704	.0002781	-.001851	-.000027	-.007710
#2	-.003160	-.002624	.0000937	-.002185	-.000992	.016818
#3	-.001925	-.001953	.0002793	.001386	-.000201	-.001399

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004596**	**-.000051**	**-.000022**	**.0160316**	**.0003996**	**.0000926**
Stddev	.001028	.000003	.000026	.0043883	.0000945	.0000793
%RSD	22.37282	6.432298	117.2930	27.37273	23.63972	85.66488
#1	-.003462	-.000050	-.000008	.0153279	.0003540	.0000098
#2	-.004858	-.000055	-.000051	.0120377	.0003367	.0001680
#3	-.005468	-.000049	-.000006	.0207292	.0005082	.0001000

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000098**	**.0051366**	**-.000279**	**-.017868**	**.0000690**	**.0001924**
Stddev	.000270	.0102862	.000716	.007653	.0001547	.0000715
%RSD	275.8180	200.2533	256.9344	42.82900	224.0997	37.15704
#1	-.000364	-.003940	.000487	-.014372	-.000060	.0001284
#2	-.000106	.003041	-.000391	-.026645	.000240	.0001792
#3	.000176	.016309	-.000932	-.012588	.000027	.0002696

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7990434**	**.0017009**	**-.003314**	**.6238490**	**-.018747**	**.0009196**
Stddev	.0232638	.0015488	.000208	.0219932	.001232	.0002265
%RSD	2.911459	91.06028	6.261308	3.525404	6.572579	24.63186
#1	.7724925	.0032502	-.003088	.6272701	-.018612	.0011190
#2	.8087842	.0016999	-.003496	.6003458	-.017588	.0006733
#3	.8158535	.0001525	-.003360	.6439312	-.020041	.0009666

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170310BL Acquired: 10/31/2025 14:45:28 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001938	-.000723	-.003078	-.001524	F .1164476	F .0134592
Stddev	.000480	.000957	.009972	.000803	.0049716	.0025476
%RSD	24.76398	132.3719	323.9815	52.66135	4.269390	18.92825
#1	-.002112	.000162	-.014337	-.000660	.1212343	.0111028
#2	-.001395	-.001739	.004639	-.002247	.1167987	.0131123
#3	-.002306	-.000592	.000464	-.001665	.1113097	.0161624

Elem	Sr4077
Units	ppm
Avg	.0013605
Stddev	.0001284
%RSD	9.437774
#1	.0015012
#2	.0013307
#3	.0012496

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5669.438	70681.85	6669.468	3494.783	7206.226
Stddev	16.421	157.60	14.625	13.720	17.376
%RSD	.2896459	.2229719	.2192838	.3925710	.2411302
#1	5671.349	70505.70	6685.556	3497.360	7208.926
#2	5652.145	70809.51	6665.871	3507.032	7187.658
#3	5684.821	70730.33	6656.978	3479.958	7222.095

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170310BS Acquired: 10/31/2025 14:49:48 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7906844	1.900010	.9700610	1.995892	.7903515	2.003627
Stddev	.0017747	.022156	.0011446	.002894	.0001193	.021847
%RSD	.2244507	1.166121	.1179886	.1450108	.0150998	1.090355
#1	.7892126	1.917035	.9687414	1.998591	.7904286	1.996578
#2	.7901855	1.874959	.9706583	1.992836	.7904119	2.028128
#3	.7926551	1.908035	.9707834	1.996249	.7902141	1.986175

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1982905	.2109910	.1947949	.9535552	.4171424	.1997560
Stddev	.0008584	.0003768	.0000316	.0080226	.0005217	.0002840
%RSD	.4328815	.1785620	.0162452	.8413371	.1250700	.1421784
#1	.1975706	.2106319	.1947583	.9526607	.4177103	.1994318
#2	.1992405	.2113832	.1948129	.9619876	.4166844	.1998747
#3	.1980604	.2109579	.1948134	.9460174	.4170324	.1999613

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3167132	3.030513	.2063761	2.049861	.4984904	.0754678
Stddev	.0004124	.024227	.0009177	.036089	.0008147	.0002631
%RSD	.1302225	.7994225	.4446973	1.760554	.1634414	.3485647
#1	.3170214	3.045045	.2058469	2.053569	.4978827	.0757671
#2	.3162447	3.043948	.2074359	2.083952	.4981723	.0752733
#3	.3168734	3.002546	.2058456	2.012061	.4994162	.0753629

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.207494	.3008252	.2064416	9.953393	.2933677	.4068517
Stddev	.017042	.0013088	.0006528	.043204	.0004156	.0001433
%RSD	.5313279	.4350786	.3162418	.4340607	.1416697	.0352213
#1	3.226916	.3009805	.2071756	10.00278	.2934196	.4068125
#2	3.195037	.3020494	.2059256	9.93482	.2937549	.4070105
#3	3.200530	.2994456	.2062237	9.92258	.2929286	.4067320

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170310BS Acquired: 10/31/2025 14:49:48 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6757336	.1951626	.8864903	5.820955	F .0755443	.1944171
Stddev	.0024379	.0008122	.0075737	.007909	.0025993	.0081367
%RSD	.3607804	.4161790	.8543423	.1358651	3.440837	4.185179
#1	.6733631	.1960986	.8799200	5.818309	.0725551	.1857378
#2	.6756041	.1946423	.8947738	5.829847	.0768034	.2018726
#3	.6782338	.1947470	.8847770	5.814708	.0772743	.1956408

Elem	Sr4077
Units	ppm
Avg	.1972124
Stddev	.0004420
%RSD	.2241494
#1	.1970762
#2	.1977065
#3	.1968545

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5705.313	70682.39	6924.793	3456.906	7016.893
Stddev	9.824	62.04	19.477	8.433	8.919
%RSD	.1721965	.0877749	.2812675	.2439476	.1271098
#1	5696.123	70729.67	6940.696	3447.308	7007.011
#2	5704.148	70705.37	6903.069	3463.128	7019.321
#3	5715.668	70612.14	6930.614	3460.282	7024.346

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170305BL Acquired: 10/31/2025 14:53:49 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002199**	**-.000323**	**-.000557**	**.0005835**	**-.000929**	**-.008199**
Stddev	.001485	.001943	.000454	.0020938	.001556	.007625
%RSD	67.52925	600.8571	81.52877	358.8194	167.3852	92.99830
#1	-.003140	-.000849	-.000084	-.001828	-.001777	-.009148
#2	-.002971	.001828	-.000598	.001635	.000866	-.000144
#3	-.000487	-.001949	-.000990	.001943	-.001877	-.015305

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003699**	**-.000023**	**-.000046**	**-.077514**	**.0000713**	**-.000049**
Stddev	.000469	.000081	.000041	.008961	.0000897	.000038
%RSD	12.68041	351.8768	88.27960	11.56077	125.8772	77.23090
#1	-.004200	.000069	-.000090	-.086754	.0001373	-.000021
#2	-.003629	-.000054	-.000009	-.076930	-.000031	-.000092
#3	-.003269	-.000084	-.000040	-.068860	.000107	-.000033

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000094**	**.0009716**	**-.000082**	**-.021849**	**.0001158**	**.0001531**
Stddev	.000182	.0073806	.000208	.012485	.0000501	.0004087
%RSD	193.0763	759.6347	253.0556	57.14408	43.22369	266.9588
#1	-.000098	-.003146	-.000197	-.012212	.0001234	.0005250
#2	.000089	-.003432	.000158	-.017382	.0000624	.0002189
#3	-.000275	.009492	-.000207	-.035954	.0001617	-.000285

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1459023**	**.0032282**	**-.004194**	**.2050822**	**-.019279**	**-.000156**
Stddev	.0404236	.0014404	.000153	.0273357	.000315	.000084
%RSD	27.70591	44.61791	3.649067	13.32914	1.635808	53.84601
#1	.1045888	.0040332	-.004322	.2080998	-.019637	-.000135
#2	.1477454	.0040862	-.004025	.2307839	-.019154	-.000084
#3	.1853729	.0015653	-.004236	.1763629	-.019044	-.000249

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170305BL Acquired: 10/31/2025 14:53:49 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028771	-.001979	.0006514	-.001921	F .0618429	.0009276
Stddev	.000427	.002099	.0221931	.001480	.0012848	.0025785
%RSD	1.483615	106.0844	3407.199	77.04785	2.077494	277.9708
#1	-.028797	-.004345	-.007280	-.003281	.0605980	.0037513
#2	-.028332	-.001252	-.016487	-.002137	.0631642	.0003337
#3	-.029184	-.000340	.025720	-.000345	.0617666	-.001302

Elem	Sr4077
Units	ppm
Avg	-.000089
Stddev	.000100
%RSD	113.2832
#1	.000001
#2	-.000070
#3	-.000197

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5787.351	71843.48	6996.191	3514.880	7384.903
Stddev	15.991	139.49	10.312	10.854	19.839
%RSD	.2763012	.1941534	.1473965	.3087886	.2686412
#1	5786.361	71987.71	6994.493	3521.840	7376.954
#2	5803.814	71709.27	7007.246	3502.374	7407.484
#3	5771.879	71833.46	6986.833	3520.426	7370.272

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170305BS Acquired: 10/31/2025 14:58:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7719119**	**1.889586**	**.9422369**	**1.940078**	**.7897962**	**1.981391**
Stddev	.0017019	.020803	.0017965	.009801	.0015558	.017046
%RSD	.2204820	1.100953	.1906657	.5051897	.1969867	.8603274
#1	.7713142	1.866316	.9441747	1.928835	.7880061	1.977817
#2	.7738320	1.896057	.9406267	1.944577	.7908213	1.966415
#3	.7705893	1.906385	.9419093	1.946822	.7905614	1.999941

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1962626**	**.2056513**	**.1896313**	**.9307119**	**.4011069**	**.1946745**
Stddev	.0017522	.0003491	.0001184	.0082353	.0005684	.0002518
%RSD	.8927911	.1697456	.0624316	.8848395	.1417000	.1293613
#1	.1981195	.2060270	.1895356	.9397264	.4006099	.1944854
#2	.1946383	.2055899	.1895944	.9235827	.4017266	.1949604
#3	.1960300	.2053370	.1897637	.9288265	.4009841	.1945777

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3077987**	**2.978477**	**.2039725**	**2.009888**	**.4870988**	**.0735371**
Stddev	.0006908	.014549	.0004264	.012846	.0001691	.0000913
%RSD	.2244429	.4884737	.2090259	.6391244	.0347181	.1241393
#1	.3074786	2.962490	.2038230	1.996199	.4870948	.0734383
#2	.3073260	2.990941	.2036410	2.021679	.4869317	.0735549
#3	.3085915	2.982001	.2044535	2.011787	.4872698	.0736183

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.903368**	**.2970355**	**.1984098**	**9.565364**	**.2893445**	**.4017888**
Stddev	.042285	.0024495	.0007582	.060547	.0017407	.0016362
%RSD	1.456396	.8246513	.3821565	.6329774	.6015832	.4072153
#1	2.878386	.2967696	.1975460	9.508017	.2908226	.4004862
#2	2.879528	.2947298	.1989656	9.628670	.2897848	.4012550
#3	2.952189	.2996071	.1987176	9.559406	.2874259	.4036252

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170305BS Acquired: 10/31/2025 14:58:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6497191	.1952947	.8735772	5.739681	F .0451225	.1929428
Stddev	.0010403	.0016334	.0151106	.020744	.0010103	.0065132
%RSD	.1601097	.8363637	1.729736	.3614216	2.238983	3.375707
#1	.6490946	.1950883	.8890359	5.717323	.0441666	.1889919
#2	.6491427	.1937743	.8588407	5.743417	.0461796	.2004603
#3	.6509200	.1970214	.8728550	5.758305	.0450213	.1893762

Elem	Sr4077
Units	ppm
Avg	.1944722
Stddev	.0003003
%RSD	.1543965
#1	.1947326
#2	.1941438
#3	.1945403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5675.165	70084.97	6806.099	3491.848	6952.040
Stddev	17.207	118.56	30.220	11.467	18.242
%RSD	.3031933	.1691661	.4440119	.3284075	.2623950
#1	5670.518	70001.34	6777.900	3497.128	6941.898
#2	5694.217	70220.65	6837.999	3499.725	6973.099
#3	5660.758	70032.91	6802.398	3478.692	6941.123

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV04 Acquired: 10/31/2025 15:08:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.746270**	**4.625432**	**4.704302**	**4.731277**	**4.755503**	**9.383146**
Stddev	.012721	.048298	.010839	.006495	.008435	.040067
%RSD	.2680110	1.044175	.2304136	.1372850	.1773697	.4270141
#1	4.734602	4.653803	4.692868	4.738354	4.755596	9.340464
#2	4.744377	4.569666	4.705611	4.725587	4.747022	9.419950
#3	4.759831	4.652828	4.714428	4.729892	4.763891	9.389024

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.539047**	**.2383665**	**2.368219**	**23.76899**	**.9612820**	**2.370200**
Stddev	.013936	.0013947	.005301	.11264	.0057056	.005627
%RSD	.1460912	.5850924	.2238231	.4739000	.5935394	.2373984
#1	9.525352	.2398330	2.362215	23.64053	.9548998	2.363885
#2	9.538576	.2382096	2.370189	23.81555	.9630576	2.372033
#3	9.553212	.2370569	2.372252	23.85088	.9658887	2.374681

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.194988**	**4.774648**	**2.362133**	**23.58183**	**2.365906**	**1.195124**
Stddev	.001723	.046801	.003645	.14980	.004847	.001579
%RSD	.1441529	.9802026	.1543230	.6352221	.2048799	.1321064
#1	1.193224	4.726452	2.358341	23.50579	2.360642	1.196222
#2	1.195075	4.777575	2.362445	23.75439	2.366891	1.193314
#3	1.196666	4.819917	2.365612	23.48529	2.370185	1.195835

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.76542**	**2.348947**	**2.370664**	**23.52702**	**4.724176**	**4.798665**
Stddev	.22637	.000606	.004145	.26457	.042703	.007245
%RSD	.9943753	.0258022	.1748517	1.124526	.9039292	.1509861
#1	22.52407	2.349646	2.375137	23.23281	4.769590	4.793502
#2	22.79916	2.348609	2.366952	23.60288	4.718104	4.795545
#3	22.97303	2.348584	2.369903	23.74537	4.684833	4.806948

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV04 Acquired: 10/31/2025 15:08:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.768100**	**4.725840**	**4.705981**	**4.873439**	**4.730689**	F **4.473708**
Stddev	.012284	.015073	.067967	.003677	.021216	.016104
%RSD	.2576243	.3189556	1.444269	.0754462	.4484807	.3599683
#1	4.758270	4.710002	4.627500	4.874735	4.726588	4.468139
#2	4.764159	4.727509	4.745528	4.869289	4.711823	4.461129
#3	4.781870	4.740010	4.744915	4.876292	4.753657	4.491858

Elem	Sr4077
Units	ppm
Avg	**4.685816**
Stddev	.023753
%RSD	.5069162
#1	4.665668
#2	4.712007
#3	4.679773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5813.363**	**71943.39**	**7243.588**	**3538.438**	**6746.747**
Stddev	11.825	577.85	29.690	20.048	18.204
%RSD	.2034049	.8032028	.4098798	.5665860	.2698246
#1	5827.004	72607.23	7235.234	3561.576	6767.559
#2	5807.050	71553.11	7218.970	3527.495	6733.782
#3	5806.034	71669.85	7276.560	3526.242	6738.900

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB04 Acquired: 10/31/2025 15:12:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002353**	**.0008526**	**.0001179**	**-.000713**	**-.000293**	**-.015795**
Stddev	.001023	.0002528	.0011377	.001145	.000846	.002679
%RSD	43.47832	29.65189	964.5109	160.5632	288.8317	16.95910
#1	-.003227	.0011443	.0012314	-.001969	-.001270	-.016327
#2	-.001228	.0007173	-.001043	.000272	.000185	-.012891
#3	-.002605	.0006962	.000165	-.000442	.000206	-.018168

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002449**	**.0000266**	**.0000255**	**-.066934**	**.0000633**	**.0000244**
Stddev	.002366	.0000493	.0000259	.010404	.0001272	.0001336
%RSD	96.61339	185.5401	101.5296	15.54395	201.0756	547.2714
#1	-.002487	.0000733	.0000389	-.078496	.0001954	.0000898
#2	-.004797	.0000314	.0000420	-.063977	-.000058	.0001127
#3	-.000064	-.000025	-.000004	-.058328	.000053	-.000129

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000109**	**.0098091**	**-.000380**	**-.013411**	**.0000671**	**.0000286**
Stddev	.000184	.0148021	.000156	.012672	.0000885	.0000561
%RSD	169.6982	150.9015	41.07555	94.49472	131.9769	195.8304
#1	.000088	-.005954	-.000403	.000867	.0001342	.0000484
#2	-.000278	.011967	-.000214	-.017774	.0001002	-.000035
#3	-.000136	.023414	-.000523	-.023325	-.000033	.000072

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.077465**	**.0006492**	**-.004041**	**.0354618**	**-.008516**	**.0005595**
Stddev	.006929	.0032467	.000240	.0174544	.000615	.0002073
%RSD	8.944636	500.0804	5.940807	49.22015	7.224314	37.04729
#1	-.077197	-.001703	-.004211	.0516753	-.008895	.0007315
#2	-.070674	-.000703	-.004146	.0169870	-.007806	.0006177
#3	-.084524	.004353	-.003766	.0377230	-.008846	.0003294

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB04 Acquired: 10/31/2025 15:12:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028588	-.001852	.0181424	-.001173	F .0272558	-.001361
Stddev	.000391	.000972	.0100264	.001701	.0019779	.006575
%RSD	1.367930	52.48941	55.26523	144.9922	7.256849	483.2208
#1	-.028351	-.002669	.0259212	-.001931	.0252171	.005541
#2	-.029039	-.000777	.0216790	-.002363	.0291668	-.007552
#3	-.028373	-.002111	.0068269	.000775	.0273836	-.002072

Elem	Sr4077
Units	ppm
Avg	.0002755
Stddev	.0000403
%RSD	14.62361
#1	.0002292
#2	.0003025
#3	.0002949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5745.124	72224.28	7154.251	3530.891	7309.653
Stddev	51.716	122.67	40.972	15.785	67.082
%RSD	.9001786	.1698395	.5726893	.4470494	.9177195
#1	5804.057	72280.26	7169.189	3525.080	7385.638
#2	5707.302	72083.61	7185.658	3518.836	7258.633
#3	5724.014	72308.97	7107.907	3548.758	7284.688

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170311BL Acquired: 10/31/2025 15:16:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003278**	**-.000276**	**-.000387**	**.0003127**	**-.002313**	**-.011554**
Stddev	.003212	.001647	.000643	.0017636	.000308	.008365
%RSD	97.99777	597.5711	166.1471	563.9734	13.31595	72.39476
#1	.000308	-.002177	.000279	-.001704	-.002668	-.003605
#2	-.005890	.000663	-.001004	.001563	-.002136	-.010777
#3	-.004251	.000688	-.000435	.001080	-.002134	-.020280

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003465**	**-.000055**	**-.000033**	**-.076280**	**.0003123**	**-.000038**
Stddev	.000378	.000051	.000036	.003751	.0000770	.000142
%RSD	10.89600	92.87685	110.0985	4.917299	24.65494	375.8818
#1	-.003813	-.000005	.000004	-.080611	.0003305	-.000010
#2	-.003063	-.000106	-.000035	-.074079	.0002278	.000088
#3	-.003518	-.000053	-.000067	-.074150	.0003786	-.000191

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000124**	**.0069002**	**-.000851**	**-.009488**	**.0002536**	**-.000083**
Stddev	.000193	.0104038	.000486	.011811	.0001698	.000319
%RSD	155.5297	150.7753	57.07903	124.4773	66.96462	385.0986
#1	.000025	.0073306	-.001376	-.004036	.0003822	.000276
#2	-.000342	.0170822	-.000419	-.001388	.0003176	-.000192
#3	-.000056	-.003712	-.000757	-.023040	.0000611	-.000332

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.080317**	**.0002214**	**-.004949**	**.0613440**	**-.012150**	**-.000367**
Stddev	.008251	.0022532	.000063	.0118605	.000513	.000036
%RSD	10.27333	1017.901	1.263228	19.33436	4.220852	9.782527
#1	-.083465	-.000698	-.005012	.0548909	-.012730	-.000374
#2	-.086531	-.001427	-.004948	.0541093	-.011757	-.000328
#3	-.070956	.002789	-.004887	.0750319	-.011963	-.000398

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170311BL Acquired: 10/31/2025 15:16:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028739	-.000198	.0035011	-.003225	F .0238651	-.000746
Stddev	.000244	.002481	.0112846	.000436	.0003276	.006641
%RSD	.8478587	1250.213	322.3134	13.52961	1.372595	890.2432
#1	-.028971	.002574	-.009334	-.003006	.0238114	.005454
#2	-.028762	-.000961	.007972	-.002941	.0235677	.000062
#3	-.028485	-.002209	.011865	-.003727	.0242162	-.007755

Elem	Sr4077
Units	ppm
Avg	-.000084
Stddev	.000078
%RSD	93.07663
#1	-.000008
#2	-.000079
#3	-.000164

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.882	70004.73	6797.689	3502.065	7158.926
Stddev	11.151	159.94	55.589	21.693	7.392
%RSD	.1964246	.2284768	.8177565	.6194388	.1032597
#1	5676.906	69820.62	6782.284	3477.132	7163.160
#2	5688.021	70109.41	6859.355	3512.445	7163.228
#3	5665.720	70084.17	6751.427	3516.618	7150.390

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170311BS Acquired: 10/31/2025 15:20:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7570083	1.827382	.9262344	1.885382	.7829700	1.903046
Stddev	.0056463	.042164	.0020869	.002531	.0013088	.010182
%RSD	.7458681	2.307354	.2253096	.1342423	.1671534	.5350471
#1	.7523722	1.798684	.9238263	1.882670	.7842096	1.914349
#2	.7553563	1.875792	.9273623	1.887681	.7816016	1.900198
#3	.7632963	1.807671	.9275146	1.885795	.7830987	1.894591

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1951971	.2042321	.1855311	.9182782	.3920809	.1904737
Stddev	.0014000	.0025533	.0001742	.0063206	.0013361	.0003767
%RSD	.7172030	1.250221	.0938846	.6883088	.3407778	.1977643
#1	.1947104	.2056919	.1853654	.9123099	.3924022	.1905633
#2	.1941055	.2012838	.1855152	.9249002	.3932271	.1900602
#3	.1967755	.2057205	.1857127	.9176245	.3906134	.1907974

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3015285	2.922128	.2031314	1.973003	.4772486	.0715192
Stddev	.0009606	.022888	.0010957	.033336	.0002050	.0004066
%RSD	.3185771	.7832656	.5394275	1.689621	.0429501	.5685516
#1	.3019024	2.908491	.2032328	1.971994	.4770160	.0719879
#2	.3004371	2.948552	.2019885	1.940182	.4773266	.0713087
#3	.3022459	2.909340	.2041730	2.006832	.4774031	.0712609

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.685387	.2908802	.1952648	9.312504	.2906108	.3982852
Stddev	.047671	.0010035	.0012598	.106744	.0045276	.0006277
%RSD	1.775198	.3449859	.6451525	1.146238	1.557967	.1576082
#1	2.672188	.2901821	.1966529	9.296688	.2917916	.3989791
#2	2.738266	.2920301	.1941942	9.426272	.2856097	.3977568
#3	2.645706	.2904283	.1949471	9.214550	.2944310	.3981198

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170311BS Acquired: 10/31/2025 15:20:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6466383	.1953002	.8555559	5.672092	F .0187614	.1904237
Stddev	.0036936	.0004671	.0210606	.002079	.0026572	.0022532
%RSD	.5712038	.2391887	2.461625	.0366604	14.16297	1.183252
#1	.6433471	.1958335	.8445691	5.670141	.0188481	.1903945
#2	.6459348	.1951041	.8798380	5.671855	.0213741	.1881853
#3	.6506331	.1949632	.8422605	5.674280	.0160619	.1926914

Elem	Sr4077
Units	ppm
Avg	.1927645
Stddev	.0008978
%RSD	.4657744
#1	.1937749
#2	.1920584
#3	.1924600

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5714.702	70457.46	6753.433	3575.395	6987.379
Stddev	13.437	355.69	59.961	11.801	11.507
%RSD	.2351302	.5048286	.8878574	.3300514	.1646830
#1	5707.021	70661.12	6734.058	3564.785	6989.092
#2	5730.218	70046.75	6820.685	3573.295	6997.934
#3	5706.868	70664.51	6705.555	3588.104	6975.112

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170295TB Acquired: 10/31/2025 15:24:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005062**	**-.002952**	**.0004497**	**.0024204**	**-.000370**	**-.004099**	**-.006440**
Stddev	.001613	.002183	.0006372	.0004404	.001026	.009663	.001613
%RSD	31.86283	73.95736	141.7123	18.19353	277.0673	235.7165	25.04171
#1	-.006824	-.002733	.0003160	.0025064	-.001019	-.013503	-.007683
#2	-.003660	-.005237	.0011431	.0019434	-.000904	.005803	-.007021
#3	-.004701	-.000887	-.000110	.0028115	.000812	-.004598	-.004618

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000152**	**-.000090**	**-.074590**	**.0431122**	**.0003619**	**.0006242**	**.1834121**
Stddev	.000021	.000063	.021267	.0007440	.0001674	.0003503	.0045553
%RSD	13.55532	69.87921	28.51224	1.725796	46.23882	56.11909	2.483637
#1	-.000175	-.000154	-.098598	.0435185	.0003504	.0009835	.1806944
#2	-.000144	-.000087	-.067062	.0422535	.0002006	.0006055	.1886711
#3	-.000136	-.000028	-.058111	.0435647	.0005347	.0002836	.1808708

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047443**	**.0015064**	**.0290423**	**.0003235**	**550.3008**	**.0017702**	**-.002946**
Stddev	.0002811	.0154561	.0000101	.0006396	2.9593	.0024356	.000273
%RSD	5.925519	1026.045	.0347575	197.6786	.5377547	137.5870	9.255923
#1	.0049930	.0187653	.0290390	.0010536	550.2085	-.000906	-.003221
#2	.0044393	-.003188	.0290343	-.000138	547.3889	.002361	-.002941
#3	.0048005	-.011059	.0290537	.000055	553.3052	.003856	-.002675

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.020930**	**-.015858**	**.0007625**	**-.037027**	**.0003555**	**.0071711**	**.0067046**
Stddev	.007060	.000419	.0002688	.000338	.0015163	.0050096	.0008155
%RSD	33.72990	2.645158	35.24778	.9135018	426.5522	69.85805	12.16264
#1	-.026691	-.015537	.0007981	-.037312	.0007739	.0129546	.0067765
#2	-.023044	-.015703	.0010117	-.036653	.0016187	.0041870	.0058556
#3	-.013055	-.016332	.0004777	-.037116	-.001326	.0043716	.0074818

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170295TB Acquired: 10/31/2025 15:24:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0346575	-.007095	-.000358
Stddev	.0037596	.004415	.000065
%RSD	10.84773	62.23552	18.14486
#1	.0315076	-.012185	-.000294
#2	.0388195	-.004303	-.000424
#3	.0336454	-.004796	-.000358

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5368.004	65583.48	6703.838	3338.474	6186.968
Stddev	13.264	373.22	49.243	11.578	16.294
%RSD	.2471007	.5690792	.7345536	.3467908	.2633568
#1	5364.348	65168.21	6697.826	3351.106	6174.808
#2	5382.713	65691.30	6755.811	3335.947	6205.481
#3	5356.951	65890.91	6657.877	3328.369	6180.613

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02 Acquired: 10/31/2025 15:29:14 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003612**	**-.001895**	**.0287868**	**.0030871**	**-.001260**	**.0258258**	**.3969417**
Stddev	.001606	.001264	.0013551	.0015217	.001230	.0061767	.0029800
%RSD	44.47234	66.68288	4.707313	49.29313	97.64366	23.91691	.7507368
#1	-.005467	-.000817	.0303362	.0014012	-.001006	.0187184	.3997947
#2	-.002680	-.001582	.0282012	.0043590	-.000176	.0298948	.3938492
#3	-.002689	-.003286	.0278230	.0035009	-.002596	.0288642	.3971811

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000214**	**.0000300**	**29.51400**	**.0046895**	**.0091928**	**.0161148**	**.0679832**
Stddev	.000010	.0000305	.09763	.0004982	.0001961	.0002227	.0033911
%RSD	4.643326	101.4013	.3307954	10.62473	2.133593	1.382281	4.988109
#1	-.000217	.0000644	29.61923	.0044421	.0094074	.0158585	.0641345
#2	-.000203	.0000194	29.42636	.0052630	.0090229	.0162612	.0705323
#3	-.000223	.0000063	29.49642	.0043634	.0091479	.0162248	.0692826

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.739631**	**7.272261**	**.0130103**	**.0000803**	**304.1454**	**-.000680**	**.0644673**
Stddev	.008703	.041644	.0002299	.0002673	5.4342	.003333	.0002731
%RSD	.5002619	.5726353	1.766813	332.8198	1.786725	490.2770	.4236637
#1	1.749123	7.275959	.0127650	-.000210	307.8135	-.004525	.0641547
#2	1.732027	7.311932	.0132208	.000135	297.9023	.001372	.0645880
#3	1.737743	7.228892	.0130451	.000316	306.7204	.001114	.0646594

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7585240**	**.0433836**	**.0009049**	**-.035935**	**-.000314**	**1.952236**	**.0074800**
Stddev	.0622876	.0013897	.0000709	.000289	.001007	.020551	.0011704
%RSD	8.211680	3.203264	7.830730	.8039077	320.8338	1.052677	15.64665
#1	.7928716	.0443391	.0008811	-.035913	-.000057	1.933296	.0068036
#2	.6866243	.0440223	.0009846	-.035658	.000540	1.949323	.0068050
#3	.7960761	.0417894	.0008490	-.036235	-.001424	1.974087	.0088314

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02 Acquired: 10/31/2025 15:29:14 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6225753	.0056900	.0898086
Stddev	.0085999	.0018940	.0007492
%RSD	1.381338	33.28696	.8342399
#1	.6186804	.0062288	.0904794
#2	.6166121	.0072561	.0890001
#3	.6324336	.0035849	.0899463

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5476.968	67475.35	6943.775	3356.696	6322.388
Stddev	6.577	144.02	39.504	22.849	6.052
%RSD	.1200823	.2134452	.5689138	.6806886	.0957253
#1	5469.378	67627.31	6898.337	3382.623	6317.026
#2	5480.526	67457.87	6963.016	3347.965	6328.950
#3	5480.999	67340.86	6969.972	3339.500	6321.187

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02DUP Acquired: 10/31/2025 15:33:38 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004108**	**-.002650**	**.0293627**	**.0034928**	**-.002456**	**.0465501**	**.3906608**
Stddev	.001501	.001952	.0013566	.0024392	.002472	.0067820	.0007814
%RSD	36.52821	73.65986	4.619977	69.83471	100.6598	14.56928	.2000109
#1	-.004940	-.004374	.0287640	.0014024	-.000936	.0448631	.3899219
#2	-.002376	-.003043	.0284086	.0029033	-.005309	.0540163	.3914786
#3	-.005009	-.000531	.0309156	.0061727	-.001123	.0407707	.3905819

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000246**	**.0001372**	**29.30648**	**.0048219**	**.0092027**	**.0159026**	**.0720587**
Stddev	.000001	.0000981	.00932	.0003255	.0001671	.0002492	.0107196
%RSD	.5755145	71.49121	.0318061	6.751044	1.815918	1.567239	14.87618
#1	-.000247	.0000242	29.31580	.0051465	.0090354	.0156376	.0656046
#2	-.000247	.0001869	29.29716	.0044954	.0093696	.0159379	.0661388
#3	-.000245	.0002005	29.30649	.0048237	.0092032	.0161323	.0844328

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.717422**	**7.213077**	**.0130265**	**-.000177**	**299.4573**	**-.000214**	**.0650810**
Stddev	.004606	.025262	.0002801	.000594	.4487	.002610	.0003274
%RSD	.2681894	.3502251	2.150141	335.0945	.1498343	1219.784	.5030655
#1	1.712124	7.199151	.0133477	-.000439	299.9428	-.000330	.0647034
#2	1.720477	7.242237	.0128337	-.000595	299.0578	.002453	.0652861
#3	1.719666	7.197842	.0128980	.000502	299.3713	-.002764	.0652535

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7223825**	**.0418113**	**.0007477**	**-.036505**	**.0010876**	**1.933969**	**.0093713**
Stddev	.0498839	.0005528	.0001728	.000250	.0010944	.012595	.0020207
%RSD	6.905466	1.322087	23.11281	.6848905	100.6298	.6512666	21.56301
#1	.7248041	.0421912	.0006165	-.036514	.0007973	1.930265	.0100184
#2	.7710115	.0411771	.0009435	-.036250	.0001676	1.948001	.0109893
#3	.6713319	.0420656	.0006832	-.036749	.0022979	1.923641	.0071063

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02DUP Acquired: 10/31/2025 15:33:38 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6112501	.0083433	.0880021
Stddev	.0046133	.0087268	.0003291
%RSD	.7547320	104.5962	.3739365
#1	.6161416	.0143843	.0876781
#2	.6069774	-.001662	.0883360
#3	.6106312	.012307	.0879923

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5548.636	67955.90	7008.628	3375.087	6409.485
Stddev	7.319	64.68	39.428	7.153	7.949
%RSD	.1319064	.0951826	.5625663	.2119320	.1240214
#1	5554.472	67885.68	6963.519	3370.033	6406.642
#2	5540.424	67968.94	7036.517	3371.957	6403.349
#3	5551.011	68013.06	7025.848	3383.272	6418.465

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02LX5 Acquired: 10/31/2025 15:38:03 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001170**	**-.001056**	**.0067114**	**.0005755**	**-.000449**	**-.000611**	**.0838861**
Stddev	.002783	.000490	.0015805	.0027094	.000696	.002512	.0001421
%RSD	237.7870	46.35606	23.54893	470.7892	154.8696	410.9760	.1694202
#1	.001378	-.001036	.0084355	.0036849	-.000864	.002232	.0840029
#2	-.000749	-.000577	.0053313	-.001278	.000354	-.001533	.0839275
#3	-.004141	-.001555	.0063674	-.000681	-.000839	-.002532	.0837278

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000108**	**-.000080**	**6.381221**	**.0009540**	**.0019362**	**.0034510**	**.0169703**
Stddev	.000036	.000066	.023332	.0001171	.0001681	.0001416	.0039447
%RSD	33.27494	82.23014	.3656432	12.27012	8.681064	4.101649	23.24482
#1	-.000148	-.000072	6.376476	.0008539	.0019637	.0033106	.0215191
#2	-.000097	-.000149	6.406561	.0009254	.0020888	.0034488	.0149005
#3	-.000079	-.000019	6.360626	.0010827	.0017561	.0035937	.0144912

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3826133**	**1.573513**	**.0025295**	**.0001125**	**64.26743**	**.0025651**	**.0099469**
Stddev	.0020099	.025602	.0001676	.0001779	.35968	.0008291	.0001331
%RSD	.5253006	1.627039	6.627412	158.1506	.5596644	32.32082	1.338185
#1	.3806740	1.598167	.0024449	.0000813	63.98011	.0029757	.0099127
#2	.3846870	1.547058	.0024210	.0003039	64.15136	.0031087	.0098342
#3	.3824789	1.575313	.0027226	-.000048	64.67081	.0016109	.0100938

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3264018**	**-.004098**	**.0000538**	**-.029850**	**-.001944**	**.3979790**	**-.001888**
Stddev	.0385692	.000307	.0001082	.000623	.001530	.0127054	.000504
%RSD	11.81649	7.502664	201.0478	2.087025	78.70089	3.192477	26.71590
#1	.3704869	-.003939	.0001585	-.030295	-.003692	.3833380	-.002390
#2	.3098334	-.004453	-.000058	-.029138	-.000848	.4061112	-.001381
#3	.2988851	-.003902	.000060	-.030118	-.001293	.4044877	-.001893

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02LX5 Acquired: 10/31/2025 15:38:03 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1481546	.0108977	.0196645
Stddev	.0024859	.0027772	.0000221
%RSD	1.677917	25.48455	.1123286
#1	.1496377	.0113524	.0196562
#2	.1452847	.0134196	.0196896
#3	.1495415	.0079212	.0196479

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5596.024	69063.65	6826.668	3447.021	6701.489
Stddev	12.118	319.32	31.760	8.268	18.317
%RSD	.2165533	.4623497	.4652414	.2398728	.2733223
#1	5587.624	69352.62	6813.787	3452.396	6685.105
#2	5609.916	69117.49	6803.372	3451.167	6721.265
#3	5590.533	68720.84	6862.846	3437.500	6698.098

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02MS Acquired: 10/31/2025 15:42:21 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7948529	1.727331	.9658389	1.979410	.7929420	1.970603	.7189361
Stddev	.0032312	.039918	.0007475	.004704	.0018415	.009423	.0021319
%RSD	.4065210	2.310952	.0773893	.2376391	.2322379	.4781691	.2965329
#1	.7911410	1.753559	.9653108	1.976869	.7908840	1.965922	.7206045
#2	.7963808	1.681392	.9655118	1.976523	.7935073	1.964438	.7196694
#3	.7970367	1.747042	.9666942	1.984838	.7944345	1.981450	.7165343

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1970848	.1957648	38.56399	.4120394	.2108361	.3085299	3.195268
Stddev	.0009024	.0002420	.07816	.0002694	.0003013	.0004624	.015295
%RSD	.4578897	.1236002	.2026695	.0653905	.1429034	.1498615	.4786768
#1	.1960496	.1959199	38.48629	.4120293	.2109196	.3085277	3.194472
#2	.1977060	.1954860	38.64260	.4117751	.2110869	.3080686	3.210945
#3	.1974987	.1958885	38.56308	.4123137	.2105019	.3089933	3.180386

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.455949	11.19939	.5091916	.0667000	398.2677	.2962107	.2915101
Stddev	.006662	.04722	.0008865	.0004683	1.0492	.0032544	.0010895
%RSD	.2712553	.4216522	.1740931	.7020796	.2634285	1.098690	.3737301
#1	2.457983	11.14600	.5082116	.0669870	398.0113	.2999484	.2912083
#2	2.461356	11.23566	.5099374	.0669533	397.3705	.2946787	.2906034
#3	2.448507	11.21652	.5094259	.0661596	399.4213	.2940049	.2927187

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.53698	.3314687	.4222759	.6766664	.2005563	3.357146	6.246547
Stddev	.08303	.0019000	.0011108	.0008916	.0018650	.013732	.026149
%RSD	.7197002	.5732179	.2630545	.1317694	.9298996	.4090522	.4186181
#1	11.59574	.3292763	.4214953	.6761487	.1989797	3.365280	6.225280
#2	11.57320	.3324934	.4217847	.6761544	.2000743	3.364867	6.275743
#3	11.44199	.3326365	.4235476	.6776960	.2026150	3.341291	6.238618

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02MS Acquired: 10/31/2025 15:42:21 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7857530	.2032127	.3074614
Stddev	.0042736	.0026837	.0009626
%RSD	.5438904	1.320649	.3130907
#1	.7905935	.2046416	.3083429
#2	.7825011	.2001169	.3076069
#3	.7841645	.2048797	.3064343

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5454.117	66797.68	6853.070	3379.746	6190.712
Stddev	12.270	57.41	40.644	6.845	4.416
%RSD	.2249688	.0859525	.5930820	.2025174	.0713303
#1	5454.754	66807.39	6899.776	3385.989	6189.494
#2	5466.056	66736.03	6825.732	3380.820	6195.609
#3	5441.540	66849.62	6833.702	3372.427	6187.034

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02MSD Acquired: 10/31/2025 15:46:29 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8073409**	**1.871501**	**.9743849**	**2.004832**	**.7972123**	**2.000988**	**.6430008**
Stddev	.0026176	.042114	.0040359	.004163	.0026709	.007349	.0057386
%RSD	.3242270	2.250290	.4141997	.2076330	.3350297	.3672500	.8924703
#1	.8053685	1.830862	.9719064	2.000831	.7961037	2.005555	.6496136
#2	.8063435	1.914950	.9722064	2.009139	.8002590	2.004899	.6393271
#3	.8103106	1.868690	.9790419	2.004526	.7952743	1.992511	.6400617

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2027322**	**.1982713**	**33.12026**	**.4125080**	**.2118650**	**.3111078**	**3.114926**
Stddev	.0014421	.0002573	.06826	.0011081	.0002735	.0007527	.015617
%RSD	.7113291	.1297501	.2060899	.2686216	.1290912	.2419492	.5013654
#1	.2043671	.1979829	33.19787	.4127802	.2115780	.3102752	3.130943
#2	.2016410	.1983539	33.09336	.4134546	.2118942	.3117402	3.114094
#3	.2021884	.1984771	33.06955	.4112891	.2121227	.3113080	3.099742

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.127530**	**9.917854**	**.5118571**	**.0732418**	**334.3559**	**.3043576**	**.2762372**
Stddev	.018473	.059056	.0006557	.0004638	3.1100	.0048852	.0007282
%RSD	.8682626	.5954465	.1280998	.6332273	.9301512	1.605083	.2636021
#1	2.148709	9.960886	.5123058	.0737649	337.5061	.3098321	.2770667
#2	2.119133	9.942151	.5111046	.0730796	331.2877	.3027983	.2757035
#3	2.114747	9.850526	.5121610	.0728809	334.2740	.3004425	.2759413

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.18265**	**.3282674**	**.4300632**	**.6852604**	**.2034189**	**2.958945**	**6.233060**
Stddev	.07211	.0031523	.0014743	.0002167	.0015944	.025780	.023641
%RSD	.6448757	.9602869	.3428063	.0316251	.7838098	.8712467	.3792911
#1	11.20511	.3316857	.4289375	.6850673	.2040703	2.986644	6.257491
#2	11.24087	.3254749	.4295200	.6854948	.2045846	2.954541	6.231393
#3	11.10198	.3276416	.4317319	.6852190	.2016020	2.935652	6.210296

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02MSD Acquired: 10/31/2025 15:46:29 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6615688	.1994087	.2924312
Stddev	.0036136	.0042584	.0010033
%RSD	.5462216	2.135530	.3430718
#1	.6576916	.2034910	.2935825
#2	.6621718	.1997413	.2919669
#3	.6648429	.1949937	.2917443

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5493.321	67651.92	6780.478	3411.488	6274.995
Stddev	3.754	60.28	30.625	18.159	4.092
%RSD	.0683360	.0891019	.4516670	.5322753	.0652149
#1	5491.003	67628.39	6746.708	3390.603	6271.694
#2	5491.308	67606.96	6806.451	3420.323	6273.717
#3	5497.652	67720.42	6788.275	3423.539	6279.574

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02A Acquired: 10/31/2025 15:50:38 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7752261**	**1.726023**	**.9416671**	**1.939951**	**.7824721**	**1.924953**	**.5819878**
Stddev	.0087694	.073205	.0029962	.016494	.0048550	.005633	.0005872
%RSD	1.131210	4.241276	.3181791	.8502314	.6204696	.2926235	.1008927
#1	.7654663	1.682480	.9413977	1.925832	.7806951	1.918451	.5823192
#2	.7777690	1.685049	.9388147	1.935940	.7787560	1.928041	.5813099
#3	.7824431	1.810540	.9447889	1.958080	.7879652	1.928366	.5823344

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1951787**	**.1910930**	**30.10115**	**.4001437**	**.2030062**	**.3019840**	**2.999402**
Stddev	.0022696	.0008309	.03906	.0005778	.0008039	.0006392	.029545
%RSD	1.162822	.4348366	.1297680	.1443891	.3960085	.2116794	.9850249
#1	.1956972	.1905824	30.10125	.4007240	.2028698	.3016197	2.979860
#2	.1971441	.1906447	30.14016	.4001385	.2022792	.3016101	2.984955
#3	.1926947	.1920518	30.06204	.3995685	.2038696	.3027221	3.033390

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.909314**	**9.145839**	**.4959456**	**.0574868**	**298.4099**	**.2925871**	**.2644057**
Stddev	.004072	.023148	.0014492	.0006087	1.6332	.0037081	.0004315
%RSD	.2132756	.2530937	.2921991	1.058830	.5473060	1.267364	.1631764
#1	1.911729	9.122564	.4957867	.0569967	297.2659	.2907726	.2641845
#2	1.911600	9.168857	.4945825	.0581682	300.2803	.2968531	.2649029
#3	1.904612	9.146096	.4974677	.0572956	297.6835	.2901356	.2641298

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.51638**	**.3137638**	**.4180015**	**.6674159**	**.1959098**	**2.789756**	**6.038446**
Stddev	.14322	.0032663	.0024902	.0028653	.0015129	.021372	.029080
%RSD	1.361861	1.041018	.5957475	.4293046	.7722543	.7660899	.4815768
#1	10.45787	.3154088	.4160431	.6656737	.1947569	2.772409	6.050395
#2	10.41167	.3158805	.4171573	.6658513	.1976229	2.783229	6.005295
#3	10.67959	.3100020	.4208041	.6707229	.1953496	2.813631	6.059647

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-02A Acquired: 10/31/2025 15:50:38 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6039098	.1836809	.2713134
Stddev	.0053357	.0041722	.0007461
%RSD	.8835310	2.271443	.2750046
#1	.5986429	.1807477	.2710905
#2	.6037748	.1884572	.2721456
#3	.6093118	.1818376	.2707041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5455.981	66894.07	6737.505	3309.571	6245.947
Stddev	.794	146.31	62.897	7.959	7.725
%RSD	.0145618	.2187221	.9335377	.2404897	.1236750
#1	5455.717	66810.45	6709.069	3314.781	6242.153
#2	5456.875	67063.02	6693.847	3300.409	6254.835
#3	5455.353	66808.76	6809.599	3313.522	6240.852

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-01DLX5 Acquired: 10/31/2025 15:54:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161302	-.007354	.0889200	.0030402	.0049033	97.80172	.7430598
Stddev	.0009678	.001840	.0013681	.0015149	.0009806	.49406	.0015373
%RSD	5.999933	25.02151	1.538521	49.82744	19.99887	.5051618	.2068816
#1	.0150216	-.007674	.0899788	.0014645	.0060346	97.91313	.7435918
#2	.0165625	-.005374	.0894059	.0031702	.0043808	98.23056	.7413272
#3	.0168065	-.009012	.0873753	.0044859	.0042946	97.26147	.7442603

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042432	.0056910	57.43278	.3036301	.1449685	.4808233	196.3333
Stddev	.0000256	.0001806	.19698	.0005895	.0002204	.0006422	1.6326
%RSD	.6020674	3.172846	.3429707	.1941425	.1520157	.1335649	.8315699
#1	.0042143	.0058981	57.45998	.3031797	.1447148	.4815489	194.6846
#2	.0042626	.0055664	57.61475	.3034134	.1451128	.4805930	196.3657
#3	.0042529	.0056086	57.22362	.3042973	.1450778	.4803279	197.9495

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.403028	65.25673	.2422510	.0150158	8.864230	.4363975	.2511692
Stddev	.007838	.24913	.0005221	.0009626	.084020	.0022024	.0002910
%RSD	.2303280	.3817689	.2155277	6.410564	.9478557	.5046813	.1158401
#1	3.395799	65.20470	.2416494	.0139044	8.792196	.4377592	.2514511
#2	3.401927	65.52776	.2425866	.0155874	8.843964	.4375768	.2511866
#3	3.411359	65.03772	.2425169	.0155554	8.956529	.4338566	.2508700

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.100257	.3802570	-.000386	.0091411	8.059968	.4992777	1.595369
Stddev	.074207	.0064327	.000327	.0000639	.018106	.0098072	.001186
%RSD	3.533217	1.691661	84.65978	.6991310	.2246408	1.964271	.0743415
#1	2.027586	.3749658	-.000743	.0091223	8.078390	.4945199	1.594013
#2	2.175909	.3783881	-.000100	.0090887	8.059320	.5105562	1.595885
#3	2.097276	.3874172	-.000316	.0092123	8.042195	.4927570	1.596211

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3480-01DLX5 Acquired: 10/31/2025 15:54:47 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3804603	.1097253	-.082827
Stddev	.0017866	.0016581	.001429
%RSD	.4695792	1.511168	1.724822
#1	.3784216	.1115241	-.081426
#2	.3812069	.1082580	-.082775
#3	.3817525	.1093937	-.084282

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5941.999	73228.60	7296.076	3631.847	6257.982
Stddev	9.075	178.54	36.896	8.043	9.173
%RSD	.1527345	.2438084	.5056960	.2214661	.1465809
#1	5933.553	73434.09	7276.468	3638.281	6249.060
#2	5951.595	73140.27	7273.124	3622.830	6267.387
#3	5940.848	73111.45	7338.636	3634.431	6257.498

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV05 Acquired: 10/31/2025 15:58:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.943330**	**4.627473**	**4.919705**	**4.950549**	**4.953650**	**9.936439**	**9.960197**
Stddev	.015635	.166871	.004163	.016343	.008702	.007880	.026143
%RSD	.3162907	3.606090	.0846262	.3301219	.1756612	.0793038	.2624740
#1	4.928000	4.719726	4.919708	4.948150	4.950743	9.943562	9.988782
#2	4.942737	4.434844	4.915541	4.935538	4.946774	9.927975	9.937501
#3	4.959254	4.727849	4.923868	4.967959	4.963433	9.937781	9.954308

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2548829**	**2.467901**	**25.03501**	**1.012364**	**2.469901**	**1.242420**	**4.960776**
Stddev	.0009474	.002123	.05723	.004338	.001810	.001184	.025269
%RSD	.3717062	.0860246	.2286178	.4284928	.0732724	.0953302	.5093712
#1	.2538866	2.465531	25.06956	1.008196	2.467888	1.241468	4.988771
#2	.2557724	2.468543	25.06652	1.012041	2.471394	1.243746	4.939656
#3	.2549897	2.469628	24.96894	1.016854	2.470421	1.242046	4.953902

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.492838**	**24.97939**	**2.463889**	**1.244697**	**24.19966**	**2.483081**	**2.482039**
Stddev	.003505	.06431	.003070	.004255	.15719	.004885	.009675
%RSD	.1405871	.2574564	.1246189	.3418316	.6495501	.1967362	.3897995
#1	2.493796	24.95690	2.460346	1.239941	24.25018	2.481360	2.471887
#2	2.488954	25.05192	2.465783	1.248143	24.02342	2.488594	2.491154
#3	2.495763	24.92934	2.465537	1.246006	24.32537	2.479290	2.483077

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.34004**	**5.014219**	**4.978431**	**4.959909**	**4.970317**	**4.896480**	**5.092914**
Stddev	.15774	.022838	.008902	.012509	.006692	.019520	.021318
%RSD	.6480705	.4554675	.1788039	.2522095	.1346389	.3986530	.4185888
#1	24.28666	4.993382	4.974697	4.949438	4.977130	4.916694	5.077689
#2	24.21590	5.038636	4.972005	4.956526	4.970067	4.895008	5.083775
#3	24.51754	5.010639	4.988592	4.973762	4.963753	4.877737	5.117278

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV05 Acquired: 10/31/2025 15:58:51 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.897534**	**4.762695**	**4.936596**
Stddev	.030203	.029115	.032275
%RSD	.6166965	.6113159	.6537959
#1	4.885113	4.765658	4.915530
#2	4.875522	4.732212	4.973753
#3	4.931967	4.790216	4.920505

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5603.970**	**68773.42**	**6793.393**	**3392.314**	**6500.585**
Stddev	12.945	144.02	26.260	15.749	14.755
%RSD	.2309963	.2094138	.3865522	.4642517	.2269847
#1	5609.984	68930.54	6818.626	3410.050	6505.475
#2	5589.112	68742.02	6766.214	3386.925	6484.005
#3	5612.814	68647.68	6795.340	3379.967	6512.275

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB05 Acquired: 10/31/2025 16:02:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003421**	**-.001145**	**.0002992**	**.0002892**	**.0007150**	**.0116443**
Stddev	.001671	.001960	.0004877	.0021496	.0009779	.0150080
%RSD	48.86306	171.1938	163.0380	743.4112	136.7605	128.8874
#1	-.004734	-.003266	.0004993	-.000324	.0013650	.0156852
#2	-.001539	.000597	.0006550	.002679	.0011897	.0242181
#3	-.003988	-.000765	-.000257	-.001487	-.000410	-.004970

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001672**	**-.000018**	**-.000044**	**-.084868**	**.0002053**	**-.000100**
Stddev	.001012	.000058	.000030	.006218	.0002195	.000047
%RSD	60.53135	323.7370	67.40225	7.326961	106.9221	46.83671
#1	-.000925	-.000057	-.000036	-.089720	.0004391	-.000123
#2	-.001268	-.000045	-.000019	-.077858	.0001732	-.000046
#3	-.002824	.000049	-.000078	-.087024	.0000036	-.000131

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000113**	**.0103503**	**-.000701**	**.0064653**	**-.000147**	**.0000493**
Stddev	.000037	.0022598	.000139	.0233057	.000220	.0000554
%RSD	32.59138	21.83320	19.87330	360.4724	149.4579	112.2741
#1	-.000073	.0104868	-.000773	.0283972	-.000329	.0001132
#2	-.000121	.0125388	-.000789	-.018006	-.000210	.0000150
#3	-.000145	.0080254	-.000540	.009005	.000098	.0000198

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1367578**	**-.000361**	**-.004143**	**.1250997**	**-.009975**	**.0003108**
Stddev	.0035355	.000541	.000214	.0245064	.000960	.0001298
%RSD	2.585215	149.6923	5.159886	19.58951	9.623979	41.75235
#1	.1392972	.000140	-.003939	.0987017	-.009301	.0002762
#2	.1327199	-.000934	-.004365	.1471261	-.009550	.0002018
#3	.1382563	-.000290	-.004123	.1294712	-.011074	.0004543

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB05 Acquired: 10/31/2025 16:02:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028599	-.001807	.0096928	-.002979	F .0186269	-.001274
Stddev	.000502	.000964	.0132135	.000961	.0014112	.005398
%RSD	1.753612	53.35686	136.3234	32.26981	7.576178	423.7036
#1	-.029104	-.001562	.0234706	-.002112	.0181676	.003214
#2	-.028101	-.002870	.0084808	-.002813	.0175025	.000229
#3	-.028593	-.000989	-.002873	-.004013	.0202105	-.007264

Elem	Sr4077
Units	ppm
Avg	.0001291
Stddev	.0001627
%RSD	125.9870
#1	.0002513
#2	.0001915
#3	-.000056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5702.765	70381.48	6737.906	3511.114	7264.337
Stddev	4.149	98.64	40.907	16.381	5.213
%RSD	.0727519	.1401465	.6071234	.4665447	.0717610
#1	5704.719	70442.20	6784.835	3511.432	7263.459
#2	5705.576	70434.57	6709.787	3494.577	7269.933
#3	5698.000	70267.67	6719.096	3527.334	7259.618

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170308BL Acquired: 10/31/2025 16:07:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004526**	**-.002801**	**-.000494**	**.0013637**	**.0002922**	**-.010017**
Stddev	.002743	.001471	.000896	.0002944	.0013611	.010216
%RSD	60.59851	52.52817	181.2723	21.58932	465.7917	101.9804
#1	-.004393	-.002119	.000141	.0016610	-.001070	.000468
#2	-.007333	-.004490	-.001519	.0010723	.000295	-.010580
#3	-.001853	-.001795	-.000104	.0013577	.001652	-.019940

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004766**	**-.000061**	**-.000049**	**-.079705**	**-.000014**	**-.000064**
Stddev	.001294	.000056	.000068	.008683	.000138	.000019
%RSD	27.13997	91.21995	139.7305	10.89390	984.9288	29.83860
#1	-.006165	-.000112	-.000055	-.086146	.000144	-.000051
#2	-.003613	-.000069	.000022	-.069830	-.000072	-.000056
#3	-.004521	-.000002	-.000113	-.083139	-.000114	-.000086

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000233**	**-.006142**	**-.000771**	**-.019398**	**-.000081**	**-.000067**
Stddev	.000191	.006168	.000255	.012842	.000072	.000364
%RSD	82.24291	100.4325	33.02914	66.20155	89.05302	540.0145
#1	-.000301	-.006855	-.001049	-.033769	-.000155	.000156
#2	-.000016	.000352	-.000549	-.009046	-.000011	.000129
#3	-.000380	-.011922	-.000716	-.015379	-.000076	-.000487

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003280**	**-.000382**	**-.004744**	**.0751301**	**-.015026**	**-.000170**
Stddev	.021521	.001686	.000217	.0089874	.000466	.000107
%RSD	656.0985	441.9851	4.576080	11.96249	3.100812	62.79578
#1	.001186	-.002313	-.004898	.0651749	-.014488	-.000274
#2	-.026684	.000371	-.004496	.0826464	-.015292	-.000060
#3	.015657	.000798	-.004837	.0775689	-.015297	-.000177

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170308BL Acquired: 10/31/2025 16:07:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000972	.0012932	.0051650	-.003209	F .0142887	.0003348
Stddev	.000551	.0015418	.0085926	.000420	.0013304	.0026136
%RSD	56.69290	119.2193	166.3617	13.08699	9.311046	780.7516
#1	-.001598	.0012925	.0130188	-.002937	.0155567	-.000004
#2	-.000755	-.000248	-.004013	-.003693	.0144057	-.002093
#3	-.000563	.002835	.006489	-.002998	.0129036	.003101

Elem	Sr4077
Units	ppm
Avg	-.000109
Stddev	.000088
%RSD	80.42163
#1	-.000206
#2	-.000033
#3	-.000089

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5682.253	70196.27	6695.194	3534.122	7212.832
Stddev	6.898	467.93	44.860	8.061	3.004
%RSD	.1213892	.6666008	.6700398	.2280973	.0416431
#1	5675.851	70579.24	6729.194	3536.593	7209.502
#2	5689.557	70334.88	6644.350	3540.659	7215.339
#3	5681.352	69674.69	6712.040	3525.115	7213.654

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170308BS Acquired: 10/31/2025 16:11:32 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7579607**	**1.887063**	**.9289958**	**1.907760**	**.8037622**	**1.945094**
Stddev	.0012826	.036509	.0028734	.002335	.0013017	.002798
%RSD	.1692129	1.934694	.3093011	.1223780	.1619474	.1438734
#1	.7568357	1.883998	.9295559	1.905303	.8026656	1.947699
#2	.7576892	1.925009	.9258835	1.908026	.8052007	1.942136
#3	.7593573	1.852184	.9315478	1.909950	.8034204	1.945448

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1953638**	**.2099416**	**.1858346**	**.9287707**	**.3985254**	**.1914024**
Stddev	.0009537	.0011487	.0002844	.0068154	.0024945	.0000719
%RSD	.4881392	.5471400	.1530181	.7338143	.6259244	.0375647
#1	.1942905	.2088448	.1855132	.9327284	.3967496	.1914510
#2	.1961137	.2098440	.1859373	.9209010	.4013773	.1913198
#3	.1956872	.2111359	.1860534	.9326828	.3974492	.1914365

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3027080**	**2.859420**	**.2035024**	**2.012167**	**.4778103**	**.0725275**
Stddev	.0003338	.022767	.0002212	.020772	.0004872	.0000657
%RSD	.1102646	.7961966	.1087045	1.032339	.1019725	.0905786
#1	.3025526	2.864491	.2034739	2.016327	.4772940	.0725039
#2	.3030911	2.879223	.2037365	2.030545	.4778747	.0724768
#3	.3024803	2.834545	.2032968	1.989630	.4782621	.0726017

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.743357**	**.2950178**	**.1966231**	**9.153370**	**.2962520**	**.4098885**
Stddev	.009964	.0031740	.0015135	.019006	.0022831	.0009212
%RSD	.3632134	1.075882	.7697532	.2076384	.7706691	.2247387
#1	2.743305	.2918555	.1983249	9.170510	.2943666	.4089148
#2	2.753347	.2982035	.1961166	9.156670	.2955990	.4107461
#3	2.733419	.2949943	.1954278	9.132930	.2987905	.4100045

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170308BS Acquired: 10/31/2025 16:11:32 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6888005	.2015158	.8546596	5.656834	F .0133834	.1938371
Stddev	.0008160	.0016133	.0291662	.000994	.0038899	.0022496
%RSD	.1184644	.8006059	3.412608	.0175797	29.06483	1.160578
#1	.6883793	.2000744	.8209924	5.657981	.0164085	.1956986
#2	.6897410	.2032586	.8707467	5.656298	.0089955	.1944755
#3	.6882811	.2012143	.8722397	5.656222	.0147462	.1913373

Elem	Sr4077
Units	ppm
Avg	.1928367
Stddev	.0000724
%RSD	.0375524
#1	.1928088
#2	.1929189
#3	.1927824

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5660.557	70070.96	6587.044	3472.353	6972.727
Stddev	10.255	307.55	23.770	15.387	11.226
%RSD	.1811621	.4389130	.3608650	.4431239	.1609954
#1	5670.734	70007.45	6608.714	3467.099	6977.309
#2	5660.709	69800.12	6590.797	3460.282	6980.938
#3	5650.226	70405.30	6561.620	3489.679	6959.935

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170332BL Acquired: 10/31/2025 16:15:35 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002496**	**-.000798**	**-.000035**	**-.000885**	**-.001369**	**-.000942**
Stddev	.001267	.003039	.001353	.001800	.000288	.011608
%RSD	50.75053	380.9992	3832.125	203.4294	21.03224	1232.788
#1	-.003693	-.004293	-.001585	.001081	-.001040	-.007995
#2	-.001169	.001213	.000911	-.002453	-.001495	-.007285
#3	-.002626	.000688	.000568	-.001282	-.001573	.012455

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000315**	**-.000032**	**.0000515**	**-.083336**	**-.000008**	**.0000142**
Stddev	.0013651	.000016	.0000539	.013670	.000168	.0000069
%RSD	4336.758	48.83167	104.5120	16.40371	2096.235	49.01234
#1	-.000552	-.000015	.0000530	-.098068	-.000015	.0000066
#2	.001591	-.000045	-.000003	-.071060	.000163	.0000202
#3	-.000945	-.000036	.000105	-.080880	-.000172	.0000157

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000275**	**-.000937**	**-.000175**	**-.006195**	**-.000258**	**-.000044**
Stddev	.000174	.009506	.000437	.024928	.000159	.000456
%RSD	63.13001	1014.304	249.8632	402.3752	61.57232	1044.772
#1	-.000374	-.009121	.000152	.022467	-.000440	.000336
#2	-.000075	.009489	-.000671	-.018230	-.000181	.000082
#3	-.000377	-.003180	-.000006	-.022823	-.000152	-.000549

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.119687**	**-.003324**	**-.004608**	**.0282629**	**-.017191**	**-.000380**
Stddev	.004555	.001686	.000272	.0149198	.000783	.000321
%RSD	3.806015	50.71731	5.911172	52.78943	4.557361	84.50833
#1	-.115223	-.004981	-.004314	.0112257	-.017545	-.000031
#2	-.124328	-.001610	-.004852	.0345672	-.016293	-.000447
#3	-.119510	-.003381	-.004657	.0389957	-.017734	-.000662

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170332BL Acquired: 10/31/2025 16:15:35 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000571	-.002410	.0010997	-.001819	F .0120053	.0000944
Stddev	.000622	.001119	.0018601	.000962	.0029562	.0029421
%RSD	109.0069	46.42592	169.1350	52.89066	24.62440	3118.046
#1	-.001228	-.001909	.0012192	-.002240	.0121514	.0034186
#2	-.000493	-.003693	.0028972	-.002499	.0089788	-.000961
#3	.000009	-.001630	-.000817	-.000718	.0148859	-.002174

Elem	Sr4077
Units	ppm
Avg	-.000156
Stddev	.000028
%RSD	18.09343
#1	-.000189
#2	-.000145
#3	-.000135

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5650.086	69035.15	6651.944	3435.698	7191.011
Stddev	16.045	275.43	15.090	3.906	11.080
%RSD	.2839804	.3989763	.2268554	.1136922	.1540875
#1	5655.212	68729.32	6669.072	3440.165	7191.566
#2	5662.942	69263.65	6640.608	3432.927	7201.804
#3	5632.104	69112.49	6646.151	3434.001	7179.664

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170332BS Acquired: 10/31/2025 16:19:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7444194**	**1.845459**	**.9089627**	**1.876357**	**.7573465**	**1.846496**
Stddev	.0021881	.015971	.0014149	.005788	.0012418	.018886
%RSD	.2939345	.8653992	.1556617	.3084615	.1639695	1.022779
#1	.7419550	1.827905	.9091653	1.870546	.7576416	1.826334
#2	.7461341	1.849340	.9074574	1.882121	.7584141	1.849380
#3	.7451691	1.859131	.9102653	1.876404	.7559837	1.863774

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1805475**	**.1971743**	**.1819905**	**.8887677**	**.3885023**	**.1864425**
Stddev	.0001545	.0013126	.0003840	.0032873	.0013038	.0002586
%RSD	.0855788	.6657003	.2109943	.3698704	.3355928	.1387224
#1	.1804588	.1984109	.1818033	.8862054	.3870066	.1863624
#2	.1804578	.1973149	.1817361	.8876236	.3891020	.1862334
#3	.1807259	.1957970	.1824322	.8924742	.3893984	.1867317

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2955557**	**2.780894**	**.1900779**	**1.909413**	**.4666188**	**.0702546**
Stddev	.0009027	.032885	.0004939	.031736	.0009828	.0003610
%RSD	.3054328	1.182541	.2598130	1.662065	.2106208	.5138553
#1	.2946751	2.754327	.1898152	1.921399	.4658967	.0703170
#2	.2955131	2.770681	.1906476	1.933410	.4662218	.0705804
#3	.2964790	2.817674	.1897709	1.873430	.4677380	.0698665

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.405956**	**.2799596**	**.1914779**	**8.803581**	**.2755951**	**.3875668**
Stddev	.028962	.0027057	.0007063	.089026	.0017355	.0001332
%RSD	1.203746	.9664710	.3688543	1.011251	.6297193	.0343696
#1	2.374773	.2772354	.1909291	8.721198	.2772669	.3877185
#2	2.411083	.2799970	.1912298	8.791523	.2757162	.3874690
#3	2.432011	.2826465	.1922747	8.898021	.2738023	.3875130

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170332BS Acquired: 10/31/2025 16:19:54 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6488883	.1826457	.8342923	5.449519	F .0090786	.1656848
Stddev	.0002783	.0013524	.0056720	.018231	.0023003	.0044444
%RSD	.0428852	.7404395	.6798601	.3345382	25.33760	2.682469
#1	.6485762	.1836877	.8294359	5.438482	.0076682	.1605859
#2	.6489777	.1811174	.8405262	5.439515	.0078347	.1677305
#3	.6491108	.1831320	.8329147	5.470562	.0117331	.1687381

Elem	Sr4077
Units	ppm
Avg	.1808379
Stddev	.0003058
%RSD	.1690950
#1	.1805343
#2	.1808336
#3	.1811458

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5875.513	72703.51	7094.288	3555.525	7234.562
Stddev	6.357	200.18	48.346	22.851	2.841
%RSD	.1081863	.2753314	.6814743	.6426889	.0392673
#1	5875.089	72932.83	7058.129	3581.643	7237.832
#2	5869.380	72563.76	7075.534	3539.219	7232.707
#3	5882.071	72613.95	7149.201	3545.713	7233.147

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01 Acquired: 10/31/2025 16:23:55 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156921	-.011318	.0560640	.0081494	.0018922	56.47661
Stddev	.0030451	.003921	.0010559	.0019993	.0003623	.07180
%RSD	19.40533	34.63919	1.883349	24.53353	19.14653	.1271364
#1	.0147032	-.015467	.0569770	.0077345	.0018704	56.41193
#2	.0191087	-.007675	.0563073	.0063900	.0022648	56.55387
#3	.0132643	-.010813	.0549077	.0103236	.0015412	56.46402

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2558626	.0021223	.0022728	58.49336	.0963448	.0943616
Stddev	.0011995	.0000350	.0001673	.02564	.0005620	.0001547
%RSD	.4688104	1.649967	7.359935	.0438280	.5833560	.1638996
#1	.2555696	.0021586	.0024298	58.47576	.0961075	.0945098
#2	.2571814	.0020888	.0022919	58.52277	.0969865	.0943738
#3	.2548367	.0021194	.0020968	58.48154	.0959403	.0942012

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2432918	134.5317	1.487103	113.4154	.2460703	.0121641
Stddev	.0011253	1.1047	.001910	.3053	.0006634	.0001303
%RSD	.4625477	.8211476	.1284461	.2691945	.2696040	1.071322
#1	.2440906	133.6138	1.489167	113.6860	.2458809	.0120150
#2	.2437801	134.2237	1.485399	113.4759	.2468078	.0122561
#3	.2420048	135.7578	1.486742	113.0844	.2455222	.0122211

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	353.6362	.2384418	.1511387	16.56296	2.286586	.0726477
Stddev	2.3534	.0022442	.0010926	.09111	.010450	.0004000
%RSD	.6654797	.9412090	.7228874	.5500605	.4570098	.5505664
#1	355.8094	.2386798	.1498872	16.45846	2.294677	.0721884
#2	351.1367	.2360881	.1519021	16.60466	2.290293	.0728347
#3	353.9626	.2405576	.1516269	16.62574	2.274788	.0729198

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01 Acquired: 10/31/2025 16:23:55 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.037038	1.216841	F 112.0577	.7774735	F 44.45775	.1109137
Stddev	.000262	.002090	.7949	.0016773	.17027	.0033909
%RSD	.7069793	.1717616	.7093277	.2157358	.3829856	3.057215
#1	-.037204	1.215245	111.3661	.7768602	44.43377	.1145507
#2	-.036736	1.216072	111.8810	.7793710	44.63873	.1103511
#3	-.037174	1.219207	112.9260	.7761891	44.30074	.1078394

Elem	Sr4077
Units	ppm
Avg	.2621964
Stddev	.0009239
%RSD	.3523762
#1	.2622319
#2	.2631020
#3	.2612552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5475.379	66295.23	7040.730	3359.806	5961.142
Stddev	1.499	115.47	40.731	6.102	4.308
%RSD	.0273795	.1741755	.5785081	.1816305	.0722654
#1	5473.918	66358.90	7003.232	3364.203	5959.775
#2	5476.914	66364.86	7034.894	3362.375	5957.683
#3	5475.304	66161.94	7084.065	3352.839	5965.967

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01DUP Acquired: 10/31/2025 16:28:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0152546	-.009318	.0564504	.0044944	.0011908	58.64150
Stddev	.0035561	.000973	.0014627	.0010502	.0025586	.19947
%RSD	23.31194	10.44139	2.591048	23.36724	214.8622	.3401473
#1	.0113061	-.010432	.0552299	.0057023	.0007148	58.44236
#2	.0182052	-.008886	.0580717	.0037978	-.001096	58.84130
#3	.0162525	-.008636	.0560497	.0039830	.003954	58.64085

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2742012	.0021434	.0025663	60.35389	.0962479	.0945972
Stddev	.0006852	.0001131	.0001843	.15987	.0005482	.0002301
%RSD	.2498761	5.276806	7.182603	.2648905	.5695947	.2431936
#1	.2736018	.0022493	.0027635	60.17199	.0958797	.0944407
#2	.2740537	.0020243	.0025370	60.41758	.0959861	.0944895
#3	.2749481	.0021568	.0023983	60.47210	.0968780	.0948613

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2450774	133.2259	1.580724	117.6795	.2471607	.0117171
Stddev	.0001447	.9844	.006894	.2633	.0007753	.0008641
%RSD	.0590277	.7388968	.4361496	.2237285	.3136889	7.374262
#1	.2451817	132.2011	1.574358	117.3758	.2465246	.0108504
#2	.2451383	133.3123	1.579768	117.8196	.2480244	.0117223
#3	.2449123	134.1642	1.588047	117.8430	.2469332	.0125785

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	372.0222	.2500422	.1527708	16.76986	2.402891	.0730765
Stddev	5.0372	.0031678	.0009628	.05993	.001268	.0002899
%RSD	1.354004	1.266916	.6302083	.3573450	.0527699	.3967416
#1	366.3397	.2526423	.1536087	16.70629	2.401836	.0732011
#2	375.9385	.2465140	.1529845	16.77796	2.402539	.0727451
#3	373.7883	.2509702	.1517190	16.82532	2.404298	.0732834

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01DUP Acquired: 10/31/2025 16:28:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.037713	1.276799	F 110.9148	.7954637	F 44.73147	.1319828
Stddev	.000121	.006127	.5900	.0033368	.11884	.0012313
%RSD	.3216559	.4798837	.5319730	.4194834	.2656814	.9329499
#1	-.037801	1.270123	110.2368	.7946856	44.81622	.1333602
#2	-.037575	1.278108	111.3121	.7925846	44.59562	.1309889
#3	-.037764	1.282166	111.1956	.7991208	44.78256	.1315993

Elem	Sr4077
Units	ppm
Avg	.2826134
Stddev	.0007392
%RSD	.2615453
#1	.2824871
#2	.2819456
#3	.2834076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5461.345	66676.68	6663.544	3391.085	5935.485
Stddev	7.431	161.07	6.500	8.331	10.454
%RSD	.1360723	.2415638	.0975422	.2456857	.1761188
#1	5469.894	66841.40	6660.830	3381.708	5947.100
#2	5456.429	66669.09	6670.961	3393.912	5932.524
#3	5457.713	66519.54	6658.842	3397.635	5926.832

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01LX5 Acquired: 10/31/2025 16:32:18 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003045**	**-.002108**	**.0119326**	**-.000014**	**-.001705**	**11.74243**
Stddev	.002086	.000695	.0005249	.001493	.002785	.00880
%RSD	68.48555	32.96833	4.399138	10841.52	163.3859	.0749156
#1	-.000753	-.002839	.0116868	.000900	-.001925	11.73642
#2	-.003552	-.001456	.0125354	.000796	-.004373	11.73834
#3	-.004830	-.002030	.0115757	-.001737	.001184	11.75252

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0511552**	**.0004068**	**.0001843**	**12.26982**	**.0202782**	**.0187866**
Stddev	.0014632	.0000351	.0001205	.03712	.0000579	.0000298
%RSD	2.860365	8.634081	65.35854	.3025478	.2853857	.1583584
#1	.0496465	.0003847	.0000453	12.24452	.0202814	.0188196
#2	.0512506	.0004473	.0002487	12.25251	.0202188	.0187784
#3	.0525683	.0003884	.0002588	12.31244	.0203344	.0187619

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0522096**	**26.93527**	**.3144875**	**23.88467**	**.0492159**	**.0024241**
Stddev	.0003150	.14981	.0014254	.10209	.0003277	.0004370
%RSD	.6033561	.5561990	.4532395	.4274272	.6657430	18.02835
#1	.0519445	26.95715	.3130494	23.76954	.0489397	.0019695
#2	.0525578	26.77572	.3145135	23.92033	.0491301	.0024616
#3	.0521264	27.07294	.3158998	23.96415	.0495779	.0028411

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**69.77192**	**.0510306**	**.0263686**	**3.239476**	**.5105425**	**.0144379**
Stddev	.45175	.0010677	.0004031	.052030	.0030474	.0006153
%RSD	.6474734	2.092264	1.528569	1.606116	.5968921	4.261518
#1	70.15469	.0522530	.0259875	3.287948	.5074160	.0151186
#2	69.27362	.0502805	.0267905	3.245979	.5135040	.0142738
#3	69.88746	.0505583	.0263277	3.184500	.5107074	.0139213

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01LX5 Acquired: 10/31/2025 16:32:18 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006720	.2525521	F 21.81156	.1486958	8.819974	.0238504
Stddev	.000561	.0020505	.20381	.0013966	.022763	.0029581
%RSD	8.350312	.8119063	.9344046	.9392125	.2580888	12.40262
#1	-.006230	.2509602	21.87745	.1473874	8.795678	.0210898
#2	-.006598	.2518302	21.58296	.1501664	8.823437	.0234887
#3	-.007332	.2548659	21.97427	.1485337	8.840808	.0269727

Elem	Sr4077
Units	ppm
Avg	.0560322
Stddev	.0001215
%RSD	.2167547
#1	.0560691
#2	.0561310
#3	.0558966

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5596.119	67487.99	6680.298	3424.624	6477.206
Stddev	10.794	392.20	56.924	13.091	21.220
%RSD	.1928829	.5811331	.8521163	.3822744	.3276032
#1	5584.160	67647.65	6745.752	3421.613	6452.896
#2	5599.054	67775.17	6652.783	3438.959	6486.706
#3	5605.141	67041.14	6642.358	3413.300	6492.016

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01MS Acquired: 10/31/2025 16:36:27 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7935469	1.821506	.9832640	1.911674	.4312334	64.09919
Stddev	.0036577	.032651	.0019844	.004909	.0009837	.09077
%RSD	.4609279	1.792513	.2018173	.2568022	.2281040	.1416085
#1	.7928481	1.797573	.9854979	1.908690	.4303379	64.13992
#2	.7902890	1.858701	.9817052	1.908991	.4310760	64.16247
#3	.7975035	1.808243	.9825889	1.917340	.4322862	63.99519

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4723460	.1989461	.1981302	62.48359	.4939642	.2974627
Stddev	.0020589	.0006250	.0003125	.12909	.0007716	.0003147
%RSD	.4358904	.3141651	.1577461	.2065992	.1562071	.1058130
#1	.4700954	.1996456	.1981409	62.51330	.4931694	.2971649
#2	.4741348	.1987501	.1978124	62.59524	.4940129	.2977921
#3	.4728078	.1984425	.1984373	62.34224	.4947103	.2974311

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5259993	142.5277	1.775720	121.9179	.7438426	.0869058
Stddev	.0009014	.8249	.002355	.4660	.0007591	.0008772
%RSD	.1713730	.5787497	.1325971	.3821986	.1020570	1.009406
#1	.5268135	141.6818	1.773269	121.9409	.7430009	.0859079
#2	.5250306	142.5715	1.777964	122.3720	.7444756	.0872543
#3	.5261539	143.3298	1.775927	121.4409	.7440512	.0875553

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	377.3666	.5472634	.3610424	28.32295	2.650580	.4706329
Stddev	6.2746	.0040235	.0013728	.15204	.008171	.0010513
%RSD	1.662727	.7352017	.3802429	.5368246	.3082708	.2233698
#1	383.6841	.5445105	.3612887	28.22887	2.658881	.4702686
#2	377.2798	.5518810	.3595630	28.24162	2.650314	.4698123
#3	371.1359	.5453989	.3622754	28.49836	2.642545	.4718178

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01MS Acquired: 10/31/2025 16:36:27 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5081495	1.501627	F 113.5192	6.985957	F 46.29455	.3172777
Stddev	.0011529	.005447	.3994	.014160	.10985	.0049650
%RSD	.2268831	.3627083	.3518621	.2026892	.2372746	1.564883
#1	.5071185	1.499552	113.1572	7.000936	46.21684	.3127318
#2	.5079357	1.507806	113.4525	6.984145	46.42022	.3225760
#3	.5093944	1.497523	113.9477	6.972791	46.24659	.3165253

Elem	Sr4077
Units	ppm
Avg	.4706639
Stddev	.0004778
%RSD	.1015272
#1	.4711958
#2	.4702707
#3	.4705253

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5434.432	66111.60	6861.775	3303.550	5892.118
Stddev	10.174	69.55	31.649	13.851	6.478
%RSD	.1872228	.1052038	.4612388	.4192613	.1099443
#1	5429.861	66037.71	6834.243	3310.979	5889.598
#2	5446.090	66175.80	6854.728	3312.101	5899.477
#3	5427.344	66121.27	6896.353	3287.570	5887.278

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01MSD Acquired: 10/31/2025 16:40:31 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8258491	1.865158	1.018893	2.001363	.4430986	65.68314
Stddev	.0021319	.038730	.000472	.001402	.0024064	.03522
%RSD	.2581432	2.076474	.0463267	.0700381	.5430788	.0536249
#1	.8272850	1.828517	1.018508	2.000995	.4455427	65.68664
#2	.8268628	1.905683	1.018751	2.002912	.4407318	65.64629
#3	.8233995	1.861273	1.019419	2.000182	.4430213	65.71648

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4784028	.2033571	.2061672	64.64513	.5090302	.3088668
Stddev	.0014433	.0004803	.0002649	.03812	.0020870	.0001051
%RSD	.3016885	.2361850	.1284655	.0589740	.4099893	.0340268
#1	.4797621	.2031201	.2059160	64.64657	.5083096	.3087637
#2	.4785583	.2039099	.2064438	64.68251	.5113819	.3089738
#3	.4768881	.2030414	.2061417	64.60630	.5073990	.3088629

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5452652	147.4964	1.808526	126.0622	.7735506	.0893657
Stddev	.0001265	.4350	.007453	.1031	.0007219	.0004534
%RSD	.0231968	.2949149	.4121272	.0817631	.0933184	.5073974
#1	.5451361	147.0315	1.802047	126.0390	.7736906	.0898518
#2	.5453889	147.8935	1.816672	125.9727	.7727690	.0889542
#3	.5452707	147.5642	1.806859	126.1749	.7741922	.0892911

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	386.3221	.5582812	.3755363	28.80726	2.733033	.4921858
Stddev	5.1695	.0058842	.0011980	.13566	.011316	.0002573
%RSD	1.338131	1.053980	.3190049	.4709106	.4140417	.0522695
#1	380.7205	.5566280	.3759227	28.72550	2.722028	.4921035
#2	387.3367	.5648152	.3741928	28.73242	2.744636	.4919798
#3	390.9091	.5534005	.3764934	28.96385	2.732434	.4924742

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01MSD Acquired: 10/31/2025 16:40:31 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5336328	1.527326	F 119.0681	7.250201	F 48.67080	.3176104
Stddev	.0008764	.003898	.0731	.028940	.04320	.0043120
%RSD	.1642269	.2552112	.0613938	.3991668	.0887543	1.357652
#1	.5328059	1.531822	118.9870	7.280576	48.62567	.3130370
#2	.5345514	1.524890	119.0882	7.247077	48.71176	.3181923
#3	.5335411	1.525266	119.1290	7.222949	48.67497	.3216020

Elem	Sr4077
Units	ppm
Avg	.4811207
Stddev	.0015917
%RSD	.3308370
#1	.4796524
#2	.4808975
#3	.4828123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5440.047	66577.58	7003.188	3315.548	5882.776
Stddev	12.315	83.87	11.419	13.638	9.837
%RSD	.2263816	.1259696	.1630533	.4113227	.1672229
#1	5428.186	66518.53	6994.452	3299.805	5873.687
#2	5439.184	66540.64	6999.004	3323.744	5881.420
#3	5452.771	66673.58	7016.109	3323.095	5893.221

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01A Acquired: 10/31/2025 16:44:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8021536**	**1.780459**	**.9808364**	**1.953814**	**.7888352**	**59.17090**
Stddev	.0044929	.012567	.0013067	.008790	.0011722	.15637
%RSD	.5601019	.7058187	.1332273	.4499141	.1486028	.2642674
#1	.8005303	1.774681	.9811395	1.961831	.7888837	59.00339
#2	.7986979	1.771820	.9794047	1.944414	.7876395	59.31303
#3	.8072325	1.794875	.9819650	1.955198	.7899825	59.19628

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4551334**	**.2029783**	**.1978212**	**60.00995**	**.4811137**	**.2907381**
Stddev	.0017988	.0017685	.0000844	.15223	.0034364	.0001844
%RSD	.3952296	.8712557	.0426826	.2536782	.7142648	.0634275
#1	.4530614	.2012159	.1977459	59.84196	.4850045	.2905963
#2	.4562955	.2029662	.1979125	60.13877	.4798430	.2909465
#3	.4560432	.2047528	.1978053	60.04912	.4784935	.2906714

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5142877**	**133.2071**	**1.702056**	**117.1817**	**.7288007**	**.0823365**
Stddev	.0007264	1.1956	.004343	.0739	.0007816	.0006741
%RSD	.1412503	.8975708	.2551553	.0630512	.1072458	.8187653
#1	.5142039	134.4621	1.697774	117.1035	.7293386	.0826425
#2	.5136068	133.0778	1.701936	117.1912	.7291595	.0828034
#3	.5150525	132.0813	1.706458	117.2503	.7279041	.0815636

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**352.8955**	**.5361430**	**.3528156**	**26.39053**	**2.588480**	**.4736361**
Stddev	2.4344	.0046293	.0010730	.25279	.018302	.0015913
%RSD	.6898445	.8634389	.3041227	.9578994	.7070672	.3359783
#1	355.4953	.5307989	.3535954	26.65863	2.568510	.4731359
#2	350.6697	.5389176	.3515919	26.35645	2.592475	.4723551
#3	352.5215	.5387125	.3532596	26.15650	2.604455	.4754175

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3492-01A Acquired: 10/31/2025 16:44:36 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6696093**	**1.425893**	F **110.4169**	**6.852190**	F **44.11964**	**.3113748**
Stddev	.0005618	.005633	1.2169	.017523	.17932	.0034704
%RSD	.0838934	.3950554	1.102117	.2557300	.4064503	1.114553
#1	.6695913	1.419662	111.6144	6.853206	44.18162	.3093656
#2	.6690567	1.430627	110.4550	6.834181	43.91754	.3153821
#3	.6701798	1.427388	109.1815	6.869183	44.25974	.3093766

Elem	Sr4077
Units	ppm
Avg	**.4617176**
Stddev	.0016593
%RSD	.3593716
#1	.4599431
#2	.4632306
#3	.4619792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5537.351**	**67805.21**	**6886.760**	**3374.703**	**6029.806**
Stddev	8.802	873.72	7.619	46.260	3.061
%RSD	.1589550	1.288570	.1106317	1.370790	.0507684
#1	5535.817	66835.11	6879.368	3324.975	6026.299
#2	5546.819	68050.34	6894.587	3382.675	6031.179
#3	5529.417	68530.18	6886.326	3416.459	6031.941

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV06 Acquired: 10/31/2025 16:48:40 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.963082**	**4.751478**	**4.925761**	**4.925059**	**4.953989**	**9.949620**	**10.17984**
Stddev	.014033	.031553	.001808	.011438	.012082	.017013	.01086
%RSD	.2827444	.6640713	.0366999	.2322377	.2438765	.1709873	.1066885
#1	4.960516	4.781008	4.923691	4.935049	4.955732	9.943054	10.18928
#2	4.950509	4.755195	4.927033	4.912582	4.941130	9.968937	10.16797
#3	4.978221	4.718231	4.926557	4.927544	4.965104	9.936869	10.18227

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2568091**	**2.472577**	**25.37495**	**.9984950**	**2.480099**	**1.245418**	**5.026472**
Stddev	.0016237	.001969	.05592	.0006445	.001037	.001475	.051571
%RSD	.6322611	.0796221	.2203759	.0645509	.0418315	.1184036	1.025986
#1	.2555201	2.471904	25.38458	.9978124	2.479705	1.245199	5.059749
#2	.2586327	2.474794	25.42543	.9990932	2.481275	1.244065	4.967066
#3	.2562746	2.471033	25.31484	.9985795	2.479315	1.246990	5.052601

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.534517**	**25.08394**	**2.480936**	**1.245748**	**24.69738**	**2.493067**	**2.508323**
Stddev	.004491	.07808	.001757	.001215	.19859	.003360	.003438
%RSD	.1771905	.3112736	.0708027	.0975317	.8040813	.1347804	.1370722
#1	2.537283	25.06776	2.479393	1.244804	24.84466	2.496544	2.511984
#2	2.529336	25.16884	2.482847	1.247119	24.47153	2.489837	2.505163
#3	2.536933	25.01522	2.480567	1.245320	24.77595	2.492821	2.507823

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.56819**	**5.111619**	**4.976401**	**5.024325**	**5.007364**	**4.970418**	**5.167624**
Stddev	.11800	.037910	.011416	.008208	.003863	.033287	.023750
%RSD	.4803127	.7416527	.2293962	.1633717	.0771508	.6696944	.4595983
#1	24.58817	5.079990	4.980872	5.032876	5.005034	4.969434	5.194871
#2	24.44147	5.153642	4.963426	5.016509	5.005236	4.937634	5.151304
#3	24.67493	5.101223	4.984904	5.023591	5.011824	5.004185	5.156696

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV06 Acquired: 10/31/2025 16:48:40 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.972232**	**4.852689**	**5.092793**
Stddev	.027341	.014940	.059624
%RSD	.5498747	.3078722	1.170745
#1	5.003617	4.851765	5.040331
#2	4.953579	4.838233	5.157635
#3	4.959499	4.868070	5.080413

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5666.857**	**69696.59**	**6782.507**	**3480.671**	**6542.789**
Stddev	17.672	161.19	53.080	17.282	14.045
%RSD	.3118536	.2312758	.7826038	.4965176	.2146595
#1	5654.392	69845.66	6816.642	3460.722	6526.855
#2	5687.081	69525.53	6721.353	3491.095	6553.370
#3	5659.098	69718.58	6809.525	3490.197	6548.142

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB06 Acquired: 10/31/2025 16:52:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001435**	**-.001796**	**-.000080**	**.0002032**	**-.000617**	**.0087499**
Stddev	.0024960	.001223	.000408	.0011778	.001610	.0066446
%RSD	1739.388	68.08813	510.9875	579.6849	260.9939	75.93959
#1	-.001948	-.002180	-.000550	.0014677	.000789	.0156375
#2	.002906	-.000427	.000128	-.000863	-.000266	.0023784
#3	-.000527	-.002782	.000182	.000004	-.002374	.0082337

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005284**	**-.000027**	**.0000295**	**-.067506**	**.0003611**	**-.000127**
Stddev	.002205	.000037	.0000509	.011907	.0002874	.000100
%RSD	41.73003	137.2866	172.6247	17.63772	79.59057	78.97202
#1	-.005422	-.000005	-.000027	-.080835	.0006600	-.000012
#2	-.003014	-.000070	.000071	-.063763	.0000868	-.000174
#3	-.007418	-.000006	.000045	-.057921	.0003364	-.000195

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002625**	**.0272310**	**-.000394**	**-.014464**	**.0001368**	**-.000120**
Stddev	.0003915	.0071809	.000825	.008805	.0001159	.000403
%RSD	149.1714	26.37045	209.2032	60.87522	84.72175	335.4087
#1	.0000728	.0304030	-.001279	-.006979	.0001241	-.000575
#2	.0007127	.0322797	.000354	-.012247	.0000278	.000025
#3	.0000019	.0190102	-.000257	-.024166	.0002586	.000190

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2612847**	**.0028483**	**-.003556**	**.1727142**	**-.007656**	**.0002221**
Stddev	.0248967	.0029731	.000234	.0213330	.000520	.0002322
%RSD	9.528584	104.3819	6.588032	12.35162	6.787782	104.5107
#1	.2328432	-.000517	-.003322	.1761060	-.007324	.0004849
#2	.2718784	.005117	-.003555	.1498885	-.008255	.0001365
#3	.2791326	.003945	-.003791	.1921481	-.007389	.0000449

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB06 Acquired: 10/31/2025 16:52:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.025767	-.001959	.0144599	-.003184	F .0224199	-.003240
Stddev	.000613	.001715	.0078632	.000756	.0023232	.002217
%RSD	2.377750	87.53511	54.37976	23.74180	10.36232	68.43612
#1	-.026462	.000015	.0203943	-.003705	.0221577	-.001751
#2	-.025304	-.002809	.0055414	-.002317	.0248631	-.002181
#3	-.025535	-.003082	.0174439	-.003529	.0202389	-.005789

Elem	Sr4077
Units	ppm
Avg	.0000793
Stddev	.0000583
%RSD	73.52998
#1	.0001242
#2	.0000134
#3	.0001002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5959.059	73608.57	7078.332	3681.396	7630.143
Stddev	13.695	185.12	30.542	4.363	13.068
%RSD	.2298258	.2514878	.4314841	.1185217	.1712696
#1	5962.118	73775.88	7076.786	3678.657	7634.842
#2	5970.965	73409.70	7109.618	3679.103	7640.212
#3	5944.092	73640.11	7048.593	3686.428	7615.375

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170309TB Acquired: 10/31/2025 16:57:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003158**	**-.001117**	**-.000992**	**-.000646**	**-.001770**	**-.005151**	**-.001968**
Stddev	.001386	.000983	.001779	.002729	.002167	.003010	.000662
%RSD	43.88776	88.00762	179.3756	422.3768	122.4487	58.42561	33.66110
#1	-.002534	-.000819	-.000139	.002190	.000354	-.008445	-.001415
#2	-.002194	-.002215	-.003036	-.000874	-.003979	-.004466	-.002702
#3	-.004747	-.000317	.000200	-.003254	-.001686	-.002543	-.001787

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**-.000030**	**-.081138**	**.0000179**	**-.000078**	**-.000412**	**-.000099**
Stddev	.000038	.000044	.008655	.0001348	.000195	.000357	.007736
%RSD	80.29257	146.5817	10.66662	752.5371	250.5775	86.72518	7844.607
#1	-.000028	.000018	-.090968	-.000030	.000010	-.000766	.002095
#2	-.000023	-.000039	-.077777	.000170	.000058	-.000052	.006304
#3	-.000091	-.000068	-.074667	-.000086	-.000301	-.000418	-.008695

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000586**	**.0037934**	**-.000294**	**-.000049**	**.0401819**	**.0033940**	**-.004606**
Stddev	.000488	.0414580	.000174	.000499	.0333912	.0011977	.000171
%RSD	83.26524	1092.885	59.31693	1019.686	83.10000	35.28945	3.705136
#1	-.000154	-.019562	-.000491	-.000570	.0016661	.0036392	-.004786
#2	-.001116	-.020718	-.000227	.000423	.0579008	.0044501	-.004446
#3	-.000490	.051660	-.000162	-.000000	.0609789	.0020926	-.004586

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0698938**	**-.012431**	**-.000115**	**-.028884**	**-.001367**	**.0047375**	**-.002975**
Stddev	.0467383	.001108	.000090	.000229	.001218	.0065541	.001817
%RSD	66.87043	8.911787	78.12496	.7924047	89.07079	138.3444	61.06104
#1	.0641293	-.011158	-.000211	-.028630	-.002548	.0084224	-.000906
#2	.1192469	-.012960	-.000032	-.029075	-.000115	-.002830	-.004307
#3	.0263051	-.013176	-.000104	-.028947	-.001439	.008620	-.003712

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170309TB Acquired: 10/31/2025 16:57:02 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0148362	-.002952	-.000168
Stddev	.0006893	.002284	.000036
%RSD	4.646173	77.37331	21.29682
#1	.0155977	-.002878	-.000199
#2	.0142549	-.000706	-.000177
#3	.0146560	-.005272	-.000129

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5848.034	70805.54	6884.884	3514.043	7389.693
Stddev	10.237	220.39	50.644	18.612	12.193
%RSD	.1750421	.3112675	.7355836	.5296513	.1650022
#1	5854.966	70926.77	6849.771	3506.515	7384.276
#2	5836.277	70551.15	6861.941	3535.240	7381.146
#3	5852.860	70938.71	6942.939	3500.375	7403.656

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170329BL Acquired: 10/31/2025 17:01:22 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002338**	**-.000090**	**.0002116**	**-.000812**	**-.002108**	**-.001186**
Stddev	.002009	.001839	.0010343	.002410	.000700	.002649
%RSD	85.92470	2048.599	488.7749	296.9068	33.17875	223.2900
#1	-.000149	.000900	-.000838	-.003308	-.002728	-.004231
#2	-.004098	.001042	.001230	-.000629	-.001350	.000083
#3	-.002767	-.002212	.000242	.001502	-.002247	.000589

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004714**	**-.000026**	**.0000390**	**-.058482**	**.0001512**	**.0000084**
Stddev	.000519	.000047	.0000367	.014231	.0001745	.0000838
%RSD	10.99989	178.7955	94.17687	24.33379	115.4194	999.2547
#1	-.005272	.000028	.0000676	-.064540	.0003483	.0000530
#2	-.004247	-.000058	.0000518	-.042225	.0000888	-.000088
#3	-.004624	-.000050	-.000002	-.068682	.0000164	.000060

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000299**	**-.002886**	**-.000379**	**-.002781**	**.0000271**	**-.000026**
Stddev	.000404	.007656	.000383	.006664	.0002094	.000429
%RSD	135.2464	265.3055	101.1937	239.6395	771.2162	1627.231
#1	-.000219	.003908	-.000070	-.006979	.0001720	-.000522
#2	.000060	-.001384	-.000258	.004903	.0001224	.000206
#3	-.000737	-.011181	-.000808	-.006267	-.000213	.000236

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.050835**	**.0026309**	**-.003313**	**.0878567**	**-.014232**	**.0009093**
Stddev	.006972	.0023750	.000194	.0319278	.001616	.0003492
%RSD	13.71501	90.27417	5.870257	36.34075	11.35346	38.39625
#1	-.058858	.0012285	-.003203	.0539040	-.015537	.0013043
#2	-.046242	.0053730	-.003538	.1172747	-.014736	.0007821
#3	-.047406	.0012910	-.003199	.0923913	-.012425	.0006416

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170329BL Acquired: 10/31/2025 17:01:22 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003813	-.001347	-.010368	-.003233	F .0216138	-.002661
Stddev	.000956	.000874	.019604	.000493	.0029123	.004835
%RSD	25.07350	64.87480	189.0759	15.23985	13.47444	181.7184
#1	-.004278	-.000356	.012253	-.003612	.0188838	-.001499
#2	-.004447	-.001679	-.022405	-.003412	.0212783	-.007971
#3	-.002713	-.002006	-.020953	-.002676	.0246794	.001488

Elem	Sr4077
Units	ppm
Avg	.0000710
Stddev	.0000779
%RSD	109.7245
#1	-.000010
#2	.000146
#3	.000077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5868.226	73337.90	7174.993	3614.974	7516.760
Stddev	91.307	237.59	154.301	5.786	113.339
%RSD	1.555951	.3239618	2.150533	.1600542	1.507817
#1	5924.871	73525.54	7340.315	3621.239	7590.421
#2	5916.913	73070.76	7149.866	3613.852	7573.611
#3	5762.894	73417.39	7034.798	3609.831	7386.247

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170329BS Acquired: 10/31/2025 17:05:41 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7631925**	**1.835425**	**.9305071**	**1.913469**	**.7727341**	**1.933776**
Stddev	.0035966	.015095	.0027730	.006513	.0022702	.005426
%RSD	.4712524	.8224171	.2980049	.3403624	.2937934	.2805808
#1	.7643646	1.834063	.9331614	1.908588	.7704396	1.929015
#2	.7591560	1.821057	.9276291	1.910956	.7727835	1.932630
#3	.7660567	1.851154	.9307309	1.920864	.7749793	1.939684

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1861179**	**.2045737**	**.1872070**	**.9089841**	**.4015711**	**.1915996**
Stddev	.0013367	.0008019	.0001673	.0067104	.0016080	.0004120
%RSD	.7182237	.3919897	.0893785	.7382332	.4004367	.2150377
#1	.1847355	.2050676	.1873576	.9034859	.4002213	.1918129
#2	.1862145	.2050049	.1870269	.9070048	.4011417	.1918612
#3	.1874038	.2036484	.1872364	.9164615	.4033502	.1911247

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3023582**	**2.878652**	**.1952682**	**1.965416**	**.4786602**	**.0725805**
Stddev	.0000786	.009535	.0006672	.023874	.0006648	.0001187
%RSD	.0260056	.3312228	.3417003	1.214680	.1388876	.1635971
#1	.3024097	2.869263	.1953497	1.937892	.4780702	.0725138
#2	.3023972	2.878367	.1958910	1.977851	.4793805	.0725102
#3	.3022677	2.888327	.1945640	1.980505	.4785300	.0727176

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.635478**	**.2869230**	**.1973090**	**9.154946**	**.2873466**	**.3945260**
Stddev	.034812	.0014178	.0010864	.056360	.0009017	.0011185
%RSD	1.320911	.4941411	.5506072	.6156288	.3138168	.2835115
#1	2.595300	.2884972	.1964527	9.089866	.2872958	.3948153
#2	2.654479	.2865252	.1969432	9.187486	.2882726	.3932912
#3	2.656655	.2857466	.1985311	9.187485	.2864713	.3954714

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: PB170329BS Acquired: 10/31/2025 17:05:41 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6372479	.1877754	.8662117	5.574011	F .0129937	.1772811
Stddev	.0006944	.0018835	.0083596	.011843	.0013303	.0009357
%RSD	.1089755	1.003065	.9650759	.2124652	10.23824	.5278160
#1	.6368508	.1871289	.8725995	5.562954	.0139702	.1766876
#2	.6368432	.1898971	.8567504	5.572570	.0135325	.1783598
#3	.6380498	.1863004	.8692851	5.586508	.0114785	.1767960

Elem	Sr4077
Units	ppm
Avg	.1859109
Stddev	.0005372
%RSD	.2889453
#1	.1854882
#2	.1865154
#3	.1857291

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5840.981	71466.89	6965.755	3542.705	7155.890
Stddev	5.942	277.83	17.179	24.048	2.008
%RSD	.1017236	.3887551	.2466215	.6787913	.0280604
#1	5842.375	71774.86	6955.230	3553.166	7153.589
#2	5846.102	71390.74	6956.457	3559.750	7156.788
#3	5834.466	71235.08	6985.579	3515.198	7157.292

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-01 Acquired: 10/31/2025 17:09:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0440542	-.033175	.1915501	.0005857	.0159752	184.3786
Stddev	.0038976	.002481	.0033440	.0024027	.0021164	.7331
%RSD	8.847363	7.478105	1.745786	410.2100	13.24799	.3975962
#1	.0485546	-.036000	.1904993	.0002459	.0142553	183.5422
#2	.0417673	-.031355	.1888576	-.001629	.0153317	184.9097
#3	.0418407	-.032168	.1952933	.003140	.0183387	184.6839

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.047688	.0079801	.0206405	1349.980	.2058976	.2291577
Stddev	.005025	.0000180	.0001320	4.307	.0013366	.0000691
%RSD	.4795928	.2258222	.6395099	.3190226	.6491502	.0301489
#1	1.052959	.0079737	.0207261	1347.463	.2074286	.2291431
#2	1.042953	.0079662	.0207068	1347.524	.2053006	.2290971
#3	1.047152	.0080005	.0204884	1354.953	.2049634	.2292329

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.446890	386.8563	2.844726	84.38260	.2051569	.0280860
Stddev	.001632	2.6852	.002314	.47823	.0004737	.0007072
%RSD	.1128121	.6940983	.0813330	.5667431	.2308838	2.517882
#1	1.447555	389.6524	2.843358	83.83044	.2046304	.0287002
#2	1.448084	384.2979	2.847397	84.65181	.2052919	.0273129
#3	1.445030	386.6185	2.843423	84.66555	.2055484	.0282449

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.01587	1.554278	1.161884	8.455741	.7269260	.0044316
Stddev	.11758	.004776	.001484	.025493	.0127833	.0001054
%RSD	.7830359	.3072739	.1277611	.3014900	1.758543	2.379237
#1	15.12244	1.549127	1.161767	8.482296	.7398887	.0043256
#2	14.88974	1.558560	1.160461	8.431462	.7143300	.0045364
#3	15.03542	1.555148	1.163423	8.453465	.7265592	.0044327

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-01 Acquired: 10/31/2025 17:09:42 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2243592	F 25.59413	3.251517	9.216977	F 46.13084	.6611279
Stddev	.0014623	.01461	.025937	.015520	.12081	.0138353
%RSD	.6517690	.0570788	.7977030	.1683805	.2618782	2.092687
#1	.2226727	25.58066	3.281306	9.230127	46.26672	.6471964
#2	.2251298	25.59209	3.239301	9.220945	46.03558	.6748650
#3	.2252750	25.60966	3.233942	9.199858	46.09022	.6613223

Elem	Sr4077
Units	ppm
Avg	F 25.52595
Stddev	.33281
%RSD	1.303813
#1	25.29632
#2	25.37390
#3	25.90763

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5877.103	71705.04	7747.369	3611.519	5259.570
Stddev	3.603	230.72	43.338	12.727	12.079
%RSD	.0613140	.3217604	.5593871	.3523910	.2296507
#1	5880.756	71462.34	7794.270	3601.300	5273.394
#2	5873.551	71921.54	7708.806	3625.774	5254.261
#3	5877.001	71731.25	7739.030	3607.481	5251.056

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-02 Acquired: 10/31/2025 17:14:00 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0556773	-.002419	.4151215	-.005145	.0033516	136.8508
Stddev	.0024452	.007744	.0039030	.003958	.0016738	.7280
%RSD	4.391785	320.1731	.9402111	76.92958	49.93884	.5319701
#1	.0561081	-.003057	.4133393	-.008741	.0015440	137.2180
#2	.0578785	.005625	.4124278	-.005791	.0048477	136.0123
#3	.0530453	-.009824	.4195975	-.000904	.0036632	137.3221

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9028131	.0098386	.0191545	1422.699	.2411507	.0958468
Stddev	.0078839	.0001310	.0002408	34.701	.0010716	.0000963
%RSD	.8732640	1.331094	1.257320	2.439127	.4443761	.1005144
#1	.9106050	.0097415	.0191243	1438.382	.2400922	.0958702
#2	.8948402	.0097868	.0189301	1382.925	.2422350	.0959293
#3	.9029940	.0099876	.0194089	1446.791	.2411251	.0957409

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2922350	235.7434	3.320673	170.5112	.2362178	.0194486
Stddev	.0012737	1.8732	.027871	.8248	.0012352	.0010952
%RSD	.4358307	.7945974	.8393070	.4837041	.5229014	5.631179
#1	.2909623	235.9926	3.340289	171.1397	.2350725	.0195916
#2	.2922332	237.4796	3.288770	169.5773	.2375266	.0204653
#3	.2935096	233.7581	3.332959	170.8166	.2360542	.0182890

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.09636	.2387419	1.280707	20.37577	.4075360	.0091141
Stddev	.13207	.0055479	.002845	.25272	.0111206	.0001765
%RSD	.7725275	2.323795	.2221345	1.240288	2.728752	1.936384
#1	17.10460	.2331319	1.281592	20.37176	.4099152	.0089228
#2	17.22412	.2442255	1.283004	20.63046	.4172746	.0091489
#3	16.96036	.2388684	1.277525	20.12507	.3954183	.0092705

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-02 Acquired: 10/31/2025 17:14:00 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1152110	4.620538	3.102275	6.322770	F 50.53921	.7211418
Stddev	.0009610	.033965	.043238	.030947	.44250	.0068331
%RSD	.8341384	.7350916	1.393738	.4894567	.8755484	.9475370
#1	.1145171	4.638434	3.084932	6.357297	51.02987	.7138285
#2	.1163079	4.581367	3.151492	6.313486	50.17042	.7222339
#3	.1148080	4.641814	3.070402	6.297528	50.41734	.7273631

Elem	Sr4077
Units	ppm
Avg	F 11.84084
Stddev	.12527
%RSD	1.057968
#1	11.84855
#2	11.71189
#3	11.96208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5869.891	70788.98	7702.727	3645.260	5106.050
Stddev	15.506	270.99	92.738	16.585	15.601
%RSD	.2641607	.3828193	1.203964	.4549835	.3055405
#1	5878.772	70763.83	7666.648	3636.568	5108.492
#2	5851.986	70531.45	7808.082	3634.826	5089.372
#3	5878.914	71071.68	7633.449	3664.384	5120.287

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-03 Acquired: 10/31/2025 17:18:20 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0690412**	**.0042646**	**.1226600**	**-.007526**	**.0057619**	**139.2219**
Stddev	.0068848	.0014490	.0004719	.002681	.0035649	.4744
%RSD	9.972055	33.97620	.3847322	35.62449	61.87048	.3407806
#1	.0764690	.0059188	.1229734	-.008499	.0095746	139.0036
#2	.0628733	.0036548	.1228894	-.009586	.0051996	139.7662
#3	.0677814	.0032203	.1221173	-.004495	.0025116	138.8959

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7926510**	**.0098829**	**.0126881**	F **2775.184**	**.1741469**	**.1019468**
Stddev	.0037957	.0001046	.0000699	36.325	.0010849	.0007961
%RSD	.4788640	1.058585	.5507972	1.308936	.6229658	.7809363
#1	.7957043	.0100027	.0127319	2757.023	.1729158	.1010386
#2	.7938475	.0098097	.0126075	2817.009	.1745617	.1022769
#3	.7884012	.0098363	.0127248	2751.522	.1749631	.1025247

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2500977**	**228.5650**	**6.143604**	**148.9308**	**.2139008**	**.0154098**
Stddev	.0010102	.5418	.026702	.5641	.0009545	.0002670
%RSD	.4039077	.2370466	.4346237	.3787903	.4462148	1.732918
#1	.2491317	227.9562	6.141544	148.7308	.2131853	.0151171
#2	.2500146	228.9942	6.171275	149.5677	.2135326	.0154720
#3	.2511469	228.7445	6.117991	148.4940	.2149845	.0156402

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.748004**	**.1665757**	**.5790363**	**8.866119**	**.4354301**	**.0057370**
Stddev	.014101	.0017452	.0012972	.002304	.0015775	.0004017
%RSD	.3762396	1.047712	.2240214	.0259819	.3622948	7.002800
#1	3.732151	.1661769	.5790973	8.868438	.4368038	.0061744
#2	3.752710	.1684858	.5803018	8.863831	.4357791	.0053845
#3	3.759150	.1650644	.5777096	8.866090	.4337072	.0056520

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-03 Acquired: 10/31/2025 17:18:20 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1054870	3.120424	2.750118	F 13.99172	F 50.24256	1.445088
Stddev	.0007792	.014442	.019567	.04068	.24638	.007582
%RSD	.7386404	.4628088	.7114995	.2907420	.4903845	.5246647
#1	.1063844	3.122807	2.728105	13.95465	50.26722	1.437648
#2	.1049825	3.133526	2.765534	13.98526	49.98478	1.444811
#3	.1050941	3.104939	2.756714	14.03524	50.47569	1.452804

Elem	Sr4077
Units	ppm
Avg	F 17.10536
Stddev	.19584
%RSD	1.144890
#1	16.89366
#2	17.14236
#3	17.28006

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5679.552	68706.74	7656.600	3483.048	4733.398
Stddev	8.001	80.39	37.615	14.575	5.911
%RSD	.1408663	.1170100	.4912797	.4184660	.1248838
#1	5685.653	68799.23	7641.054	3476.484	4740.223
#2	5670.494	68653.62	7629.250	3472.908	4729.987
#3	5682.510	68667.38	7699.497	3499.751	4729.982

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-04 Acquired: 10/31/2025 17:22:39 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0349870**	**.0100279**	**.4516768**	**.0012300**	**.0068660**	**192.1278**
Stddev	.0013438	.0061513	.0045042	.0024586	.0016491	.2681
%RSD	3.840935	61.34231	.9972130	199.8831	24.01775	.1395336
#1	.0349370	.0031333	.4564042	.0022323	.0087411	192.0077
#2	.0336689	.0149541	.4474352	.0030292	.0062152	191.9408
#3	.0363552	.0119963	.4511910	-.001571	.0056416	192.4349

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.612682**	**.0261184**	**.0149436**	**1643.536**	**.3301411**	**.0468344**
Stddev	.006257	.0000797	.0001105	8.405	.0004811	.0003462
%RSD	.2395010	.3051494	.7393264	.5114210	.1457107	.7391634
#1	2.613053	.0261079	.0148221	1653.161	.3306656	.0464662
#2	2.618746	.0262028	.0149707	1639.800	.3300369	.0471533
#3	2.606248	.0260445	.0150380	1637.646	.3297206	.0468838

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2199538**	**89.32885**	**5.743238**	**172.8903**	**.1928439**	**.0122074**
Stddev	.0004626	.16231	.008126	.3401	.0007711	.0003980
%RSD	.2103330	.1816986	.1414950	.1967230	.3998520	3.260501
#1	.2203209	89.51454	5.739365	173.2542	.1936935	.0118474
#2	.2194341	89.21400	5.752577	172.5804	.1921884	.0121400
#3	.2201063	89.25802	5.737773	172.8362	.1926500	.0126349

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**34.64819**	**.2264920**	**.7906538**	**26.59635**	**.2113902**	**.0090968**
Stddev	.08907	.0030013	.0001265	.03295	.0013699	.0001643
%RSD	.2570713	1.325134	.0160021	.1238931	.6480589	1.806154
#1	34.75103	.2234674	.7906867	26.62175	.2121824	.0090195
#2	34.59830	.2294695	.7907607	26.60818	.2098083	.0089854
#3	34.59526	.2265391	.7905141	26.55912	.2121798	.0092855

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-04 Acquired: 10/31/2025 17:22:39 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0561676	8.337771	3.845737	6.750334	F 63.65770	.8682281
Stddev	.0011181	.007021	.012096	.027504	.28525	.0108268
%RSD	1.990587	.0842098	.3145194	.4074478	.4480981	1.246995
#1	.0568133	8.342206	3.848497	6.763247	63.98535	.8559046
#2	.0568128	8.341431	3.856214	6.769005	63.52306	.8725688
#3	.0548765	8.329676	3.832500	6.718749	63.46469	.8762110

Elem	Sr4077
Units	ppm
Avg	3.850592
Stddev	.048403
%RSD	1.257035
#1	3.807863
#2	3.840755
#3	3.903159

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6751.239	80881.64	9118.799	4111.168	4942.554
Stddev	5.225	227.64	11.579	14.389	4.447
%RSD	.0773898	.2814452	.1269828	.3500098	.0899644
#1	6756.277	80619.47	9111.269	4115.981	4944.768
#2	6745.846	81029.14	9112.994	4122.534	4937.435
#3	6751.595	80996.31	9132.132	4094.989	4945.459

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-05 Acquired: 10/31/2025 17:26:58 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0401287	-.019755	.0462482	.0037870	.0109427	197.3313
Stddev	.0019434	.004483	.0013331	.0013875	.0015331	.4079
%RSD	4.842852	22.69107	2.882411	36.63794	14.00995	.2067101
#1	.0392045	-.022981	.0476895	.0022950	.0095617	196.8609
#2	.0388199	-.014636	.0459956	.0050386	.0106741	197.5859
#3	.0423617	-.021647	.0450596	.0040273	.0125924	197.5472

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.438747	.0203818	.0241522	1022.380	.8583472	.2666015
Stddev	.003653	.0001348	.0002480	4.597	.0025614	.0031180
%RSD	.2538855	.6613849	1.026879	.4496297	.2984054	1.169533
#1	1.434573	.0205038	.0242357	1026.624	.8556016	.2655142
#2	1.440310	.0204045	.0243476	1023.020	.8587677	.2641727
#3	1.441359	.0202371	.0238732	1017.497	.8606723	.2701175

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6374586	393.4399	3.225745	201.4401	.3136565	.0309210
Stddev	.0029988	5.4034	.009293	.3912	.0033588	.0030426
%RSD	.4704227	1.373379	.2881028	.1941920	1.070852	9.839928
#1	.6354758	389.8406	3.219689	201.2309	.3113524	.0281061
#2	.6359916	390.8259	3.221101	201.1980	.3121068	.0305080
#3	.6409084	399.6533	3.236445	201.8914	.3175104	.0341491

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.496363	.7999660	.2167955	94.09699	.5865394	.0125049
Stddev	.077703	.0055621	.0014660	1.03756	.0187997	.0001619
%RSD	2.222398	.6952909	.6762057	1.102644	3.205192	1.294674
#1	3.435409	.7942920	.2183742	93.12833	.5750970	.0123505
#2	3.469820	.8001970	.2165353	93.97075	.5762846	.0124909
#3	3.583860	.8054090	.2154771	95.19189	.6082366	.0126733

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-05 Acquired: 10/31/2025 17:26:58 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0785639	F 21.46596	3.445795	3.442836	F 83.75506	.6994420
Stddev	.0018313	.05907	.053648	.017223	.31585	.0069871
%RSD	2.330969	.2751654	1.556916	.5002662	.3771112	.9989511
#1	.0771091	21.40630	3.403470	3.422961	83.40809	.6933834
#2	.0779623	21.46715	3.427783	3.453403	83.83124	.7070854
#3	.0806203	21.52442	3.506131	3.452143	84.02586	.6978573

Elem	Sr4077
Units	ppm
Avg	.5510507
Stddev	.0037248
%RSD	.6759395
#1	.5511119
#2	.5547445
#3	.5472957

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6068.731	74546.19	8207.721	3690.565	5114.561
Stddev	32.211	347.20	54.205	11.952	37.698
%RSD	.5307683	.4657561	.6604098	.3238660	.7370783
#1	6087.147	74868.06	8173.473	3691.850	5136.045
#2	6087.509	74592.25	8179.476	3701.823	5136.607
#3	6031.538	74178.26	8270.215	3678.022	5071.032

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-06 Acquired: 10/31/2025 17:31:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0763524	-.005068	.1948530	-.007968	.0128715	152.4024
Stddev	.0023696	.007780	.0019539	.003937	.0011550	.4353
%RSD	3.103521	153.5191	1.002746	49.40664	8.973070	.2855962
#1	.0739185	-.013382	.1950001	-.011003	.0123250	152.0163
#2	.0786520	.002037	.1928298	-.009381	.0141983	152.3167
#3	.0764868	-.003858	.1967292	-.003520	.0120912	152.8741

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8899723	.0119194	.0255839	F 2464.526	.4845467	.1103527
Stddev	.0031452	.0001696	.0002948	16.709	.0021841	.0008145
%RSD	.3534025	1.423167	1.152132	.6779662	.4507544	.7380936
#1	.8869745	.0118136	.0252592	2451.695	.4870665	.1103625
#2	.8896957	.0121150	.0258347	2458.465	.4831944	.1111622
#3	.8932466	.0118295	.0256578	2483.420	.4833794	.1095333

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5063221	310.4587	8.339665	739.2119	.3796840	.0255644
Stddev	.0029586	1.8191	.041616	1.9223	.0010938	.0007487
%RSD	.5843335	.5859493	.4990170	.2600451	.2880672	2.928532
#1	.5078102	311.4822	8.308995	737.4480	.3809132	.0259819
#2	.5082412	308.3584	8.322961	738.9269	.3793209	.0247000
#3	.5029149	311.5356	8.387038	741.2608	.3788180	.0260111

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.025748	.3791838	4.031005	46.95584	.4714086	.0310916
Stddev	.086542	.0082180	.008658	.35960	.0100999	.0005202
%RSD	.9588321	2.167289	.2147741	.7658296	2.142501	1.673054
#1	8.958866	.3705594	4.029091	47.30866	.4807022	.0304952
#2	8.994887	.3800682	4.023465	46.58982	.4606601	.0313282
#3	9.123489	.3869239	4.040460	46.96905	.4728634	.0314514

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-06 Acquired: 10/31/2025 17:31:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0784185	5.126224	9.517414	F 12.64847	F 46.69229	1.568106
Stddev	.0008161	.019541	.071996	.04469	.10262	.000339
%RSD	1.040641	.3811940	.7564656	.3533411	.2197835	.0215919
#1	.0788643	5.112356	9.597584	12.69957	46.75384	1.568408
#2	.0789146	5.117744	9.458277	12.62916	46.74921	1.568169
#3	.0774767	5.148573	9.496382	12.61667	46.57383	1.567740

Elem	Sr4077
Units	ppm
Avg	7.656669
Stddev	.079861
%RSD	1.043032
#1	7.709918
#2	7.695246
#3	7.564842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6005.993	73804.39	8361.703	3632.506	4496.143
Stddev	3.677	263.22	42.656	23.631	3.994
%RSD	.0612212	.3566485	.5101410	.6505374	.0888347
#1	6001.854	73511.10	8410.625	3619.004	4492.753
#2	6008.882	74020.11	8332.285	3659.791	4495.131
#3	6007.243	73881.96	8342.200	3618.721	4500.546

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-07 Acquired: 10/31/2025 17:35:24 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0673981	-.001556	.1660892	-.005528	.0063237	106.7102
Stddev	.0010464	.004116	.0026813	.002334	.0020225	.0227
%RSD	1.552566	264.5986	1.614401	42.22452	31.98363	.0212884
#1	.0662579	.001893	.1675018	-.004605	.0060955	106.7304
#2	.0683145	-.006112	.1677690	-.008183	.0084507	106.7147
#3	.0676218	-.000447	.1629969	-.003797	.0044249	106.6856

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6400738	.0063908	.0057759	1253.552	.5241898	.0640345
Stddev	.0023873	.0000982	.0001911	6.720	.0020611	.0003476
%RSD	.3729776	1.536616	3.307783	.5360416	.3931984	.5427735
#1	.6423275	.0064288	.0059210	1245.829	.5221478	.0644118
#2	.6403217	.0062793	.0055594	1258.065	.5262695	.0637275
#3	.6375722	.0064644	.0058472	1256.762	.5241522	.0639642

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3803292	175.2067	2.243269	58.09765	.3159113	.0141624
Stddev	.0005826	.9364	.004129	.20044	.0002048	.0004529
%RSD	.1531958	.5344566	.1840818	.3449976	.0648318	3.197776
#1	.3801276	174.8494	2.247852	58.31611	.3161054	.0146726
#2	.3798741	176.2692	2.239837	58.05463	.3159311	.0140068
#3	.3809859	174.5016	2.242119	57.92222	.3156973	.0138079

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.432970	.2808396	.4760374	19.15576	.3680513	.0497166
Stddev	.072156	.0033188	.0016488	.15037	.0059155	.0005261
%RSD	.9707516	1.181745	.3463630	.7849975	1.607257	1.058121
#1	7.352087	.2774692	.4770779	19.02739	.3673719	.0502535
#2	7.490730	.2841042	.4741363	19.32120	.3742772	.0496942
#3	7.456092	.2809453	.4768979	19.11870	.3625047	.0492021

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3482-07 Acquired: 10/31/2025 17:35:24 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0636921	5.143865	3.553788	7.558702	F 40.01697	.5331556
Stddev	.0005482	.003269	.061156	.021523	.03323	.0033233
%RSD	.8606439	.0635598	1.720865	.2847386	.0830518	.6233331
#1	.0639558	5.145487	3.511987	7.554868	40.01633	.5298363
#2	.0640586	5.140101	3.623979	7.539354	40.05051	.5364830
#3	.0630619	5.146006	3.525398	7.581884	39.98405	.5331474

Elem	Sr4077
Units	ppm
Avg	5.975925
Stddev	.029153
%RSD	.4878359
#1	5.946246
#2	5.977008
#3	6.004521

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5558.613	66890.27	7108.234	3425.082	5401.454
Stddev	17.060	288.44	18.902	12.185	13.328
%RSD	.3069106	.4312163	.2659234	.3557614	.2467478
#1	5567.256	67017.85	7089.364	3439.112	5409.568
#2	5569.622	66560.03	7127.168	3418.984	5408.721
#3	5538.962	67092.92	7108.169	3417.149	5386.072

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV07 Acquired: 10/31/2025 17:39:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.846349**	**4.662776**	**4.829781**	**4.804224**	**4.839306**	**10.06786**	**10.25036**
Stddev	.007991	.089427	.002601	.010440	.008704	.29316	.28450
%RSD	.1648772	1.917893	.0538477	.2173096	.1798646	2.911804	2.775556
#1	4.837413	4.720283	4.829143	4.805693	4.829276	9.90667	10.12239
#2	4.852807	4.559747	4.827558	4.793127	4.844883	10.40625	10.57638
#3	4.848827	4.708299	4.832641	4.813852	4.843759	9.89067	10.05231

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2612691**	**2.429984**	**25.53867**	**.9878665**	**2.436469**	**1.223086**	**4.904198**
Stddev	.0071011	.002873	.68717	.0028008	.001786	.001778	.016888
%RSD	2.717936	.1182318	2.690691	.2835161	.0732860	.1453406	.3443638
#1	.2581233	2.430043	25.20659	.9851180	2.437981	1.221518	4.895284
#2	.2693997	2.427081	26.32880	.9877650	2.434499	1.222722	4.893635
#3	.2562842	2.432826	25.08062	.9907167	2.436927	1.225017	4.923676

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.573075**	**25.42138**	**2.431072**	**1.227720**	**23.69633**	**2.530034**	**2.435922**
Stddev	.070620	.65959	.001993	.000878	.05706	.061093	.003615
%RSD	2.744593	2.594633	.0819715	.0714808	.2407779	2.414718	.1483956
#1	2.542217	25.09299	2.431606	1.226711	23.64598	2.498382	2.434935
#2	2.653873	26.18071	2.428867	1.228301	23.68471	2.600458	2.432902
#3	2.523135	24.99045	2.432744	1.228149	23.75831	2.491261	2.439927

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.53426**	**5.190336**	**4.900722**	**4.916705**	**5.082999**	**4.863814**	**5.080240**
Stddev	.12373	.152124	.006270	.002562	.134205	.015127	.023412
%RSD	.5257429	2.930918	.1279489	.0520979	2.640265	.3110187	.4608368
#1	23.51186	5.119540	4.895671	4.917890	5.016411	4.850805	5.106030
#2	23.42327	5.364956	4.898756	4.913765	5.237477	4.860224	5.060326
#3	23.66767	5.086512	4.907740	4.918459	4.995110	4.880414	5.074362

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV07 Acquired: 10/31/2025 17:39:44 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.803579**	**4.911978**	**5.086964**
Stddev	.016568	.149605	.170777
%RSD	.3449093	3.045711	3.357144
#1	4.806340	4.864448	4.986859
#2	4.785804	5.079574	5.284152
#3	4.818593	4.791913	4.989881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5669.970**	**69512.64**	**6566.161**	**3473.905**	**6548.390**
Stddev	4.588	298.94	160.273	11.234	9.771
%RSD	.0809120	.4300501	2.440895	.3233904	.1492087
#1	5672.175	69673.34	6645.971	3474.955	6538.162
#2	5664.696	69696.86	6381.653	3484.578	6549.377
#3	5673.038	69167.72	6670.860	3462.183	6557.629

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB07 Acquired: 10/31/2025 17:43:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001726**	**-.000827**	**-.000119**	**.0003356**	**-.001687**	**-.016432**
Stddev	.000937	.000472	.000934	.0012378	.000676	.000979
%RSD	54.31571	57.08604	786.2045	368.8791	40.04893	5.959682
#1	-.001729	-.000597	.000010	-.000448	-.001778	-.015791
#2	-.000787	-.001370	.000744	.001763	-.000970	-.017559
#3	-.002661	-.000514	-.001111	-.000308	-.002312	-.015946

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004963**	**-.000045**	**.0000366**	**-.089265**	**.0004387**	**-.000077**
Stddev	.002022	.000049	.0000182	.002893	.0002017	.000060
%RSD	40.74759	108.5219	49.80047	3.241211	45.97832	77.61557
#1	-.002862	-.000029	.0000389	-.090151	.0005832	-.000089
#2	-.005132	-.000006	.0000536	-.091612	.0005245	-.000129
#3	-.006896	-.000101	.0000174	-.086032	.0002082	-.000012

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000034**	**.0059441**	**-.000094**	**-.019198**	**.0000748**	**.0000108**
Stddev	.000540	.0050759	.000259	.007041	.0000171	.0000626
%RSD	1571.220	85.39490	276.7728	36.67673	22.82186	579.1677
#1	.000449	.0095118	.000181	-.012922	.0000649	-.000037
#2	-.000617	.0001330	-.000334	-.026812	.0000650	.000082
#3	.000065	.0081874	-.000128	-.017859	.0000945	-.000013

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.264763**	**.0034996**	**-.004243**	**-.063061**	**-.012295**	**.0007334**
Stddev	.011856	.0011019	.000052	.036405	.000792	.0001142
%RSD	4.477940	31.48633	1.219240	57.73004	6.443269	15.57016
#1	-.265034	.0039043	-.004184	-.104867	-.011388	.0008259
#2	-.276480	.0043419	-.004262	-.045969	-.012850	.0006058
#3	-.252773	.0022526	-.004282	-.038347	-.012647	.0007686

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB07 Acquired: 10/31/2025 17:43:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.023649	.0005690	-.000599	-.003039	.0057614	-.001979
Stddev	.000511	.0006714	.001881	.000470	.0024201	.002310
%RSD	2.160613	117.9949	313.8113	15.45648	42.00518	116.7570
#1	-.023306	.0013322	.000820	-.003470	.0081580	-.001176
#2	-.024237	.0003059	.000115	-.002538	.0058077	-.000177
#3	-.023405	.0000690	-.002733	-.003108	.0033185	-.004584

Elem	Sr4077
Units	ppm
Avg	.0000113
Stddev	.0000374
%RSD	332.5258
#1	.0000047
#2	.0000515
#3	-.000022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5986.740	74324.96	6977.791	3669.550	7666.964
Stddev	2.972	112.47	172.153	16.791	6.528
%RSD	.0496399	.1513224	2.467160	.4575724	.0851508
#1	5983.825	74449.20	6790.559	3662.615	7659.476
#2	5986.628	74230.08	7129.242	3657.337	7671.465
#3	5989.766	74295.61	7013.572	3688.697	7669.949

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01 Acquired: 10/31/2025 17:48:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0903552	-.009917	.4884280	.0056435	.0052921	159.0180	.7377845
Stddev	.0023212	.002114	.0040265	.0009852	.0009153	.3454	.0020328
%RSD	2.568934	21.31181	.8243878	17.45707	17.29509	.2171880	.2755320
#1	.0894724	-.009502	.4860054	.0062054	.0045039	158.6396	.7360060
#2	.0929883	-.008042	.4862026	.0045059	.0062959	159.3163	.7400005
#3	.0886050	-.012207	.4930761	.0062191	.0050765	159.0982	.7373472

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094198	.0074055	238.0600	.1703854	.1038956	.5030772	245.9713
Stddev	.0000208	.0000700	.3370	.0003451	.0003430	.0011658	.5879
%RSD	.2213424	.9452597	.1415420	.2025103	.3301190	.2317262	.2389961
#1	.0094299	.0074057	237.7120	.1707769	.1039408	.5029715	245.2979
#2	.0093958	.0073354	238.3846	.1702535	.1035323	.5019678	246.3817
#3	.0094336	.0074754	238.0834	.1701258	.1042137	.5042922	246.2344

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.075118	96.17317	.1767426	.0201736	4.059126	.3317352	.6211569
Stddev	.007712	.26589	.0007664	.0008325	.037262	.0012663	.0033245
%RSD	.1892394	.2764658	.4336105	4.126498	.9179742	.3817243	.5352040
#1	4.078880	96.38684	.1758640	.0207070	4.039517	.3308724	.6249948
#2	4.080227	96.25726	.1770904	.0205994	4.102098	.3331889	.6193080
#3	4.066247	95.87540	.1772734	.0192143	4.035764	.3311442	.6191678

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.19661	.3141339	.0080105	.0259294	1.753174	5.034295	4.805522
Stddev	.03770	.0068129	.0003039	.0009338	.002407	.026564	.012082
%RSD	.3697334	2.168788	3.793842	3.601189	.1372809	.5276520	.2514158
#1	10.22454	.3084554	.0080032	.0261772	1.755740	5.043175	4.791578
#2	10.21156	.3122582	.0077103	.0248967	1.750966	5.055281	4.812101
#3	10.15373	.3216882	.0083180	.0267142	1.752817	5.004429	4.812886

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01 Acquired: 10/31/2025 17:48:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.159670**	**.2244750**	**.1729497**
Stddev	.037836	.0064879	.0003376
%RSD	.9095990	2.890237	.1952029
#1	4.126135	.2302333	.1726296
#2	4.200689	.2174457	.1733024
#3	4.152188	.2257461	.1729172

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6156.067**	**75035.21**	**7829.830**	**3732.250**	**6068.674**
Stddev	5.573	90.41	10.839	12.170	8.332
%RSD	.0905353	.1204925	.1384377	.3260709	.1372989
#1	6154.903	74953.45	7823.753	3719.255	6073.089
#2	6162.130	75019.88	7823.393	3743.379	6073.869
#3	6151.167	75132.31	7842.345	3734.116	6059.063

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01DUP Acquired: 10/31/2025 17:52:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0873080	-.012783	.5072273	.0047818	.0018477	163.0315	.7827332
Stddev	.0046089	.004367	.0032827	.0011683	.0008550	.1626	.0028386
%RSD	5.278905	34.16278	.6471835	24.43112	46.27301	.0997456	.3626592
#1	.0873082	-.011987	.5073367	.0034496	.0024973	163.2090	.7858729
#2	.0919168	-.017493	.5104539	.0056315	.0021668	162.8897	.7819786
#3	.0826990	-.008869	.5038913	.0052643	.0008791	162.9959	.7803480

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093027	.0080373	127.8998	.2086246	.1075702	.4251560	250.0673
Stddev	.0000412	.0000597	.2777	.0004892	.0002897	.0006100	1.5491
%RSD	.4424042	.7428883	.2171000	.2344992	.2692815	.1434864	.6194560
#1	.0093188	.0080545	128.1859	.2090806	.1078964	.4258604	248.2894
#2	.0093333	.0080866	127.8822	.2081078	.1074711	.4248057	250.7864
#3	.0092559	.0079709	127.6314	.2086852	.1073430	.4248018	251.1261

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.967722	51.70343	.2115252	.0215048	4.123649	.3656694	.7476411
Stddev	.024699	.09498	.0007659	.0010588	.024469	.0017306	.0008961
%RSD	.6224942	.1837027	.3620688	4.923531	.5933785	.4732729	.1198563
#1	3.987894	51.80524	.2123902	.0202832	4.096273	.3662226	.7475431
#2	3.975095	51.61721	.2112521	.0220746	4.131284	.3637299	.7467980
#3	3.940176	51.68784	.2109334	.0221567	4.143390	.3670558	.7485822

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.764855	.3145018	.0059331	.0318946	1.697907	6.046582	5.064883
Stddev	.113474	.0079833	.0000837	.0008185	.006505	.081841	.004323
%RSD	1.162070	2.538403	1.411467	2.566149	.3831341	1.353516	.0853487
#1	9.658125	.3055819	.0059848	.0310014	1.701474	5.972902	5.066250
#2	9.752394	.3209767	.0059781	.0326087	1.701848	6.032173	5.068357
#3	9.884045	.3169469	.0058365	.0320739	1.690398	6.134671	5.060042

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01DUP Acquired: 10/31/2025 17:52:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.094982**	**.2005012**	**.1952794**
Stddev	.009005	.0033595	.0033163
%RSD	.2198995	1.675572	1.698231
#1	4.085932	.1993512	.1984614
#2	4.103941	.1978678	.1955334
#3	4.095073	.2042848	.1918435

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6279.800**	**75356.80**	**7905.171**	**3776.231**	**6257.649**
Stddev	4.956	213.02	63.786	23.331	13.958
%RSD	.0789197	.2826783	.8068835	.6178430	.2230586
#1	6279.160	75569.06	7835.915	3803.068	6250.930
#2	6275.194	75358.31	7918.090	3764.848	6248.322
#3	6285.044	75143.04	7961.508	3760.775	6273.696

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01LX5 Acquired: 10/31/2025 17:56:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197223	-.000172	.0987907	.0027228	-.001552	34.24311	.1561112
Stddev	.0027390	.003215	.0008102	.0010629	.000855	.11290	.0016616
%RSD	13.88785	1869.411	.8200908	39.03772	55.08256	.3297047	1.064386
#1	.0172831	.001981	.0986972	.0021328	-.001085	34.35239	.1563010
#2	.0191984	-.003867	.0980313	.0020857	-.002539	34.25005	.1543629
#3	.0226854	.001370	.0996435	.0039498	-.001033	34.12690	.1576698

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020934	.0006126	52.60239	.0379095	.0200591	.1155927	52.55470
Stddev	.0000847	.0000824	.20384	.0001356	.0001010	.0004777	.14066
%RSD	4.047718	13.45991	.3875026	.3577181	.5037193	.4132619	.2676397
#1	.0019984	.0006685	52.83775	.0378660	.0199776	.1160736	52.44282
#2	.0021206	.0005179	52.48683	.0378010	.0201722	.1155860	52.71261
#3	.0021611	.0006513	52.48260	.0380615	.0200277	.1151183	52.50869

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9114971	21.26928	.0346398	.0037184	.7366036	.0741331	.1314631
Stddev	.0079807	.05606	.0000876	.0002071	.0065311	.0032274	.0004560
%RSD	.8755596	.2635526	.2527851	5.569563	.8866503	4.353499	.3468445
#1	.9201769	21.30282	.0345460	.0035763	.7291257	.0738414	.1319358
#2	.9044763	21.30046	.0346541	.0039560	.7394963	.0710616	.1314276
#3	.9098381	21.20457	.0347194	.0036228	.7411888	.0774965	.1310260

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.052747	.0485335	.0016807	.0027151	.3841537	1.167139	.9131704
Stddev	.008178	.0007786	.0000508	.0004586	.0038438	.011462	.0015606
%RSD	.3983860	1.604296	3.022772	16.89163	1.000585	.9820725	.1709015
#1	2.047142	.0480324	.0016484	.0023179	.3885760	1.170217	.9149661
#2	2.062131	.0481375	.0017393	.0032170	.3816158	1.176748	.9121416
#3	2.048966	.0494305	.0016545	.0026104	.3822691	1.154452	.9124034

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01LX5 Acquired: 10/31/2025 17:56:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7847973	.0448393	.0385429
Stddev	.0025006	.0018643	.0002852
%RSD	.3186296	4.157768	.7399505
#1	.7825858	.0463646	.0388290
#2	.7842954	.0453922	.0382586
#3	.7875108	.0427611	.0385411

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5920.600	72540.57	7215.019	3569.150	6826.171
Stddev	7.441	186.63	59.222	9.781	7.883
%RSD	.1256861	.2572721	.8208164	.2740516	.1154761
#1	5914.716	72626.05	7146.641	3571.600	6817.958
#2	5918.119	72326.51	7248.434	3577.474	6826.880
#3	5928.965	72669.14	7249.982	3558.377	6833.675

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01MS Acquired: 10/31/2025 18:00:16 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7548954	1.751177	1.554959	1.615531	.3536092	180.9833
Stddev	.0015354	.007866	.001475	.004514	.0031848	.2489
%RSD	.2033920	.4491899	.0948489	.2794429	.9006673	.1375480
#1	.7545724	1.749394	1.554106	1.620464	.3503936	180.7086
#2	.7565666	1.759782	1.554108	1.611605	.3536716	181.0474
#3	.7535472	1.744355	1.556662	1.614525	.3567624	181.1940

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9954264	.1915263	.1976666	102.3737	.5432850	.3018521
Stddev	.0073299	.0003116	.0001136	.1303	.0007723	.0000905
%RSD	.7363576	.1626895	.0574470	.1272758	.1421623	.0299870
#1	.9876093	.1914266	.1976411	102.2262	.5424195	.3018266
#2	1.002145	.1918755	.1975679	102.4216	.5435315	.3019527
#3	.996525	.1912767	.1977907	102.4732	.5439040	.3017771

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7559579	238.7160	4.306661	43.94653	.6918784	.0876225
Stddev	.0013456	.7436	.013452	.20350	.0005503	.0007795
%RSD	.1779991	.3114901	.3123460	.4630625	.0795428	.8896063
#1	.7558545	237.9006	4.292380	44.09970	.6924852	.0869279
#2	.7546669	239.3567	4.319091	43.71562	.6914116	.0874740
#3	.7573521	238.8905	4.308512	44.02426	.6917385	.0884656

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.648433	.6105644	1.347774	17.90264	.5064649	.3512666
Stddev	.045981	.0059667	.001970	.10103	.0047501	.0007518
%RSD	.6916134	.9772507	.1461872	.5643534	.9378940	.2140224
#1	6.595978	.6068572	1.349643	17.78655	.5023458	.3505818
#2	6.681776	.6073886	1.347963	17.95076	.5116610	.3520711
#3	6.667547	.6174474	1.345716	17.97062	.5053878	.3511470

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01MS Acquired: 10/31/2025 18:00:16 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7113096	1.792502	7.858734	F 10.62175	3.203339	.3716967
Stddev	.0018180	.008497	.034344	.00217	.005472	.0018087
%RSD	.2555812	.4740206	.4370231	.0204555	.1708324	.4866150
#1	.7097609	1.782989	7.838608	10.62386	3.197360	.3730697
#2	.7133112	1.799339	7.839204	10.62187	3.204561	.3723733
#3	.7108567	1.795177	7.898390	10.61952	3.208098	.3696473

Elem	Sr4077
Units	ppm
Avg	.3196709
Stddev	.0023511
%RSD	.7354831
#1	.3174571
#2	.3221387
#3	.3194169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6319.555	76759.30	7737.422	3886.315	6305.982
Stddev	9.659	194.98	16.545	17.283	13.201
%RSD	.1528495	.2540141	.2138346	.4447017	.2093397
#1	6308.798	76972.35	7756.503	3906.150	6291.280
#2	6322.380	76715.82	7728.708	3878.293	6309.846
#3	6327.487	76589.73	7727.055	3874.501	6316.820

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01MSD Acquired: 10/31/2025 18:04:12 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7538575	1.677101	1.609263	1.591875	.2772086	177.0096
Stddev	.0032080	.040295	.004571	.002105	.0039473	.2099
%RSD	.4255471	2.402683	.2840700	.1322305	1.423944	.1185926
#1	.7524152	1.655231	1.604165	1.589490	.2736538	176.8570
#2	.7516238	1.652470	1.610622	1.592662	.2765154	177.2490
#3	.7575335	1.723603	1.613000	1.593473	.2814566	176.9228

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9997560	.1916219	.1960283	124.9286	.5273943	.3096622
Stddev	.0039032	.0012164	.0003111	.3262	.0008403	.0001568
%RSD	.3904100	.6347785	.1587169	.2611026	.1593262	.0506329
#1	.9972145	.1928564	.1958648	124.8871	.5266932	.3094986
#2	1.004250	.1915848	.1958330	125.2735	.5283258	.3098112
#3	.997803	.1904245	.1963871	124.6251	.5271640	.3096766

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7190845	241.7066	4.337390	43.31132	.6984523	.0877258
Stddev	.0016495	2.0300	.023493	.10116	.0007083	.0016797
%RSD	.2293872	.8398753	.5416292	.2335563	.1014112	1.914655
#1	.7180719	239.4819	4.335945	43.24064	.6977739	.0858070
#2	.7181937	243.4586	4.361573	43.42720	.6983959	.0884408
#3	.7209878	242.1793	4.314654	43.26613	.6991871	.0889296

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.215560	.6004321	1.304755	18.36049	.4801204	.3434385
Stddev	.052836	.0054165	.002168	.17711	.0069883	.0015279
%RSD	.7322504	.9020929	.1661870	.9645994	1.455529	.4448885
#1	7.157897	.6047706	1.302505	18.16291	.4721549	.3417115
#2	7.261651	.6021642	1.304929	18.50498	.4852208	.3439894
#3	7.227132	.5943614	1.306831	18.41358	.4829855	.3446145

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01MSD Acquired: 10/31/2025 18:04:12 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.781434**	**1.634337**	**8.632185**	F **10.82084**	**4.879039**	**.3870317**
Stddev	.014219	.005554	.061667	.03244	.030354	.0048589
%RSD	.2459497	.3398029	.7143798	.2997627	.6221384	1.255424
#1	5.772199	1.635750	8.563592	10.78922	4.856214	.3852455
#2	5.774294	1.639048	8.683034	10.85403	4.867417	.3925308
#3	5.797808	1.628214	8.649930	10.81929	4.913487	.3833186

Elem	Sr4077
Units	ppm
Avg	**.3470386**
Stddev	.0019566
%RSD	.5638126
#1	.3487731
#2	.3474252
#3	.3449175

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6290.573**	**76320.68**	**7599.727**	**3874.203**	**6245.124**
Stddev	2.298	148.81	53.332	9.143	6.205
%RSD	.0365387	.1949745	.7017615	.2359845	.0993573
#1	6292.249	76477.22	7545.285	3881.911	6240.614
#2	6291.519	76181.05	7602.022	3876.597	6242.557
#3	6287.953	76303.77	7651.875	3864.102	6252.200

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01A Acquired: 10/31/2025 18:08:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7813643	1.745667	1.425197	1.693296	.7071883	157.9492
Stddev	.0038401	.041198	.004417	.003377	.0009312	.9571
%RSD	.4914666	2.359997	.3099418	.1994114	.1316783	.6059770
#1	.7778475	1.750390	1.423048	1.694144	.7075748	157.9384
#2	.7854617	1.784299	1.422265	1.696167	.7061260	156.9975
#3	.7807839	1.702311	1.430277	1.689576	.7078639	158.9117

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9069459	.1909671	.2020034	235.7759	.5153794	.3024399
Stddev	.0084690	.0017017	.0003211	1.3235	.0024871	.0002480
%RSD	.9337933	.8911117	.1589585	.5613464	.4825688	.0820134
#1	.9060995	.1923100	.2018514	235.8987	.5125950	.3021716
#2	.8989319	.1890534	.2023722	234.3952	.5173805	.3024873
#3	.9158063	.1915380	.2017865	237.0337	.5161626	.3026608

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7369496	244.2578	4.206923	96.35401	.6639174	.0896826
Stddev	.0012644	1.9048	.032548	.51278	.0005989	.0003847
%RSD	.1715718	.7798380	.7736712	.5321824	.0902022	.4289894
#1	.7357976	242.0644	4.209796	96.53403	.6635042	.0897112
#2	.7367488	245.4965	4.173034	95.77549	.6636438	.0892843
#3	.7383024	245.2125	4.237939	96.75250	.6646042	.0900522

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.539158	.5834148	.7919117	18.97522	.5357851	.3598306
Stddev	.074733	.0104857	.0044068	.19482	.0068728	.0008507
%RSD	1.142851	1.797304	.5564807	1.026698	1.282756	.2364193
#1	6.453967	.5941746	.7868232	18.76411	.5298458	.3598193
#2	6.569845	.5732265	.7944578	19.01348	.5433132	.3606868
#3	6.593663	.5828433	.7944543	19.14807	.5341965	.3589855

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3485-01A Acquired: 10/31/2025 18:08:08 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7287626	1.916095	6.384302	F 10.88129	4.129849	.3857991
Stddev	.0006602	.011453	.045933	.03247	.018830	.0056796
%RSD	.0905899	.5977238	.7194673	.2984414	.4559487	1.472167
#1	.7284502	1.913582	6.331582	10.89558	4.124093	.3884703
#2	.7283165	1.906107	6.415691	10.90417	4.150885	.3792763
#3	.7295209	1.928596	6.405632	10.84412	4.114569	.3896506

Elem	Sr4077
Units	ppm
Avg	.3434860
Stddev	.0054663
%RSD	1.591429
#1	.3451391
#2	.3373839
#3	.3479350

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6119.731	74571.64	7683.791	3707.518	5970.335
Stddev	9.623	334.26	64.903	31.869	9.910
%RSD	.1572480	.4482465	.8446775	.8595875	.1659844
#1	6130.624	74957.61	7645.812	3741.941	5980.566
#2	6112.383	74377.15	7758.732	3679.039	5960.780
#3	6116.186	74380.16	7646.828	3701.575	5969.660

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-01 Acquired: 10/31/2025 18:12:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0182865	-.009283	.0731893	.0033591	.0011074	18.14036	.1405616
Stddev	.0031443	.001873	.0015026	.0012088	.0010710	.08384	.0025107
%RSD	17.19449	20.17693	2.052993	35.98415	96.71858	.4621701	1.786171
#1	.0155248	-.008483	.0739362	.0019834	.0023388	18.19995	.1421061
#2	.0176262	-.007943	.0741720	.0038429	.0003927	18.04449	.1376647
#3	.0217085	-.011423	.0714596	.0042511	.0005906	18.17665	.1419141

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026972	.0021381	7.072582	.1850003	.0116886	.2083420	116.1654
Stddev	.0001016	.0000668	.044325	.0008723	.0001515	.0007924	1.1119
%RSD	3.765214	3.124776	.6267220	.4715097	1.296379	.3803595	.9571843
#1	.0027386	.0022119	7.104528	.1844052	.0118451	.2092454	117.1096
#2	.0025815	.0021208	7.021978	.1860016	.0116780	.2080158	116.4469
#3	.0027715	.0020817	7.091240	.1845940	.0115426	.2077646	114.9398

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2057930	3.760306	.0203020	.0154587	-.281509	.1642393	.0732560
Stddev	.0009790	.008491	.0002368	.0006879	.017742	.0021719	.0005136
%RSD	.4757216	.2258184	1.166408	4.449877	6.302469	1.322399	.7010424
#1	.2060347	3.767642	.0204782	.0162480	-.301987	.1661093	.0735747
#2	.2047158	3.751004	.0203949	.0151411	-.271792	.1618570	.0726636
#3	.2066285	3.762273	.0200328	.0149870	-.270749	.1647515	.0735297

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979907	.0881567	.0081864	-.002982	3.657971	2.607897	1.222590
Stddev	.034887	.0057441	.0000645	.000076	.032472	.039795	.005069
%RSD	1.762046	6.515779	.7885032	2.537192	.8877105	1.525941	.4145998
#1	2.009792	.0919384	.0082035	-.002926	3.683947	2.632489	1.221534
#2	1.988357	.0909848	.0082406	-.002951	3.621566	2.629217	1.228104
#3	1.941571	.0815469	.0081150	-.003068	3.668401	2.561984	1.218132

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-01 Acquired: 10/31/2025 18:12:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.319471	.0169319	-.087090
Stddev	.001199	.0005668	.001143
%RSD	.0908866	3.347301	1.312598
#1	1.320495	.0175864	-.087846
#2	1.318152	.0166086	-.087650
#3	1.319767	.0166008	-.085775

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6169.005	74687.35	7328.351	3738.412	7228.638
Stddev	12.631	303.61	70.417	16.953	12.972
%RSD	.2047487	.4065046	.9608849	.4534941	.1794573
#1	6162.418	74532.84	7318.487	3741.871	7224.234
#2	6161.030	74492.08	7403.179	3719.995	7218.441
#3	6183.568	75037.14	7263.385	3753.368	7243.239

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-03 Acquired: 10/31/2025 18:16:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0722097	-.015929	.4029024	.0064085	.0041645	143.8543	1.014077
Stddev	.0025052	.004029	.0012527	.0032022	.0017633	.2989	.005711
%RSD	3.469381	25.29068	.3109088	49.96852	42.34058	.2077506	.5631694
#1	.0736823	-.011380	.4040705	.0068624	.0022290	143.9050	1.014676
#2	.0693170	-.019046	.4030572	.0030035	.0056796	143.5334	1.008090
#3	.0736297	-.017362	.4015795	.0093596	.0045850	144.1246	1.019464

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0119354	.0115249	6.060094	.1321816	.0913065	.3289881	251.2580
Stddev	.0000932	.0001232	.018112	.0005305	.0001645	.0009910	.5075
%RSD	.7804963	1.068676	.2988673	.4013109	.1801322	.3012276	.2020001
#1	.0119511	.0115715	6.056932	.1321965	.0913183	.3301079	250.9563
#2	.0120196	.0113852	6.043771	.1327045	.0911365	.3286322	250.9738
#3	.0118353	.0116179	6.079578	.1316438	.0914648	.3282242	251.8440

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.203416	28.32998	.1920044	.0219655	.0516189	.2593757	2.016930
Stddev	.019102	.10875	.0004384	.0005341	.0143483	.0015577	.003275
%RSD	.8669470	.3838833	.2283116	2.431348	27.79668	.6005389	.1623826
#1	2.208877	28.35891	.1922849	.0216200	.0381199	.2580802	2.020334
#2	2.182178	28.20969	.1914993	.0216959	.0666875	.2611040	2.013801
#3	2.219193	28.42135	.1922290	.0225806	.0500494	.2589429	2.016655

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.179861	.2640576	.0030137	.0316588	.9865452	2.766284	7.336634
Stddev	.051498	.0006906	.0001226	.0012210	.0047690	.011439	.026667
%RSD	.6295721	.2615460	4.069231	3.856840	.4834077	.4135237	.3634840
#1	8.233287	.2637287	.0030146	.0302542	.9852472	2.754818	7.333222
#2	8.130536	.2648512	.0028906	.0322554	.9825596	2.777696	7.311837
#3	8.175760	.2635929	.0031359	.0324668	.9918289	2.766338	7.364843

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-03 Acquired: 10/31/2025 18:16:13 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.636128**	**.1553122**	**-.159728**
Stddev	.011067	.0010810	.000478
%RSD	.4198034	.6959945	.2990511
#1	2.645669	.1555143	-.159204
#2	2.623996	.1562778	-.159841
#3	2.638719	.1541444	-.160139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6944.443**	**82973.38**	**8450.188**	**4176.976**	**6603.063**
Stddev	13.570	125.81	44.732	5.359	11.447
%RSD	.1954069	.1516321	.5293569	.1282891	.1733633
#1	6938.745	82871.28	8409.644	4171.766	6594.448
#2	6934.652	82934.93	8498.174	4182.472	6598.688
#3	6959.933	83113.94	8442.745	4176.692	6616.053

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-05 Acquired: 10/31/2025 18:20:17 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0468315	-.012137	.1224929	.0032335	.0027384	43.44213	.1976959
Stddev	.0008142	.003171	.0012835	.0026161	.0007543	.11131	.0024712
%RSD	1.738625	26.12885	1.047831	80.90677	27.54611	.2562228	1.250026
#1	.0460349	-.015199	.1222888	.0012655	.0033192	43.56983	.1990056
#2	.0467973	-.008866	.1238662	.0022327	.0018859	43.39094	.1992367
#3	.0476623	-.012346	.1213236	.0062022	.0030102	43.36563	.1948455

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055651	.0033489	4.516012	.1947219	.0202967	.1552226	173.6531
Stddev	.0000568	.0000795	.026668	.0007835	.0002171	.0003637	.1931
%RSD	1.020359	2.372545	.5905314	.4023746	1.069735	.2343322	.1111988
#1	.0056289	.0033480	4.506521	.1940524	.0204682	.1554522	173.6852
#2	.0055202	.0032699	4.546127	.1945295	.0203693	.1548033	173.8282
#3	.0055460	.0034288	4.495386	.1955836	.0200526	.1554125	173.4460

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6463030	6.624479	.0342845	.0149182	-.223315	.1697531	.2003310
Stddev	.0032193	.048447	.0002463	.0009690	.015053	.0037301	.0007308
%RSD	.4981126	.7313265	.7184960	6.495149	6.740495	2.197398	.3647767
#1	.6481309	6.665082	.0344932	.0159085	-.230356	.1740269	.2003302
#2	.6481922	6.570852	.0343476	.0148741	-.206032	.1671525	.2010622
#3	.6425858	6.637504	.0340128	.0139720	-.233556	.1680798	.1996006

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.827878	.2064375	.0132759	.0076027	1.642584	3.538245	3.277631
Stddev	.035011	.0045998	.0004135	.0005665	.010242	.012541	.010716
%RSD	.3562456	2.228162	3.114776	7.451334	.6235031	.3544421	.3269488
#1	9.867138	.2015401	.0129031	.0080534	1.650480	3.540852	3.275205
#2	9.816600	.2071059	.0137207	.0077881	1.646260	3.524605	3.268336
#3	9.799895	.2106665	.0132039	.0069668	1.631012	3.549277	3.289352

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-05 Acquired: 10/31/2025 18:20:17 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3187079	.0309683	-.129414
Stddev	.0024917	.0030091	.000223
%RSD	.7818085	9.716741	.1719988
#1	.3191899	.0281421	-.129218
#2	.3209234	.0306309	-.129656
#3	.3160105	.0341318	-.129367

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6107.683	74649.81	7307.202	3660.858	6876.187
Stddev	9.038	297.42	13.657	9.758	6.562
%RSD	.1479710	.3984199	.1868925	.2665467	.0954357
#1	6112.230	74981.90	7300.219	3672.105	6881.381
#2	6113.544	74559.53	7298.449	3655.820	6878.370
#3	6097.275	74407.98	7322.938	3654.649	6868.812

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-07 Acquired: 10/31/2025 18:24:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0831607	-.020735	3.311943	.0093009	.0068703	126.2084
Stddev	.0021621	.003724	.009090	.0031298	.0029476	3.1495
%RSD	2.599849	17.95922	.2744661	33.64985	42.90396	2.495469
#1	.0853868	-.016503	3.308535	.0099454	.0075180	125.8958
#2	.0810689	-.022193	3.305049	.0058991	.0036527	123.2268
#3	.0830265	-.023509	3.322244	.0120583	.0094403	129.5025

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.189131	.0113383	.0195542	11.88390	.1579787	.0994718
Stddev	.033700	.0003286	.0002222	.34090	.0006223	.0003724
%RSD	2.833966	2.897973	1.136495	2.868609	.3939031	.3743413
#1	1.187577	.0113663	.0194941	11.86343	.1586608	.0990458
#2	1.156235	.0109966	.0198003	11.55370	.1574420	.0997352
#3	1.223581	.0116520	.0193682	12.23458	.1578333	.0996343

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6191186	250.7694	1.641382	25.94338	.2190932	.0232309
Stddev	.0022670	3.2322	.046381	.58638	.0004817	.0010699
%RSD	.3661690	1.288930	2.825711	2.260237	.2198515	4.605536
#1	.6168709	251.6989	1.640210	25.89513	.2187435	.0239000
#2	.6214044	247.1743	1.595598	25.38261	.2188935	.0219969
#3	.6190805	253.4351	1.688337	26.55239	.2196426	.0237957

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7067742	.3311542	2.568874	9.694968	.2696497	.0070748
Stddev	.0227881	.0089085	.005678	.079944	.0046089	.0003132
%RSD	3.224246	2.690142	.2210113	.8245963	1.709237	4.426289
#1	.6857752	.3302748	2.563020	9.718082	.2700840	.0070562
#2	.7035411	.3227180	2.569247	9.606014	.2648390	.0073969
#3	.7310062	.3404699	2.574356	9.760810	.2740261	.0067715

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3486-07 Acquired: 10/31/2025 18:24:23 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0471523	2.471226	2.942779	F 10.01732	7.174472	.1347180
Stddev	.0002981	.063594	.023900	.06033	.053970	.0052578
%RSD	.6322712	2.573394	.8121657	.6022569	.7522495	3.902790
#1	.0474222	2.473503	2.950685	10.05657	7.235339	.1338183
#2	.0468323	2.406524	2.915927	9.94785	7.132456	.1299681
#3	.0472025	2.533651	2.961724	10.04753	7.155621	.1403675

Elem	Sr4077
Units	ppm
Avg	-.080139
Stddev	.001298
%RSD	1.619167
#1	-.081304
#2	-.080372
#3	-.078741

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7095.439	85379.96	8724.395	4362.380	6585.056
Stddev	13.744	241.38	146.935	2.598	27.490
%RSD	.1936995	.2827151	1.684189	.0595498	.4174636
#1	7096.273	85276.72	8743.526	4365.375	6580.661
#2	7108.746	85655.79	8860.828	4361.028	6614.479
#3	7081.296	85207.36	8568.832	4360.737	6560.028

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV08 Acquired: 10/31/2025 18:28:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.766726**	**4.600232**	**4.762901**	**4.698651**	**4.749487**	**9.699687**	**9.981091**
Stddev	.009777	.168546	.004178	.008504	.006802	.035893	.058039
%RSD	.2051133	3.663859	.0877267	.1809814	.1432198	.3700447	.5814879
#1	4.756453	4.454817	4.759928	4.702879	4.757170	9.678343	9.914088
#2	4.767807	4.560918	4.761098	4.688862	4.744233	9.741127	10.01341
#3	4.775917	4.784960	4.767679	4.704212	4.747056	9.679592	10.01578

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2529380**	**2.394155**	**24.66830**	**.9796497**	**2.404274**	**1.206410**	**4.912078**
Stddev	.0010684	.002570	.08510	.0046399	.001883	.000398	.017304
%RSD	.4224063	.1073471	.3449817	.4736257	.0783371	.0330294	.3522783
#1	.2517343	2.391793	24.57729	.9805692	2.403350	1.206642	4.903698
#2	.2537740	2.393781	24.74591	.9746189	2.403031	1.205950	4.931977
#3	.2533058	2.396892	24.68169	.9837610	2.406441	1.206639	4.900560

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.502286**	**24.42531**	**2.391145**	**1.212716**	**23.42713**	**2.428074**	**2.408996**
Stddev	.014962	.08581	.001432	.002782	.11735	.010726	.006489
%RSD	.5979371	.3513223	.0599010	.2294417	.5008988	.4417697	.2693454
#1	2.485831	24.50368	2.391611	1.213665	23.33816	2.416212	2.401543
#2	2.505951	24.43863	2.389538	1.209583	23.38310	2.437092	2.412056
#3	2.515074	24.33362	2.392287	1.214899	23.56012	2.430917	2.413388

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.23254**	**5.009588**	**4.803672**	**4.861753**	**4.919782**	**4.784519**	**5.004847**
Stddev	.15315	.027676	.004673	.018208	.019002	.019962	.008781
%RSD	.6592016	.5524564	.0972765	.3745073	.3862458	.4172221	.1754511
#1	23.18298	4.980717	4.802797	4.847771	4.898276	4.798226	4.997446
#2	23.11030	5.035890	4.799499	4.855147	4.926765	4.761616	5.002544
#3	23.40433	5.012155	4.808721	4.882342	4.934305	4.793715	5.014549

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV08 Acquired: 10/31/2025 18:28:25 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.749313**	**4.786070**	**4.937216**
Stddev	.031415	.036577	.051378
%RSD	.6614741	.7642383	1.040633
#1	4.725004	4.744603	4.883805
#2	4.738148	4.799862	4.941556
#3	4.784785	4.813746	4.986286

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5800.629**	**70148.75**	**6770.459**	**3559.073**	**6683.318**
Stddev	8.673	238.88	36.005	5.050	12.738
%RSD	.1495161	.3405376	.5317992	.1418923	.1905938
#1	5802.872	70255.36	6811.354	3564.793	6693.853
#2	5791.055	70315.76	6743.523	3557.199	6669.162
#3	5807.961	69875.12	6756.501	3555.229	6686.940

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB08 Acquired: 10/31/2025 18:32:28 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001638**	**.0002591**	**-.000012**	**.0009380**	**-.000708**	**.0006242**
Stddev	.002731	.0021487	.000716	.0010748	.000642	.0064951
%RSD	166.7150	829.2815	6024.887	114.5898	90.67507	1040.542
#1	-.004142	-.000407	-.000676	.0021790	-.001412	-.006827
#2	.001274	.002662	.000747	.0003097	-.000555	.003611
#3	-.002047	-.001478	-.000106	.0003252	-.000156	.005088

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006854**	**-.000028**	**.0000122**	**-.068363**	**.0000905**	**-.000059**
Stddev	.001000	.000040	.0000284	.010022	.0003872	.000196
%RSD	14.58714	144.1675	233.4119	14.66044	428.0059	332.0120
#1	-.007035	.000018	-.000002	-.078917	.0005374	-.000172
#2	-.007750	-.000055	.000045	-.067200	-.000141	.000167
#3	-.005776	-.000047	-.000006	-.058973	-.000125	-.000171

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003711**	**.0108924**	**-.000246**	**-.019301**	**.0003187**	**-.000213**
Stddev	.0001998	.0068697	.000451	.013572	.0001069	.000458
%RSD	53.83010	63.06884	183.0044	70.31667	33.54435	215.0059
#1	.0001519	.0120277	-.000558	-.031450	.0004416	-.000176
#2	.0005429	.0171237	.000271	-.004654	.0002675	-.000689
#3	.0004185	.0035257	-.000452	-.021799	.0002471	.000225

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.144020**	**.0014997**	**-.003321**	**.0457185**	**-.012684**	**.0003408**
Stddev	.023598	.0008048	.000097	.0458326	.000356	.0001856
%RSD	16.38509	53.66582	2.934851	100.2498	2.808642	54.46614
#1	-.164375	.0013933	-.003375	.0314059	-.012445	.0005054
#2	-.149530	.0023524	-.003381	.0087500	-.013094	.0003775
#3	-.118155	.0007534	-.003209	.0969995	-.012514	.0001396

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB08 Acquired: 10/31/2025 18:32:28 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.028405	-.001619	.0063425	-.002829	.0086865	-.005586
Stddev	.000616	.001195	.0025448	.002319	.0011642	.003258
%RSD	2.167462	73.77371	40.12306	81.98648	13.40232	58.32912
#1	-.028789	-.000998	.0082969	-.002281	.0081779	-.004691
#2	-.027695	-.000863	.0034650	-.000832	.0100184	-.009198
#3	-.028732	-.002996	.0072656	-.005372	.0078632	-.002868

Elem	Sr4077
Units	ppm
Avg	.0000238
Stddev	.0000486
%RSD	204.1604
#1	.0000619
#2	-.000031
#3	.000040

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5942.380	72363.57	6917.802	3628.065	7506.011
Stddev	10.231	179.05	4.266	26.310	8.940
%RSD	.1721649	.2474373	.0616740	.7251925	.1191002
#1	5936.934	72566.99	6916.552	3647.215	7507.337
#2	5936.025	72229.84	6914.300	3598.065	7496.482
#3	5954.182	72293.88	6922.554	3638.917	7514.213

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3488-01 Acquired: 10/31/2025 18:36:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0239723	-.001711	.0488859	-.002870	.0028869	142.1757
Stddev	.0011450	.003805	.0009821	.002710	.0023988	.0404
%RSD	4.776348	222.3969	2.009016	94.41812	83.09460	.0283905
#1	.0233094	-.000510	.0477598	-.000544	.0005183	142.1856
#2	.0252945	-.005971	.0495652	-.002221	.0053148	142.1313
#3	.0233132	.001349	.0493326	-.005846	.0028276	142.2101

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9323681	.0100511	.0058159	1120.891	.2578860	.0769383
Stddev	.0017733	.0000482	.0001050	10.658	.0006997	.0001162
%RSD	.1901969	.4791840	1.805055	.9508568	.2713085	.1509783
#1	.9332246	.0100934	.0058323	1131.294	.2586318	.0768473
#2	.9303291	.0100613	.0059117	1109.995	.2572441	.0770692
#3	.9335505	.0099987	.0057037	1121.383	.2577821	.0768984

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2385132	145.1048	4.699679	79.80313	.1146173	.0155013
Stddev	.0002609	.8524	.011617	.14546	.0003058	.0003667
%RSD	.1093721	.5874493	.2471977	.1822786	.2668175	2.365557
#1	.2383178	144.3359	4.696112	79.82402	.1149690	.0152183
#2	.2388094	144.9570	4.690264	79.93702	.1144138	.0153700
#3	.2384123	146.0214	4.712662	79.64835	.1144692	.0159155

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.286483	.2778116	.6474963	11.05170	.3806037	.0107229
Stddev	.052413	.0025261	.0029744	.03253	.0009315	.0001848
%RSD	.7193244	.9092969	.4593715	.2943283	.2447527	1.723894
#1	7.236246	.2776344	.6493495	11.01564	.3800075	.0108732
#2	7.282371	.2804216	.6490739	11.07884	.3801265	.0107790
#3	7.340831	.2753787	.6440654	11.06062	.3816772	.0105165

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3488-01 Acquired: 10/31/2025 18:36:46 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0170820	5.299188	2.925439	6.374540	F 45.74161	.5117616
Stddev	.0006327	.001385	.007077	.037572	.33061	.0030104
%RSD	3.704136	.0261360	.2419227	.5894032	.7227776	.5882511
#1	.0166428	5.299915	2.918123	6.400681	45.93578	.5112091
#2	.0178072	5.297591	2.925944	6.391455	45.92918	.5090657
#3	.0167959	5.300059	2.932250	6.331484	45.35987	.5150101

Elem	Sr4077
Units	ppm
Avg	4.923808
Stddev	.041309
%RSD	.8389648
#1	4.971507
#2	4.899850
#3	4.900067

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6278.490	74674.66	7997.032	3799.383	5628.110
Stddev	11.551	260.80	35.844	3.415	7.007
%RSD	.1839814	.3492434	.4482209	.0898763	.1245059
#1	6291.223	74577.65	7958.268	3798.809	5636.132
#2	6275.563	74970.06	8028.976	3796.292	5623.186
#3	6268.684	74476.28	8003.854	3803.048	5625.012

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3491-01 Acquired: 10/31/2025 18:41:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1420057**	**-.030899**	**.3250909**	**.0028613**	**.0104142**	**160.0917**
Stddev	.0019437	.003345	.0002191	.0025134	.0044670	.0176
%RSD	1.368747	10.82702	.0673994	87.84031	42.89316	.0109748
#1	.1440759	-.029583	.3253269	.0047396	.0052876	160.0932
#2	.1402199	-.028411	.3250520	.0038381	.0124848	160.0734
#3	.1417214	-.034702	.3248939	.0000062	.0134700	160.1084

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072871**	**.0213875**	**.0280765**	**138.9141**	**.4010820**	**.3202350**
Stddev	.001183	.0000166	.0002533	.1039	.0008869	.0010344
%RSD	.0570744	.0774234	.9021796	.0748144	.2211247	.3230093
#1	2.073638	.0213782	.0283016	138.9264	.4005447	.3212459
#2	2.073467	.0213777	.0278022	139.0113	.4005956	.3191787
#3	2.071508	.0214066	.0281257	138.8046	.4021057	.3202806

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4445603**	**533.3399**	**10.03668**	**118.3352**	**.6999550**	**.0466953**
Stddev	.0010512	1.6571	.02047	.2160	.0004221	.0005757
%RSD	.2364531	.3106980	.2039198	.1825056	.0603040	1.232838
#1	.4444783	532.9362	10.05515	118.5832	.7003995	.0465687
#2	.4435525	535.1615	10.04020	118.1886	.6995596	.0473237
#3	.4456501	531.9220	10.01468	118.2338	.6999059	.0461934

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.54469**	**.4899384**	**1.100738**	**42.60677**	**.6580878**	**.0129325**
Stddev	.04564	.0019803	.003405	.14602	.0126840	.0005561
%RSD	.2758886	.4042011	.3093192	.3427103	1.927399	4.299876
#1	16.51824	.4920565	1.103573	42.55873	.6514170	.0134866
#2	16.59739	.4896258	1.096962	42.77075	.6727152	.0123745
#3	16.51843	.4881330	1.101679	42.49082	.6501312	.0129363

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: Q3491-01 Acquired: 10/31/2025 18:41:05 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107134	6.940178	2.991569	F 14.57678	5.412125	.6525809
Stddev	.0009409	.008953	.004828	.02100	.012667	.0070998
%RSD	8.782441	.1290029	.1613717	.1440639	.2340433	1.087951
#1	.0109520	6.939761	2.995192	14.58464	5.422544	.6531501
#2	.0115121	6.949333	2.993426	14.59271	5.415806	.6593789
#3	.0096762	6.931441	2.986088	14.55298	5.398026	.6452136

Elem	Sr4077
Units	ppm
Avg	-.148389
Stddev	.000901
%RSD	.6069290
#1	-.148119
#2	-.149394
#3	-.147655

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6974.609	85853.85	8856.598	4223.154	5948.336
Stddev	10.333	113.21	35.279	17.221	10.541
%RSD	.1481490	.1318629	.3983413	.4077706	.1772072
#1	6962.952	85749.32	8820.501	4203.569	5936.233
#2	6982.642	85838.11	8890.999	4229.972	5953.274
#3	6978.232	85974.10	8858.293	4235.922	5955.502

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV09 Acquired: 10/31/2025 18:45:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.788549**	**4.569809**	**4.787617**	**4.758051**	**4.749865**	**9.751574**	**9.606331**
Stddev	.017768	.056761	.006838	.015819	.014547	.044960	.012560
%RSD	.3710549	1.242084	.1428260	.3324601	.3062684	.4610539	.1307480
#1	4.774949	4.534112	4.781632	4.740079	4.733290	9.744883	9.618208
#2	4.808653	4.635261	4.786150	4.769863	4.755790	9.710334	9.593185
#3	4.782045	4.540054	4.795070	4.764212	4.760515	9.799504	9.607601

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2532608**	**2.409483**	**24.48969**	**.9880453**	**2.409182**	**1.207772**	**4.780283**
Stddev	.0018847	.002656	.04690	.0030823	.003203	.002858	.033000
%RSD	.7441940	.1102190	.1915198	.3119639	.1329457	.2366580	.6903372
#1	.2522714	2.407116	24.51740	.9845552	2.407113	1.204873	4.795805
#2	.2520768	2.408978	24.43554	.9903946	2.407561	1.207855	4.802660
#3	.2554342	2.412355	24.51613	.9891861	2.412871	1.210588	4.742384

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.426200**	**24.47908**	**2.394855**	**1.213874**	**22.53133**	**2.426559**	**2.416052**
Stddev	.001477	.02584	.003400	.001621	.10530	.012012	.007284
%RSD	.0608644	.1055496	.1419709	.1335254	.4673391	.4950377	.3014767
#1	2.427755	24.49690	2.392817	1.213274	22.57452	2.413600	2.409478
#2	2.426027	24.44945	2.392969	1.212638	22.60816	2.428756	2.414795
#3	2.424817	24.49089	2.398780	1.215709	22.41130	2.437322	2.423882

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.76745**	**4.998756**	**4.829050**	**4.843616**	**4.849473**	**4.828460**	**4.923032**
Stddev	.09974	.034402	.009570	.004623	.008760	.026937	.009282
%RSD	.4380753	.6882055	.1981803	.0954376	.1806360	.5578769	.1885339
#1	22.78221	4.990358	4.818608	4.844430	4.850248	4.813226	4.932861
#2	22.85899	4.969331	4.837404	4.847778	4.840351	4.812592	4.921816
#3	22.66116	5.036580	4.831138	4.838641	4.857820	4.859562	4.914418

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCV09 Acquired: 10/31/2025 18:45:06 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.757130**	**4.511368**	**4.778870**
Stddev	.018198	.020601	.056855
%RSD	.3825521	.4566435	1.189721
#1	4.741453	4.533737	4.724692
#2	4.777087	4.507190	4.773849
#3	4.752851	4.493176	4.838070

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5839.008**	**71323.89**	**6923.228**	**3497.917**	**6741.608**
Stddev	3.262	240.26	24.016	13.671	7.814
%RSD	.0558579	.3368584	.3468896	.3908298	.1159109
#1	5835.246	71405.11	6939.049	3513.108	6734.156
#2	5841.054	71053.54	6935.043	3494.038	6749.740
#3	5840.722	71513.01	6895.594	3486.604	6740.927

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB09 Acquired: 10/31/2025 18:49:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002298**	**-.002147**	**.0002753**	**.0015899**	**-.001035**	**-.004215**
Stddev	.001347	.002382	.0002016	.0016797	.000237	.008154
%RSD	58.62492	110.9520	73.22632	105.6545	22.87704	193.4311
#1	-.003617	-.004416	.0001257	.0031144	-.001305	-.013629
#2	-.000925	.000334	.0001956	.0018660	-.000934	.000610
#3	-.002352	-.002358	.0005045	-.000211	-.000865	.000373

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001371**	**-.000151**	**-.000013**	**-.077829**	**.0001500**	**-.000295**
Stddev	.000781	.000087	.000084	.009603	.0001636	.000114
%RSD	56.91388	57.57023	666.4829	12.33811	109.1041	38.54568
#1	-.001436	-.000081	.000071	-.087073	.0002821	-.000334
#2	-.002118	-.000248	-.000011	-.078511	.0002008	-.000167
#3	-.000561	-.000123	-.000097	-.067904	-.000033	-.000384

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000157**	**.0113656**	**-.000020**	**-.003482**	**-.000260**	**.0002059**
Stddev	.000215	.0030448	.000725	.030302	.000127	.0003720
%RSD	137.4523	26.78985	3658.850	870.1407	48.71958	180.7063
#1	.000037	.0080866	-.000611	.010677	-.000189	.0002044
#2	-.000388	.0141037	.000789	-.038272	-.000184	.0005786
#3	-.000118	.0119065	-.000237	.017147	-.000406	-.000165

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.428099**	**.0037876**	**-.004301**	**-.201238**	**-.010881**	**.0007211**
Stddev	.013107	.0030528	.000156	.026212	.000389	.0001572
%RSD	3.061562	80.59903	3.635427	13.02551	3.579293	21.79904
#1	-.421653	.0034499	-.004333	-.183512	-.010898	.0007856
#2	-.419464	.0069952	-.004132	-.188855	-.011261	.0005419
#3	-.443181	.0009177	-.004439	-.231348	-.010483	.0008357

Reviewed By:
On:
Inst Id :P4
LB :LB137727

Sample Name: CCB09 Acquired: 10/31/2025 18:49:10 Type: Unk
Method: 6010-200.7 NEW(v330) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.039194	-.001820	.0163905	-.001027	.0005894	-.002007
Stddev	.000206	.001245	.0189532	.000328	.0006402	.001709
%RSD	.5266041	68.43405	115.6355	31.90054	108.6241	85.13735
#1	-.039386	-.001089	.0380272	-.000831	-.000117	-.002422
#2	-.039220	-.003258	.0027236	-.001405	.000755	-.000129
#3	-.038975	-.001113	.0084207	-.000845	.001131	-.003471

Elem	Sr4077
Units	ppm
Avg	-.000059
Stddev	.000070
%RSD	118.8826
#1	-.000059
#2	-.000128
#3	.000011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5903.624	72818.58	6901.464	3569.375	7545.775
Stddev	12.611	241.87	32.250	15.439	12.230
%RSD	.2136183	.3321599	.4672917	.4325499	.1620784
#1	5909.086	73064.30	6897.763	3586.611	7551.308
#2	5912.584	72580.75	6935.405	3556.814	7554.261
#3	5889.203	72810.67	6871.224	3564.699	7531.756

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170310

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 10/29/2025 **Time :** 12:32 **Temp :** 96 °C

End Digest Date: 10/29/2025 **Time :** 15:32 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SMB

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6209
LFS-2	0.25	M6201
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
CONC: HNO3	3.00	M6158
1:1 HCL	5.00	MP87148
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1 CELL#50 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/29/25 16:32	SJS met dig	SA Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170310

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB170310BL	PBW310	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	1
PB170310BS	LCS310	<2	50	25	Colorless	Colorless	Clear	Clear	M6209,M6201	2
PB170310TB	LEB310	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	3
Q3391-01MS	RCAMS	<2	50	25	Colorless	Colorless	Clear	Clear	M6209,M6201	6
Q3391-01MSD	RCAMSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6209,M6201	7
Q3391-01DUP	RCADUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	5
Q3391-01	RCA	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	4

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB170309

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB170309TB	LEB309	02	N/A	2000	N/A	N/A	N/A	4.24	1.5	T-1
Q3391-01	RCA	01	100.03	2000	N/A	N/A	N/A	12.0	1.0	T-1

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137727

Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/31/25 11:09		Jaswal	OK
2	S1	S1	CAL2	10/31/25 11:13		Jaswal	OK
3	S2	S2	CAL3	10/31/25 11:17		Jaswal	OK
4	S3	S3	CAL4	10/31/25 11:21		Jaswal	OK
5	S4	S4	CAL5	10/31/25 11:26		Jaswal	OK
6	S5	S5	CAL6	10/31/25 11:30		Jaswal	OK
7	ICV01	ICV01	ICV	10/31/25 11:34		Jaswal	OK
8	LLICV01	LLICV01	LLICV	10/31/25 11:45		Jaswal	OK
9	ICB01	ICB01	ICB	10/31/25 11:50		Jaswal	OK
10	CRI01	CRI01	CRDL	10/31/25 11:54		Jaswal	OK
11	ICSA01	ICSA01	ICSA	10/31/25 11:58		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	10/31/25 12:02		Jaswal	OK
13	ICSADL	ICSADL	ICSA	10/31/25 12:06		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	10/31/25 12:11		Jaswal	OK
15	CCV01	CCV01	CCV	10/31/25 12:15		Jaswal	OK
16	CCB01	CCB01	CCB	10/31/25 12:19		Jaswal	OK
17	LR-1	LR-1	HIGH STD	10/31/25 12:23		Jaswal	OK
18	LR-2	LR-2	HIGH STD	10/31/25 12:28		Jaswal	OK

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Instrument ID: P4

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Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

19	PB170328BL	PB170328BL	MB	10/31/25 12:37		Jaswal	OK
20	PB170328BS	PB170328BS	LCS	10/31/25 12:41		Jaswal	OK
21	LR-3	LR-3	HIGH STD	10/31/25 12:50		Jaswal	OK
22	Q3385-04	EFF-WW	SAM	10/31/25 13:00		Jaswal	OK
23	Q3385-04L	EFF-WWL	SD	10/31/25 13:04		Jaswal	OK
24	Q3385-05	EFF-WWMS	MS	10/31/25 13:08		Jaswal	OK
25	Q3385-06	EFF-WWMSD	MSD	10/31/25 13:12		Jaswal	OK
26	CCV02	CCV02	CCV	10/31/25 13:17		Jaswal	OK
27	CCB02	CCB02	CCB	10/31/25 13:21		Jaswal	OK
28	Q3385-04A	EFF-WWA	PS	10/31/25 13:25	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK
29	Q3477-03	SOUTH-MAHWAH-W	SAM	10/31/25 13:29		Jaswal	OK
30	Q3391-01	RCA	SAM	10/31/25 13:33		Jaswal	OK
31	Q3477-02	SOUTH-MAHWAH-SC	SAM	10/31/25 13:38		Jaswal	OK
32	Q3477-03DUP	SOUTH-MAHWAH-W	DUP	10/31/25 13:42		Jaswal	OK
33	Q3477-03L	SOUTH-MAHWAH-W	SD	10/31/25 13:47		Jaswal	OK
34	Q3477-03MS	SOUTH-MAHWAH-W	MS	10/31/25 13:51		Jaswal	OK
35	Q3477-03MSD	SOUTH-MAHWAH-W	MSD	10/31/25 13:55		Jaswal	OK
36	Q3477-03A	SOUTH-MAHWAH-W	PS	10/31/25 13:59	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137727

Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

37	Q3475-01	GW-DRUM	SAM	10/31/25 14:03	Fe is High, Ag is Oversaturated.	Jaswal	Dilution
38	CCV03	CCV03	CCV	10/31/25 14:09		Jaswal	OK
39	CCB03	CCB03	CCB	10/31/25 14:13		Jaswal	OK
40	Q3385-04DUP	EFF-WWDUP	DUP	10/31/25 14:18		Jaswal	OK
41	Q3391-01DUP	RCADUP	DUP	10/31/25 14:23		Jaswal	OK
42	Q3391-01L	RCAL	SD	10/31/25 14:28		Jaswal	OK
43	Q3391-01MS	RCAMS	MS	10/31/25 14:32		Jaswal	OK
44	Q3391-01MSD	RCAMSD	MSD	10/31/25 14:36		Jaswal	OK
45	Q3391-01A	RCAA	PS	10/31/25 14:41	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK
46	PB170310BL	PB170310BL	MB	10/31/25 14:45		Jaswal	OK
47	PB170310BS	PB170310BS	LCS	10/31/25 14:49		Jaswal	OK
48	PB170305BL	PB170305BL	MB	10/31/25 14:53		Jaswal	OK
49	PB170305BS	PB170305BS	LCS	10/31/25 14:58		Jaswal	OK
50	CCV04	CCV04	CCV	10/31/25 15:08		Jaswal	OK
51	CCB04	CCB04	CCB	10/31/25 15:12		Jaswal	OK
52	PB170311BL	PB170311BL	MB	10/31/25 15:16		Jaswal	OK
53	PB170311BS	PB170311BS	LCS	10/31/25 15:20		Jaswal	OK
54	PB170295TB	PB170295TB	MB	10/31/25 15:24	Cr recovery fail.	Jaswal	Not Ok
55	Q3480-02	RT3449	SAM	10/31/25 15:29		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137727

Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

56	Q3480-02DUP	RT3449DUP	DUP	10/31/25 15:33		Jaswal	OK
57	Q3480-02L	RT3449L	SD	10/31/25 15:38		Jaswal	OK
58	Q3480-02MS	RT3449MS	MS	10/31/25 15:42		Jaswal	OK
59	Q3480-02MSD	RT3449MSD	MSD	10/31/25 15:46		Jaswal	OK
60	Q3480-02A	RT3449A	PS	10/31/25 15:50	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK
61	Q3480-01DL	RT3449DL	SAM	10/31/25 15:54	5X for Ag	Jaswal	Confirms
62	CCV05	CCV05	CCV	10/31/25 15:58		Jaswal	OK
63	CCB05	CCB05	CCB	10/31/25 16:02		Jaswal	OK
64	PB170308BL	PB170308BL	MB	10/31/25 16:07		Jaswal	OK
65	PB170308BS	PB170308BS	LCS	10/31/25 16:11		Jaswal	OK
66	PB170332BL	PB170332BL	MB	10/31/25 16:15		Jaswal	OK
67	PB170332BS	PB170332BS	LCS	10/31/25 16:19		Jaswal	OK
68	Q3492-01	252611	SAM	10/31/25 16:23		Jaswal	OK
69	Q3492-01DUP	252611DUP	DUP	10/31/25 16:28		Jaswal	OK
70	Q3492-01L	252611L	SD	10/31/25 16:32		Jaswal	OK
71	Q3492-01MS	252611MS	MS	10/31/25 16:36		Jaswal	OK
72	Q3492-01MSD	252611MSD	MSD	10/31/25 16:40		Jaswal	OK
73	Q3492-01A	252611A	PS	10/31/25 16:44	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137727

Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

74	CCV06	CCV06	CCV	10/31/25 16:48		Jaswal	OK
75	CCB06	CCB06	CCB	10/31/25 16:52		Jaswal	OK
76	PB170310TB	PB170310TB	MB	10/31/25 16:57		Jaswal	OK
77	PB170329BL	PB170329BL	MB	10/31/25 17:01		Jaswal	OK
78	PB170329BS	PB170329BS	LCS	10/31/25 17:05		Jaswal	OK
79	Q3482-01	WC-1	SAM	10/31/25 17:09		Jaswal	OK
80	Q3482-02	WC-2	SAM	10/31/25 17:14		Jaswal	OK
81	Q3482-03	WC-3	SAM	10/31/25 17:18		Jaswal	OK
82	Q3482-04	WC-4	SAM	10/31/25 17:22		Jaswal	OK
83	Q3482-05	WC-5	SAM	10/31/25 17:26		Jaswal	OK
84	Q3482-06	WC-6	SAM	10/31/25 17:31		Jaswal	OK
85	Q3482-07	WC-7	SAM	10/31/25 17:35		Jaswal	OK
86	CCV07	CCV07	CCV	10/31/25 17:39		Jaswal	OK
87	CCB07	CCB07	CCB	10/31/25 17:43		Jaswal	OK
88	Q3485-01	TR-04-102925	SAM	10/31/25 17:48		Jaswal	OK
89	Q3485-01DUP	TR-04-102925DUP	DUP	10/31/25 17:52		Jaswal	OK
90	Q3485-01L	TR-04-102925L	SD	10/31/25 17:56		Jaswal	OK
91	Q3485-01MS	TR-04-102925MS	MS	10/31/25 18:00		Jaswal	OK
92	Q3485-01MSD	TR-04-102925MSD	MSD	10/31/25 18:04		Jaswal	OK

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Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137727

Review By	Janvi	Review On	11/3/2025 3:56:23 PM
Supervise By		Supervise On	

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

93	Q3485-01A	TR-04-102925A	PS	10/31/25 18:08	0.1 ML OF EACH M6008 AND M6017 IN 10 ML SAMPLE.	Jaswal	OK
94	Q3486-01	TP3	SAM	10/31/25 18:12		Jaswal	OK
95	Q3486-03	TP4	SAM	10/31/25 18:16		Jaswal	OK
96	Q3486-05	TP5	SAM	10/31/25 18:20		Jaswal	OK
97	Q3486-07	TP6	SAM	10/31/25 18:24		Jaswal	OK
98	CCV08	CCV08	CCV	10/31/25 18:28		Jaswal	OK
99	CCB08	CCB08	CCB	10/31/25 18:32		Jaswal	OK
100	Q3488-01	MOO-25-0294-0298	SAM	10/31/25 18:36		Jaswal	OK
101	Q3491-01	SOIL-CUTTINGS-COI	SAM	10/31/25 18:41		Jaswal	OK
102	CCV09	CCV09	CCV	10/31/25 18:45		Jaswal	OK
103	CCB09	CCB09	CCB	10/31/25 18:49		Jaswal	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB170309

SOP ID : M1312-SPLP-10

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : N/A

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1

TCLP Filter ID : 40718710

Start Prep Date : 10/28/2025 **Time :** 15:00

End Prep Date : 10/29/2025 **Time :** 08:35

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 10

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	WP114530	N/A
N/A	N/A	N/A
N/A	N/A	N/A
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1940,W1941,W1942	W3166,W1938,W1939,
N/A	N/A	N/A
120ml Plastic bottle	N/A	2738
1:1 HNO3	N/A	MP86978

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. q3391-01 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/29/25 10:00	JP TCLP Room	S129. INC DIG
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB170309

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB170309TB	LEB309	02	N/A	2000	N/A	N/A	N/A	4.24	1.5	T-1
Q3391-01	RCA	01	100.03	2000	N/A	N/A	N/A	12.0	1.0	T-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB170309TB	LEB309	N/A	N/A	N/A	N/A	N/A	N/A
Q3391-01	RCA	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB170309

Hot Block ID : WC S-1 / WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB170309TB	LEB309	N/A	N/A	N/A	N/A	#1	4.24
Q3391-01	RCA	N/A	N/A	N/A	N/A	#1	4.24

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Prep Standard - Chemical Standard Summary

Order ID : Q3391

Test : SPLP MetalGroup2

Prepbatch ID : PB170310,

Sequence ID/Qc Batch ID: LB137727,

Standard ID :
MP87148,MP87637,MP87638,MP87639,MP87640,MP87641,MP87642,MP87643,MP87644,MP87645,MP87646,MP87647,MP87648,MP87649,MP87650,MP87651,MP87668,

Chemical ID :
M5467,M5658,M5697,M5748,M5798,M5799,M5800,M5801,M5814,M5820,M5962,M5969,M5971,M5979,M5985,M5998,M6021,M6023,M6026,M6027,M6028,M6030,M6032,M6058,M6077,M6086,M6128,M6137,M6140,M6142,M6144,M6145,M6151,M6158,M6159,M6160,M6163,M6164,M6165,M6171,M6174,M6176,M6177,M6178,M6179,M6182,M6184,M6187,M6200,M6201,M6209,W3112,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP87148	09/09/2025	02/17/2026	Sagar Kanani	None	None	Sarabjit Jaswal 09/10/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP87637	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 125.00000ml of M6200 + 2350.00000ml of W3112 + 25.00000ml of M6187 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP87638	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5971 + 5.00000ml of M5998 + 5.00000ml of M6077 + 5.00000ml of M6160 + 5.00000ml of M6174 + 5.00000ml of M6176 + 455.00000ml of MP87637 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP87639	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP87640	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of MP87638 + 75.00000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP87641	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 16.00000ml of MP87638 + 184.00000ml of MP87637 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP87642	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6140 + 0.05000ml of M6159 + 0.06000ml of M6177 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5969 + 0.10000ml of M5971 + 0.10000ml of M6128 + 0.10000ml of M6176 + 0.15000ml of M5800 + 0.20000ml of M5799 + 0.20000ml of M5979 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6027 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6160 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6086 + 1.00000ml of M6142 + 1.00000ml of M6144 + 1.00000ml of M6171 + 1.00000ml of M6178 + 2.00000ml of M6137 + 89.03000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP87643	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 2.00000ml of MP87642 + 98.00000ml of MP87637 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP87644	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.20000ml of M6058 + 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.60000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP87645	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of M6182 + 225.00000ml of MP87637 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP87646	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.10000ml of M6077 + 10.00000ml of M6182 + 10.00000ml of M6184 + 79.90000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP87647	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP87648	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 200.00000ml of M6187 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4226	LR-2	MP87649	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 13.50000ml of M6140 + 9.00000ml of M6142 + 9.50000ml of M6159 + 18.00000ml of MP87637 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4227	LR-3	MP87650	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 1.15000ml of M6026 + 1.25000ml of M5658 + 1.25000ml of M5748 + 1.50000ml of M6145 + 2.50000ml of M5697 + 2.50000ml of M6128 + 39.85000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4225	LR-1	MP87651	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 11.50000ml of M6086 + 11.50000ml of M6144 + 11.50000ml of M6171 + 15.50000ml of MP87637 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP87668	10/17/2025	11/11/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 1.00000ml of M6179 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6187 = Final Quantity: 2000.000 ml

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

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 #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	06/06/2025 / Janvi	07/01/2024 / Jaswal	M5971

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	07/30/2026	07/30/2025 / Janvi	02/22/2024 / kareem	M5998

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

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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	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	10/30/2025	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	011525	01/15/2028	07/15/2025 /	02/13/2025 / Janvi	M6171

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	V2-MEB742428	07/31/2026	07/31/2025 / Janvi	05/05/2025 / Janvi	M6174

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	031525	03/15/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6177

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	08/05/2026	08/06/2025 / Janvi	06/02/2024 / Janvi	M6179

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6182

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6184

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	V2-MEB743480	10/15/2026	10/15/2025 /	07/20/2025 / janvi	M6201

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	V2-MEB752149	10/15/2026	10/15/2025 / Janvi	07/20/2025 / Janvi	M6209

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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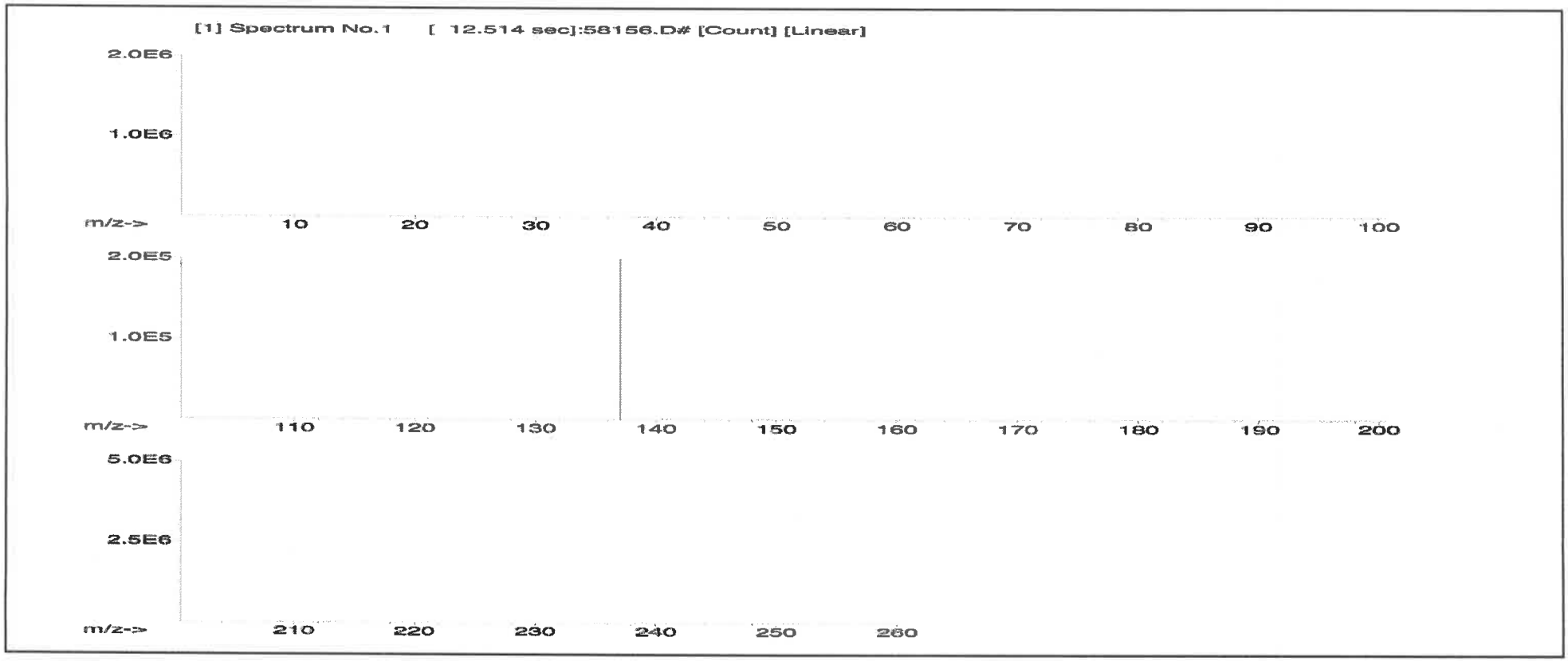
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

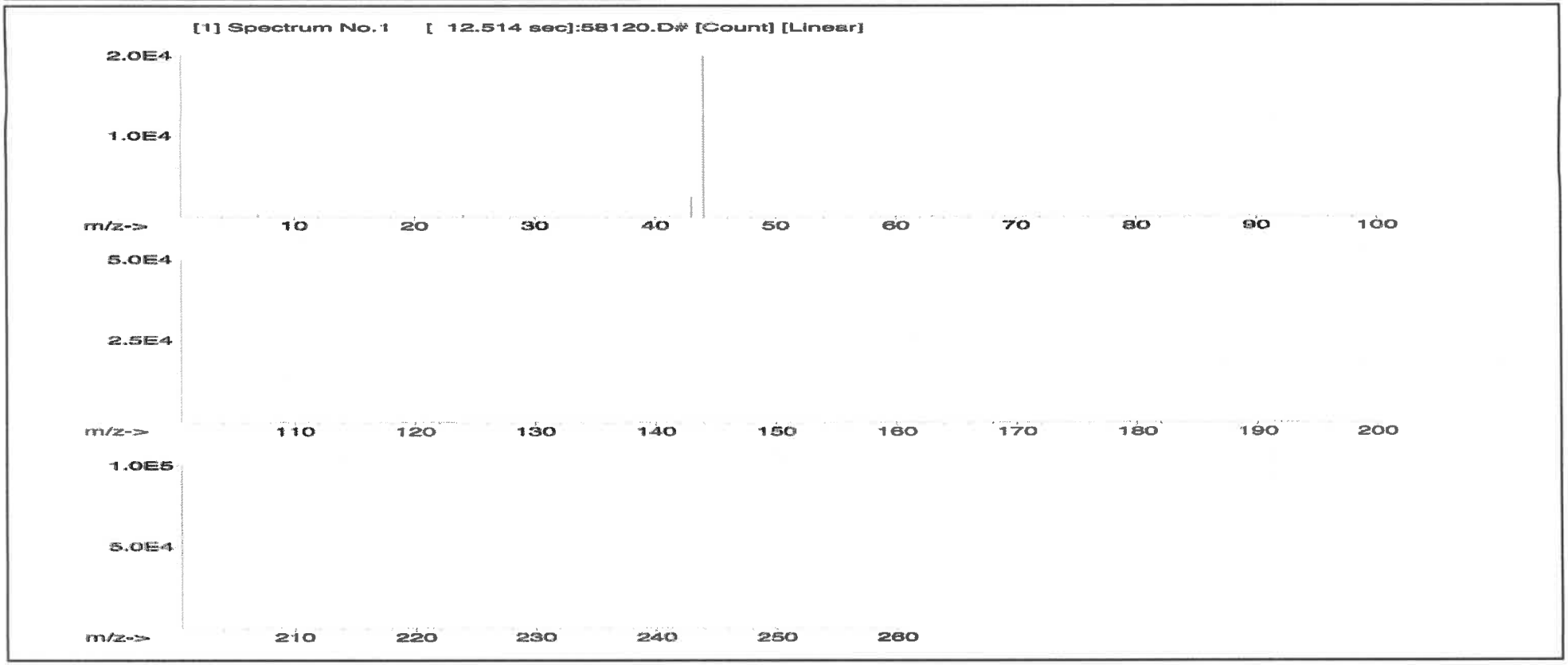
Part Number:	**58120**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**082324**				
Description:	**Calcium (Ca)**		2%	80.0	Nitric Acid
Expiration Date:	082327			(mL)	
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

Lot #

Giovanni Esposito

Formulated By:	Giovanni Esposito	082324
Reviewed By:	Pedro L. Rentas	082324

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2656	**10001.2**	**20.0**	471-34-1	5 mg/m3	ori-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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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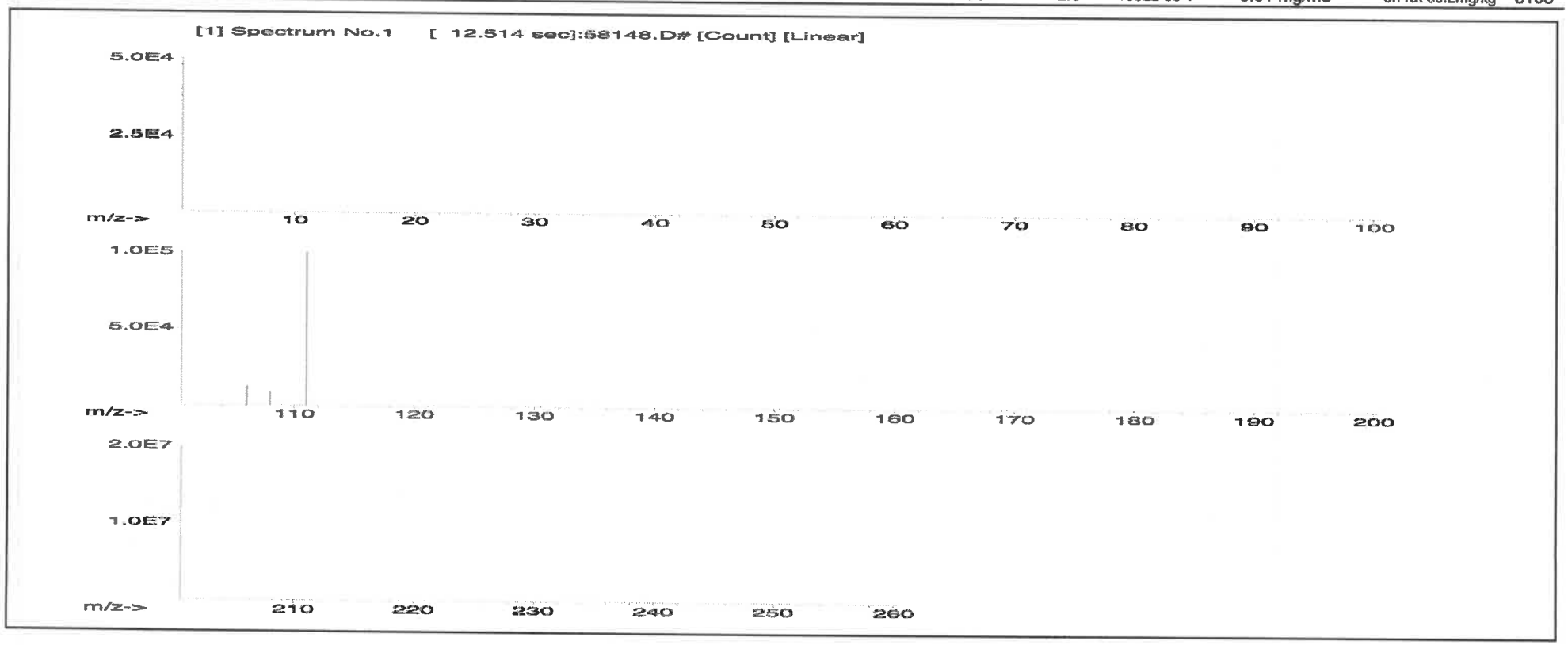
CERTIFIED WEIGHT REPORT:

Part Number:	**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.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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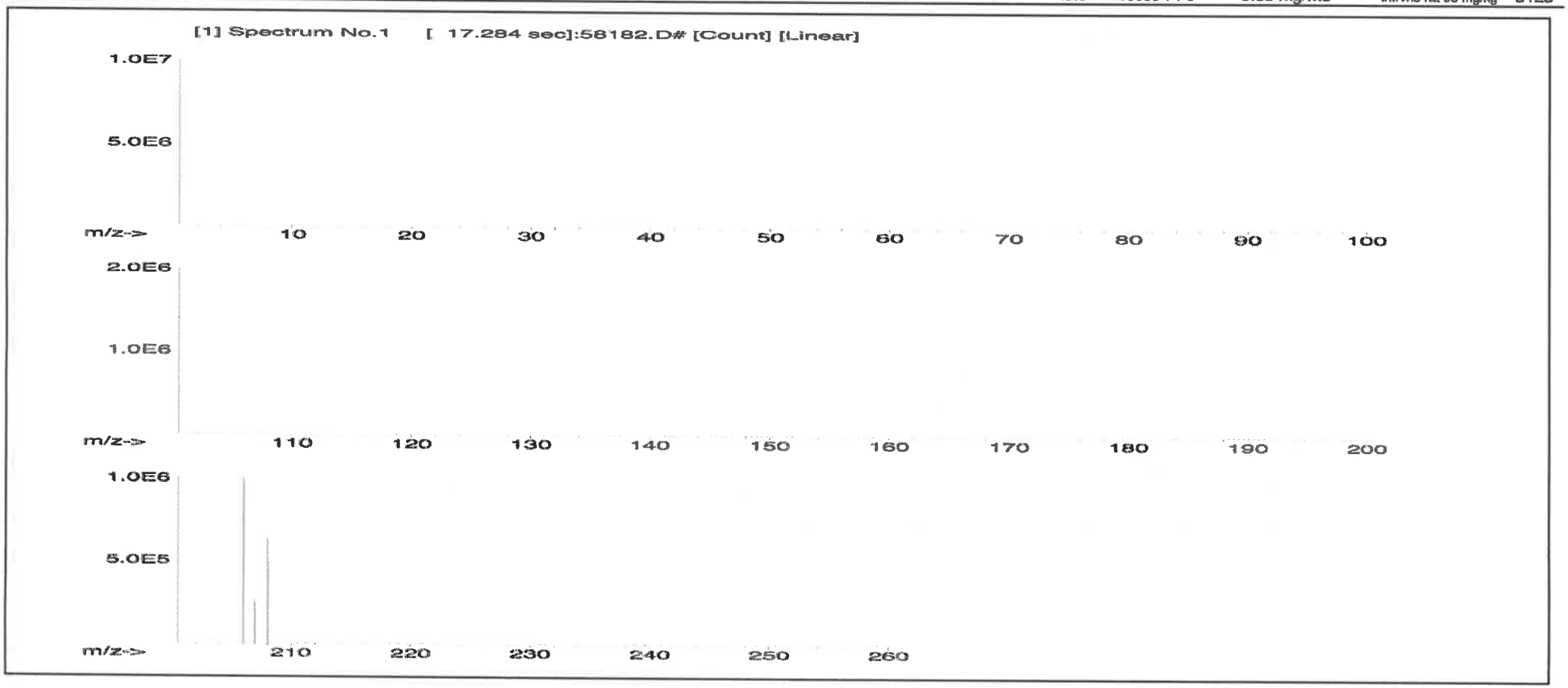
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CERTIFIED WEIGHT REPORT:

Part Number:	**57182**			**Lot #**	
Lot Number:	**110923**	**Solvent:**	24002546	Nitric Acid	
Description:	**Lead (Pb)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	110926				
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:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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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

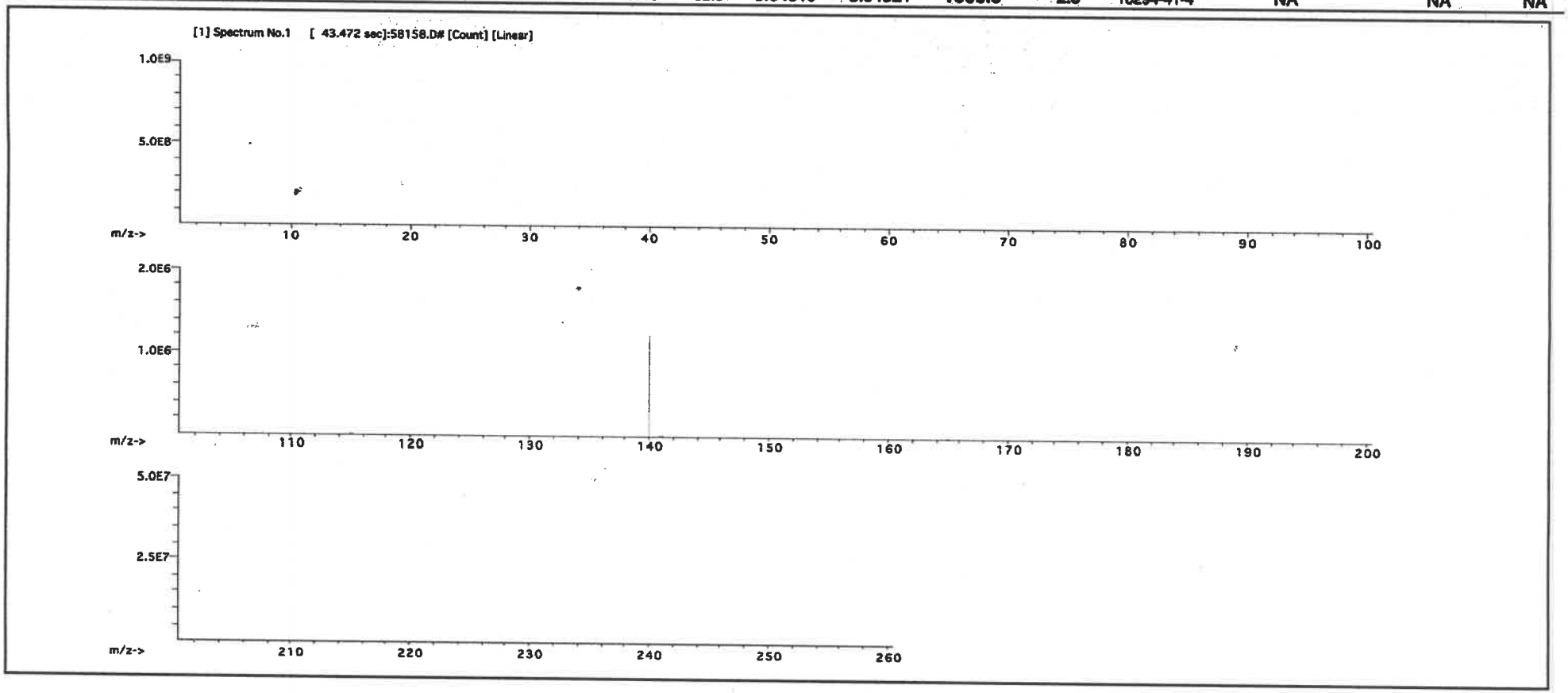
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		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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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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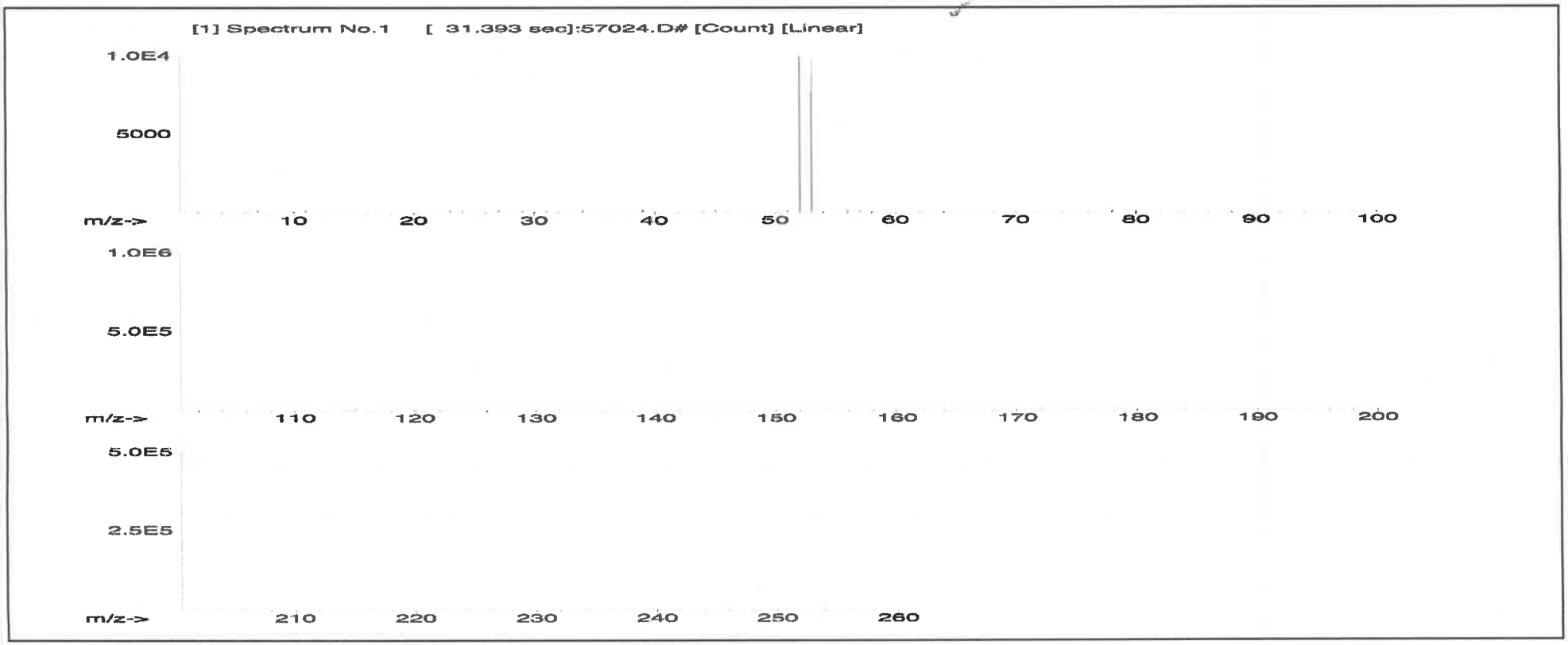
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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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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M5697 R: 10/27/23

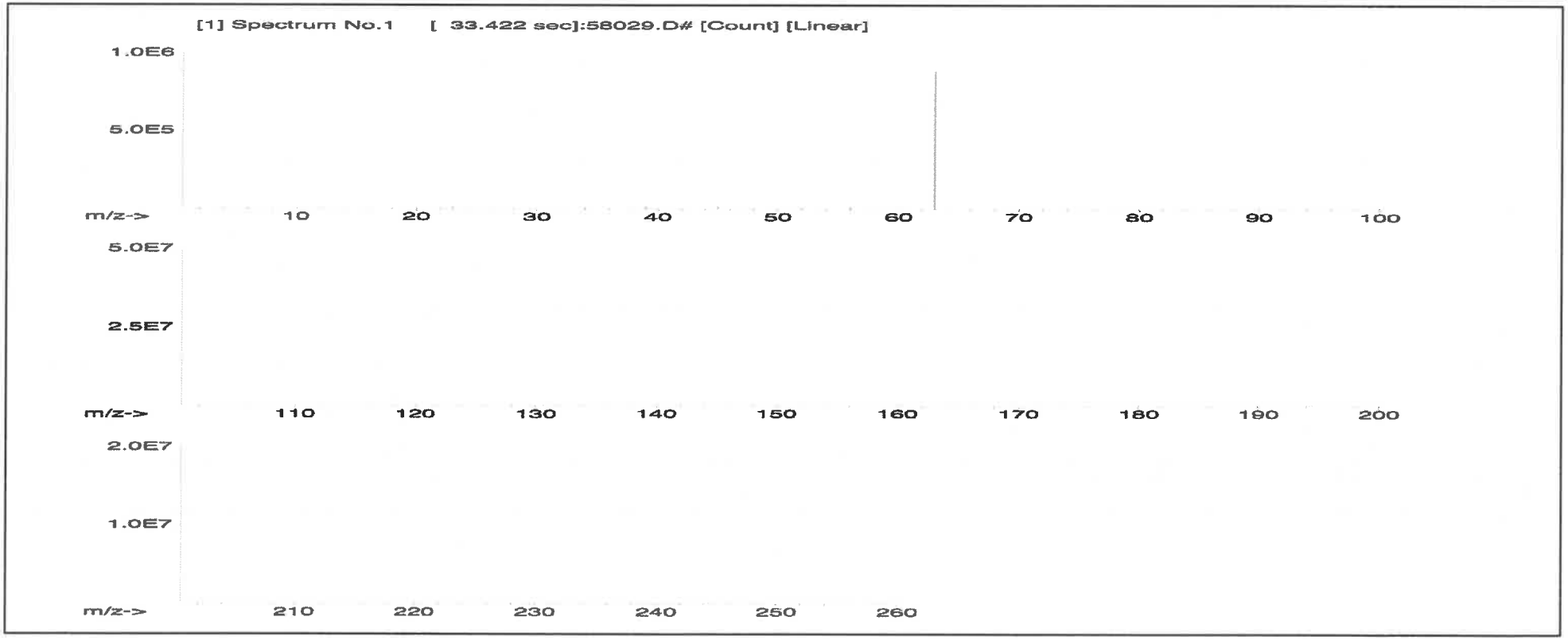
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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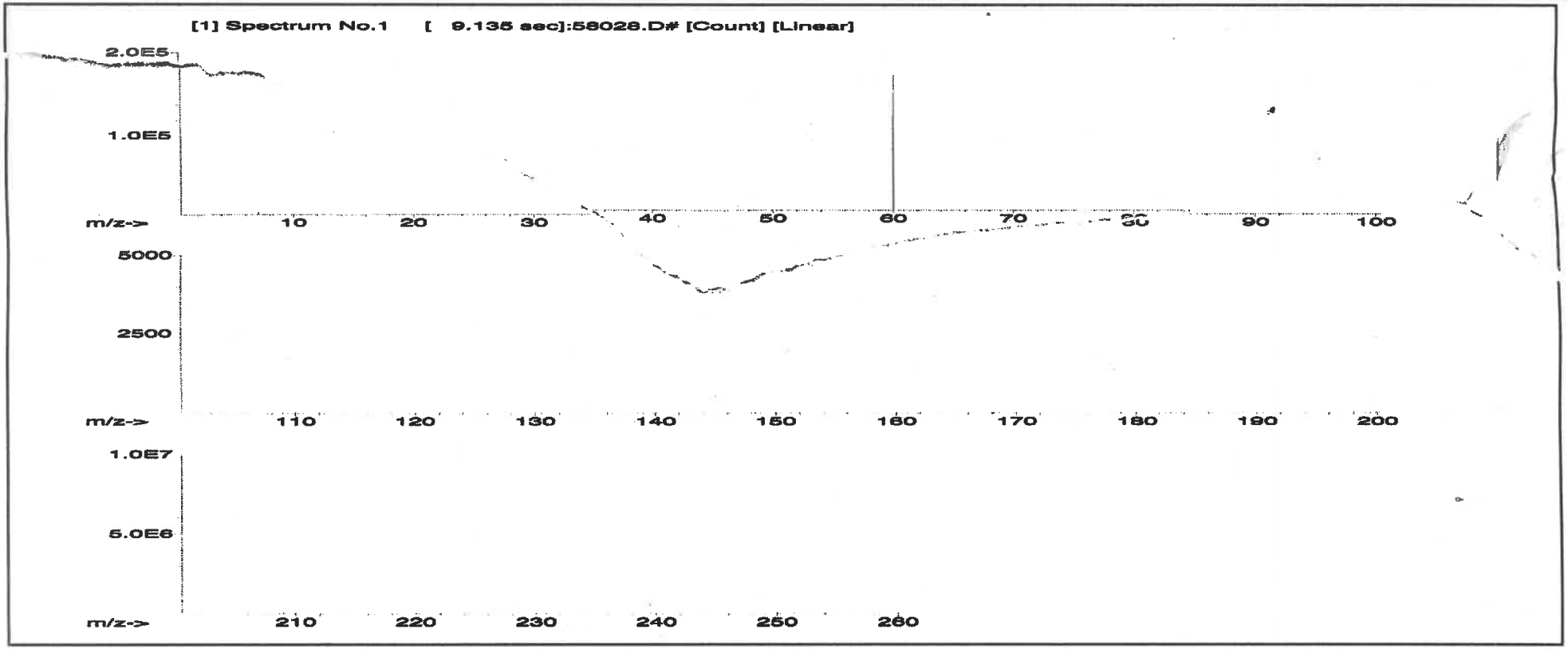
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CERTIFIED WEIGHT REPORT:

		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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R: 02/09/24 M5798

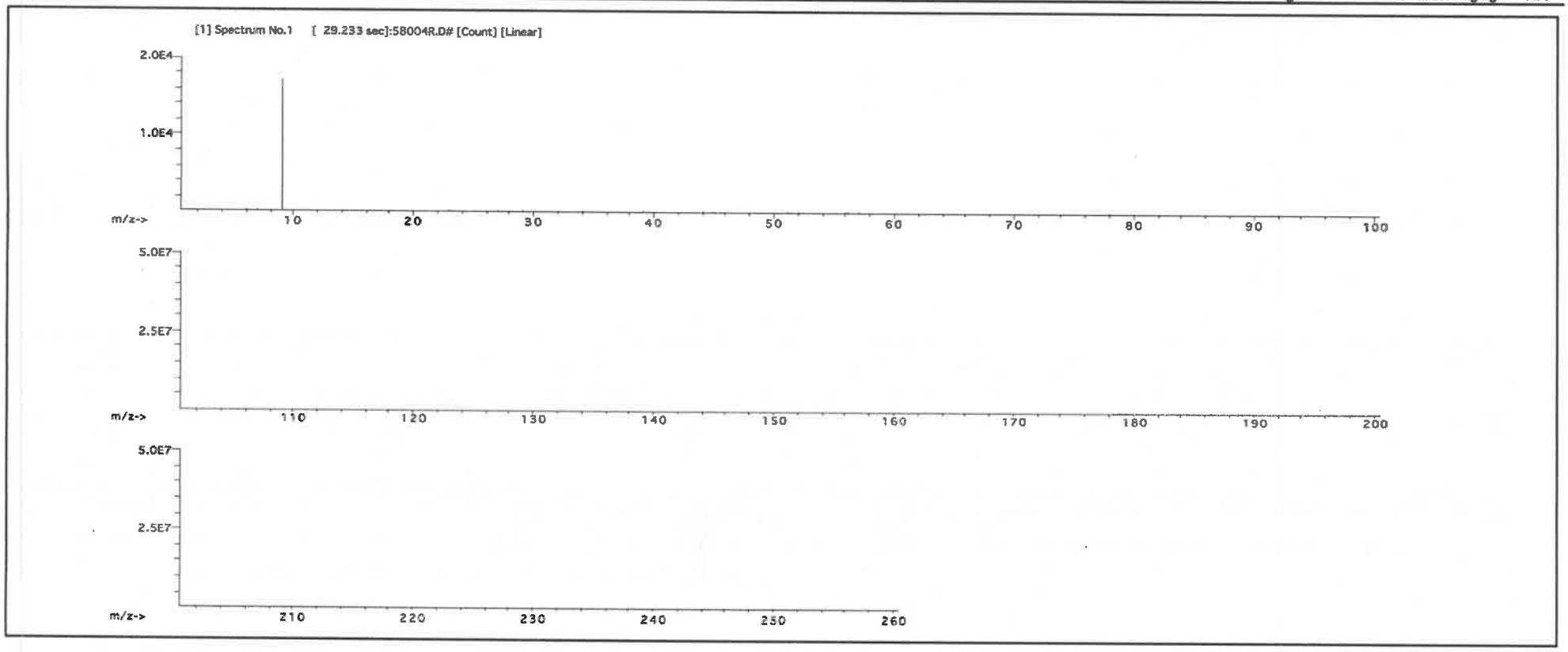
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CERTIFIED WEIGHT REPORT:

		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)

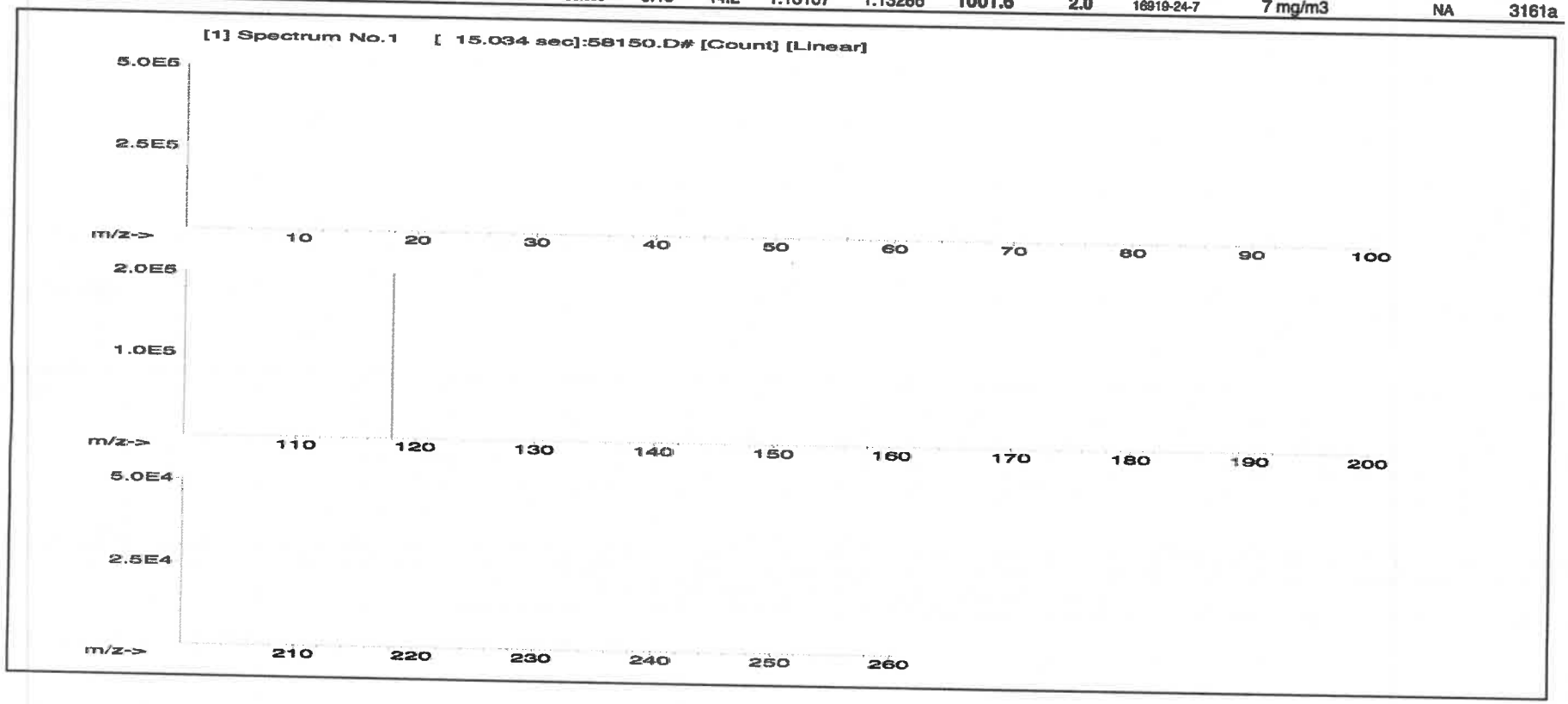
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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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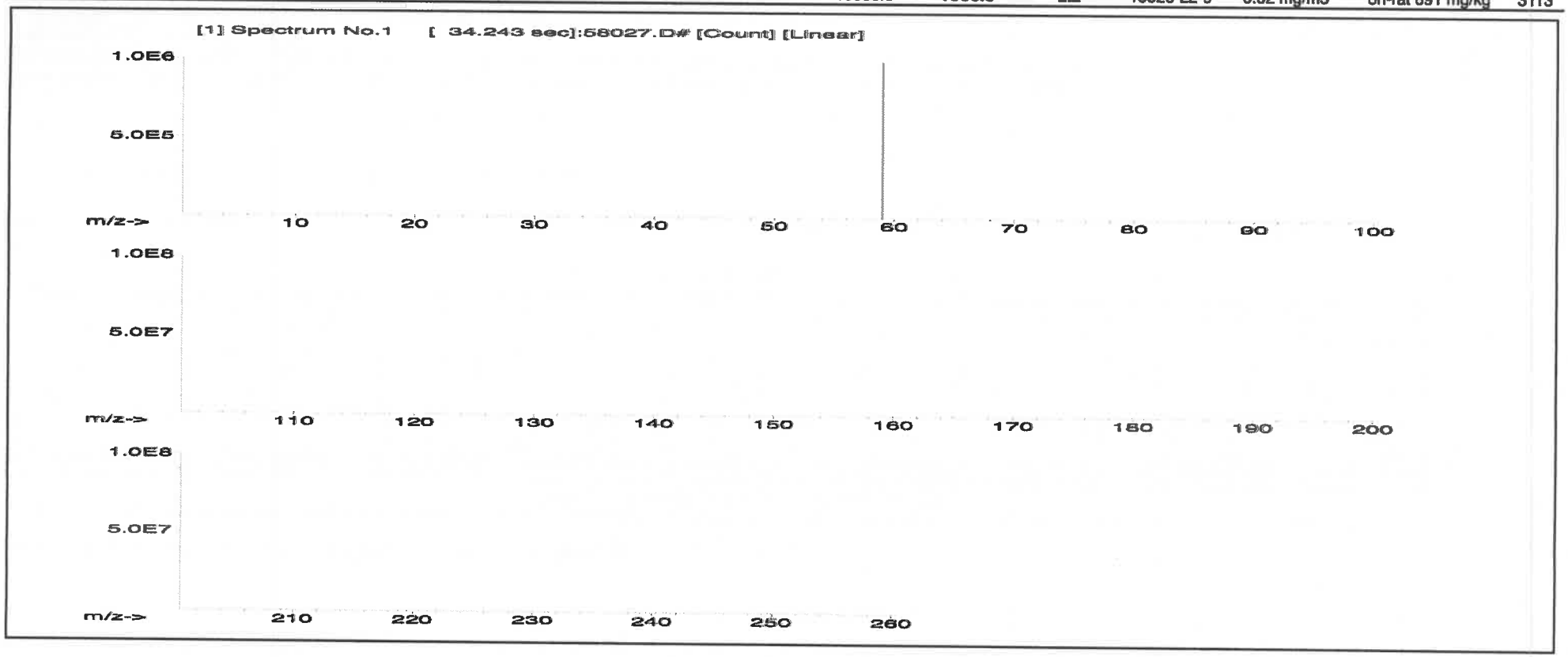
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CERTIFIED WEIGHT REPORT:

		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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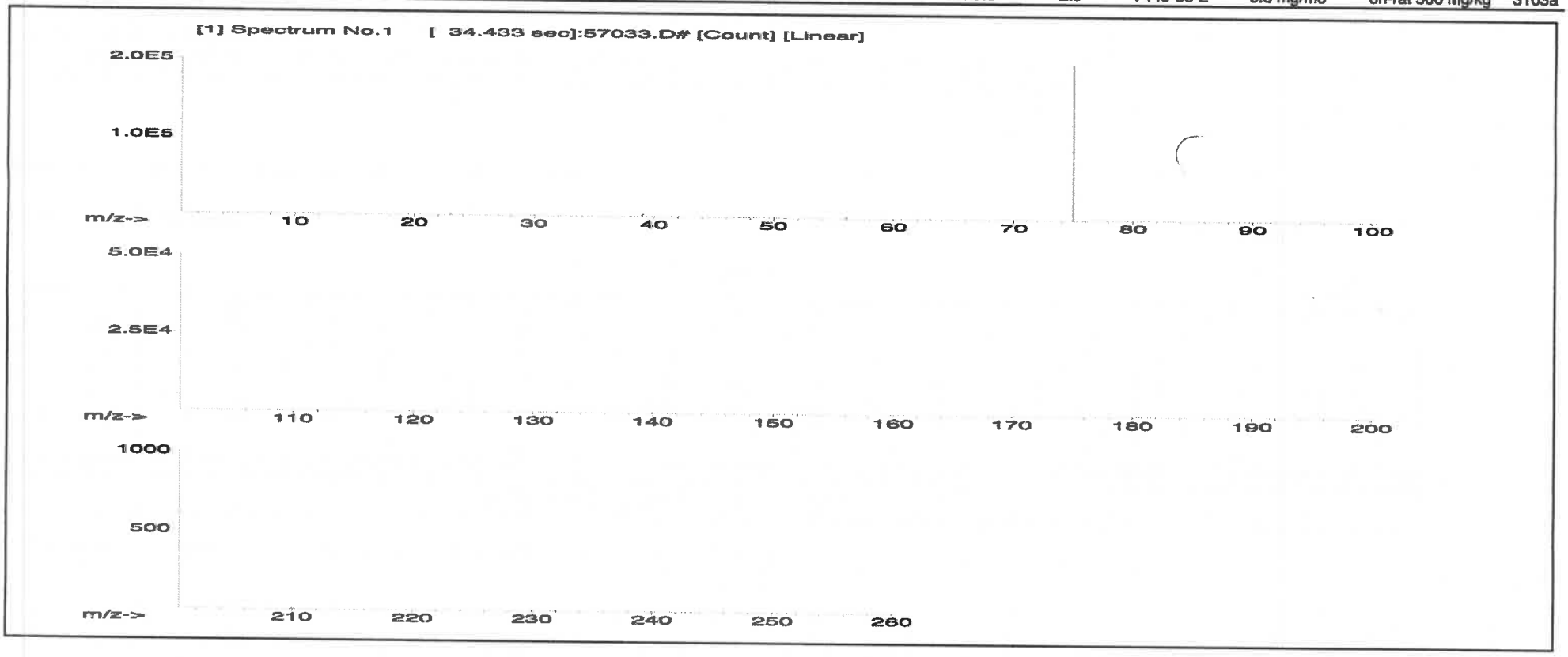
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AR-1539 Certificate Number
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

A: 02/09/24 M.5814

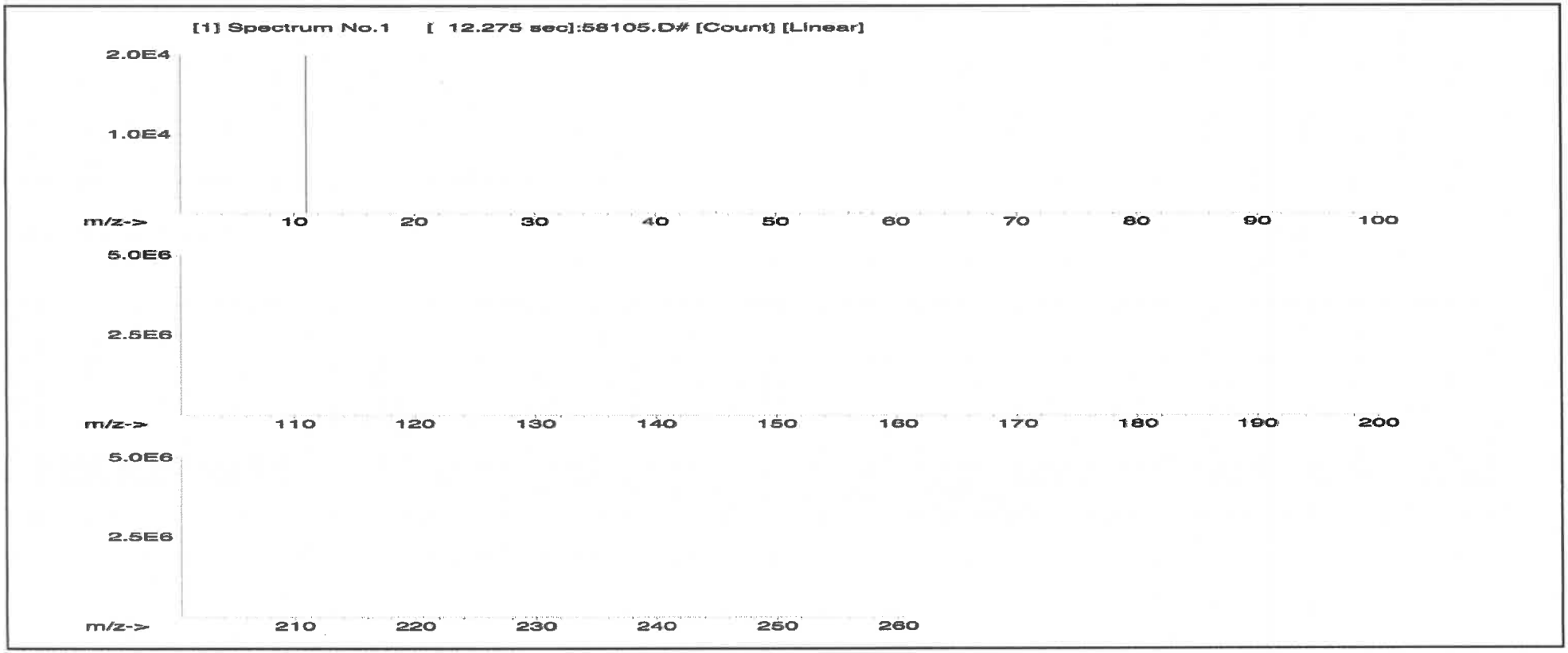
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CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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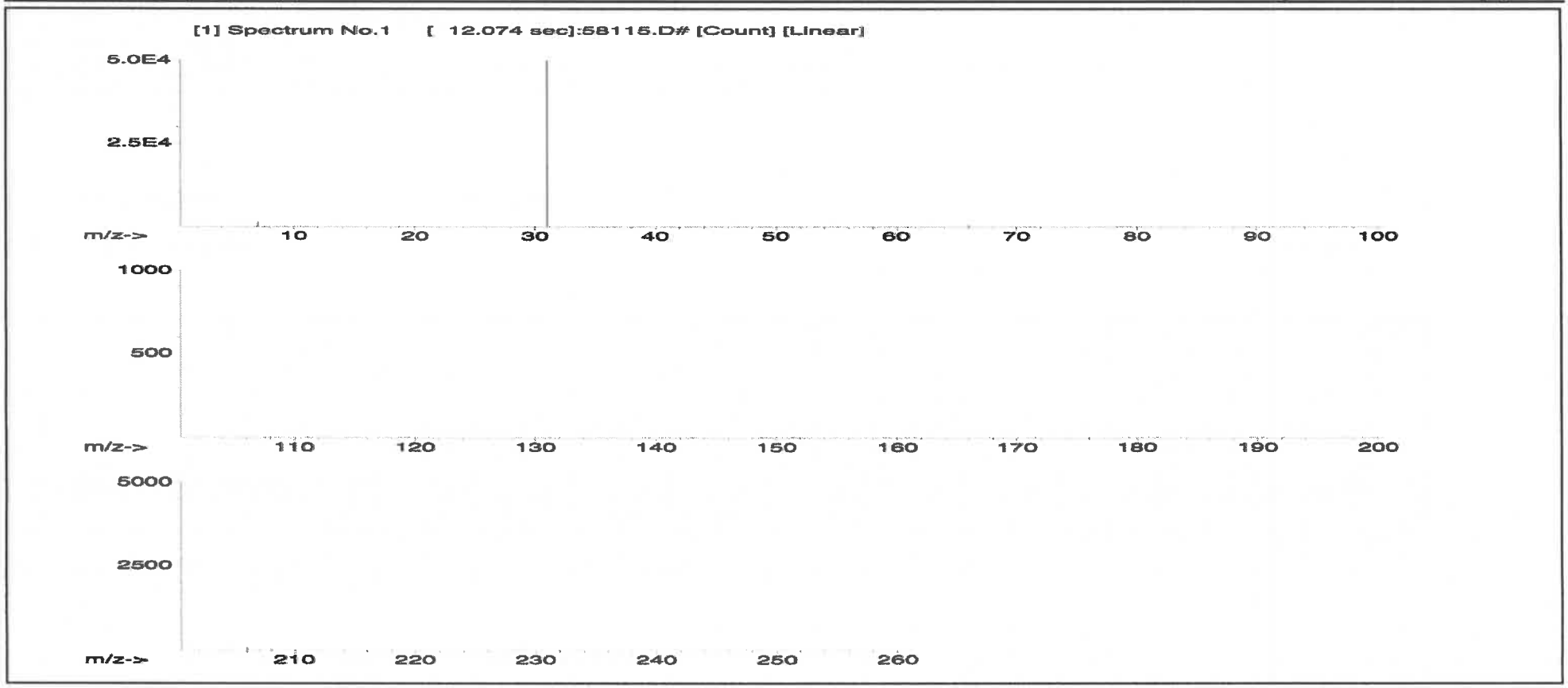
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CERTIFIED WEIGHT REPORT:

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.
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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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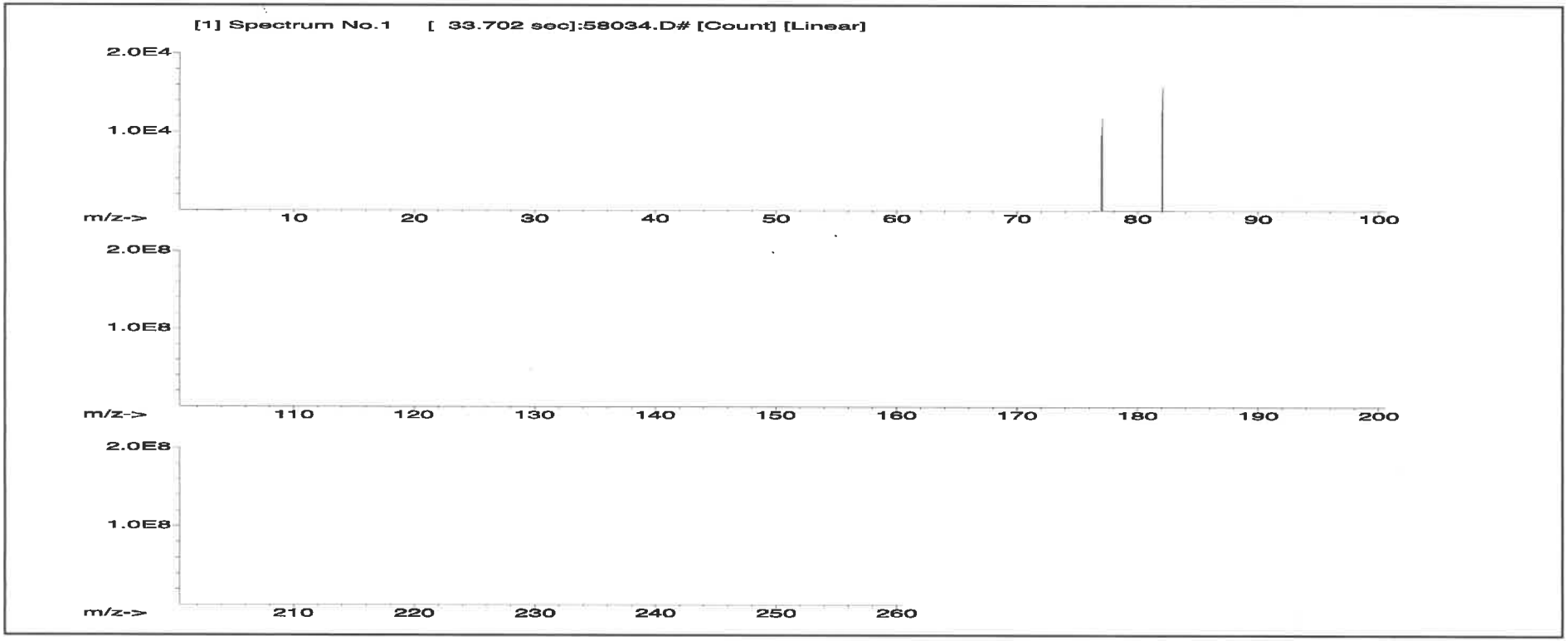
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**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.
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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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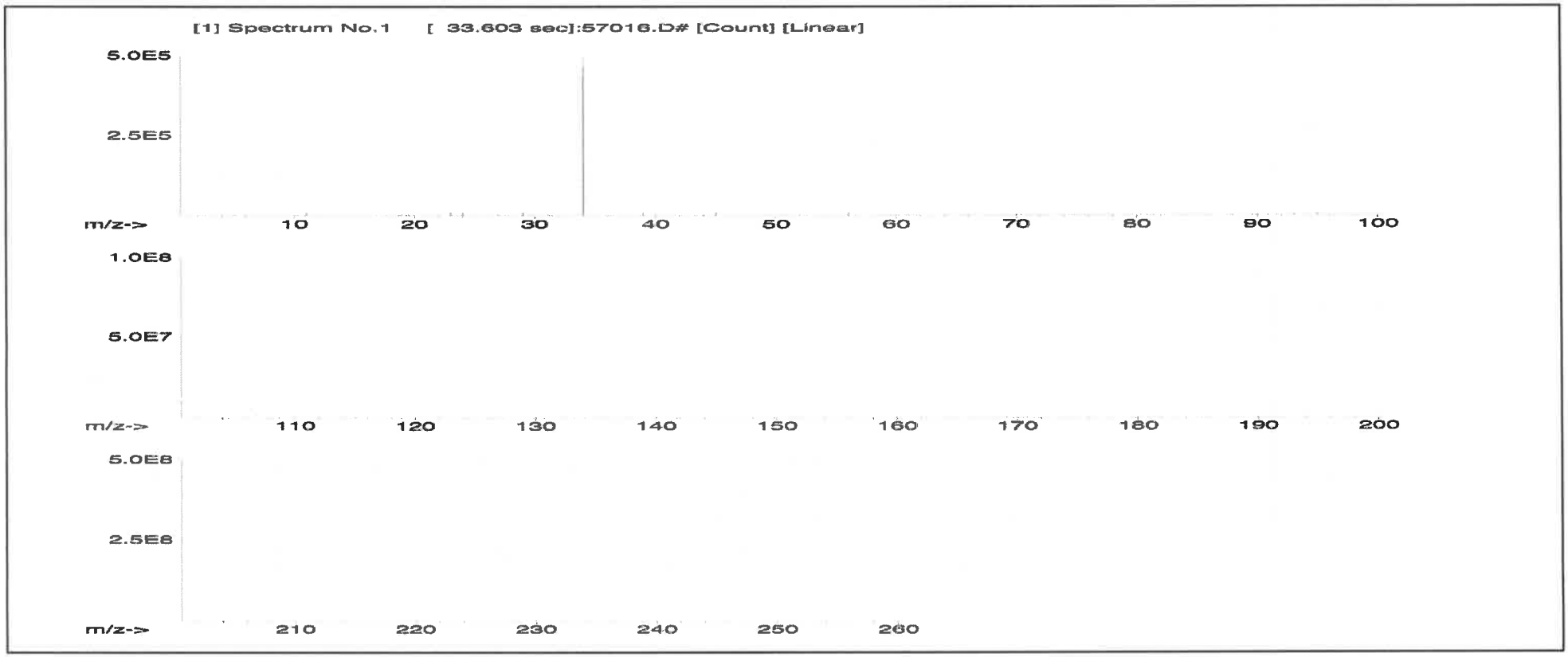
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Lot #

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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M5970, M5971 R: 7/01/24

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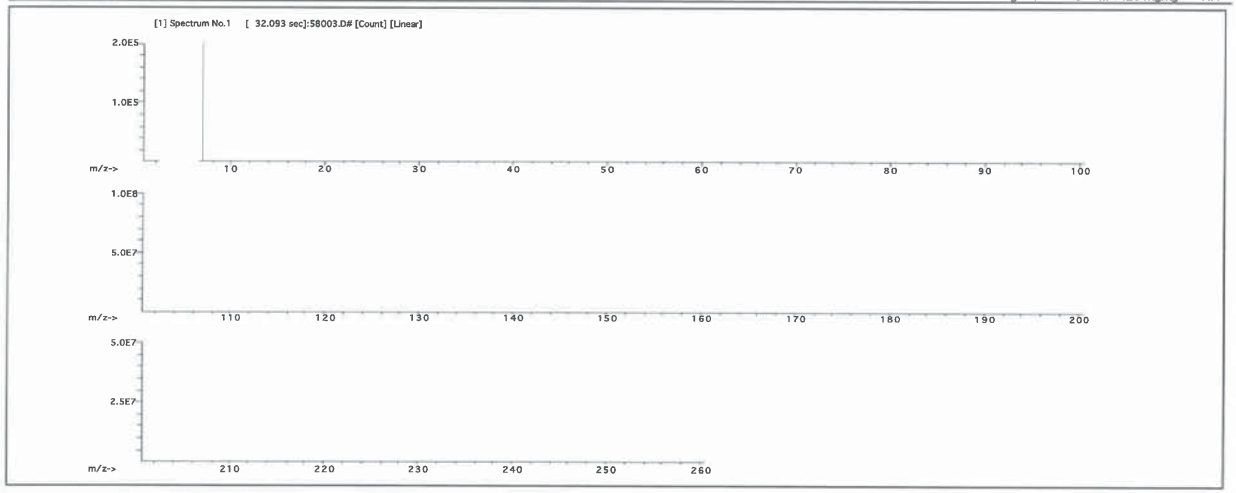
CERTIFIED WEIGHT REPORT:

		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.
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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).

M5978, M5979

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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:	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



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Certificate of Analysis

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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R: 2/22/24
MS-997

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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R! 08/22/24 M6058, M6059

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO_3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 5 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

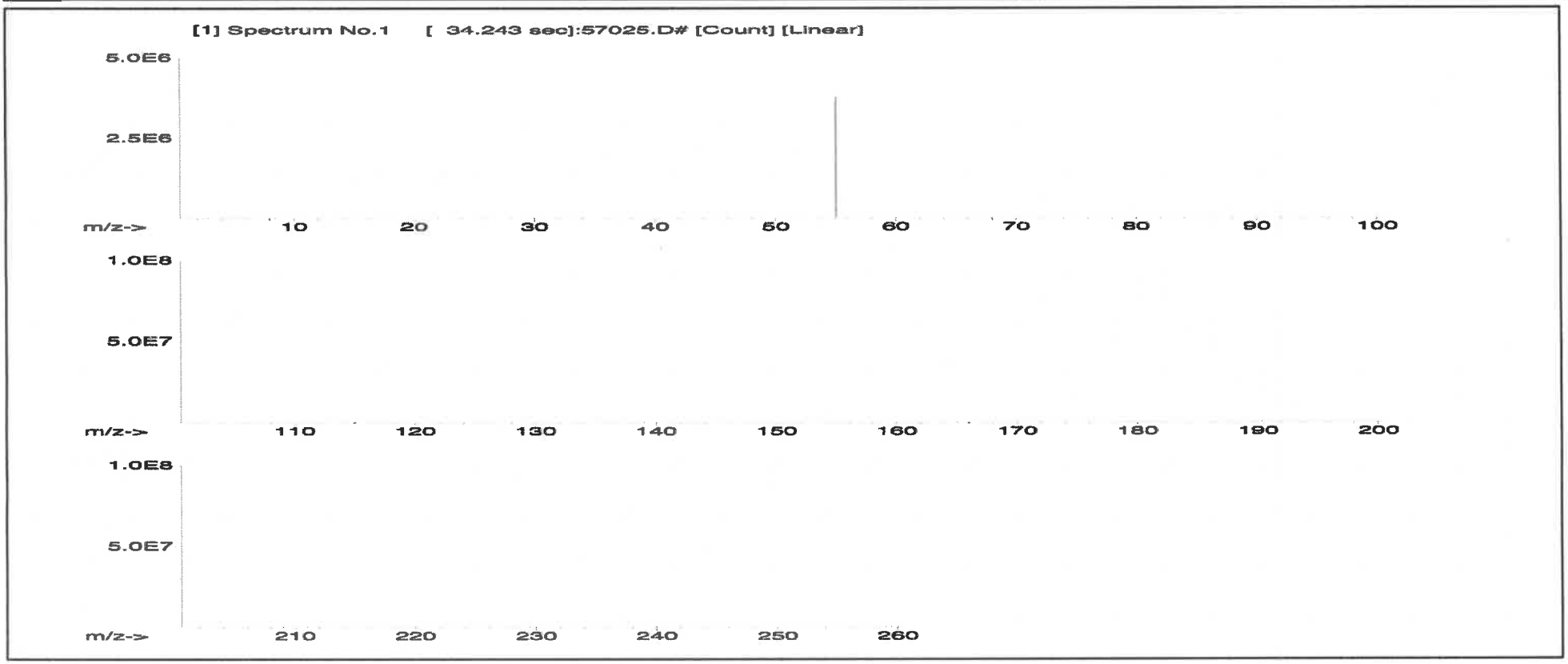
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

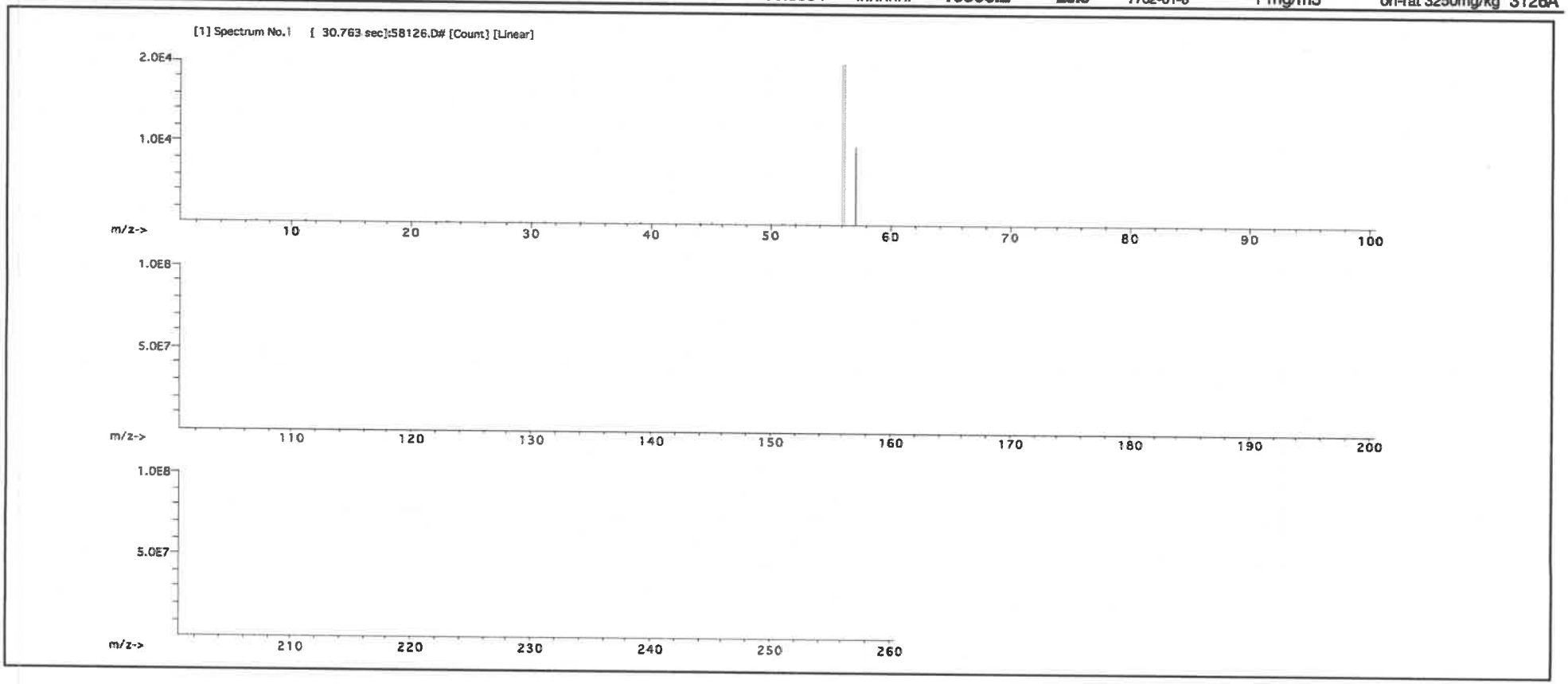
Part Number: 58126 R->1|B|2S
Lot Number: 011025
Description: Iron (Fe) M6140
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	011025
Reviewed By:	Pedro L. Rentas	011025

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	T	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

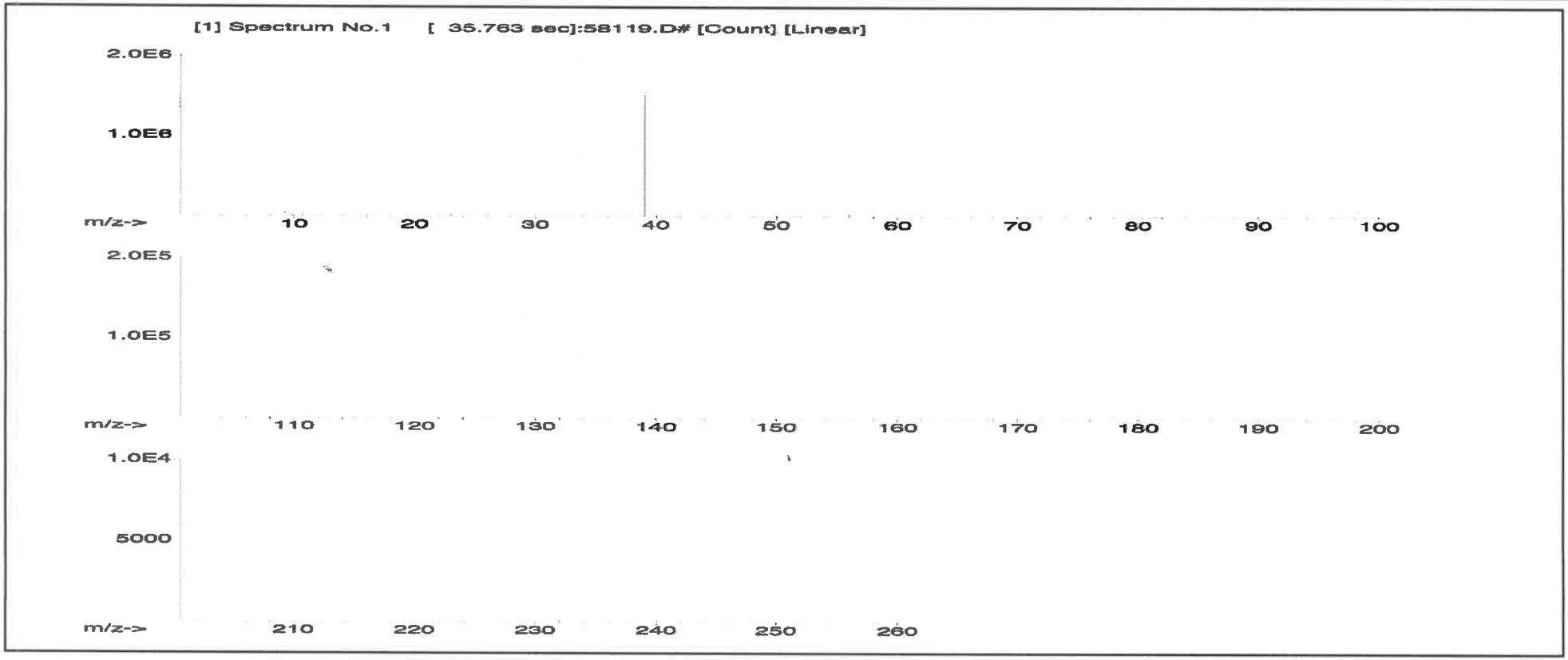
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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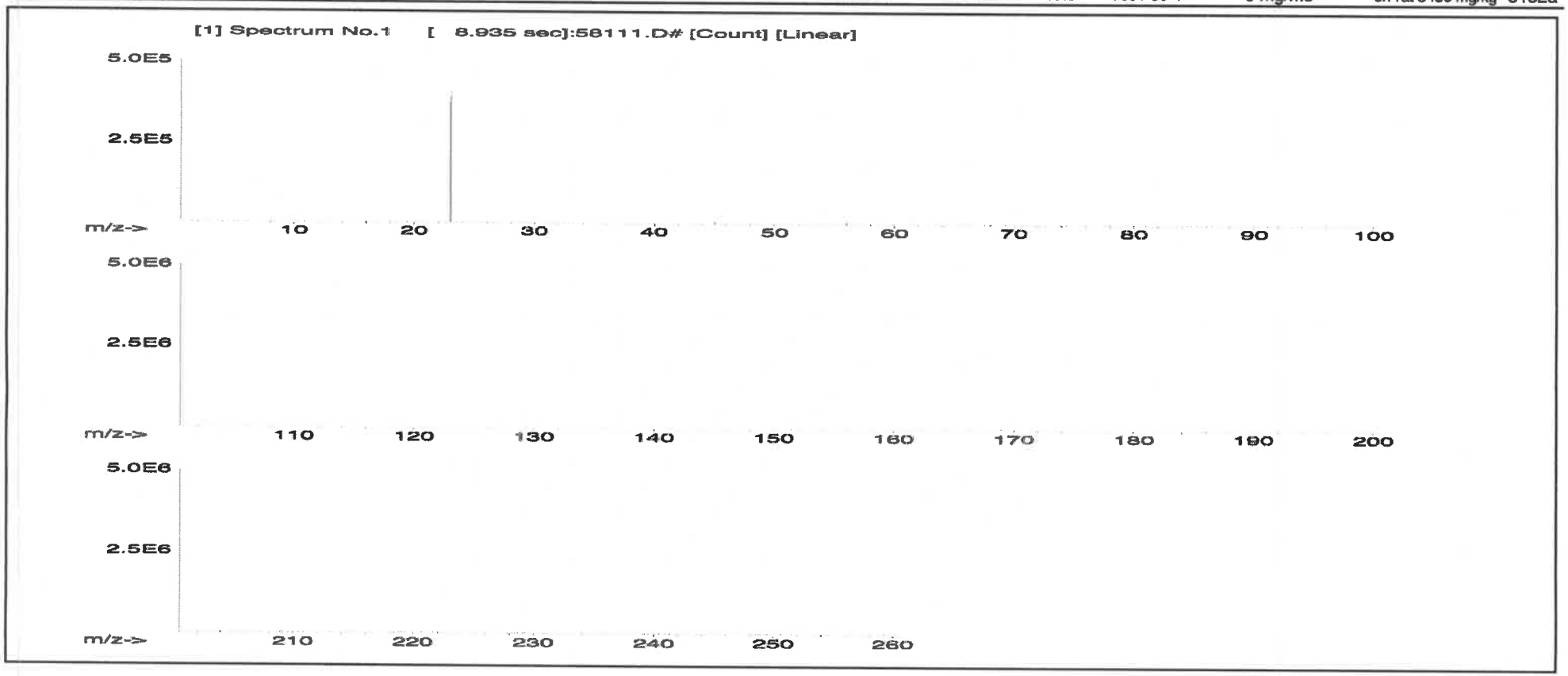
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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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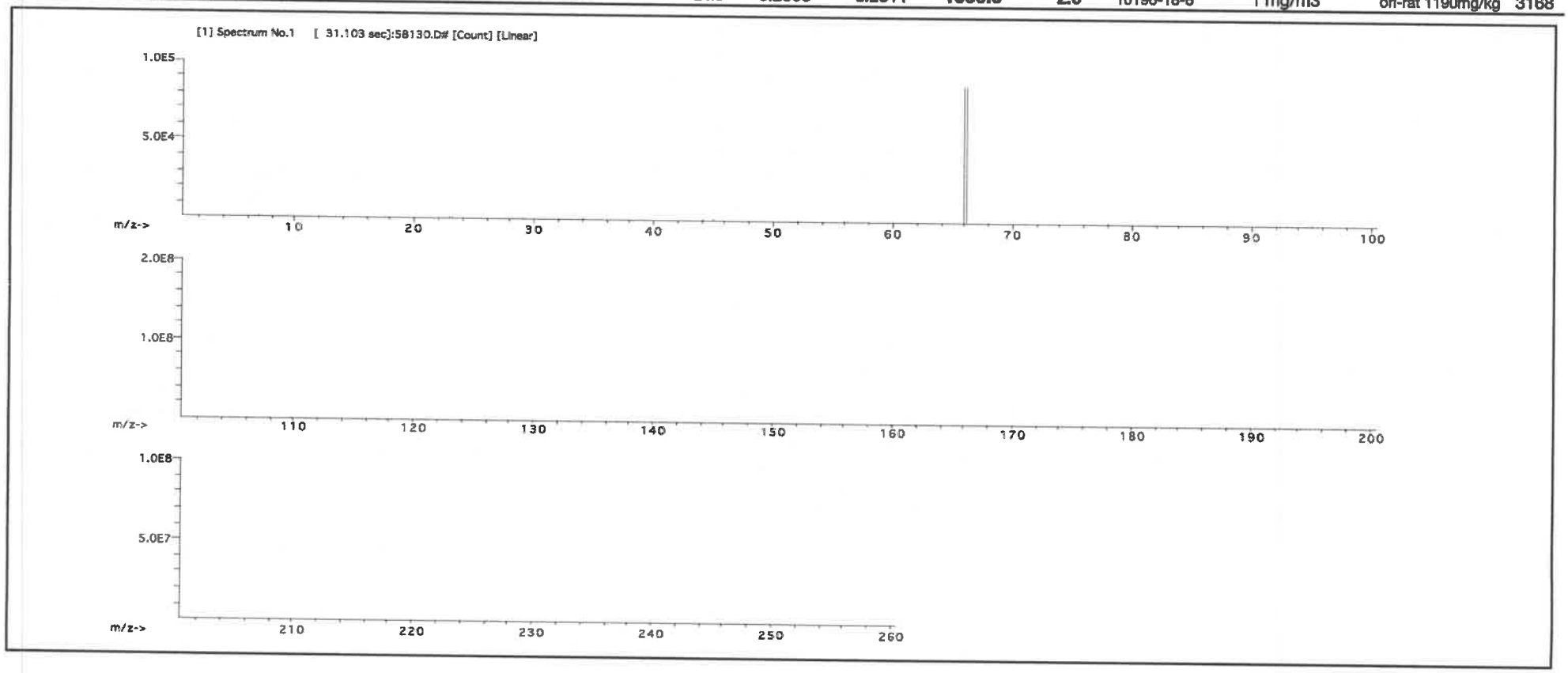
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10 Flask Uncertainty			

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

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).

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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Refine your results. Redefine your industry.

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:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Aluminum, Barium, 500 µg/mL ea: Iron, 250 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 125 µg/mL ea: Silver, Copper, 100 µg/mL ea: Chromium, 25 µg/mL ea: Beryllium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**1 000 ± 4 µg/mL**	**Barium, Ba**	**1 000 ± 6 µg/mL**
Beryllium, Be	**24.98 ± 0.12 µg/mL**	**Calcium, Ca**	**2 500 ± 8 µg/mL**
Chromium, Cr	**99.9 ± 0.6 µg/mL**	**Cobalt, Co**	**250.2 ± 1.2 µg/mL**
Copper, Cu	**125.0 ± 0.5 µg/mL**	**Iron, Fe**	**500.0 ± 2.2 µg/mL**
Magnesium, Mg	**2 500 ± 11 µg/mL**	**Manganese, Mn**	**249.9 ± 1.1 µg/mL**
Nickel, Ni	**250.0 ± 1.2 µg/mL**	**Potassium, K**	**2 500 ± 11 µg/mL**
Silver, Ag	**125.0 ± 0.6 µg/mL**	**Sodium, Na**	**2 500 ± 11 µg/mL**
Vanadium, V	**250.0 ± 1.1 µg/mL**	**Zinc, Zn**	**249.9 ± 1.1 µg/mL**

Density: 1.081 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 22, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

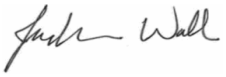
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-2
Lot Number:	U2-MEB733713
Matrix:	3% (w/v) Tartaric acid 1% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**500.0 ± 2.8 µg/mL**		

Density: 1.017 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
w_i = the weighting factors for each method calculated using the inverse square of the variance:
$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with
$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char\ a}$ = the errors from characterization
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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 01, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 01, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

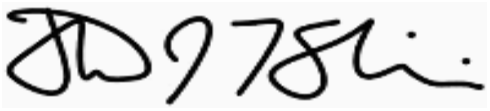
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-3
Lot Number:	V2-MEB749572
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 250 µg/mL ea: Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**500.0 ± 3.1 µg/mL**	**Cadmium, Cd**	**250.1 ± 1.1 µg/mL**
Lead, Pb	**500.0 ± 2.3 µg/mL**	**Selenium, Se**	**500.0 ± 3.2 µg/mL**
Thallium, Tl	**500.0 ± 3.0 µg/mL**		

Density: 1.040 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 02, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 02, 2030**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

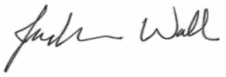
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



R -> 2/13/25

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

M 6171

	Lot #	
Solvent:	24012496	Nitric Acid
2%	40.0 (mL)	Nitric Acid

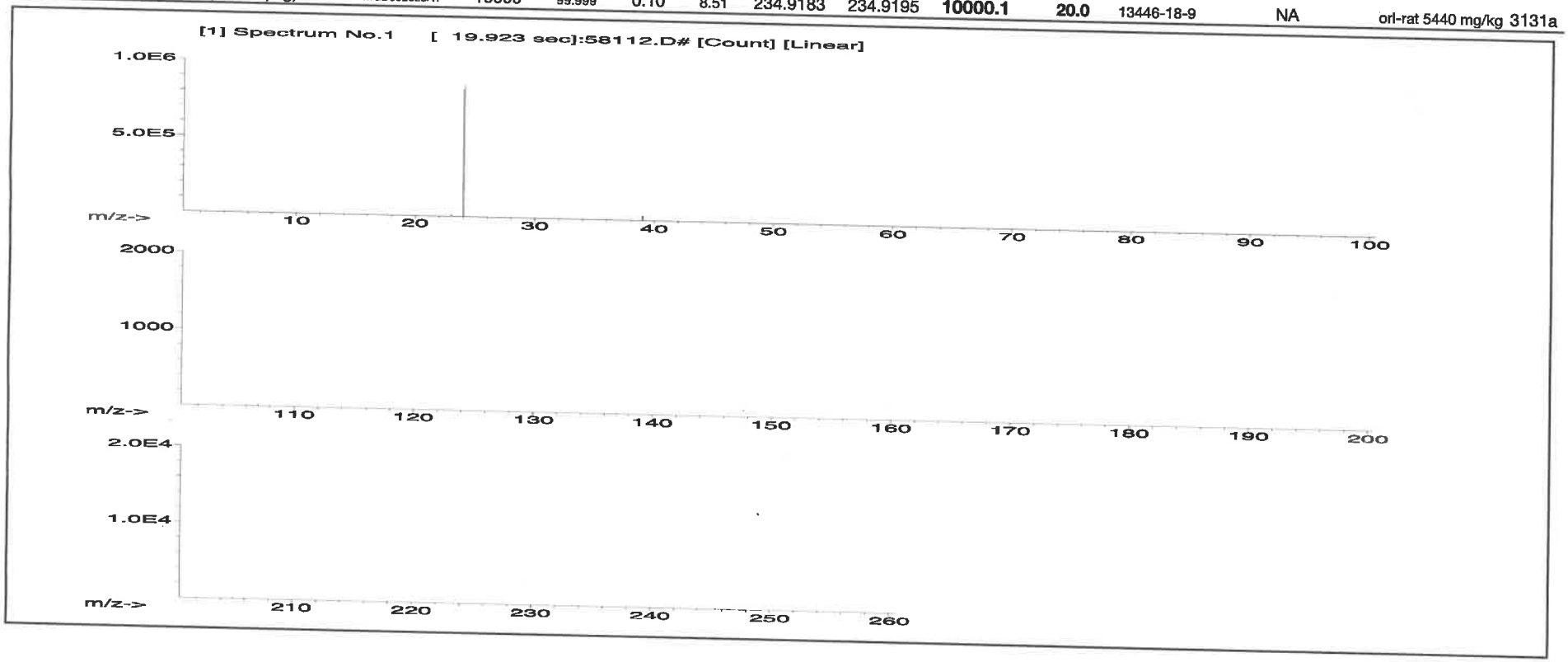
Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

5E-05	Balance Uncertainty	
0.100	Flask Uncertainty	

Weight shown below was diluted to (mL): 2000.07

Formulated By:	Benson Chan	011525
Reviewed By:	Pedro L. Rentas	011525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	V2-MEB742428
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea:
	Calcium, Potassium,
	Magnesium, Sodium,
	2 000 µg/mL ea:
	Aluminum, Barium,
	1 000 µg/mL ea:
	Iron,
	500 µg/mL ea:
	Nickel, Vanadium,
	Zinc, Cobalt,
	Manganese,
	250 µg/mL ea:
	Silver, Copper,
	200 µg/mL ea:
	Chromium,
	50 µg/mL ea:
	Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.03 ± 0.30 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Chromium, Cr	200.0 ± 1.1 µg/mL	Cobalt, Co	500.0 ± 2.3 µg/mL
Copper, Cu	250.0 ± 1.1 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 22 µg/mL	Manganese, Mn	499.9 ± 2.2 µg/mL
Nickel, Ni	500.1 ± 2.3 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.117 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 22, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

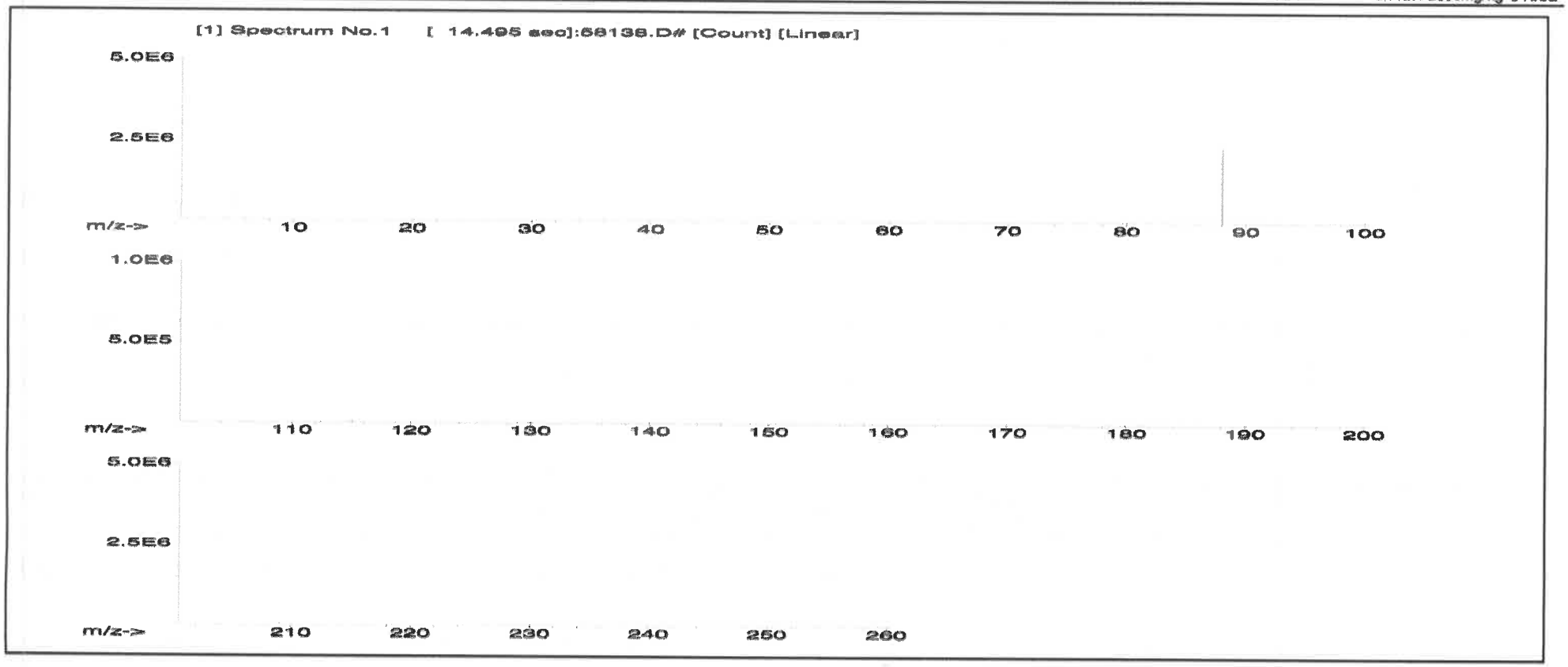
CERTIFIED WEIGHT REPORT:

R->8/6/29

Part Number:	57038		**Lot #**		
Lot Number:	092724	**Solvent:**	24002546	Nitric Acid	
Description:	Strontium (Sr)				
		M6176 2%	40.0 (mL)	Nitric Acid	
Expiration Date:	092727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	092724
Reviewed By:	Pedro L. Rentas	092724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

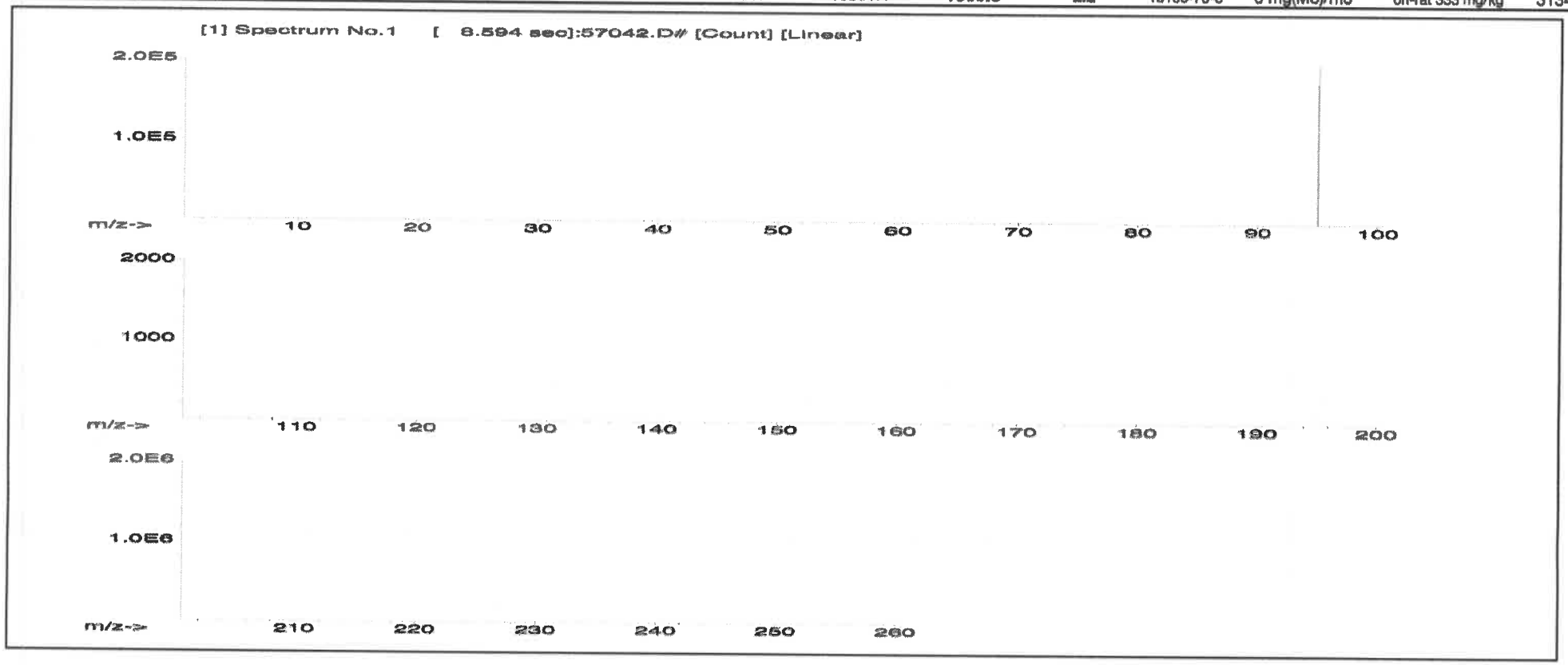
CERTIFIED WEIGHT REPORT:

R→ 8/6/25
M6177

		Lot #	Solvent:		
Part Number:	57042	MKBQ8597V	Ammonium hydroxide		
Lot Number:	080525	080525	ASTM Type 1 Water		
Description:	Molybdenum (Mo)	0.5%	10.0 (mL)	Ammonium hydroxide	
Expiration Date:	080528				
Recommended Storage:	Ambient (15 - 30 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	1999.41	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	080525
Reviewed By:	Pedro L. Rentas	080525

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	112322	0.1000	200.0	0.084	1000	10001.4	**1000.5**	**2.2**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware, and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated by an ISO17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).
Rev 1.0, 2/25/2025

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R>8/6/28
M6178

Part Number:	**57082**		**Lot #**		
Lot Number:	**031525**	**Solvent:**	24014457	Nitric Acid	
Description:	**Lead (Pb)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.10	Flask Uncertainty		

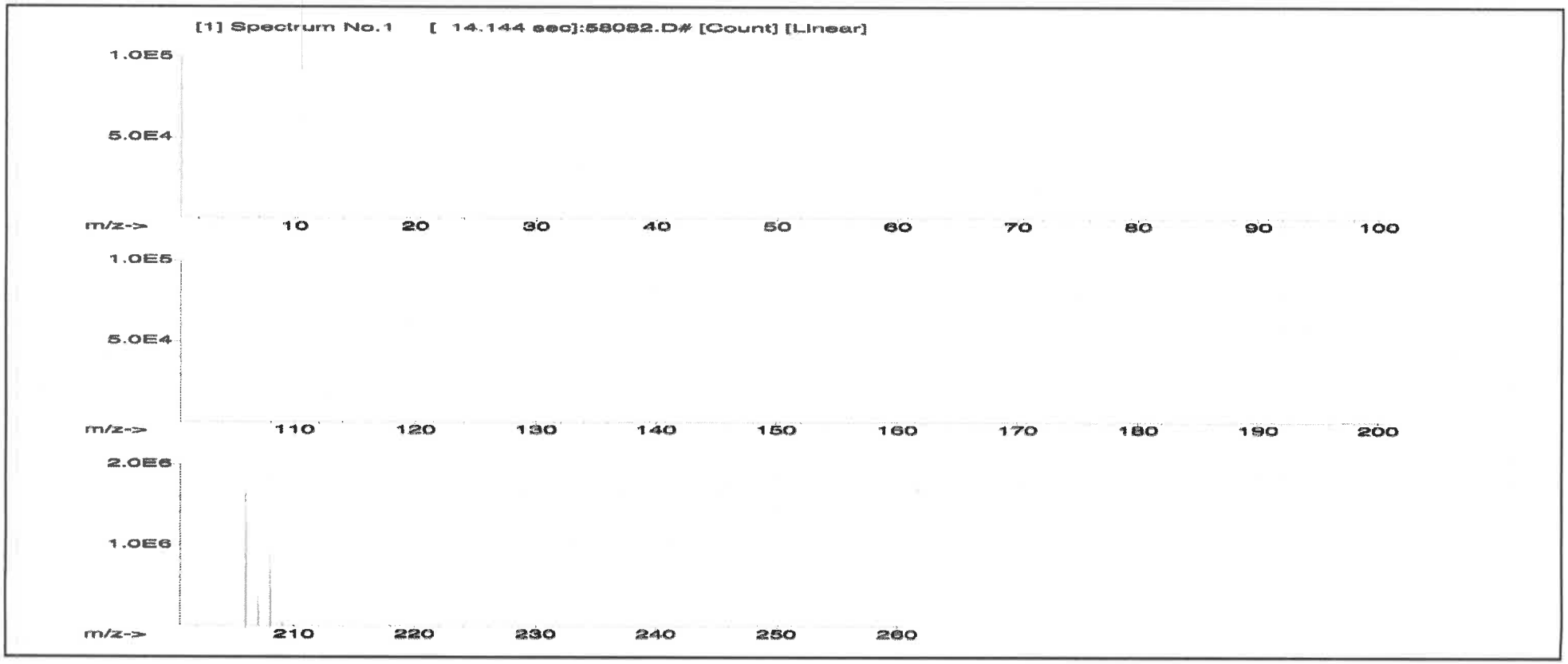
Giovanni Esposito

Formulated By:	Giovanni Esposito	031525

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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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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Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6179
R -> 6/2/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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



R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6182

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M6184

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	V2-MEB743480
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica,
	80 µg/mL ea: Antimony,
	70 µg/mL ea: Tin,
	40 µg/mL ea: Molybdenum,
	20 µg/mL ea: Titanium

R - 7/20/23
M6201
M6202
M6203
M6204

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.5 µg/mL	Molybdenum, Mo	40.05 ± 0.22 µg/mL
Silica, SiO2	200.3 ± 1.4 µg/mL	Tin, Sn	70.1 ± 0.4 µg/mL
Titanium, Ti	20.03 ± 0.12 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
SiO2	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 07, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- May 07, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

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ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	W2-MEB752149
Matrix:	5% (v/v) HNO3

R -> 7/20/23

M6209
M6210
M6211
M6212

Value / Analyte(s):		
	1 000 µg/mL ea:	
	Potassium,	
	600 µg/mL ea:	
	Phosphorus,	
	300 µg/mL ea:	
	Sodium,	Iron,
	200 µg/mL ea:	
	Magnesium,	Aluminum,
	Cerium,	Selenium,
	Thallium,	
	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,	Boron,
	Vanadium,	
	20 µg/mL ea:	
	Zinc,	Strontium,
	Barium,	Beryllium,
	Cadmium,	Cobalt,
	Manganese,	Lithium,
	7.5 µg/mL ea:	
	Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.2 ± 0.7 µg/mL	Arsenic, As	80.1 ± 0.5 µg/mL
Barium, Ba	20.02 ± 0.12 µg/mL	Beryllium, Be	20.02 ± 0.11 µg/mL
Boron, B	30.02 ± 0.15 µg/mL	Cadmium, Cd	20.04 ± 0.09 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	200.2 ± 1.0 µg/mL
Chromium, Cr	40.02 ± 0.26 µg/mL	Cobalt, Co	20.03 ± 0.09 µg/mL
Copper, Cu	30.03 ± 0.13 µg/mL	Iron, Fe	300.3 ± 1.3 µg/mL
Lead, Pb	100.1 ± 0.5 µg/mL	Lithium, Li	20.03 ± 0.09 µg/mL
Magnesium, Mg	200.2 ± 0.9 µg/mL	Manganese, Mn	19.99 ± 0.09 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.05 ± 0.22 µg/mL
Phosphorus, P	600.5 ± 2.9 µg/mL	Potassium, K	1 001 ± 4 µg/mL
Selenium, Se	200.2 ± 1.1 µg/mL	Silver, Ag	7.52 ± 0.03 µg/mL
Sodium, Na	300.3 ± 1.3 µg/mL	Strontium, Sr	20.02 ± 0.10 µg/mL
Thallium, Tl	200.2 ± 1.0 µg/mL	Vanadium, V	30.02 ± 0.13 µg/mL
Zinc, Zn	20.05 ± 0.09 µg/mL		

Density: 1.037 g/mL (measured at 20 ± 5 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 25° C to minimize the effects of transpiration. Use at 20° ± 5° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 08, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 08, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

R 8/05/24

M6027

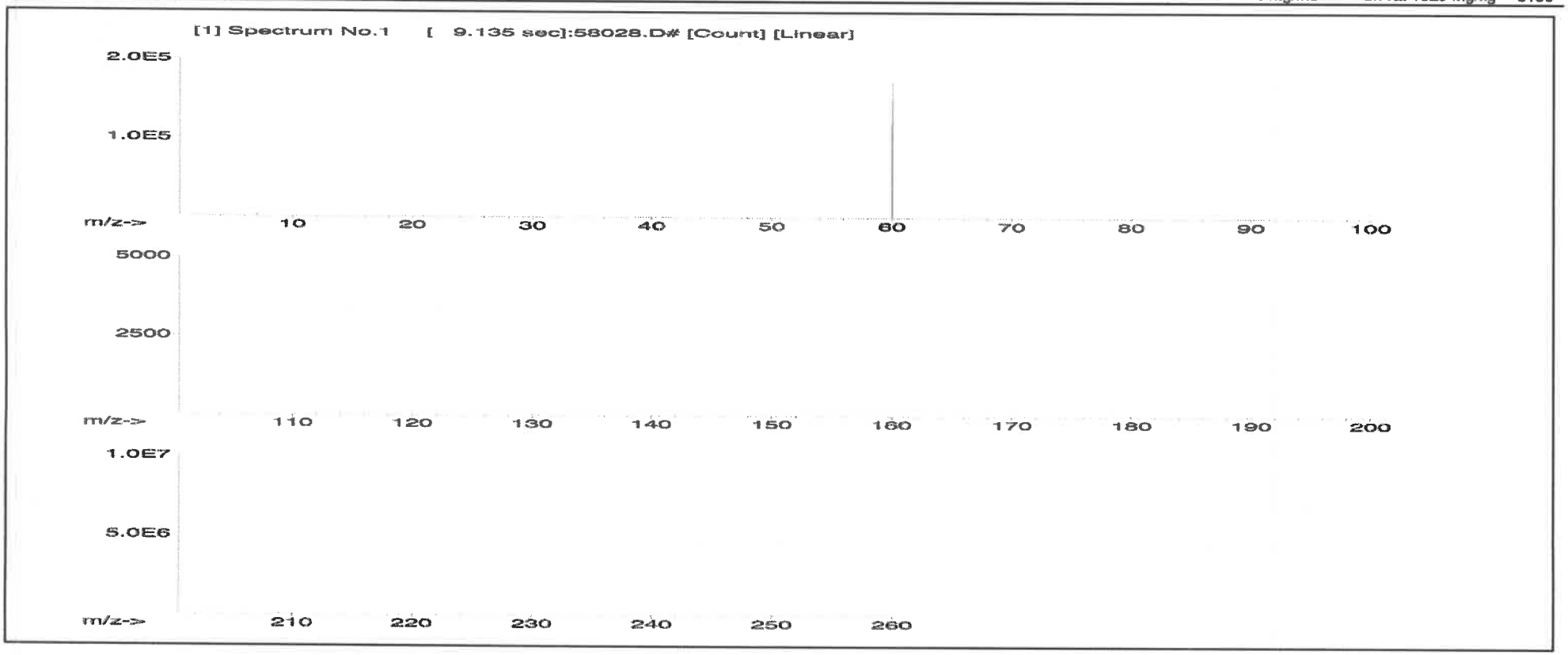
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**			
Lot Number:	**062024**	24002546	Nitric Acid	
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062027			
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	062024
Reviewed By:	Pedro L. Rentas	062024

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

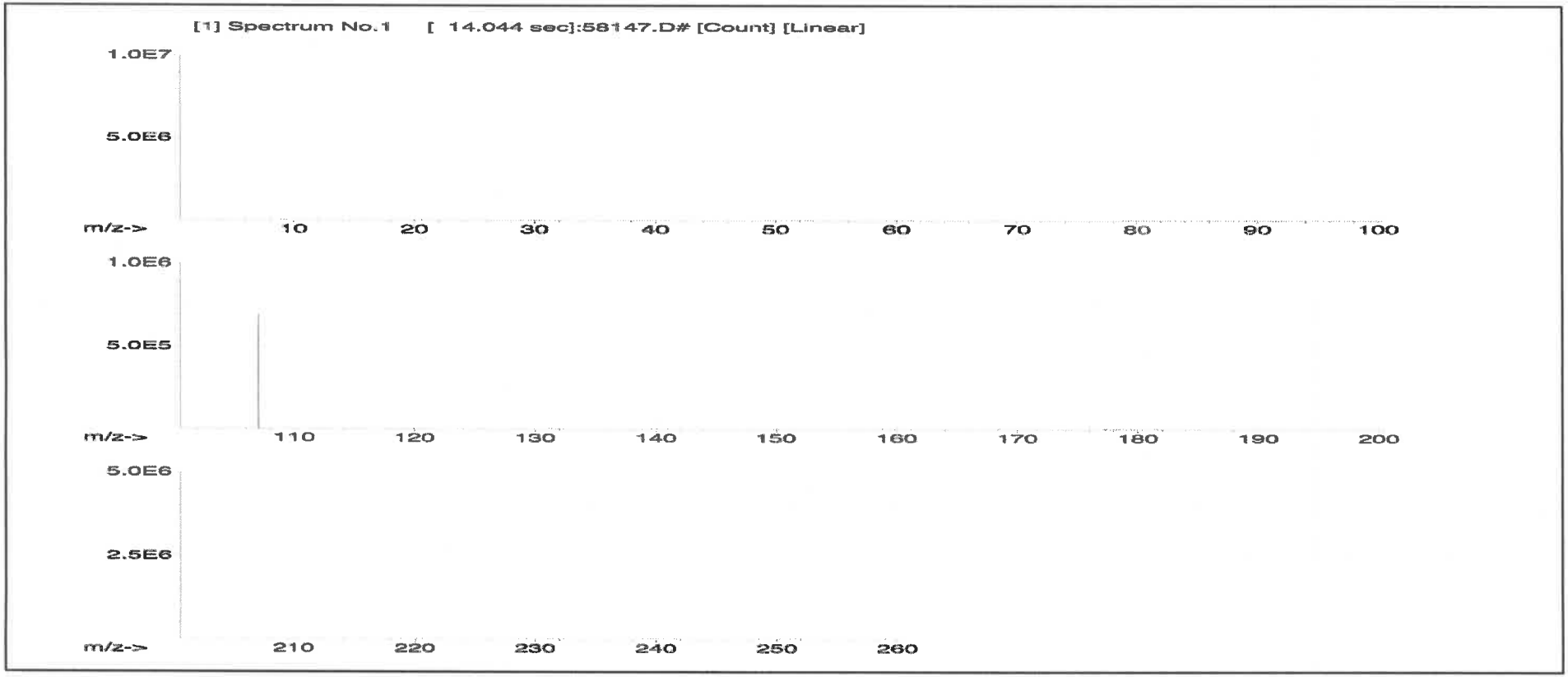
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CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

opened : 3/24/25

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CERTIFIED WEIGHT REPORT:

M6160

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

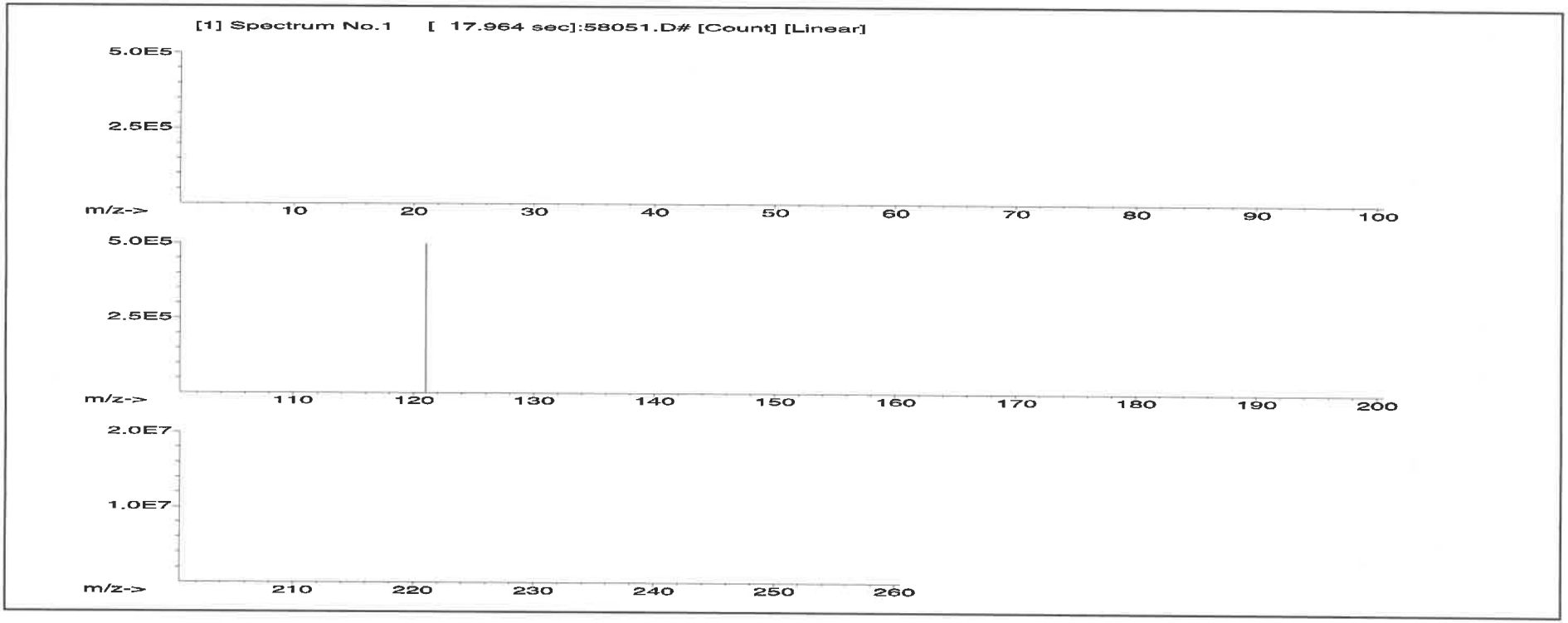
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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

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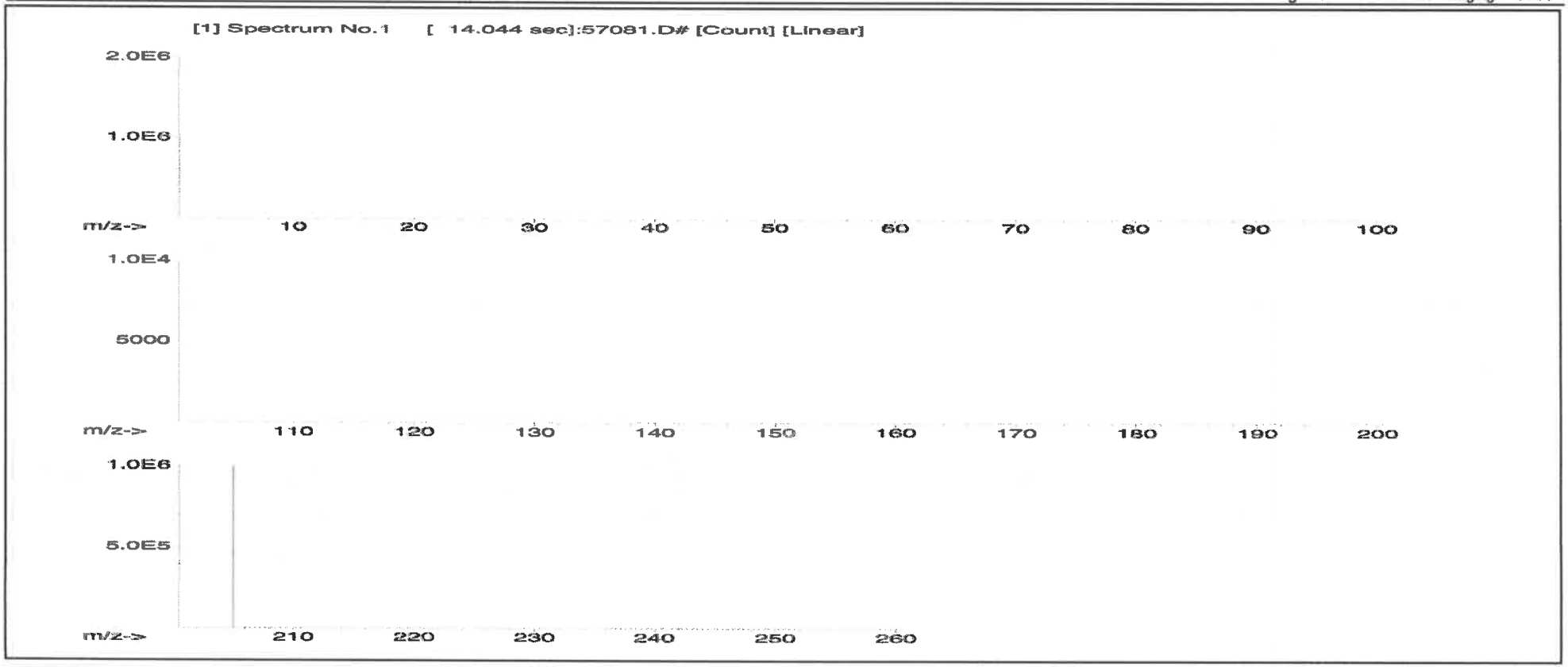
CERTIFIED WEIGHT REPORT:

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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
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	

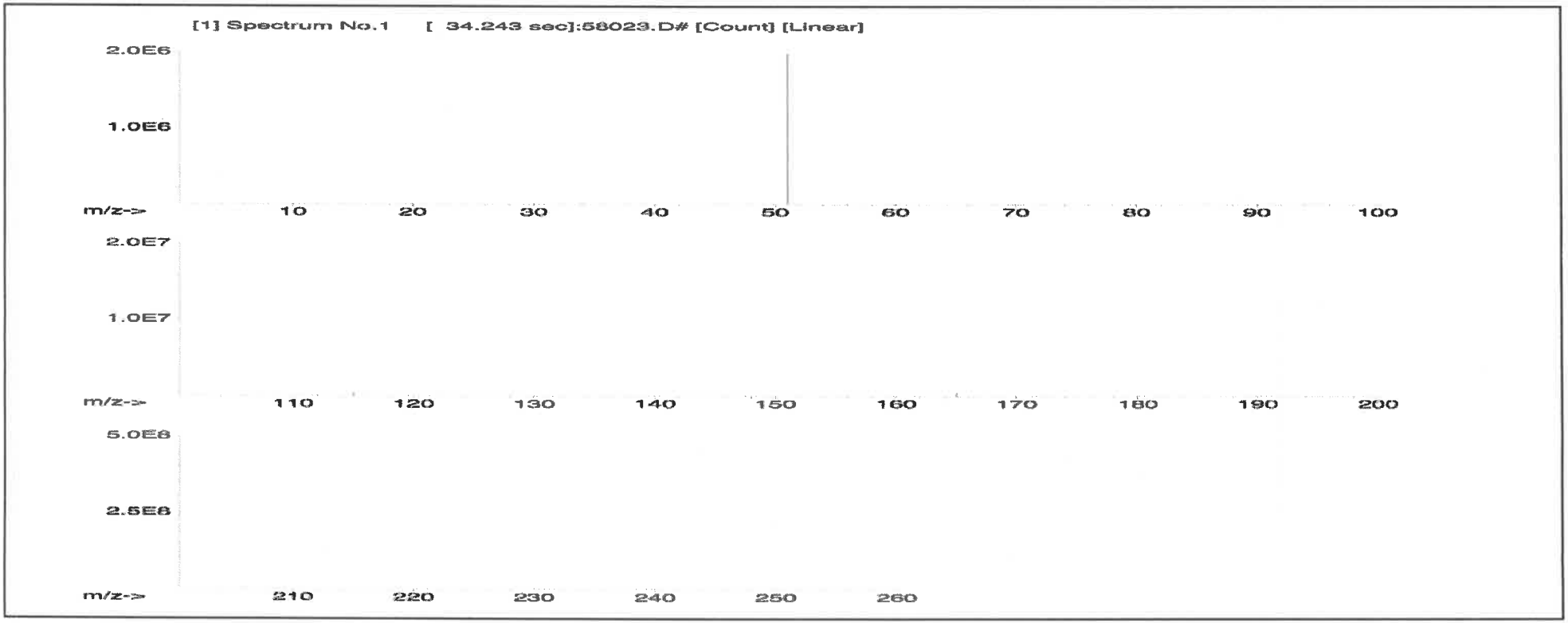
Aleah O'Brady

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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* 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).



SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 788-9222
www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number: Q3238 Q3391

COC Number:

CLIENT INFORMATION

COMPANY: Yannuzzi Group, Inc.
ADDRESS: 135 Kinnelon Road
CITY Kinnelon STATE: NJ ZIP: 07405
ATTENTION: Edgar Gavilanes
PHONE: 908-218-0880 FAX: 908-218-0884

PROJECT INFORMATION

PROJECT NAME: Edison
PROJECT #: 2025-1 LOCATION: Edison, NJ
PROJECT MANAGER: Rafael Nunez
E-MAIL: Rafael@yannuzzigroup.com-
PHONE: 908-218-0880 FAX: 908-218-0884

BILLING INFORMATION

BILL TO: Yannuzzi Group, Inc. PO#
ADDRESS: 327 Meadow Road
CITY: Edison STATE: NJ ZIP: 08837
ATTENTION: Rafael Nunez PHONE: 908-218-0880

DATA TURNAROUND INFORMATION

FAX:Standard_____ DAYS*
HARD COPY:Standard_____ DAYS*
EDD_Standard_____ DAYS*
* TO BE APPROVED BY ALLIANCE
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- X RESULTS + QC
- O New Jersey REDUCED
- O New Jersey CLP
- O EDD Format_____
- O USEPA CLP
- O New York State ASP "B"
- O New York State ASP "A"
- O Other_____

ANALYSIS

1	2	3	4	5	6	7	8	9
TCLP+30	TPH GC	SVOC	VOC	PCB	Pest	ICP-TAL		

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
1. CM-1	RCA	Composite	X		9/18/25	10:31		X	X	X	X	X	X	X			Crush
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	
1. Rafael Nunez	9/29	1. SJ	9/29/25
RELINQUISHED BY	DATE/TIME	RECEIVED BY	
2.	12:10	2.	12:10
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY	
3.		3.	

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 20.5°C ☐ Ice in Cooler?: NO
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments: IR GUN #1

Page ____ of ____

SHIPPED VIA: CLIENT: ☐ Hand Delivered q Overnight
ALLIANCE: q Picked Up ☐ Overnight

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPYFOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

NO ICE. Rock samples.

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312