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

DATA PACKAGE

METALS

PROJECT NAME : RAYMARK SUPERFUND SITE

NOBIS GROUP

585 Middlesex Street

Lowell, MA - 01851

Phone No: 978-683-0891

ORDER ID : Q2259

ATTENTION : Adam Roy

Laboratory Certification ID # 20012

Alliance TECHNICAL GROUP

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Cover Page

Order ID : Q2259

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number	Client Sample Number
Q2259-01	OU4-PCS-TC-36-060525
Q2259-02	OU4-PCS-TC-36-060525
Q2259-03	OU4-PCS-TC-37-060525
Q2259-04	OU4-PCS-TC-37-060525
Q2259-05	OU4-TS-29-060525
Q2259-06	OU4-TS-30-060525

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

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 11:50 am, Jun 23, 2025

Date: 6/20/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Nobis Group
Project Name: Raymark Superfund Site
Project # N/A
Order ID # Q2259
Test Name: SPLP Mercury,SPLP MetalGroup3

A. Number of Samples and Date of Receipt:
6 Solid samples were received on 06/06/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3 and VOCMS Group3. This data package contains results for SPLP Mercury,SPLP MetalGroup3.

C. Analytical Techniques:
The analysis of SPLP MetalGroup3 was based on method 6020B, digestion based on method 3050 (soils). The analysis of SPLP Mercury was based on method 7470A and digestion was based on method 7471B (soils).

D. QA/ QC Samples:

The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate (OU4-PCS-TC-37-060525DUP) analysis met criteria for all samples except for Copper due to matrix interference.

The Matrix Spike (OU4-PCS-TC-37-060525MS) analysis met criteria for all samples except for Barium, Lead, Silver, and Thallium due to Chemical Interference during Digestion Process.

The Matrix Spike Duplicate (OU4-PCS-TC-37-060525MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (OU4-PCS-TC-37-060525MSD) analysis met criteria for all samples except for Barium, Lead, Silver and Thallium due to Chemical Interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

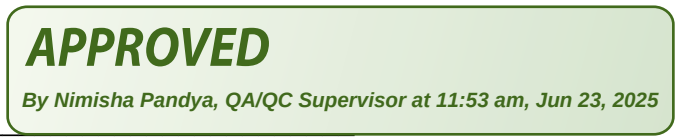
E. Additional Comments:

The Post Digest Spike (OU4-PCS-TC-37-060525A) analysis met criteria for all samples except for Barium, Lead, Mercury and Thallium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.

Q2019 All samples analyzed with dilution because of SPLP fluid which has concentrated mix of acids can cause problem to the detector if analyzed straight.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

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

Signature 

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q2259 MATRIX: Water

METHOD: 6020B,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike (OU4-PCS-TC-37-060525MS) analysis met criteria for all samples except for Barium, Lead, Silver, and Thallium due to Chemical Interference during Digestion Process. The Matrix Spike Duplicate (OU4-PCS-TC-37-060525MSD) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike Duplicate (OU4-PCS-TC-37-060525MSD) analysis met criteria for all samples except for Barium, Lead, Silver and Thallium due to Chemical Interference during Digestion Process.			
7.	Sample Duplicate Analysis Met QC Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Duplicate (OU4-PCS-TC-37-060525DUP) analysis met criteria for all samples except for Copper due to matrix interference.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

ADDITIONAL COMMENTS:

The Post Digest Spike (OU4-PCS-TC-37-060525A) analysis met criteria for all samples except for Barium, Lead, Mercury and Thallium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.

Q2019 All samples analyzed with dilution because of SPLP fluid which has concentrated mix of acids can cause problem to the detector if analyzed straight.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 11:45 am, Jun 23, 2025

Date

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2259

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: SOHIL JODHANI **Date:** 06/20/2025

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LAB CHRONICLE

OrderID:	Q2259	**OrderDate:**	6/6/2025 10:57:00 AM
Client:	Nobis Group	**Project:**	Raymark Superfund Site
Contact:	Adam Roy	**Location:**	D21,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2259-01	**OU4-PCS-TC-36-060525**	**SOIL**			**06/05/25**			**06/06/25**
			Mercury	7471B		06/09/25	06/09/25	
			Metals ICP-TAL	6010D		06/09/25	06/10/25	
Q2259-02	**OU4-PCS-TC-36-060525**	**Water**			**06/05/25**			**06/06/25**
			SPLP Mercury	7470A		06/11/25	06/12/25	
			SPLP MetalGroup3	6020B		06/10/25	06/20/25	
Q2259-03	**OU4-PCS-TC-37-060525**	**SOIL**			**06/05/25**			**06/06/25**
			Mercury	7471B		06/09/25	06/09/25	
			Metals ICP-TAL	6010D		06/09/25	06/10/25	
Q2259-04	**OU4-PCS-TC-37-060525**	**Water**			**06/05/25**			**06/06/25**
			SPLP Mercury	7470A		06/11/25	06/12/25	
			SPLP MetalGroup3	6020B		06/10/25	06/20/25	
Q2259-05	**OU4-TS-29-060525**	**SOIL**			**06/05/25**			**06/06/25**
			Mercury	7471B		06/09/25	06/09/25	
			Metals ICP-TAL	6010D		06/09/25	06/10/25	
Q2259-06	**OU4-TS-30-060525**	**SOIL**			**06/05/25**			**06/06/25**
			Mercury	7471B		06/09/25	06/09/25	
			Metals ICP-TAL	6010D		06/09/25	06/10/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2259 **Order ID:** Q2259

Client: Nobis Group **Project ID:** Raymark Superfund Site

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : OU4-PCS-TC-36-060525									
Q2259-02	OU4-PCS-TC-36-060525	Water	Arsenic	2.25	JD	0.45	1.25	5.00	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Barium	84.3	D	1.05	6.25	50.0	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Chromium	6.30	JD	1.05	3.75	10.0	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Copper	44.9	D	1.50	7.50	10.0	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Nickel	62.2	D	1.35	3.75	5.00	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Mercury	0.23		0.076	0.16	0.20	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Vanadium	265	D	0.39	1.25	25.0	ug/L
Q2259-02	OU4-PCS-TC-36-060525	Water	Zinc	672	D	6.25	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-37-060525									
Q2259-04	OU4-PCS-TC-37-060525	Water	Arsenic	2.10	JD	0.45	1.25	5.00	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Barium	94.6	D	1.05	6.25	50.0	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Chromium	7.10	JD	1.05	3.75	10.0	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Copper	95.0	D	1.50	7.50	10.0	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Nickel	61.7	D	1.35	3.75	5.00	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Vanadium	259	D	0.39	1.25	25.0	ug/L
Q2259-04	OU4-PCS-TC-37-060525	Water	Zinc	726	D	6.25	7.50	25.0	ug/L

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Nobis Group	Date Collected:	06/05/25
Project:	Raymark Superfund Site	Date Received:	06/06/25
Client Sample ID:	OU4-PCS-TC-36-060525	SDG No.:	Q2259
Lab Sample ID:	Q2259-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-38-2	Arsenic	2.25	JD	5	0.45	1.25	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-39-3	Barium	84.3	DN	5	1.05	6.25	50.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-41-7	Beryllium	3.75	UD	5	1.60	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-43-9	Cadmium	2.50	UD	5	1.70	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-47-3	Chromium	6.30	JD	5	1.05	3.75	10.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-50-8	Copper	44.9	D*	5	1.50	7.50	10.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7439-92-1	Lead	3.75	UDN	5	1.05	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7439-97-6	Mercury	0.23	N	1	0.076	0.16	0.20	ug/L	06/11/25 11:05	06/12/25 10:32	7470A	
7440-02-0	Nickel	62.2	D	5	1.35	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7782-49-2	Selenium	22.5	UD	5	14.5	22.5	25.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-22-4	Silver	2.50	UDN	5	0.30	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-28-0	Thallium	2.50	UDN	5	0.30	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-62-2	Vanadium	265	D	5	0.39	1.25	25.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A
7440-66-6	Zinc	672	D	5	6.25	7.50	25.0	ug/L	06/10/25 12:30	06/20/25 12:27	6020B	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP Mercury				

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

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

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Report of Analysis

Client:	Nobis Group	Date Collected:	06/05/25
Project:	Raymark Superfund Site	Date Received:	06/06/25
Client Sample ID:	OU4-PCS-TC-37-060525	SDG No.:	Q2259
Lab Sample ID:	Q2259-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-38-2	Arsenic	2.10	JD	5	0.45	1.25	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-39-3	Barium	94.6	DN	5	1.05	6.25	50.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-41-7	Beryllium	3.75	UD	5	1.60	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-43-9	Cadmium	2.50	UD	5	1.70	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-47-3	Chromium	7.10	JD	5	1.05	3.75	10.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-50-8	Copper	95.0	D*	5	1.50	7.50	10.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7439-92-1	Lead	3.75	UDN	5	1.05	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7439-97-6	Mercury	0.16	UN	1	0.076	0.16	0.20	ug/L	06/11/25 11:05	06/12/25 10:35	7470A	
7440-02-0	Nickel	61.7	D	5	1.35	3.75	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7782-49-2	Selenium	22.5	UD	5	14.5	22.5	25.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-22-4	Silver	2.50	UDN	5	0.30	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-28-0	Thallium	2.50	UDN	5	0.30	2.50	5.00	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-62-2	Vanadium	259	D	5	0.39	1.25	25.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A
7440-66-6	Zinc	726	D	5	6.25	7.50	25.0	ug/L	06/10/25 12:30	06/20/25 12:30	6020B	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP Mercury				

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: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV35	Mercury	4.01	4.0	100	90 - 110	CV	06/12/2025	10:12	LB136124

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV30	Mercury	4.64	5.0	93	90 - 110	CV	06/12/2025	10:16	LB136124
CCV31	Mercury	5.04	5.0	101	90 - 110	CV	06/12/2025	10:50	LB136124
CCV32	Mercury	4.71	5.0	94	90 - 110	CV	06/12/2025	11:17	LB136124
CCV33	Mercury	4.79	5.0	96	90 - 110	CV	06/12/2025	11:38	LB136124
CCV34	Mercury	4.89	5.0	98	90 - 110	CV	06/12/2025	11:58	LB136124

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Antimony	193	200	96	90 - 110	P	06/20/2025	11:31	LB136217
	Arsenic	214	200	107	90 - 110	P	06/20/2025	11:31	LB136217
	Barium	99.2	100	99	90 - 110	P	06/20/2025	11:31	LB136217
	Beryllium	105	100	105	90 - 110	P	06/20/2025	11:31	LB136217
	Cadmium	109	100	109	90 - 110	P	06/20/2025	11:31	LB136217
	Chromium	103	100	103	90 - 110	P	06/20/2025	11:31	LB136217
	Copper	100	100	100	90 - 110	P	06/20/2025	11:31	LB136217
	Lead	182	200	91	90 - 110	P	06/20/2025	11:31	LB136217
	Nickel	116	110	105	90 - 110	P	06/20/2025	11:31	LB136217
	Selenium	207	200	103	90 - 110	P	06/20/2025	11:31	LB136217
	Silver	47.5	50.0	95	90 - 110	P	06/20/2025	11:31	LB136217
	Thallium	213	210	102	90 - 110	P	06/20/2025	11:31	LB136217
	Vanadium	97.4	100	97	90 - 110	P	06/20/2025	11:31	LB136217
	Zinc	199	200	99	90 - 110	P	06/20/2025	11:31	LB136217

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Antimony	1.97	2.0	98	80 - 120	P	06/20/2025	11:39	LB136217
	Arsenic	1.12	1.0	112	80 - 120	P	06/20/2025	11:39	LB136217
	Barium	9.39	10.0	94	80 - 120	P	06/20/2025	11:39	LB136217
	Beryllium	1.07	1.0	107	80 - 120	P	06/20/2025	11:39	LB136217
	Cadmium	1.08	1.0	108	80 - 120	P	06/20/2025	11:39	LB136217
	Chromium	1.95	2.0	98	80 - 120	P	06/20/2025	11:39	LB136217
	Copper	1.96	2.0	98	80 - 120	P	06/20/2025	11:39	LB136217
	Lead	0.88	1.0	88	80 - 120	P	06/20/2025	11:39	LB136217
	Nickel	1.04	1.0	104	80 - 120	P	06/20/2025	11:39	LB136217
	Selenium	4.53	5.0	91	80 - 120	P	06/20/2025	11:39	LB136217
	Silver	1.00	1.0	100	80 - 120	P	06/20/2025	11:39	LB136217
	Thallium	0.86	1.0	86	80 - 120	P	06/20/2025	11:39	LB136217
	Vanadium	4.94	5.0	99	80 - 120	P	06/20/2025	11:39	LB136217
	Zinc	5.40	5.0	108	80 - 120	P	06/20/2025	11:39	LB136217

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Antimony	514	500	103	90 - 110	P	06/20/2025	12:08	LB136217
	Arsenic	493	500	99	90 - 110	P	06/20/2025	12:08	LB136217
	Barium	2600	2500	104	90 - 110	P	06/20/2025	12:08	LB136217
	Beryllium	501	500	100	90 - 110	P	06/20/2025	12:08	LB136217
	Cadmium	502	500	100	90 - 110	P	06/20/2025	12:08	LB136217
	Chromium	464	500	93	90 - 110	P	06/20/2025	12:08	LB136217
	Copper	4870	5000	97	90 - 110	P	06/20/2025	12:08	LB136217
	Lead	2510	2500	100	90 - 110	P	06/20/2025	12:08	LB136217
	Nickel	492	500	98	90 - 110	P	06/20/2025	12:08	LB136217
	Selenium	479	500	96	90 - 110	P	06/20/2025	12:08	LB136217
	Silver	534	500	107	90 - 110	P	06/20/2025	12:08	LB136217
	Thallium	510	500	102	90 - 110	P	06/20/2025	12:08	LB136217
	Vanadium	468	500	94	90 - 110	P	06/20/2025	12:08	LB136217
	Zinc	4780	5000	96	90 - 110	P	06/20/2025	12:08	LB136217
CCV02	Antimony	503	500	101	90 - 110	P	06/20/2025	12:46	LB136217
	Arsenic	476	500	95	90 - 110	P	06/20/2025	12:46	LB136217
	Barium	2510	2500	100	90 - 110	P	06/20/2025	12:46	LB136217
	Beryllium	486	500	97	90 - 110	P	06/20/2025	12:46	LB136217
	Cadmium	485	500	97	90 - 110	P	06/20/2025	12:46	LB136217
	Chromium	457	500	91	90 - 110	P	06/20/2025	12:46	LB136217
	Copper	4810	5000	96	90 - 110	P	06/20/2025	12:46	LB136217
	Lead	2460	2500	98	90 - 110	P	06/20/2025	12:46	LB136217
	Nickel	479	500	96	90 - 110	P	06/20/2025	12:46	LB136217
	Selenium	475	500	95	90 - 110	P	06/20/2025	12:46	LB136217
	Silver	514	500	103	90 - 110	P	06/20/2025	12:46	LB136217
	Thallium	499	500	100	90 - 110	P	06/20/2025	12:46	LB136217
	Vanadium	459	500	92	90 - 110	P	06/20/2025	12:46	LB136217
	Zinc	4760	5000	95	90 - 110	P	06/20/2025	12:46	LB136217
CCV03	Antimony	490	500	98	90 - 110	P	06/20/2025	13:23	LB136217
	Arsenic	482	500	96	90 - 110	P	06/20/2025	13:23	LB136217
	Barium	2500	2500	100	90 - 110	P	06/20/2025	13:23	LB136217
	Beryllium	498	500	100	90 - 110	P	06/20/2025	13:23	LB136217
	Cadmium	482	500	96	90 - 110	P	06/20/2025	13:23	LB136217
	Chromium	459	500	92	90 - 110	P	06/20/2025	13:23	LB136217

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Copper	4830	5000	97	90 - 110	P	06/20/2025	13:23	LB136217
	Lead	2490	2500	100	90 - 110	P	06/20/2025	13:23	LB136217
	Nickel	485	500	97	90 - 110	P	06/20/2025	13:23	LB136217
	Selenium	468	500	94	90 - 110	P	06/20/2025	13:23	LB136217
	Silver	512	500	102	90 - 110	P	06/20/2025	13:23	LB136217
	Thallium	510	500	102	90 - 110	P	06/20/2025	13:23	LB136217
	Vanadium	463	500	93	90 - 110	P	06/20/2025	13:23	LB136217
	Zinc	4760	5000	95	90 - 110	P	06/20/2025	13:23	LB136217

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CRDL STANDARD FOR AA & ICP

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.19	0.2	93	70 - 130	CV	06/12/2025	10:21	LB136124
CRI	Antimony	1.81	2.0	90	70 - 130	P	06/20/2025	12:14	LB136217
	Arsenic	1.03	1.0	103	70 - 130	P	06/20/2025	12:14	LB136217
	Barium	8.57	10.0	86	70 - 130	P	06/20/2025	12:14	LB136217
	Beryllium	0.99	1.0	99	70 - 130	P	06/20/2025	12:14	LB136217
	Cadmium	0.91	1.0	91	70 - 130	P	06/20/2025	12:14	LB136217
	Chromium	1.87	2.0	94	70 - 130	P	06/20/2025	12:14	LB136217
	Copper	1.93	2.0	96	70 - 130	P	06/20/2025	12:14	LB136217
	Lead	0.77	1.0	77	70 - 130	P	06/20/2025	12:14	LB136217
	Nickel	0.99	1.0	99	70 - 130	P	06/20/2025	12:14	LB136217
	Selenium	4.31	5.0	86	70 - 130	P	06/20/2025	12:14	LB136217
	Silver	1.00	1.0	100	70 - 130	P	06/20/2025	12:14	LB136217
	Thallium	0.90	1.0	90	70 - 130	P	06/20/2025	12:14	LB136217
	Vanadium	4.38	5.0	88	70 - 130	P	06/20/2025	12:14	LB136217
	Zinc	5.32	5.0	106	50 - 150	P	06/20/2025	12:14	LB136217

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB35	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	10:14	LB136124

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB30	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	10:19	LB136124
CCB31	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	10:52	LB136124
CCB32	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	11:20	LB136124
CCB33	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	11:40	LB136124
CCB34	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	06/12/2025	12:01	LB136124

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Antimony	0.11	+/-1	U	0.25	2.00	P	06/20/2025	11:42	LB136217
	Arsenic	0.089	+/-0.5	U	0.25	1.00	P	06/20/2025	11:42	LB136217
	Barium	0.21	+/-5	U	1.25	10.0	P	06/20/2025	11:42	LB136217
	Beryllium	0.32	+/-0.5	U	0.75	1.00	P	06/20/2025	11:42	LB136217
	Cadmium	0.34	+/-0.5	U	0.50	1.00	P	06/20/2025	11:42	LB136217
	Chromium	0.21	+/-1	U	0.75	2.00	P	06/20/2025	11:42	LB136217
	Copper	0.30	+/-1	U	1.50	2.00	P	06/20/2025	11:42	LB136217
	Lead	0.21	+/-0.5	U	0.75	1.00	P	06/20/2025	11:42	LB136217
	Nickel	0.27	+/-0.5	U	0.75	1.00	P	06/20/2025	11:42	LB136217
	Selenium	2.90	+/-2.5	U	4.50	5.00	P	06/20/2025	11:42	LB136217
	Silver	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	11:42	LB136217
	Thallium	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	11:42	LB136217
	Vanadium	0.077	+/-2.5	U	0.25	5.00	P	06/20/2025	11:42	LB136217
	Zinc	1.25	+/-2.5	U	1.50	5.00	P	06/20/2025	11:42	LB136217

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Antimony	0.11	+/-1	U	0.25	2.00	P	06/20/2025	12:11	LB136217
	Arsenic	0.089	+/-0.5	U	0.25	1.00	P	06/20/2025	12:11	LB136217
	Barium	0.21	+/-5	U	1.25	10.0	P	06/20/2025	12:11	LB136217
	Beryllium	0.32	+/-0.5	U	0.75	1.00	P	06/20/2025	12:11	LB136217
	Cadmium	0.34	+/-0.5	U	0.50	1.00	P	06/20/2025	12:11	LB136217
	Chromium	0.21	+/-1	U	0.75	2.00	P	06/20/2025	12:11	LB136217
	Copper	0.30	+/-1	U	1.50	2.00	P	06/20/2025	12:11	LB136217
	Lead	0.21	+/-0.5	U	0.75	1.00	P	06/20/2025	12:11	LB136217
	Nickel	0.27	+/-0.5	U	0.75	1.00	P	06/20/2025	12:11	LB136217
	Selenium	2.90	+/-2.5	U	4.50	5.00	P	06/20/2025	12:11	LB136217
	Silver	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	12:11	LB136217
	Thallium	0.060	+/-0.5	J	0.50	1.00	P	06/20/2025	12:11	LB136217
	Vanadium	0.077	+/-2.5	U	0.25	5.00	P	06/20/2025	12:11	LB136217
	Zinc	1.25	+/-2.5	U	1.50	5.00	P	06/20/2025	12:11	LB136217
CCB02	Antimony	0.11	+/-1	U	0.25	2.00	P	06/20/2025	12:49	LB136217
	Arsenic	0.089	+/-0.5	U	0.25	1.00	P	06/20/2025	12:49	LB136217
	Barium	0.21	+/-5	U	1.25	10.0	P	06/20/2025	12:49	LB136217
	Beryllium	0.32	+/-0.5	U	0.75	1.00	P	06/20/2025	12:49	LB136217
	Cadmium	0.34	+/-0.5	U	0.50	1.00	P	06/20/2025	12:49	LB136217
	Chromium	0.21	+/-1	U	0.75	2.00	P	06/20/2025	12:49	LB136217
	Copper	0.30	+/-1	U	1.50	2.00	P	06/20/2025	12:49	LB136217
	Lead	0.21	+/-0.5	U	0.75	1.00	P	06/20/2025	12:49	LB136217
	Nickel	0.27	+/-0.5	U	0.75	1.00	P	06/20/2025	12:49	LB136217
	Selenium	2.90	+/-2.5	U	4.50	5.00	P	06/20/2025	12:49	LB136217
	Silver	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	12:49	LB136217
	Thallium	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	12:49	LB136217
	Vanadium	0.077	+/-2.5	U	0.25	5.00	P	06/20/2025	12:49	LB136217
	Zinc	1.25	+/-2.5	U	1.50	5.00	P	06/20/2025	12:49	LB136217
CCB03	Antimony	0.11	+/-1	J	0.25	2.00	P	06/20/2025	13:25	LB136217
	Arsenic	0.089	+/-0.5	U	0.25	1.00	P	06/20/2025	13:25	LB136217
	Barium	0.21	+/-5	U	1.25	10.0	P	06/20/2025	13:25	LB136217
	Beryllium	0.32	+/-0.5	U	0.75	1.00	P	06/20/2025	13:25	LB136217
	Cadmium	0.34	+/-0.5	U	0.50	1.00	P	06/20/2025	13:25	LB136217
	Chromium	0.21	+/-1	U	0.75	2.00	P	06/20/2025	13:25	LB136217
	Copper	0.30	+/-1	U	1.50	2.00	P	06/20/2025	13:25	LB136217
	Lead	0.21	+/-0.5	U	0.75	1.00	P	06/20/2025	13:25	LB136217
	Nickel	0.27	+/-0.5	U	0.75	1.00	P	06/20/2025	13:25	LB136217
	Selenium	2.90	+/-2.5	U	4.50	5.00	P	06/20/2025	13:25	LB136217
	Silver	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	13:25	LB136217

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Thallium	0.060	+/-0.5	U	0.50	1.00	P	06/20/2025	13:25	LB136217
	Vanadium	0.077	+/-2.5	U	0.25	5.00	P	06/20/2025	13:25	LB136217
	Zinc	1.25	+/-2.5	U	1.50	5.00	P	06/20/2025	13:25	LB136217

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PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168424BL		**WATER**		**Batch Number:**		**PB168424**		**Prep Date:**	**06/11/2025**	
	Mercury	0.076	<0.2	U	0.16	0.20	CV	06/12/2025	10:28	LB136124

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168424TB		**WATER**		**Batch Number:**		**PB168424**		**Prep Date:**	**06/11/2025**	
	Mercury	0.076	<0.2	U	0.16	0.20	CV	06/12/2025	11:42	LB136124

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PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Instrument: P7

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168389BL		**WATER**		**Batch Number:**		**PB168389**		**Prep Date:**	**06/10/2025**	
	Antimony	0.11	<1	U	0.25	2.00	P	06/20/2025	12:17	LB136217
	Arsenic	0.089	<0.5	U	0.25	1.00	P	06/20/2025	12:17	LB136217
	Barium	0.21	<5	U	1.25	10.0	P	06/20/2025	12:17	LB136217
	Beryllium	0.32	<0.5	U	0.75	1.00	P	06/20/2025	12:17	LB136217
	Cadmium	0.34	<0.5	U	0.50	1.00	P	06/20/2025	12:17	LB136217
	Chromium	0.21	<1	U	0.75	2.00	P	06/20/2025	12:17	LB136217
	Copper	0.30	<1	U	1.50	2.00	P	06/20/2025	12:17	LB136217
	Lead	0.21	<0.5	U	0.75	1.00	P	06/20/2025	12:17	LB136217
	Nickel	0.27	<0.5	U	0.75	1.00	P	06/20/2025	12:17	LB136217
	Selenium	2.90	<2.5	U	4.50	5.00	P	06/20/2025	12:17	LB136217
	Silver	0.060	<0.5	U	0.50	1.00	P	06/20/2025	12:17	LB136217
	Thallium	0.060	<0.5	U	0.50	1.00	P	06/20/2025	12:17	LB136217
	Vanadium	0.077	<2.5	U	0.25	5.00	P	06/20/2025	12:17	LB136217
	Zinc	1.25	<2.5	U	1.50	5.00	P	06/20/2025	12:17	LB136217

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168389TB		**WATER**		**Batch Number:**		**PB168389**		**Prep Date:**	**06/10/2025**	
	Antimony	0.11	<1	U	0.25	2.00	P	06/20/2025	12:23	LB136217
	Arsenic	0.089	<0.5	U	0.25	1.00	P	06/20/2025	12:23	LB136217
	Barium	0.21	<5	U	1.25	10.0	P	06/20/2025	12:23	LB136217
	Beryllium	0.32	<0.5	U	0.75	1.00	P	06/20/2025	12:23	LB136217
	Cadmium	0.34	<0.5	U	0.50	1.00	P	06/20/2025	12:23	LB136217
	Chromium	0.21	<1	U	0.75	2.00	P	06/20/2025	12:23	LB136217
	Copper	0.30	<1	U	1.50	2.00	P	06/20/2025	12:23	LB136217
	Lead	0.21	<0.5	U	0.75	1.00	P	06/20/2025	12:23	LB136217
	Nickel	0.27	<0.5	U	0.75	1.00	P	06/20/2025	12:23	LB136217
	Selenium	2.90	<2.5	U	4.50	5.00	P	06/20/2025	12:23	LB136217
	Silver	0.060	<0.5	U	0.50	1.00	P	06/20/2025	12:23	LB136217
	Thallium	0.060	<0.5	U	0.50	1.00	P	06/20/2025	12:23	LB136217
	Vanadium	0.077	<2.5	U	0.25	5.00	P	06/20/2025	12:23	LB136217
	Zinc	1.25	<2.5	U	1.50	5.00	P	06/20/2025	12:23	LB136217

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

ICS Source: EPA **Instrument ID:** P7

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	Antimony	1.12	1.5	75	-2.5	5.5	06/20/2025	11:46	LB136217
	Arsenic	0.36	0.1	360	-1.9	2.1	06/20/2025	11:46	LB136217
	Barium	1.38	1.2	115	-18.8	21.2	06/20/2025	11:46	LB136217
	Beryllium	0.27			-2	2	06/20/2025	11:46	LB136217
	Cadmium	0.27	0.7	39	-1.3	2.7	06/20/2025	11:46	LB136217
	Chromium	20.3	21.0	97	17	25	06/20/2025	11:46	LB136217
	Copper	9.12	8.0	114	4	12	06/20/2025	11:46	LB136217
	Lead	4.00	4.0	100	2	6	06/20/2025	11:46	LB136217
	Nickel	5.77	6.0	96	4	8	06/20/2025	11:46	LB136217
	Selenium	0.19	0.3	63	-9.7	10	06/20/2025	11:46	LB136217
	Silver	0.11			-2	2	06/20/2025	11:46	LB136217
	Thallium	0.050			-2	2	06/20/2025	11:46	LB136217
	Vanadium	0.17	0.5	34	-9.5	10.5	06/20/2025	11:46	LB136217
	Zinc	11.4	11.0	104	1	21	06/20/2025	11:46	LB136217
ICSAB01	Antimony	19.8	22.0	90	18	26	06/20/2025	12:03	LB136217
	Arsenic	20.7	19.0	109	16.2	21.9	06/20/2025	12:03	LB136217
	Barium	19.7	22.0	90	2	42	06/20/2025	12:03	LB136217
	Beryllium	18.9	19.0	100	16.2	21.9	06/20/2025	12:03	LB136217
	Cadmium	19.7	20.0	98	17	23	06/20/2025	12:03	LB136217
	Chromium	38.8	40.0	97	34	46	06/20/2025	12:03	LB136217
	Copper	27.2	25.0	109	21	29	06/20/2025	12:03	LB136217
	Lead	25.2	25.0	101	21.3	28.8	06/20/2025	12:03	LB136217
	Nickel	26.6	24.0	111	20.4	27.6	06/20/2025	12:03	LB136217
	Selenium	19.3	19.0	102	9	29	06/20/2025	12:03	LB136217
	Silver	19.0	18.0	106	15.3	20.7	06/20/2025	12:03	LB136217
	Thallium	18.1	21.0	86	17.9	24.2	06/20/2025	12:03	LB136217
	Vanadium	19.4	19.0	102	9	29	06/20/2025	12:03	LB136217
	Zinc	30.1	29.0	104	19	39	06/20/2025	12:03	LB136217

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q2259

contract: NOBI03 **lab code:** CHEM **case no.:** Q2259 **sas no.:** Q2259

matrix: Water **sample id:** Q2259-04 **client id:** OU4-PCS-TC-37-060525MS

Percent Solids for Sample: NA **Spiked ID:** Q2259-04MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	85 - 117	450	D	10.0	UD	500	90		P
Arsenic	ug/L	84 - 116	526	D	2.10	JD	500	105		P
Barium	ug/L	86 - 114	2030	D	94.6	D	2500	78	N	P
Beryllium	ug/L	83 - 121	457	D	5.00	UD	500	91		P
Cadmium	ug/L	87 - 115	490	D	5.00	UD	500	98		P
Chromium	ug/L	85 - 116	452	D	7.10	JD	500	89		P
Copper	ug/L	85 - 118	4990	D	95.0	D	5000	98		P
Lead	ug/L	88 - 115	2150	D	5.00	UD	2500	86	N	P
Nickel	ug/L	85 - 117	544	D	61.7	D	500	96		P
Mercury	ug/L	82 - 119	3.41		0.20	U	4.0	85		CV
Selenium	ug/L	80 - 120	441	D	25.0	UD	500	88		P
Silver	ug/L	85 - 116	82.0	D	5.00	UD	500	16	N	P
Thallium	ug/L	82 - 116	404	D	5.00	UD	500	81	N	P
Vanadium	ug/L	86 - 115	705	D	259	D	500	89		P
Zinc	ug/L	83 - 119	5230	D	726	D	5000	90		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q2259

contract: NOBI03 **lab code:** CHEM **case no.:** Q2259 **sas no.:** Q2259

matrix: Water **sample id:** Q2259-04 **client id:** OU4-PCS-TC-37-060525MSD

Percent Solids for Sample: NA **Spiked ID:** Q2259-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	85 - 117	448	D	10.0	UD	500	90		P
Arsenic	ug/L	84 - 116	473	D	2.10	JD	500	94		P
Barium	ug/L	86 - 114	2020	D	94.6	D	2500	77	N	P
Beryllium	ug/L	83 - 121	453	D	5.00	UD	500	90		P
Cadmium	ug/L	87 - 115	486	D	5.00	UD	500	97		P
Chromium	ug/L	85 - 116	447	D	7.10	JD	500	88		P
Copper	ug/L	85 - 118	4940	D	95.0	D	5000	97		P
Lead	ug/L	88 - 115	2150	D	5.00	UD	2500	86	N	P
Nickel	ug/L	85 - 117	548	D	61.7	D	500	97		P
Mercury	ug/L	82 - 119	3.20		0.20	U	4.0	80	N	CV
Selenium	ug/L	80 - 120	446	D	25.0	UD	500	89		P
Silver	ug/L	85 - 116	81.9	D	5.00	UD	500	16	N	P
Thallium	ug/L	82 - 116	406	D	5.00	UD	500	81	N	P
Vanadium	ug/L	86 - 115	699	D	259	D	500	88		P
Zinc	ug/L	83 - 119	5240	D	726	D	5000	90		P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Matrix: Water **Level:** LOW **Client ID:** OU4-PCS-TC-37-060525A

Sample ID: Q2259-04 **Spiked ID:** Q2259-04A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Barium	ug/L	86 - 114	2000	D	94.6	D	2500	76	N	P
Lead	ug/L	88 - 115	2150	D	5.00	UD	2500	86	N	P
Mercury	ug/L	82 - 119	3.15		0.20	U	4.00	79	N	CV
Silver	ug/L	85 - 116	493	D	5.00	UD	500	99		P
Thallium	ug/L	82 - 116	402	D	5.00	UD	500	80	N	P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Matrix: Water **Sample ID:** Q2259-04 **Client ID:** OU4-PCS-TC-37-060525DUP

Percent Solids for Sample: NA **Duplicate ID** Q2259-04DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	20	10.0	UD	10.0	UD			P
Arsenic	ug/L	20	2.10	JD	1.85	JD	13		P
Barium	ug/L	20	94.6	D	95.5	D	1		P
Beryllium	ug/L	20	5.00	UD	5.00	UD			P
Cadmium	ug/L	20	5.00	UD	5.00	UD			P
Chromium	ug/L	20	7.10	JD	6.10	JD	15		P
Copper	ug/L	20	95.0	D	52.7	D	57	*	P
Lead	ug/L	20	5.00	UD	5.00	UD			P
Nickel	ug/L	20	61.7	D	60.9	D	1		P
Mercury	ug/L	20	0.20	U	0.20	U			CV
Selenium	ug/L	20	25.0	UD	25.0	UD			P
Silver	ug/L	20	5.00	UD	5.00	UD			P
Thallium	ug/L	20	5.00	UD	5.00	UD			P
Vanadium	ug/L	20	259	D	259	D	0		P
Zinc	ug/L	20	726	D	727	D	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: Nobis Group **Level:** LOW **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Matrix: Water **Sample ID:** Q2259-04MS **Client ID:** OU4-PCS-TC-37-060525MSD

Percent Solids for Sample: NA **Duplicate ID** Q2259-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	20	450	D	448	D	0		P
Arsenic	ug/L	20	526	D	473	D	11		P
Barium	ug/L	20	2030	D	2020	D	0		P
Beryllium	ug/L	20	457	D	453	D	1		P
Cadmium	ug/L	20	490	D	486	D	1		P
Chromium	ug/L	20	452	D	447	D	1		P
Copper	ug/L	20	4990	D	4940	D	1		P
Lead	ug/L	20	2150	D	2150	D	0		P
Nickel	ug/L	20	544	D	548	D	1		P
Mercury	ug/L	20	3.41		3.20		6		CV
Selenium	ug/L	20	441	D	446	D	1		P
Silver	ug/L	20	82.0	D	81.9	D	0		P
Thallium	ug/L	20	404	D	406	D	0		P
Vanadium	ug/L	20	705	D	699	D	1		P
Zinc	ug/L	20	5230	D	5240	D	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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LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168389BS							
Antimony	ug/L	500	498		100	85 - 117	P
Arsenic	ug/L	500	495		99	84 - 116	P
Barium	ug/L	2500	2490		100	86 - 114	P
Beryllium	ug/L	500	491		98	83 - 121	P
Cadmium	ug/L	500	505		101	87 - 115	P
Chromium	ug/L	500	466		93	85 - 116	P
Copper	ug/L	5000	5010		100	85 - 118	P
Lead	ug/L	2500	2420		97	88 - 115	P
Nickel	ug/L	500	504		101	85 - 117	P
Selenium	ug/L	500	498		100	80 - 120	P
Silver	ug/L	500	509		102	85 - 116	P
Thallium	ug/L	500	488		98	82 - 116	P
Vanadium	ug/L	500	461		92	86 - 115	P
Zinc	ug/L	5000	5120		102	83 - 119	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q2259 **SAS No.:** Q2259

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168424BS							
Mercury	ug/L	4.0	3.55		89	82 - 119	CV

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q2259 | Sas No.: Q2259 | SDG No.: Q2259

Instrument ID: P7 | Start Date : 06/20/2025

Run Number: LB136217 | End Date : 06/20/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1030	100		100		100		100		100	
S2	S2	1034	100		100		101		100		99	
S3	S3	1040	102		100		100		100		99	
S4	S4	1044	100		96		97		97		97	
S5	S5	1047	100		94		95		96		99	
S6	S6	1050	103		96		99		97		102	
S7	S7	1053	103		98		101		98		104	
S8	S8	1055	100		100		101		92		100	
ICV01	ICV01	1131	98		105		105		104		102	
LLICV01	LLICV01	1139	97		102		103		101		98	
ICB01	ICB01	1142	97		100		101		100		98	
ICSA01	ICSA01	1146	102		102		103		99		103	
ICSAB01	ICSAB01	1203	97		100		102		99		103	
CCV01	CCV01	1208	95		99		99		92		98	
CCB01	CCB01	1211	96		98		100		100		100	
CRI	CRI	1214	95		99		101		100		100	
PB168389BL	PB168389BL	1217	97		102		102		101		101	
PB168389BS	PB168389BS	1221	98		102		103		101		103	
PB168389TB	PB168389TB	1223	97		99		101		101		100	
Q2259-02	OU4-PCS-TC-	1227	98		103		113		102		104	
Q2259-04	OU4-PCS-TC-	1230	98		103		114		103		105	
Q2259-04DUP	OU4-PCS-TC-	1233	98		102		112		100		104	
Q2259-04L	OU4-PCS-TC-	1236	97		101		105		100		101	
CCV02	CCV02	1246	98		99		99		94		99	
CCB02	CCB02	1249	101		100		102		101		102	
Q2259-04MS	OU4-PCS-TC-	1302	99		101		112		101		103	
Q2259-04MSD	OU4-PCS-TC-	1305	96		98		108		98		100	
Q2259-04A	OU4-PCS-TC-	1319	98		102		114		102		104	
CCV03	CCV03	1323	98		102		103		96		103	
CCB03	CCB03	1325	99		100		102		100		100	

Internal Standard %RI Limit: 30 - 120

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q2259 | Sas No.: Q2259 | SDG No.: Q2259

Instrument ID: P7 | Start Date : 06/20/2025

Run Number: LB136217 | End Date : 06/20/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1030	100		100		100		100		100	
S2	S2	1034	101		100		101		101		100	
S3	S3	1040	102		101		100		100		100	
S4	S4	1044	99		98		99		99		100	
S5	S5	1047	98		96		96		99		98	
S6	S6	1050	102		100		99		102		102	
S7	S7	1053	102		102		100		104		103	
S8	S8	1055	104		103		94		101		103	
ICV01	ICV01	1131	104		107		105		104		104	
LLICV01	LLICV01	1139	101		102		103		100		100	
ICB01	ICB01	1142	101		103		103		99		100	
ICSA01	ICSA01	1146	103		103		101		103		103	
ICSAB01	ICSAB01	1203	101		103		101		103		102	
CCV01	CCV01	1208	100		100		97		100		100	
CCB01	CCB01	1211	100		102		103		101		100	
CRI	CRI	1214	102		105		104		102		102	
PB168389BL	PB168389BL	1217	101		103		105		101		102	
PB168389BS	PB168389BS	1221	103		104		102		102		102	
PB168389TB	PB168389TB	1223	99		101		103		100		100	
Q2259-02	OU4-PCS-TC-	1227	103		113		104		104		104	
Q2259-04	OU4-PCS-TC-	1230	103		113		103		104		103	
Q2259-04DUP	OU4-PCS-TC-	1233	102		112		104		103		103	
Q2259-04L	OU4-PCS-TC-	1236	101		105		103		102		102	
CCV02	CCV02	1246	101		102		96		100		99	
CCB02	CCB02	1249	101		104		104		102		101	
Q2259-04MS	OU4-PCS-TC-	1302	100		110		102		103		101	
Q2259-04MSD	OU4-PCS-TC-	1305	99		109		100		101		100	
Q2259-04A	OU4-PCS-TC-	1319	101		112		103		103		103	
CCV03	CCV03	1323	103		102		98		102		102	
CCB03	CCB03	1325	101		104		103		103		102	

Internal Standard %RI Limit: 30 - 120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q2259 | Sas No.: Q2259 | SDG No.: Q2259

Instrument ID: P7 | Start Date : 06/20/2025

Run Number: LB136217 | End Date : 06/20/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1030	100		100							
S2	S2	1034	99		100							
S3	S3	1040	100		101							
S4	S4	1044	98		100							
S5	S5	1047	99		100							
S6	S6	1050	102		105							
S7	S7	1053	104		104							
S8	S8	1055	102		94							
ICV01	ICV01	1131	103		101							
LLICV01	LLICV01	1139	100		99							
ICB01	ICB01	1142	97		97							
ICSA01	ICSA01	1146	106		102							
ICSAB01	ICSAB01	1203	103		99							
CCV01	CCV01	1208	101		95							
CCB01	CCB01	1211	101		101							
CRI	CRI	1214	100		100							
PB168389BL	PB168389BL	1217	102		102							
PB168389BS	PB168389BS	1221	104		102							
PB168389TB	PB168389TB	1223	102		102							
Q2259-02	OU4-PCS-TC-3	1227	105		102							
Q2259-04	OU4-PCS-TC-3	1230	106		102							
Q2259-04DUP	OU4-PCS-TC-3	1233	104		102							
Q2259-04L	OU4-PCS-TC-3	1236	102		100							
CCV02	CCV02	1246	103		97							
CCB02	CCB02	1249	103		102							
Q2259-04MS	OU4-PCS-TC-3	1302	106		103							
Q2259-04MSD	OU4-PCS-TC-3	1305	101		99							
Q2259-04A	OU4-PCS-TC-3	1319	104		103							
CCV03	CCV03	1323	103		96							
CCB03	CCB03	1325	102		104							

Internal Standard %RI Limit: 30 -120

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Fax : 908 789 8922

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q2259 | Sas No.: Q2259 | SDG No.: Q2259

Instrument ID: P7 | Start Date : 06/20/2025

Run Number: LB136217 | End Date : 06/20/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1030	100									
S2	S2	1034	100									
S3	S3	1040	99									
S4	S4	1044	98									
S5	S5	1047	98									
S6	S6	1050	100									
S7	S7	1053	100									
S8	S8	1055	91									
ICV01	ICV01	1131	104									
LLICV01	LLICV01	1139	101									
ICB01	ICB01	1142	101									
ICSA01	ICSA01	1146	100									
ICSAB01	ICSAB01	1203	98									
CCV01	CCV01	1208	92									
CCB01	CCB01	1211	100									
CRI	CRI	1214	102									
PB168389BL	PB168389BL	1217	100									
PB168389BS	PB168389BS	1221	100									
PB168389TB	PB168389TB	1223	100									
Q2259-02	OU4-PCS-TC-3	1227	101									
Q2259-04	OU4-PCS-TC-3	1230	101									
Q2259-04DUP	OU4-PCS-TC-3	1233	100									
Q2259-04L	OU4-PCS-TC-3	1236	101									
CCV02	CCV02	1246	92									
CCB02	CCB02	1249	102									
Q2259-04MS	OU4-PCS-TC-3	1302	99									
Q2259-04MSD	OU4-PCS-TC-3	1305	98									
Q2259-04A	OU4-PCS-TC-3	1319	100									
CCV03	CCV03	1323	94									
CCB03	CCB03	1325	102									

Internal Standard %RI Limit: 30 -120

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Fax : 908 789 8922

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

OU4-PCS-TC-37-060525L

Lab Name: Chemtech Consulting Group **Contract:** NOBI03

Lab Code: CHEM **Lb No.:** lb136217 **Lab Sample ID :** Q2259-04L **SDG No.:** Q2259

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
Antimony	10.0	UD	50.0	UD			P
Arsenic	2.10	JD	2.25	JD	7		P
Barium	94.6	D	98.5	JD	4		P
Beryllium	5.00	UD	25.0	UD			P
Cadmium	5.00	UD	25.0	UD			P
Chromium	7.10	JD	6.75	JD	5		P
Copper	95.0	D	77.0	D	19		P
Lead	5.00	UD	25.0	UD			P
Nickel	61.7	D	64.5	D	5		P
Mercury	0.20	U	1.00	U			CV
Selenium	25.0	UD	125	UD			P
Silver	5.00	UD	25.0	UD			P
Thallium	5.00	UD	25.0	UD			P
Vanadium	259	D	270	D	4		P
Zinc	726	D	770	D	6		P

METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

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Fax : 908 789 8922

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Method:**

Case No.: Q2259 **SAS No.:** Q2259

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168389**						
PB168389BL	PB168389BL	MB	WATER	06/10/2025	50.0	50.0	
PB168389BS	PB168389BS	LCS	WATER	06/10/2025	50.0	50.0	
PB168389TB	PB168389TB	MB	WATER	06/10/2025	50.0	50.0	
Q2259-02	OU4-PCS-TC-36-060525	SAM	WATER	06/10/2025	50.0	50.0	
Q2259-04	OU4-PCS-TC-37-060525	SAM	WATER	06/10/2025	50.0	50.0	
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	DUP	WATER	06/10/2025	50.0	50.0	
Q2259-04MS	OU4-PCS-TC-37-060525MS	MS	WATER	06/10/2025	50.0	50.0	
Q2259-04MSD	OU4-PCS-TC-37-060525MSD	MSD	WATER	06/10/2025	50.0	50.0	

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Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q2259

Contract: NOBI03 **Lab Code:** CHEM **Method:**

Case No.: Q2259 **SAS No.:** Q2259

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168424**						
PB168424BL	PB168424BL	MB	WATER	06/11/2025	30.0	30.0	
PB168424BS	PB168424BS	LCS	WATER	06/11/2025	30.0	30.0	
PB168424TB	PB168424TB	MB	WATER	06/11/2025	30.0	30.0	
Q2259-02	OU4-PCS-TC-36-060525	SAM	WATER	06/11/2025	30.0	30.0	
Q2259-04	OU4-PCS-TC-37-060525	SAM	WATER	06/11/2025	30.0	30.0	
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	DUP	WATER	06/11/2025	30.0	30.0	
Q2259-04MS	OU4-PCS-TC-37-060525MS	MS	WATER	06/11/2025	30.0	30.0	
Q2259-04MSD	OU4-PCS-TC-37-060525MSD	MSD	WATER	06/11/2025	30.0	30.0	

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metals
- 14 -
ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q2259 **Sas no.:** Q2259 **Sdg no.:** Q2259

Instrument id number: **Method:** **Run number:** LB136124

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

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0952	HG
S0.2	S0.2	1	0955	HG
S2.5	S2.5	1	0957	HG
S5	S5	1	0959	HG
S7.5	S7.5	1	1001	HG
S10	S10	1	1004	HG
ICV35	ICV35	1	1012	HG
ICB35	ICB35	1	1014	HG
CCV30	CCV30	1	1016	HG
CCB30	CCB30	1	1019	HG
CRA	CRA	1	1021	HG
PB168424BL	PB168424BL	1	1028	HG
PB168424BS	PB168424BS	1	1030	HG
Q2259-02	OU4-PCS-TC-36-060525	1	1032	HG
Q2259-04	OU4-PCS-TC-37-060525	1	1035	HG
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	1	1037	HG
Q2259-04MS	OU4-PCS-TC-37-060525MS	1	1039	HG
Q2259-04MSD	OU4-PCS-TC-37-060525MSD	1	1042	HG
CCV31	CCV31	1	1050	HG
CCB31	CCB31	1	1052	HG
CCV32	CCV32	1	1117	HG
CCB32	CCB32	1	1120	HG
CCV33	CCV33	1	1138	HG
CCB33	CCB33	1	1140	HG
PB168424TB	PB168424TB	1	1142	HG
Q2259-04L	OU4-PCS-TC-37-060525L	5	1149	HG
Q2259-04A	OU4-PCS-TC-37-060525A	1	1152	HG
CCV34	CCV34	1	1158	HG
CCB34	CCB34	1	1201	HG

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metals
- 14 -
ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q2259 **Sas no.:** Q2259 **Sdg no.:** Q2259

Instrument id number: **Method:** **Run number:** LB136217

Start date: 06/20/2025 **End date:** 06/20/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1030	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1034	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1040	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1044	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1047	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S6	S6	1	1050	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S7	S7	1	1053	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S8	S8	1	1055	,
ICV01	ICV01	1	1131	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1139	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1142	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1146	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1203	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1208	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1211	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CRI	CRI	1	1214	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB168389BL	PB168389BL	1	1217	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB168389BS	PB168389BS	1	1221	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB168389TB	PB168389TB	1	1223	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-02	OU4-PCS-TC-36-060525	5	1227	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04	OU4-PCS-TC-37-060525	5	1230	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	5	1233	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04L	OU4-PCS-TC-37-060525L	25	1236	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1246	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1249	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04MS	OU4-PCS-TC-37-060525MS	5	1302	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04MSD	OU4-PCS-TC-37-060525MSD	5	1305	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q2259-04A	OU4-PCS-TC-37-060525A	5	1319	Ag,Ba,Pb,Tl
CCV03	CCV03	1	1323	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1325	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

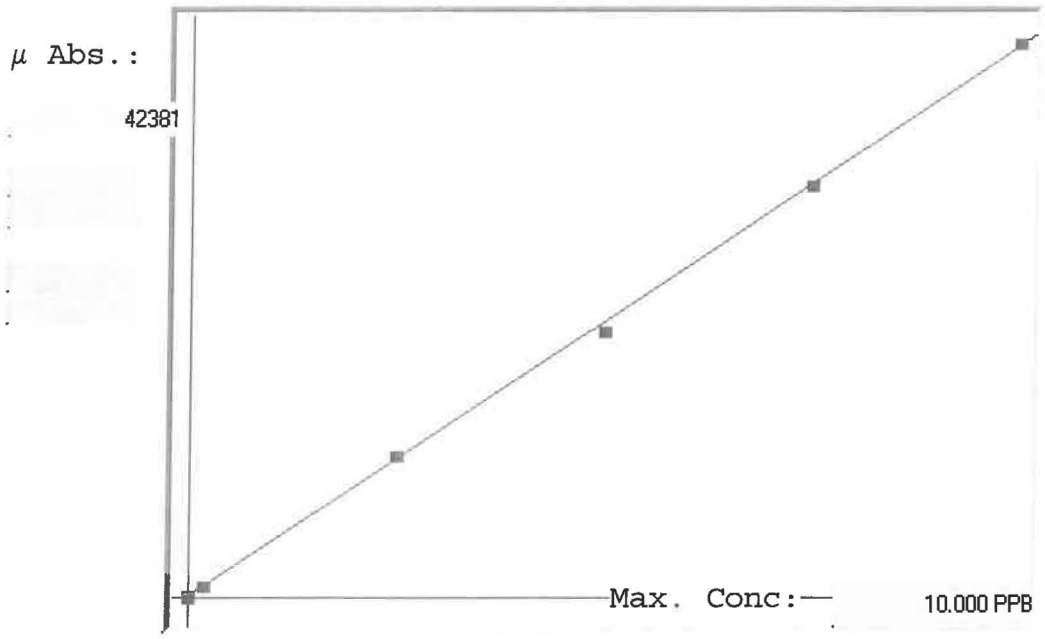
Reviewed By:jaswal
On:6/16/2025 5:53:40 PM
Inst Id :CV1
LB :LB136124

LB136124

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.3760e-004

C= -1.6936e-002

Rho= 0.9997880

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.002	0.002	80	0.000	80	0			
0.2	0.200	0.224	0.024	1016	0.0 %	1016				
2.5	2.500	2.575	0.075	10907	0.0 %	10907				
5.0	5.000	4.840	-0.160	20441	0.0 %	20441				
7.5	7.500	7.506	0.006	31662	0.0 %	31662				
10.0	10.000	10.053	0.053	42381	0.0 %	42381				

0/10

12
3
-2
0
1

Reviewed By:jaswal
On:6/16/2025 5:53:40 PM
Inst Id :CV1
LB :LB136124

LB136124 INSTRUMENT ID : CV1

Method: 7470A | Operator: Admin | Date of Analysis: 12 Jun 2025 09:14:22

Sample ID	Extended ID	µ Abs	Conc	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	S0	80	-	0.00000	7470A	PPB	12 Jun 2025 09:52:49	S	Std
0.2 - 1	S0.2	1016	-	0.20000	7470A	PPB	12 Jun 2025 09:55:06	S	Std
2.5 - 1	S2.5	10907	-	2.50000	7470A	PPB	12 Jun 2025 09:57:23	S	Std
5.0 - 1	S5	20441	-	5.00000	7470A	PPB	12 Jun 2025 09:59:40	S	Std
7.5 - 1	S7.5	31662	-	7.50000	7470A	PPB	12 Jun 2025 10:01:58	S	Std
10.0 - 1	S10	42381	-	10.00000	7470A	PPB	12 Jun 2025 10:04:16	S	Std
ICV35 - 1	ICV35	16958	4.0123		7470A	PPB	12 Jun 2025 10:12:22	U	SMPL
ICB35 - 1	ICB35	-249	-0.0761		7470A	PPB	12 Jun 2025 10:14:38	U	SMPL
CCV30 - 1	CCV30	19587	4.6370		7470A	PPB	12 Jun 2025 10:16:55	U	SMPL
CCB30 - 1	CCB30	-294	-0.0868		7470A	PPB	12 Jun 2025 10:19:10	U	SMPL
CRA - 1	CRA	852	0.1855		7470A	PPB	12 Jun 2025 10:21:27	U	SMPL
HighStd - 1	HighStd	40841	9.6870		7470A	PPB	12 Jun 2025 10:23:42	U	SMPL
ChkStd - 1	ChkStd	26316	6.2358		7470A	PPB	12 Jun 2025 10:25:57	U	SMPL
PB168424BL - 1	PBW	-336	-0.0968		7470A	PPB	12 Jun 2025 10:28:16	U	SMPL
PB168424BS - 1	LCSW	15010	3.5495		7470A	PPB	12 Jun 2025 10:30:35	U	SMPL
Q2259-02 - 1	OU4-PCS-TC-36-060525	1016	0.2245		7470A	PPB	12 Jun 2025 10:32:52	U	SMPL
Q2259-04 - 1	OU4-PCS-TC-37-060525	-15	-0.0205		7470A	PPB	12 Jun 2025 10:35:10	U	SMPL
Q2259-04DUP - 1	OU4-PCS-TC-37-060525DUP	166	0.0225		7470A	PPB	12 Jun 2025 10:37:29	U	SMPL
Q2259-04MS - 1	OU4-PCS-TC-37-060525MS	14410	3.4069		7470A	PPB	12 Jun 2025 10:39:46	U	SMPL
Q2259-04MSD - 1	OU4-PCS-TC-37-060525MSD	13557	3.2042		7470A	PPB	12 Jun 2025 10:42:07	U	SMPL
CCV31 - 1	CCV31	21296	5.0431		7470A	PPB	12 Jun 2025 10:50:22	U	SMPL
CCB31 - 1	CCB31	-306	-0.0896		7470A	PPB	12 Jun 2025 10:52:37	U	SMPL
PB168425BL - 1	PBW	-30	-0.0241		7470A	PPB	12 Jun 2025 10:54:55	U	SMPL
PB168425BS - 1	LCSW	15541	3.6757		7470A	PPB	12 Jun 2025 10:57:10	U	SMPL
Q2267-01 - 1	WC-20250605	-144	-0.0512		7470A	PPB	12 Jun 2025 10:59:26	U	SMPL
Q2271-04 - 1	TP12-MHK-WC	-17	-0.0210		7470A	PPB	12 Jun 2025 11:01:45	U	SMPL
Q2272-04 - 1	TP-6	16	-0.0131		7470A	PPB	12 Jun 2025 11:04:02	U	SMPL
Q2273-04 - 1	WC-4	-12	-0.0198		7470A	PPB	12 Jun 2025 11:06:19	U	SMPL
Q2273-08 - 1	WC-6	-9	-0.0191		7470A	PPB	12 Jun 2025 11:08:35	U	SMPL
Q2274-04 - 1	TP-13-MHP-WC	1	-0.0167		7470A	PPB	12 Jun 2025 11:10:52	U	SMPL
Q2278-04 - 1	TP-2	15	-0.0134		7470A	PPB	12 Jun 2025 11:13:14	U	SMPL
Q2280-02 - 1	VNJ-210	14	-0.0136		7470A	PPB	12 Jun 2025 11:15:35	U	SMPL
CCV32 - 1	CCV32	19895	4.7102		7470A	PPB	12 Jun 2025 11:17:50	U	SMPL
CCB32 - 1	CCB32	-248	-0.0759		7470A	PPB	12 Jun 2025 11:20:06	U	SMPL
Q2280-04 - 1	RT-4643	6	-0.0155		7470A	PPB	12 Jun 2025 11:22:24	U	SMPL
Q2285-05 - 1	HAM-CONCRETE	-2	-0.0174		7470A	PPB	12 Jun 2025 11:24:39	U	SMPL
Q2285-05DUP - 1	HAM-CONCRETEDUP	0	-0.0169		7470A	PPB	12 Jun 2025 11:26:55	U	SMPL
Q2285-05MS - 1	HAM-CONCRETEMS	12543	2.9633		7470A	PPB	12 Jun 2025 11:29:10	U	SMPL
Q2285-05MSD - 1	HAM-CONCRETEMSD	12080	2.8533		7470A	PPB	12 Jun 2025 11:31:26	U	SMPL
CCV33 - 1	CCV33	20231	4.7900		7470A	PPB	12 Jun 2025 11:38:21	U	SMPL
CCB33 - 1	CCB33	-252	-0.0768		7470A	PPB	12 Jun 2025 11:40:37	U	SMPL
~~PB168362TB - 1~~ PB168424TB	~~PB168362TB~~ PB168424TB	5	-0.0157		7470A	PPB	12 Jun 2025 11:42:57	U	SMPL
PB168369TB - 1	PB168369TB	1	-0.0167		7470A	PPB	12 Jun 2025 11:45:14	U	SMPL
PB168390TB - 1	PB168390TB	6	-0.0155		7470A	PPB	12 Jun 2025 11:47:29	U	SMPL
Q2259-04LX5 - 1		300	0.0543		7470A	PPB	12 Jun 2025 11:49:45	U	SMPL
Q2259-04A - 1		13340	3.1527		7470A	PPB	12 Jun 2025 11:52:00	U	SMPL
Q2285-05LX5 - 1		-217	-0.0685		7470A	PPB	12 Jun 2025 11:54:17	U	SMPL
Q2285-05A - 1		13696	3.2373		7470A	PPB	12 Jun 2025 11:56:35	U	SMPL
CCV34 - 1	CCV34	20632	4.8853		7470A	PPB	12 Jun 2025 11:58:51	U	SMPL
CCB34 - 1	CCB34	-321	-0.0932		7470A	PPB	12 Jun 2025 12:01:09	U	SMPL

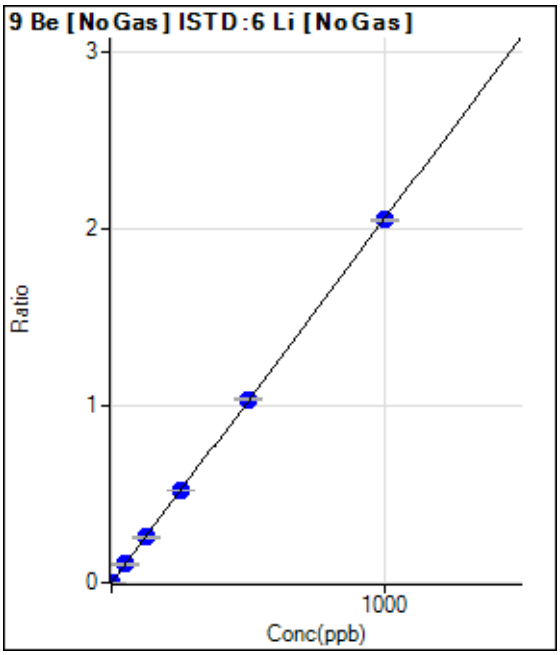
PB168424TB MB 0612/25

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7062025MS.b\
Analysis File: P7062025MS.batch.bin
DA Date-Time: 2025-06-20 13:36:03
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-06-20 10:30:48
2	005CALS.d	S02	2025-06-20 10:34:06
3	007CALS.d	S03	2025-06-20 10:40:45
4	008CALS.d	S04	2025-06-20 10:44:02
5	009CALS.d	S05	2025-06-20 10:47:09
6	010CALS.d	S06	2025-06-20 10:50:10
7	011CALS.d	S07	2025-06-20 10:53:00
8	012CALS.d	S08	2025-06-20 10:55:46

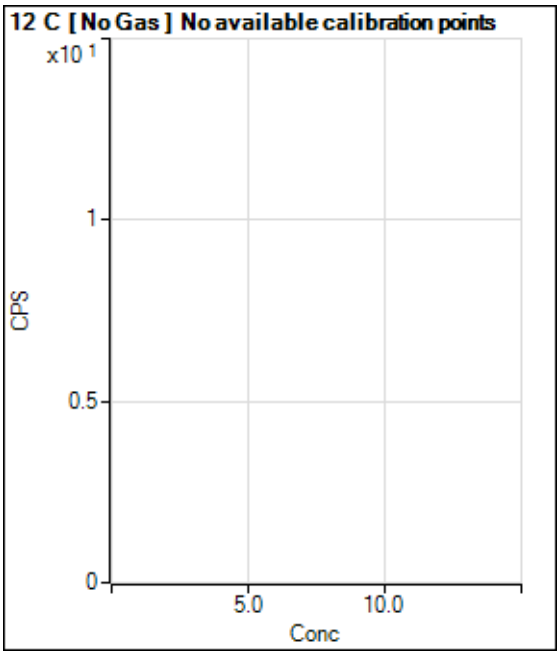
Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24.51	0.0001	P	33.9
2	☐	1.000	1.149	775.87	0.0024	P	5.2
3	☐	50.000	50.337	33784.05	0.1036	P	2.5
4	☐	125.000	124.503	81737.04	0.2562	P	0.9
5	☐	250.000	253.195	166685.01	0.5209	P	0.5
6	☐	500.000	503.776	340724.55	1.0363	P	0.9
7	☐	1000.000	997.358	670755.60	2.0516	P	0.8
8	☐			131.63	0.0004	P	27.7

y = 0.0021 * x + 7.6840E-005
R = 1.0000
DL = 0.038
BEC = 0.03736

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
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8	☐						

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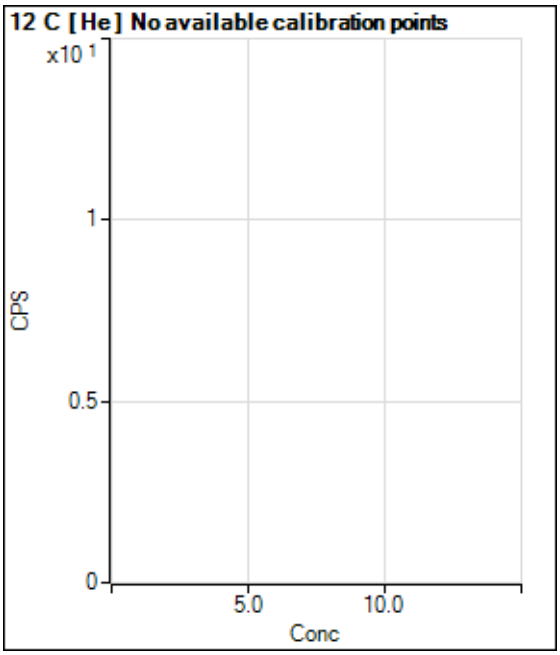

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐						
3	☐						
4	☐						
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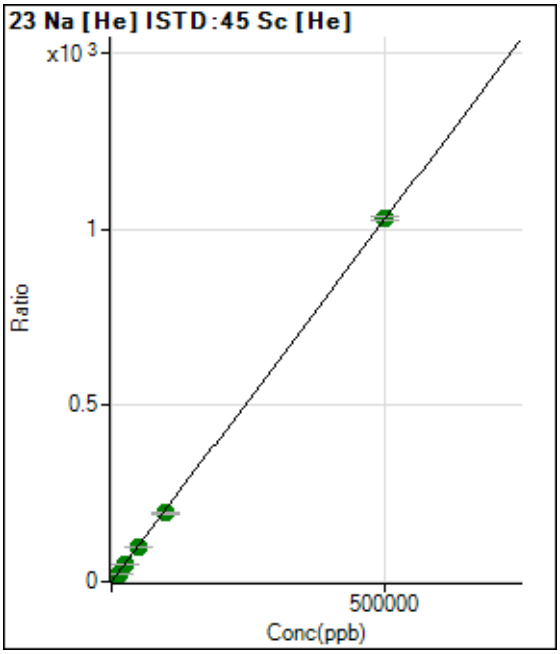
6	☐						
7	☐						
8	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12112.62	0.0799	P	1.6
2	☐	500.000	446.990	152204.62	0.9983	P	1.2
3	☐	5000.000	4793.079	1528516.96	9.9279	A	1.3
4	☐	12500.000	11670.084	3621656.89	24.0577	A	0.8
5	☐	25000.000	23814.449	7309060.59	49.0099	A	2.0
6	☐	50000.000	47704.369	15181111.86	98.0949	A	1.1
7	☐	100000.00	94881.371	30258731.49	195.0262	A	1.3
8	☐	500000.00	501335.43	162063515.3	1,030.139	A	1.2

y = 0.0021 * x + 0.0799
R = 0.9999
DL = 1.891
BEC = 38.9

Weight: <None>
Min Conc: 0

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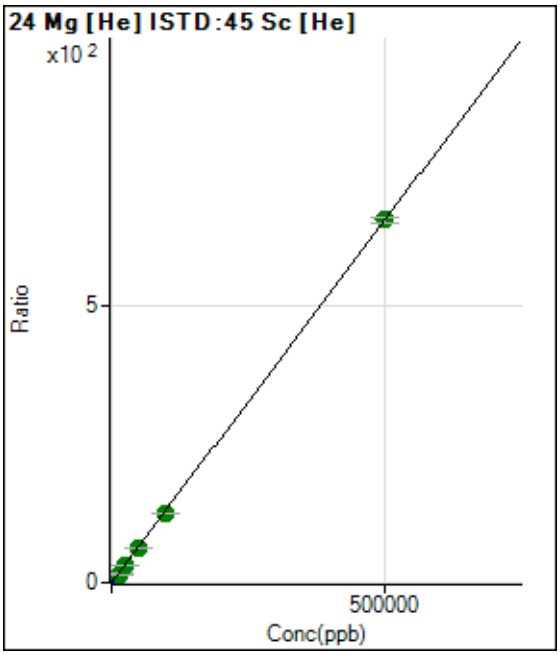

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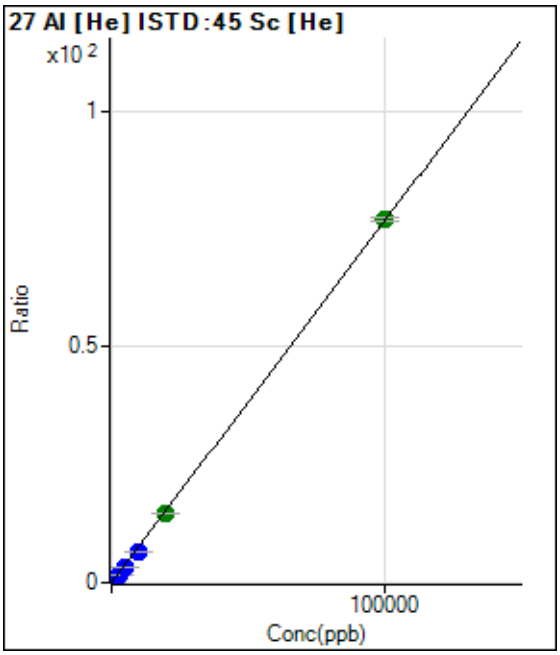
1	☐	0.000	0.000	125.56	0.0008	P	29.6
2	☐	500.000	449.282	89524.33	0.5872	P	1.1
3	☐	5000.000	4437.929	891888.45	5.7929	P	0.9
4	☐	12500.000	11907.383	2339524.84	15.5416	A	1.2
5	☐	25000.000	24333.587	4736489.02	31.7595	A	1.9
6	☐	50000.000	48687.151	9834331.59	63.5443	A	0.4
7	☐	100000.00	96371.899	19515187.91	125.7795	A	1.0
8	☐	500000.00	500910.71	102851288.4	653.7585	A	1.4

y = 0.0013 * x + 8.2934E-004
R = 1.0000
DL = 0.5644
BEC = 0.6354

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	20.000	18.134	2305.76	0.0151	P	7.4
3	☐	1000.000	886.302	104753.42	0.6804	P	0.1
4	☐	2500.000	2138.891	246909.96	1.6402	P	0.7
5	☐	5000.000	4357.406	498165.97	3.3402	P	0.9
6	☐	10000.000	8712.682	1033410.31	6.6776	P	0.8
7	☐	20000.000	19048.332	2264859.46	14.5975	A	1.2
8	☐	100000.00	100361.36	12099057.32	76.9059	A	1.1

y = 7.6628E-004 * x + 0.0012
R = 0.9999
DL = 0.3359
BEC = 1.607

Weight: <None>
Min Conc: 0

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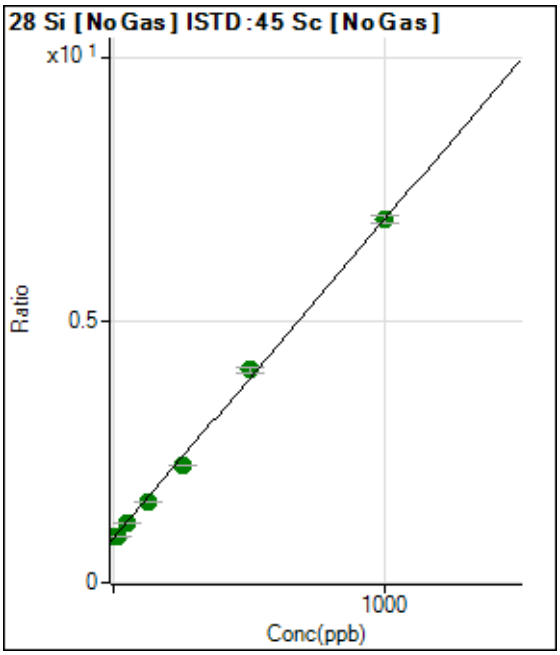
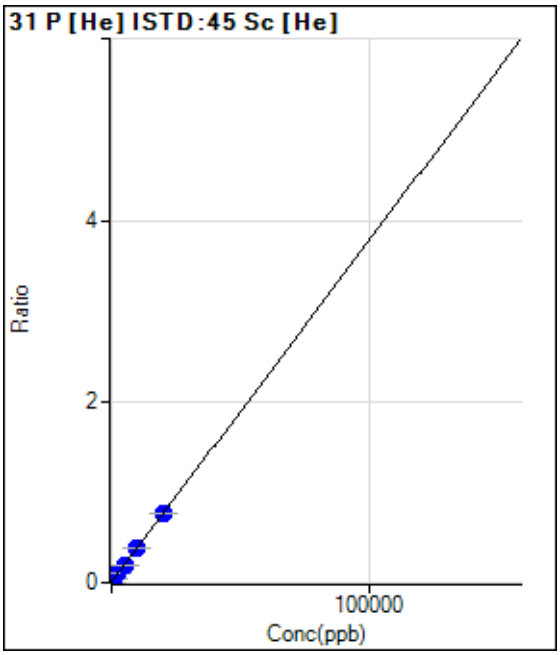


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1711206.49	0.8677	A	2.4
2	☐	10.000	-0.741	1701069.85	0.8632	A	0.2
3	☐	50.000	41.865	2207045.90	1.1221	A	0.3
4	☐	125.000	110.933	2916512.74	1.5418	A	0.7
5	☐	250.000	225.034	4133244.35	2.2351	A	1.2
6	☐	500.000	526.397	7723369.75	4.0662	A	2.6
7	☐	1000.000	995.315	13413720.64	6.9155	A	2.1
8	☐			1596860.08	0.8079	A	0.5

y = 0.0061 * x + 0.8677
R = 0.9991
DL = 10.17
BEC = 142.8

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-14.184	503.35	0.0033	P	1.0
2	☐	0.000	14.184	670.02	0.0044	P	12.0
3	☐	1000.000	1014.211	6491.43	0.0422	P	0.9
4	☐	2500.000	2463.343	14587.07	0.0969	P	1.8
5	☐	5000.000	5085.110	29217.98	0.1959	P	2.5
6	☐	10000.000	10058.055	59382.54	0.3837	P	2.2
7	☐	20000.000	19953.567	117528.40	0.7575	P	0.3
8	☐			550.01	0.0035	P	1.8

y = 3.7769E-005 * x + 0.0039
R = 1.0000
DL = 22.22
BEC = 102.1

Weight: <None>
Min Conc: 0

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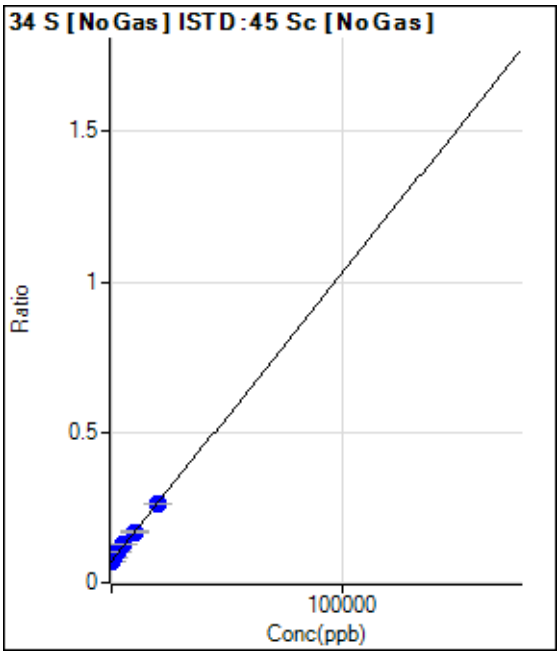
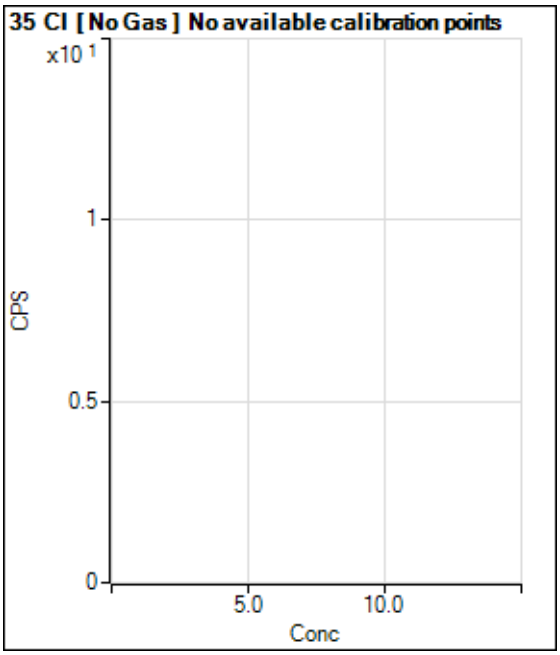


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-6.918	141593.29	0.0718	P	1.1
2	☐	0.000	6.918	141755.57	0.0719	P	0.6
3	☐	1000.000	1274.012	165449.11	0.0841	P	0.9
4	☐	2500.000	3030.841	191069.44	0.1010	P	1.0
5	☐	5000.000	5611.625	232685.82	0.1258	P	0.2
6	☐	10000.000	10089.787	320795.58	0.1689	P	1.1
7	☐	20000.000	19722.144	507090.29	0.2615	P	0.9
8	☐			131700.70	0.0666	P	2.4

y = 9.6146E-006 * x + 0.0719
R = 0.9993
DL = 194.5
BEC = 7475

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
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8	☐						

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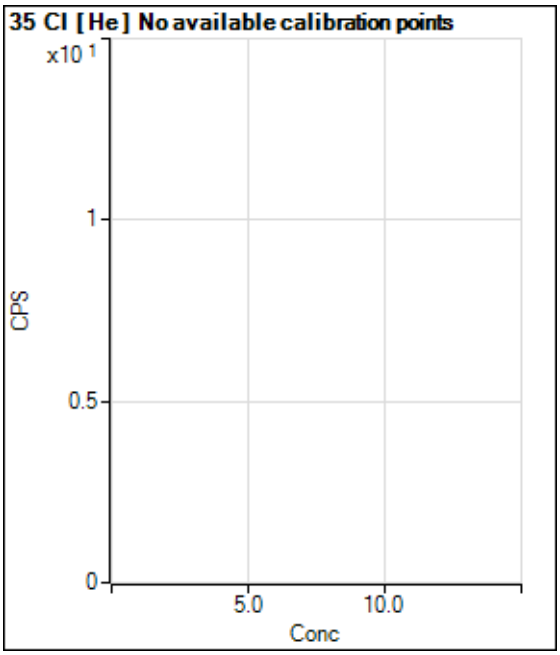
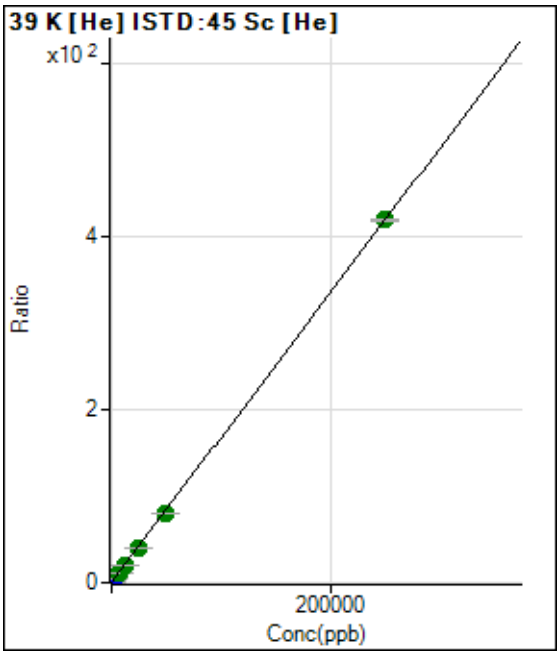


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52539.02	0.3467	P	0.9
2	☐	500.000	466.246	171478.33	1.1248	P	1.2
3	☐	2500.000	2288.333	641318.27	4.1654	P	0.6
4	☐	6250.000	5853.694	1522720.62	10.1153	A	1.1
5	☐	12500.000	11823.693	2994601.86	20.0780	A	0.6
6	☐	25000.000	23575.192	6142210.12	39.6889	A	0.9
7	☐	50000.000	47688.261	12401228.01	79.9287	A	0.8
8	☐	250000.00	250650.73	65861420.69	418.6319	A	0.7

y = 0.0017 * x + 0.3467
R = 0.9999
DL = 5.553
BEC = 207.7

Weight: <None>
Min Conc: 0

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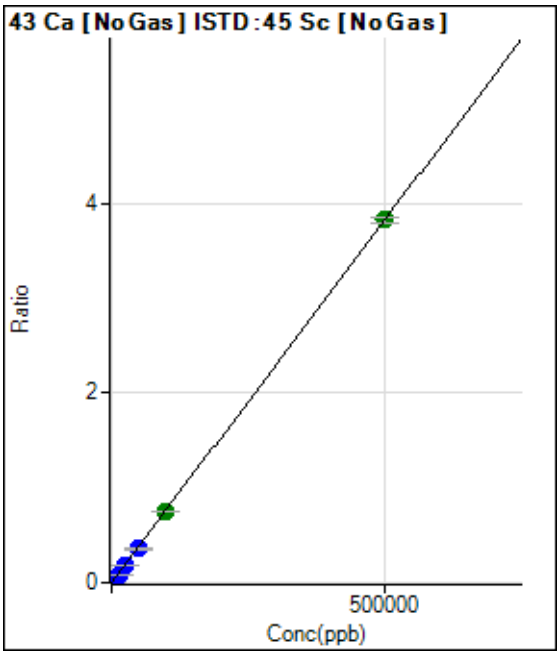
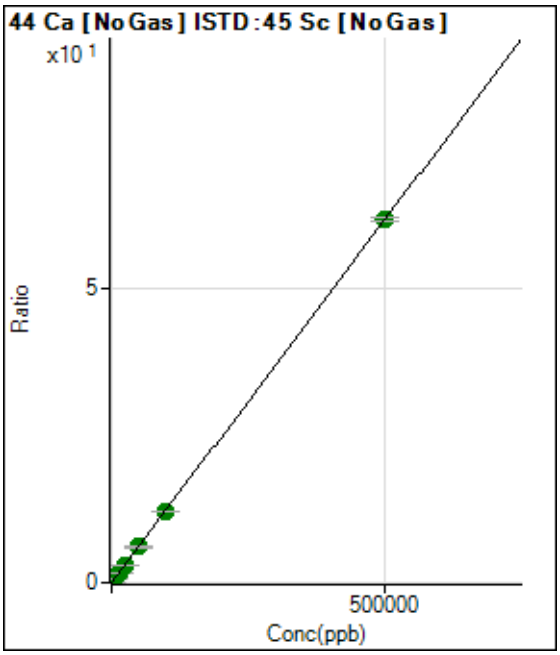


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	487.79	0.0002	P	2.7
2	☐	500.000	478.661	7689.79	0.0039	P	3.4
3	☐	5000.000	4728.152	71486.03	0.0363	P	1.0
4	☐	12500.000	11546.260	167213.14	0.0884	P	1.1
5	☐	25000.000	23410.008	330967.90	0.1790	P	1.3
6	☐	50000.000	46706.519	677810.64	0.3568	P	1.9
7	☐	100000.00	98269.128	1455358.89	0.7505	A	1.2
8	☐	500000.00	500781.60	7557343.08	3.8235	A	1.3

y = 7.6346E-006 * x + 2.4735E-004
R = 1.0000
DL = 2.659
BEC = 32.4

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13043.64	0.0066	P	1.0
2	☐	500.000	481.776	130080.83	0.0660	P	0.4
3	☐	5000.000	4905.507	1202505.76	0.6114	A	1.6
4	☐	12500.000	11982.561	2806948.91	1.4839	A	0.9
5	☐	25000.000	24538.986	5606535.89	3.0319	A	1.6
6	☐	50000.000	49447.285	11591903.58	6.1027	A	1.9
7	☐	100000.00	97997.095	23441687.43	12.0881	A	0.9
8	☐	500000.00	500492.80	121969647.0	61.7092	A	1.0

y = 1.2328E-004 * x + 0.0066
R = 1.0000
DL = 1.612
BEC = 53.65

Weight: <None>
Min Conc: 0

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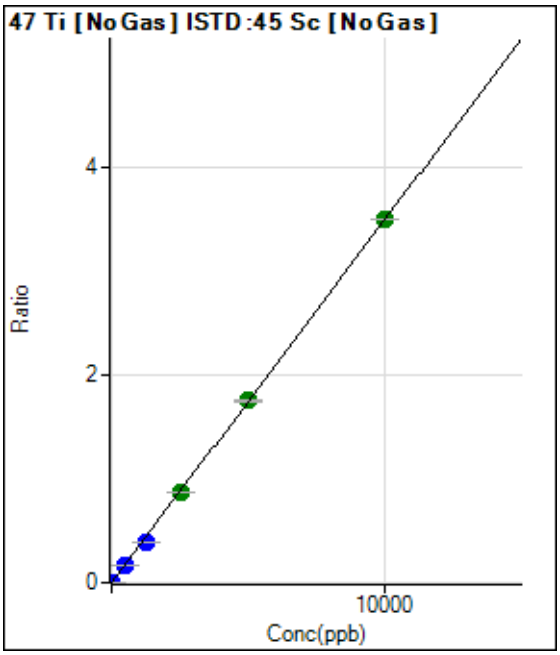
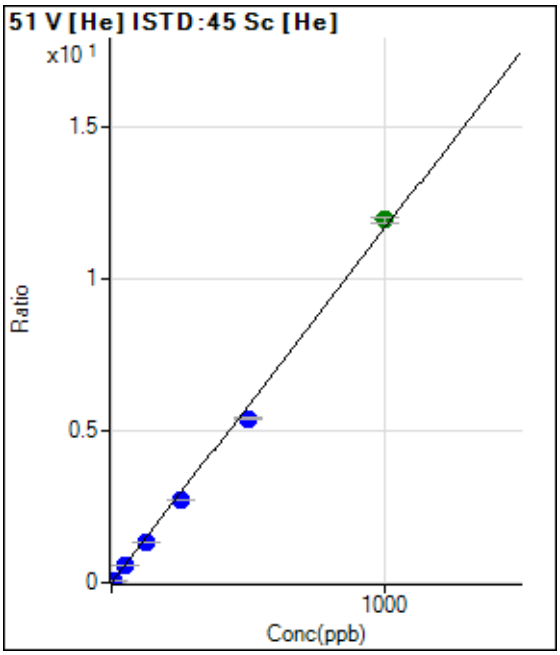


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.33	0.0000	P	24.5
2	☐	5.000	4.702	3324.84	0.0017	P	1.6
3	☐	500.000	457.757	315029.50	0.1602	P	0.7
4	☐	1250.000	1120.244	741365.56	0.3919	P	1.0
5	☐	2500.000	2495.148	1614123.45	0.8728	A	1.4
6	☐	5000.000	5027.515	3340804.91	1.7587	A	1.1
7	☐	10000.000	10005.787	6787869.83	3.5001	A	0.1
8	☐			495.57	0.0003	P	10.8

y = 3.4980E-004 * x + 4.2273E-005
R = 0.9999
DL = 0.08889
BEC = 0.1208

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0001	P	91.6
2	☐	5.000	4.976	8837.10	0.0580	P	1.6
3	☐	50.000	46.776	83794.41	0.5443	P	0.9
4	☐	125.000	112.962	197839.78	1.3142	P	0.8
5	☐	250.000	231.577	401827.96	2.6942	P	0.3
6	☐	500.000	462.955	833515.82	5.3860	P	1.0
7	☐	1000.000	1024.795	1849780.79	11.9223	A	1.7
8	☐			583.35	0.0037	P	5.0

y = 0.0116 * x + 7.3643E-005
R = 0.9988
DL = 0.0174
BEC = 0.00633

Weight: <None>
Min Conc: 0

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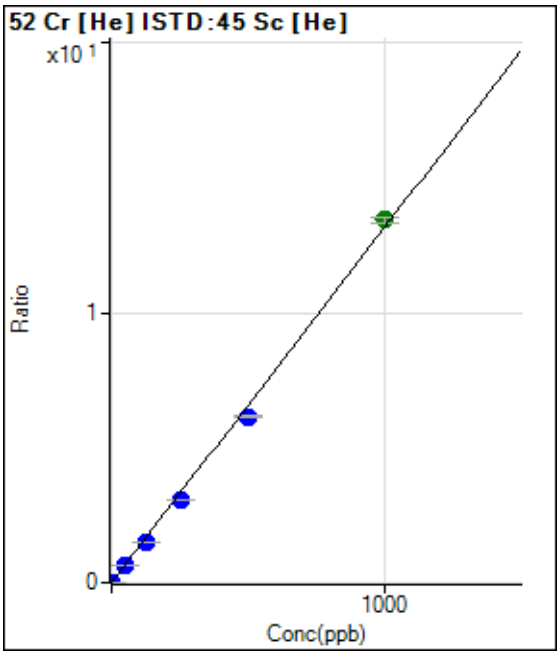
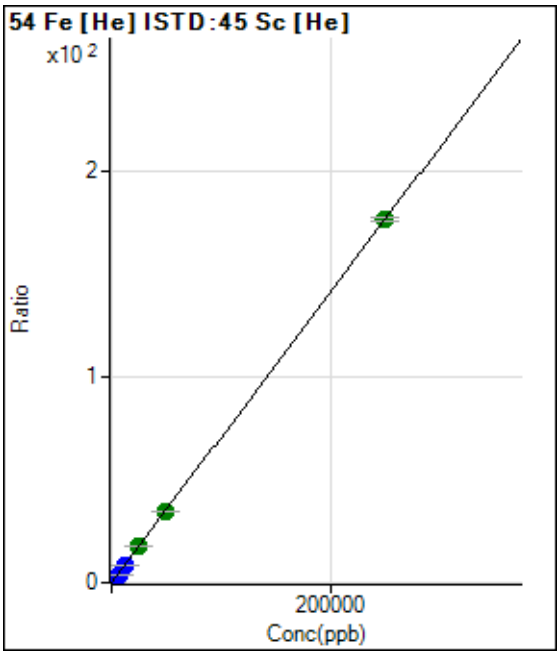


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1316.73	0.0087	P	3.4
2	☐	2.000	1.996	5324.32	0.0349	P	2.4
3	☐	50.000	47.597	97659.03	0.6343	P	1.2
4	☐	125.000	115.387	229629.46	1.5254	P	0.6
5	☐	250.000	232.989	458063.77	3.0712	P	0.3
6	☐	500.000	467.681	952718.03	6.1560	P	0.5
7	☐	1000.000	1021.734	2085059.66	13.4387	A	1.6
8	☐			3997.23	0.0254	P	2.1

y = 0.0131 * x + 0.0087
R = 0.9991
DL = 0.06802
BEC = 0.661

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2097.94	0.0138	P	2.8
2	☐	50.000	50.559	7539.73	0.0494	P	1.9
3	☐	2500.000	2374.087	259523.01	1.6856	P	0.7
4	☐	6250.000	5780.592	614860.41	4.0844	P	0.3
5	☐	12500.000	11776.710	1238892.00	8.3068	P	1.0
6	☐	25000.000	24860.746	2711483.99	17.5204	A	0.9
7	☐	50000.000	49276.428	5386020.54	34.7135	A	1.1
8	☐	250000.00	250207.79	27721422.37	176.2062	A	1.2

y = 7.0418E-004 * x + 0.0138
R = 1.0000
DL = 1.645
BEC = 19.66

Weight: <None>
Min Conc: 0

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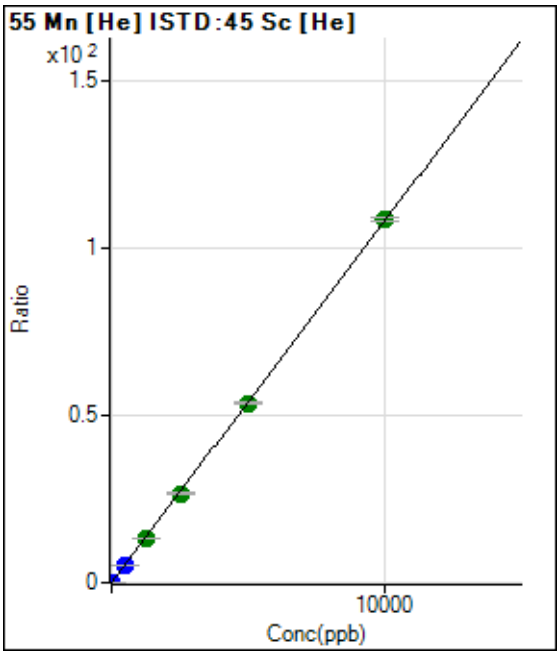
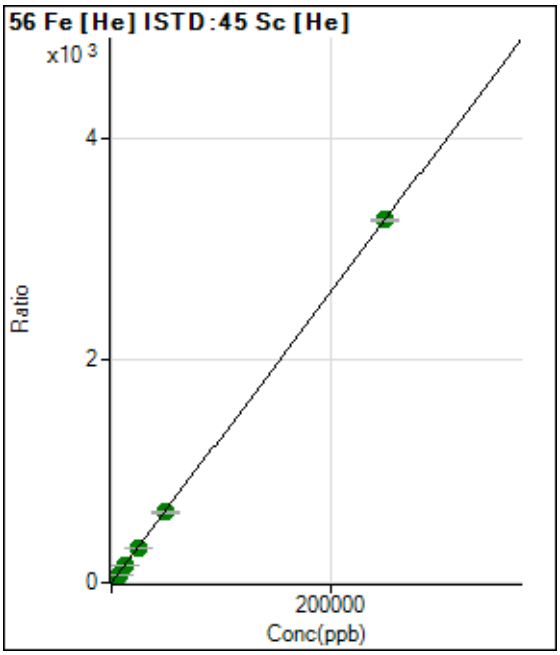


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3218.15	0.0212	P	4.2
2	☐	1.000	0.950	4800.81	0.0315	P	3.0
3	☐	500.000	464.135	774615.68	5.0312	P	0.5
4	☐	1250.000	1213.999	1975855.72	13.1255	A	0.7
5	☐	2500.000	2467.421	3975391.19	26.6552	A	1.1
6	☐	5000.000	4956.587	8283460.64	53.5239	A	0.9
7	☐	10000.000	10036.144	16811431.83	108.3540	A	0.9
8	☐			8191.18	0.0521	P	3.2

y = 0.0108 * x + 0.0212
R = 1.0000
DL = 0.2495
BEC = 1.967

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19541.66	0.1290	P	2.7
2	☐	50.000	48.001	115109.74	0.7550	P	0.8
3	☐	2500.000	2403.215	4845564.37	31.4729	A	1.8
4	☐	6250.000	5868.782	11542244.00	76.6726	A	0.7
5	☐	12500.000	12055.512	23470490.76	157.3632	A	0.1
6	☐	25000.000	24009.578	48482232.61	313.2743	A	0.7
7	☐	50000.000	48564.209	98294431.87	633.5285	A	0.7
8	☐	250000.00	250418.92	513858539.0	3,266.221	A	0.5

y = 0.0130 * x + 0.1290
R = 1.0000
DL = 0.7885
BEC = 9.888

Weight: <None>
Min Conc: 0

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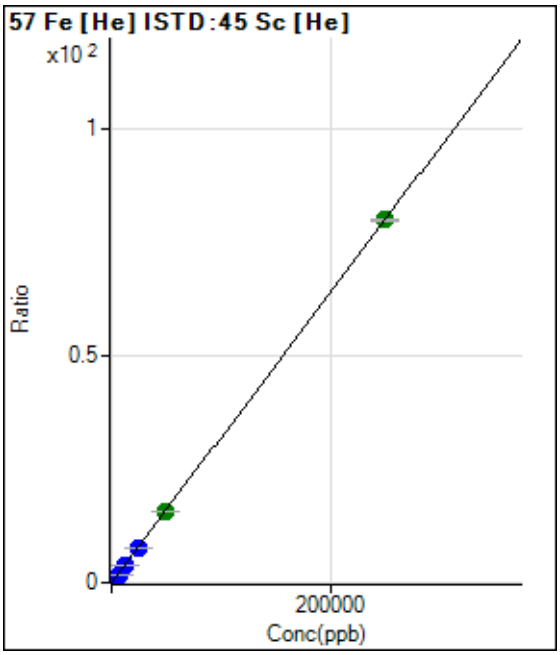
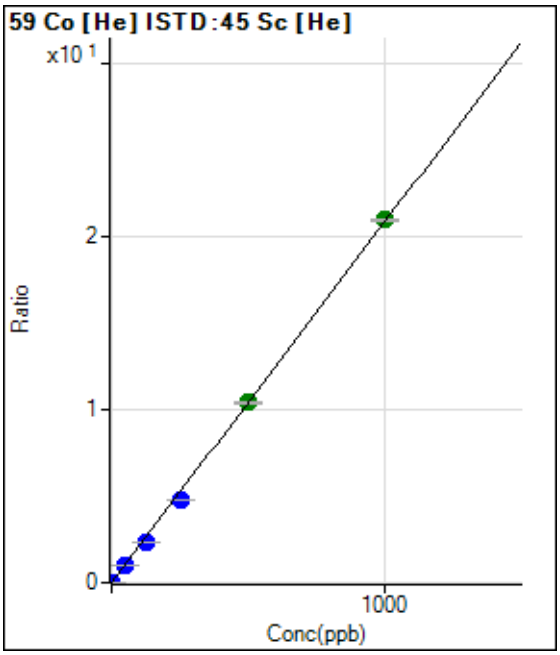


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1546.76	0.0102	P	6.3
2	☐	50.000	53.249	4148.39	0.0272	P	1.8
3	☐	2500.000	2375.192	118318.93	0.7685	P	0.8
4	☐	6250.000	5770.385	278855.76	1.8524	P	0.6
5	☐	12500.000	11689.430	558126.29	3.7421	P	0.3
6	☐	25000.000	23510.146	1163148.40	7.5159	P	0.8
7	☐	50000.000	48873.255	2422449.96	15.6132	A	0.6
8	☐	250000.00	250428.10	12579584.12	79.9603	A	0.7

y = 3.1925E-004 * x + 0.0102
R = 1.0000
DL = 6.036
BEC = 31.98

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42.22	0.0003	P	15.6
2	☐	1.000	1.006	3233.72	0.0212	P	1.0
3	☐	50.000	46.887	150309.95	0.9763	P	1.1
4	☐	125.000	113.426	355485.41	2.3614	P	1.1
5	☐	250.000	230.662	716154.66	4.8018	P	0.8
6	☐	500.000	499.357	1608828.78	10.3950	A	1.8
7	☐	1000.000	1006.758	3251628.73	20.9572	A	0.8
8	☐			5371.02	0.0341	P	1.9

y = 0.0208 * x + 2.7839E-004
R = 0.9998
DL = 0.006265
BEC = 0.01337

Weight: <None>
Min Conc: 0

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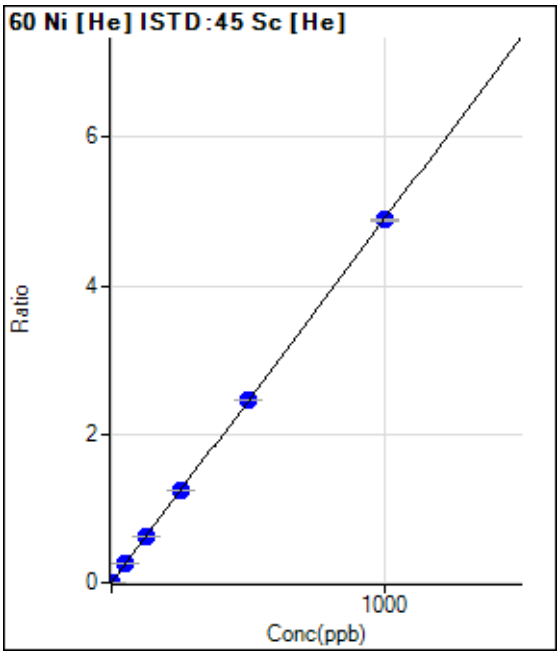
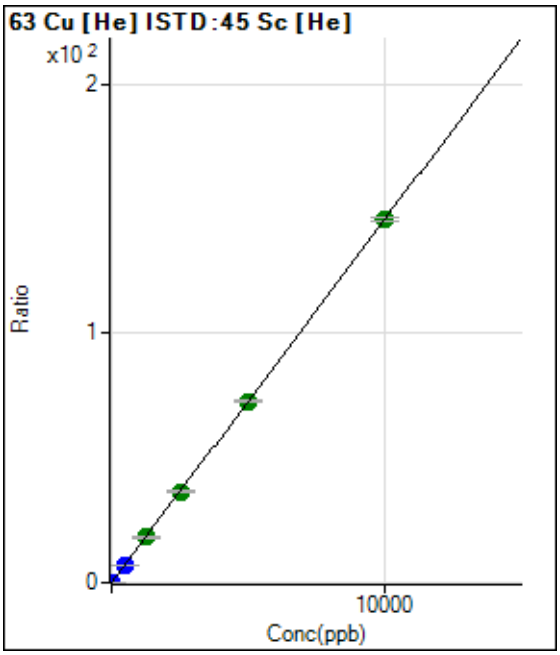


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	351.12	0.0023	P	6.6
2	☐	1.000	1.147	1210.06	0.0079	P	7.3
3	☐	50.000	52.326	39816.06	0.2586	P	1.2
4	☐	125.000	125.322	92755.48	0.6162	P	0.7
5	☐	250.000	254.483	186249.39	1.2488	P	0.9
6	☐	500.000	502.155	381000.98	2.4619	P	0.8
7	☐	1000.000	997.645	758531.93	4.8889	P	0.4
8	☐			2217.96	0.0141	P	6.6

y = 0.0049 * x + 0.0023
R = 1.0000
DL = 0.0941
BEC = 0.4729

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1290.07	0.0085	P	6.6
2	☐	2.000	2.021	5783.39	0.0379	P	5.5
3	☐	500.000	470.395	1055906.10	6.8583	P	0.7
4	☐	1250.000	1249.088	2739232.84	18.1973	A	2.1
5	☐	2500.000	2515.621	5464828.53	36.6402	A	1.7
6	☐	5000.000	4999.846	11268681.50	72.8147	A	1.2
7	☐	10000.000	9997.766	22589181.88	145.5928	A	0.9
8	☐			3753.84	0.0239	P	1.8

y = 0.0146 * x + 0.0085
R = 1.0000
DL = 0.1164
BEC = 0.5844

Weight: <None>
Min Conc: 0

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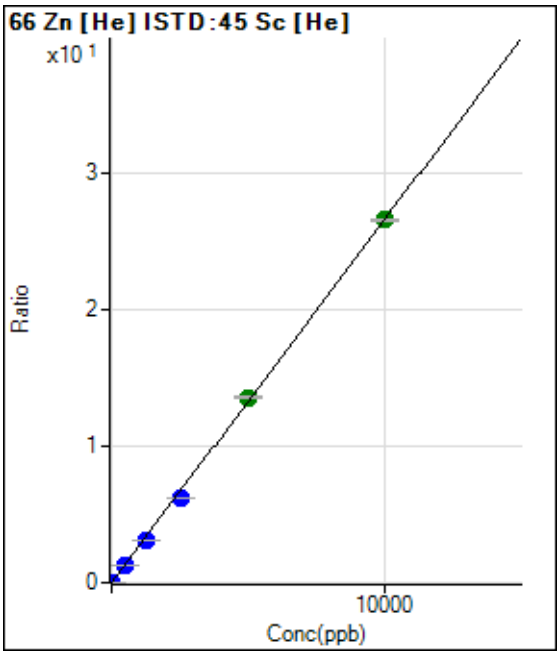
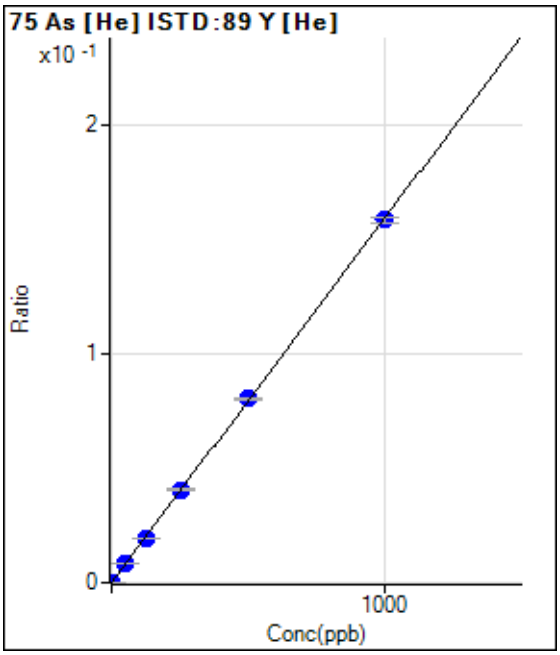


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	594.46	0.0039	P	4.0
2	☐	5.000	5.148	2685.83	0.0176	P	4.1
3	☐	500.000	482.250	198138.08	1.2869	P	1.0
4	☐	1250.000	1153.200	462444.81	3.0720	P	0.4
5	☐	2500.000	2341.178	929550.17	6.2326	P	1.0
6	☐	5000.000	5107.901	2103566.93	13.5934	A	1.8
7	☐	10000.000	9998.743	4127944.87	26.6053	A	0.8
8	☐			2310.20	0.0147	P	2.8

y = 0.0027 * x + 0.0039
R = 0.9998
DL = 0.178
BEC = 1.474

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	74.6
2	☐	1.000	1.023	276.67	0.0002	P	6.9
3	☐	50.000	50.978	13286.03	0.0081	P	1.0
4	☐	125.000	122.311	31026.89	0.0195	P	1.2
5	☐	250.000	255.230	63300.90	0.0406	P	1.6
6	☐	500.000	504.802	131036.77	0.0803	P	0.9
7	☐	1000.000	996.579	263758.02	0.1586	P	1.8
8	☐			163.34	0.0001	P	21.9

y = 1.5913E-004 * x + 6.7749E-006
R = 1.0000
DL = 0.09529
BEC = 0.04257

Weight: <None>
Min Conc: 0

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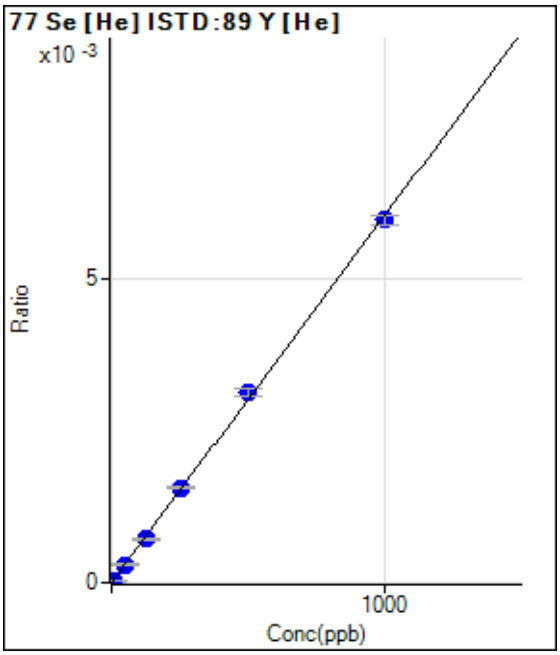
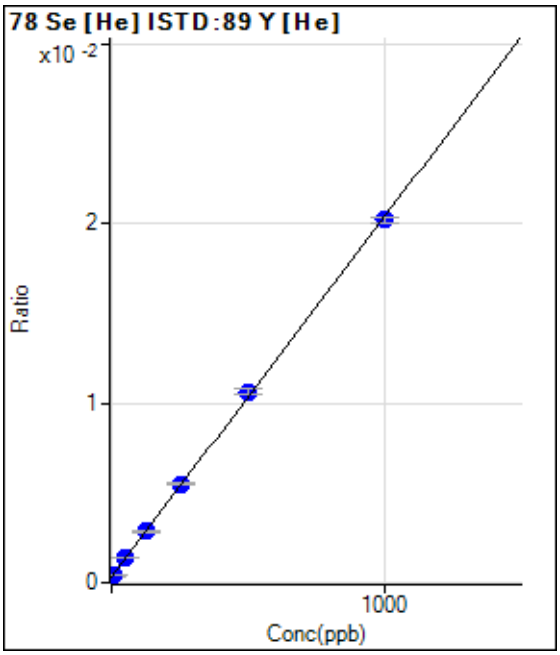


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.190	52.22	0.0000	P	21.7
3	☐	50.000	49.580	492.24	0.0003	P	3.5
4	☐	125.000	119.878	1157.83	0.0007	P	4.4
5	☐	250.000	257.663	2432.44	0.0016	P	2.1
6	☐	500.000	519.582	5132.05	0.0031	P	4.0
7	☐	1000.000	988.954	9957.87	0.0060	P	2.8
8	☐			4.44	0.0000	P	115.

y = 6.0539E-006 * x + 6.7877E-007
R = 0.9996
DL = 0.5826
BEC = 0.1121

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	547.79	0.0003	P	10.1
2	☐	5.000	5.089	715.58	0.0004	P	12.7
3	☐	50.000	51.243	2233.52	0.0014	P	1.4
4	☐	125.000	124.948	4531.85	0.0028	P	2.3
5	☐	250.000	257.910	8588.12	0.0055	P	1.9
6	☐	500.000	514.078	17372.52	0.0107	P	2.7
7	☐	1000.000	990.928	33624.89	0.0202	P	1.3
8	☐			543.35	0.0003	P	12.5

y = 2.0063E-005 * x + 3.3665E-004
R = 0.9998
DL = 5.101
BEC = 16.78

Weight: <None>
Min Conc: 0

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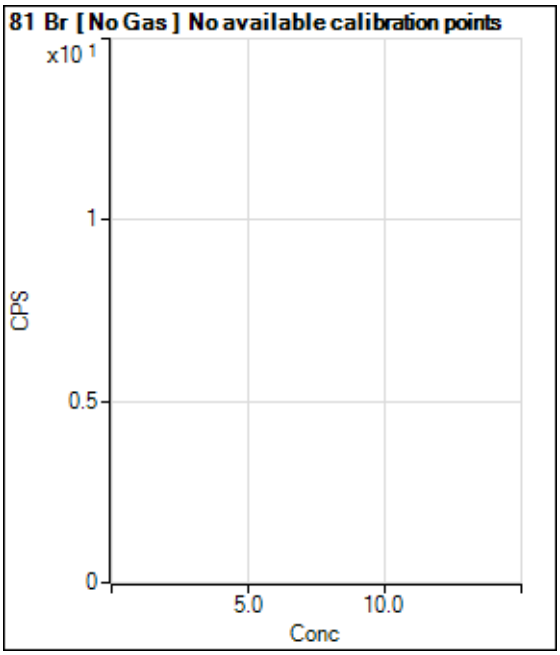
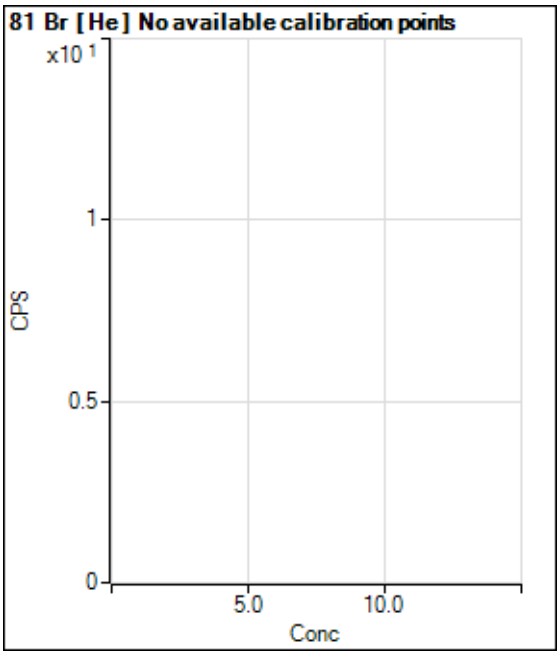


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			19943.60		P	0.6
2	☐			20017.03		P	1.6
3	☐			19813.44		P	0.2
4	☐			18679.73		P	4.7
5	☐			18786.48		P	1.6
6	☐			19131.44		P	2.0
7	☐			19610.88		P	0.2
8	☐			20759.17		P	3.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			156.67		P	14.0
2	☐			131.11		P	12.5
3	☐			123.33		P	12.4
4	☐			71.11		P	25.8
5	☐			98.89		P	5.1
6	☐			131.11		P	5.9
7	☐			154.45		P	12.3
8	☐			163.34		P	10.6

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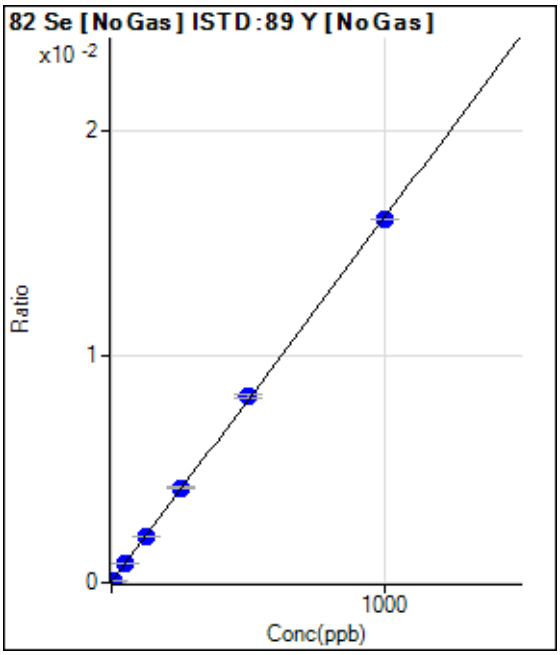
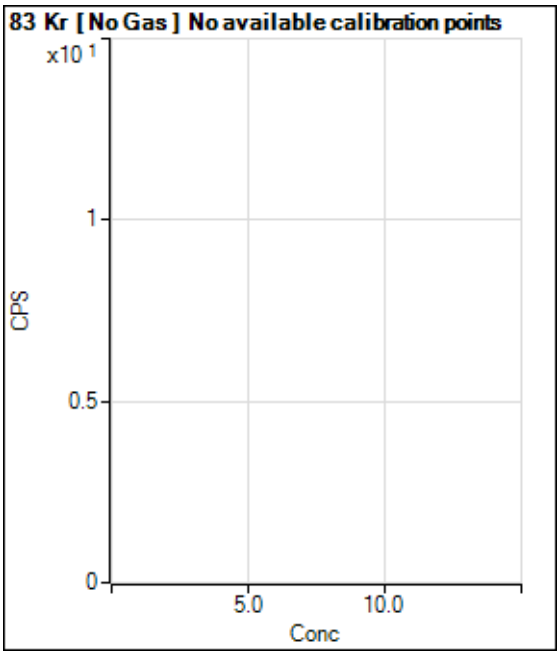


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.82	0.0000	P	13.9
2	☐	5.000	4.223	610.52	0.0001	P	11.4
3	☐	50.000	51.964	5260.75	0.0009	P	3.1
4	☐	125.000	124.612	11956.42	0.0020	P	0.7
5	☐	250.000	257.972	24092.35	0.0042	P	1.3
6	☐	500.000	509.077	49017.28	0.0082	P	1.6
7	☐	1000.000	993.423	97420.50	0.0160	P	0.1
8	☐			319.44	0.0001	P	21.1

y = 1.6112E-005 * x + 3.1732E-005
R = 0.9999
DL = 0.8221
BEC = 1.969

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			318.89		P	4.9
2	☐			360.01		P	7.4
3	☐			325.56		P	16.6
4	☐			323.34		P	4.7
5	☐			346.68		P	3.5
6	☐			351.12		P	8.8
7	☐			311.12		P	12.8
8	☐			351.12		P	7.7

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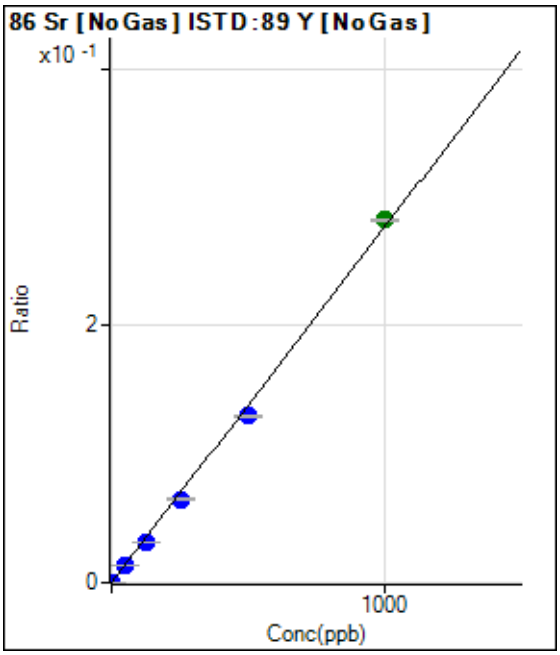
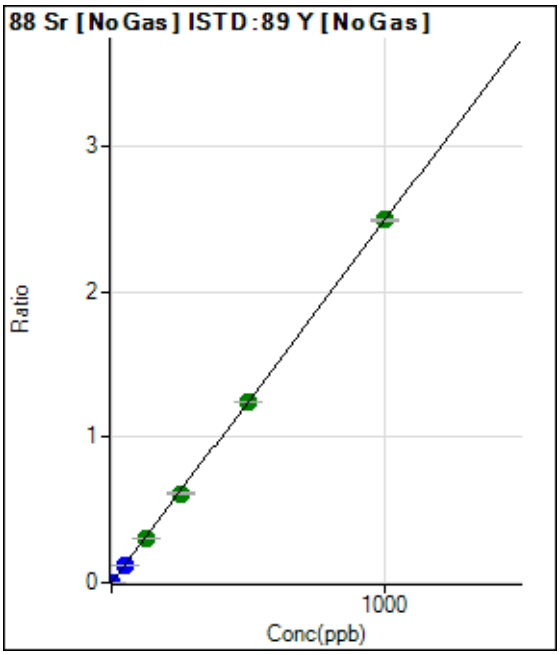


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	566.69	0.0001	P	8.3
2	☐	1.000	0.893	2085.73	0.0003	P	5.3
3	☐	50.000	46.833	78925.46	0.0130	P	1.2
4	☐	125.000	114.119	185447.11	0.0316	P	1.0
5	☐	250.000	234.031	372633.91	0.0648	P	1.0
6	☐	500.000	469.055	772311.90	0.1297	P	1.2
7	☐	1000.000	1020.983	1714658.31	0.2823	A	0.9
8	☐			22134.48	0.0036	P	0.8

y = 2.7638E-004 * x + 9.3786E-005
R = 0.9992
DL = 0.08481
BEC = 0.3393

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	132.23	0.0000	P	4.7
2	☐	1.000	0.950	14590.67	0.0024	P	1.1
3	☐	50.000	45.921	691466.45	0.1142	P	0.2
4	☐	125.000	122.615	1787809.82	0.3050	A	0.9
5	☐	250.000	246.181	3521877.65	0.6122	A	1.6
6	☐	500.000	498.876	7386060.31	1.2407	A	0.4
7	☐	1000.000	1002.019	15137127.97	2.4919	A	0.7
8	☐			189239.57	0.0312	P	0.7

y = 0.0025 * x + 2.1898E-005
R = 1.0000
DL = 0.001235
BEC = 0.008805

Weight: <None>
Min Conc: 0

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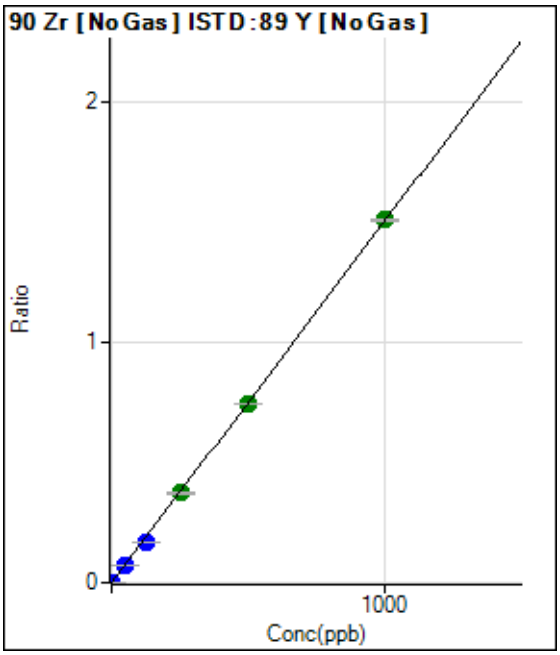
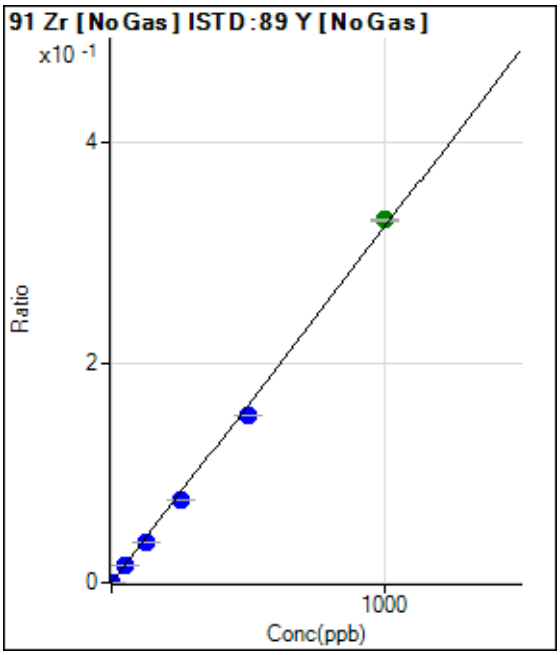


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	207.78	0.0000	P	5.7
2	☐	1.000	0.905	8531.43	0.0014	P	1.6
3	☐	50.000	45.424	413362.91	0.0683	P	0.8
4	☐	125.000	110.770	975901.53	0.1665	P	0.8
5	☐	250.000	248.658	2149603.37	0.3736	A	1.4
6	☐	500.000	495.559	4432863.86	0.7446	A	0.6
7	☐	1000.000	1004.564	9168666.04	1.5094	A	0.8
8	☐			7458.62	0.0012	P	2.3

y = 0.0015 * x + 3.4397E-005
R = 0.9999
DL = 0.0039
BEC = 0.02289

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.11	0.0000	P	16.2
2	☐	1.000	0.916	1855.69	0.0003	P	4.6
3	☐	50.000	46.827	91803.52	0.0152	P	0.8
4	☐	125.000	114.306	216958.11	0.0370	P	1.0
5	☐	250.000	233.837	435481.78	0.0757	P	0.6
6	☐	500.000	470.714	907131.29	0.1524	P	0.9
7	☐	1000.000	1020.179	2006012.89	0.3302	A	0.8
8	☐			1710.12	0.0003	P	6.6

y = 3.2370E-004 * x + 6.8012E-006
R = 0.9992
DL = 0.01021
BEC = 0.02101

Weight: <None>
Min Conc: 0

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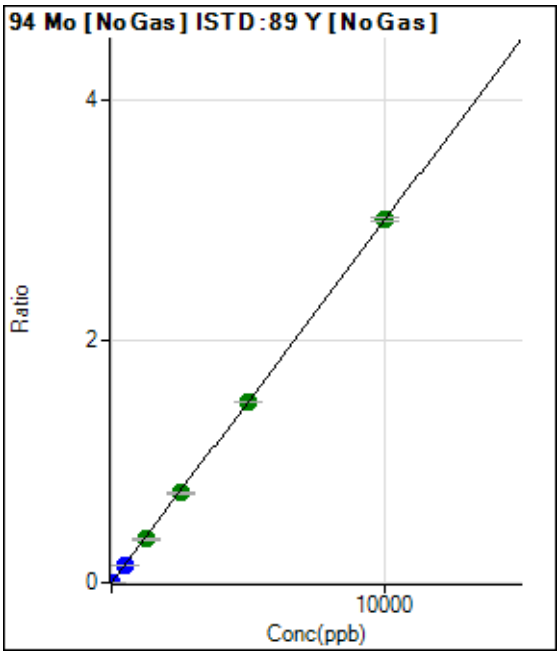
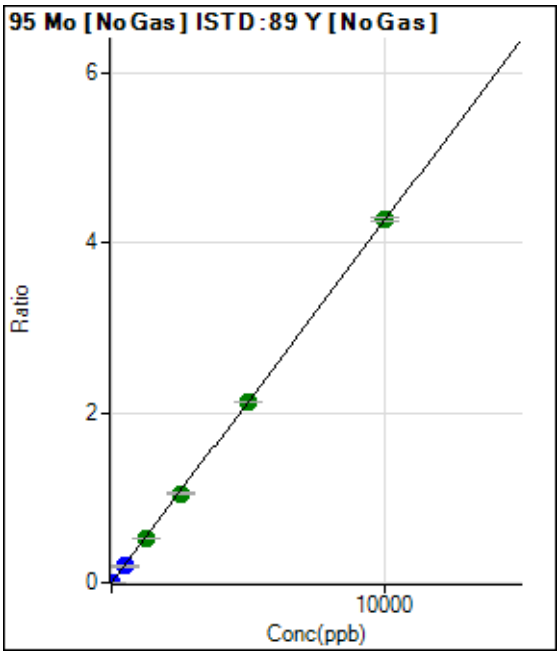


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	161.12	0.0000	P	7.2
2	☐	5.000	5.497	10239.20	0.0017	P	2.0
3	☐	500.000	454.489	824343.04	0.1362	P	0.6
4	☐	1250.000	1201.538	2110103.18	0.3600	A	1.5
5	☐	2500.000	2476.570	4267996.81	0.7419	A	0.8
6	☐	5000.000	4994.452	8906956.39	1.4961	A	0.4
7	☐	10000.000	10016.965	18227073.20	3.0007	A	0.9
8	☐			5146.51	0.0008	P	2.4

y = 2.9956E-004 * x + 2.6682E-005
R = 1.0000
DL = 0.01916
BEC = 0.08907

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	157.78	0.0000	P	7.6
2	☐	5.000	4.637	12250.77	0.0020	P	1.5
3	☐	500.000	452.231	1166605.44	0.1927	P	0.5
4	☐	1250.000	1205.689	3012165.10	0.5137	A	1.1
5	☐	2500.000	2461.293	6033120.67	1.0487	A	1.6
6	☐	5000.000	4995.154	12670398.42	2.1284	A	0.8
7	☐	10000.000	10020.027	25934010.72	4.2693	A	1.2
8	☐			3037.02	0.0005	P	4.6

y = 4.2608E-004 * x + 2.6118E-005
R = 1.0000
DL = 0.01396
BEC = 0.0613

Weight: <None>
Min Conc: 0

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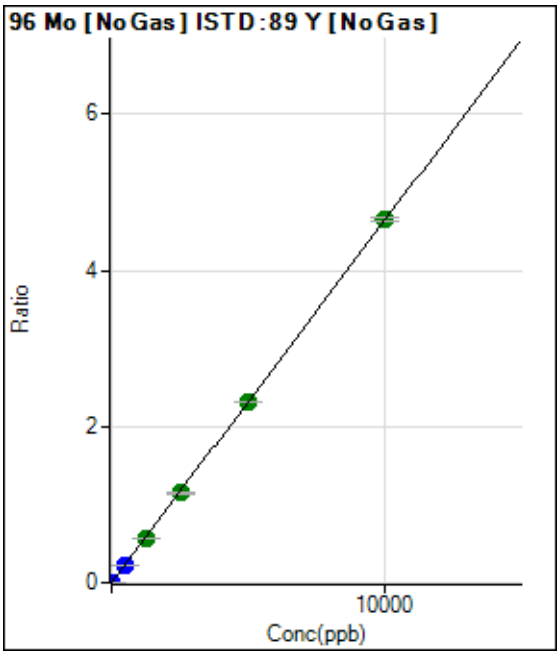
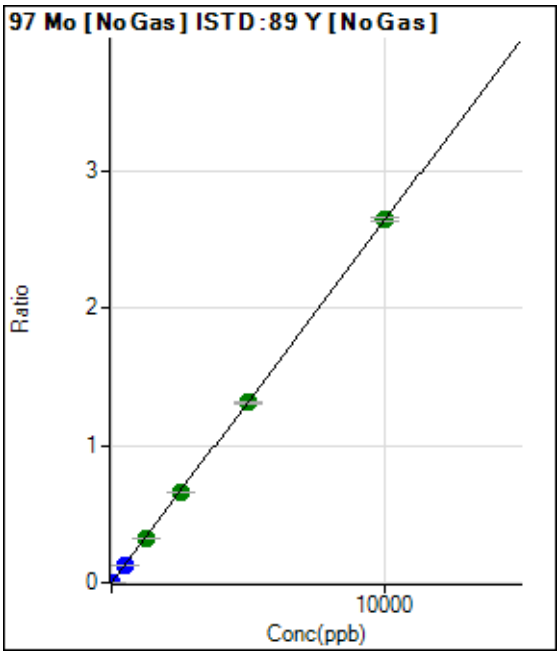


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	202.22	0.0000	P	18.6
2	☐	5.000	4.814	13857.75	0.0023	P	2.6
3	☐	500.000	453.349	1272191.40	0.2101	P	0.4
4	☐	1250.000	1214.181	3299670.85	0.5628	A	1.1
5	☐	2500.000	2474.706	6598127.19	1.1470	A	1.5
6	☐	5000.000	4979.077	13738216.88	2.3077	A	0.1
7	☐	10000.000	10023.595	28220689.02	4.6457	A	1.0
8	☐			13320.60	0.0022	P	1.2

y = 4.6348E-004 * x + 3.3456E-005
R = 1.0000
DL = 0.04033
BEC = 0.07219

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107.78	0.0000	P	15.9
2	☐	5.000	4.754	7792.14	0.0013	P	2.2
3	☐	500.000	457.974	732277.94	0.1210	P	0.2
4	☐	1250.000	1212.366	1877129.92	0.3202	A	0.7
5	☐	2500.000	2491.224	3784842.38	0.6579	A	0.6
6	☐	5000.000	4979.013	7827933.15	1.3149	A	0.8
7	☐	10000.000	10019.493	16073737.68	2.6461	A	1.1
8	☐			2071.28	0.0003	P	6.3

y = 2.6409E-004 * x + 1.7857E-005
R = 1.0000
DL = 0.03231
BEC = 0.06762

Weight: <None>
Min Conc: 0

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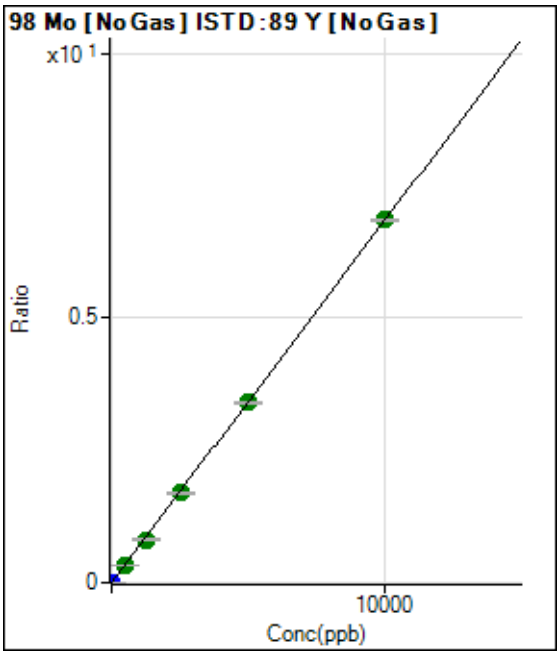
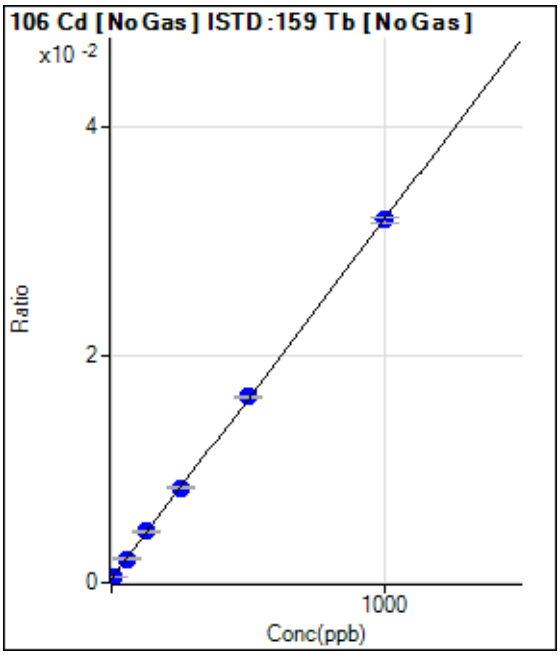


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	265.56	0.0000	P	5.3
2	☐	5.000	4.651	19727.84	0.0032	P	3.1
3	☐	500.000	495.988	2053158.53	0.3391	A	0.9
4	☐	1250.000	1195.585	4792658.26	0.8175	A	0.1
5	☐	2500.000	2474.842	9734153.95	1.6921	A	0.5
6	☐	5000.000	4971.284	20232965.11	3.3989	A	0.9
7	☐	10000.000	10027.650	41645604.10	6.8559	A	0.5
8	☐			4717.47	0.0008	P	4.0

y = 6.8370E-004 * x + 4.3976E-005
R = 1.0000
DL = 0.01021
BEC = 0.06432

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1744.57	0.0005	P	7.4
2	☐	1.000	0.370	1774.58	0.0005	P	1.8
3	☐	50.000	52.185	7876.66	0.0021	P	2.0
4	☐	125.000	128.527	16597.38	0.0045	P	3.0
5	☐	250.000	250.794	31378.34	0.0084	P	0.8
6	☐	500.000	504.104	63289.36	0.0163	P	1.0
7	☐	1000.000	997.200	125697.28	0.0318	P	1.9
8	☐			1604.55	0.0004	P	4.3

y = 3.1473E-005 * x + 4.5875E-004
R = 1.0000
DL = 3.246
BEC = 14.58

Weight: <None>
Min Conc: 0

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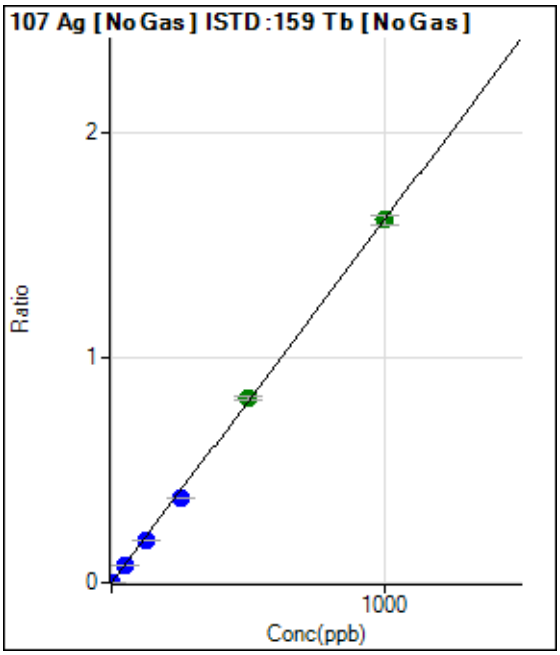
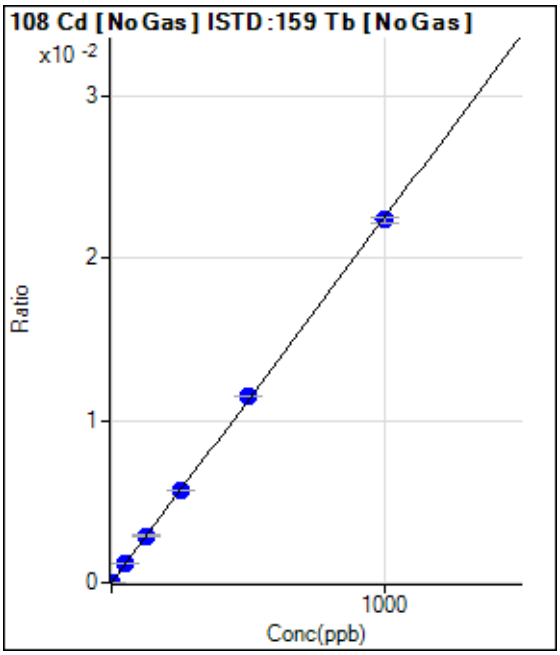


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	12.0
2	☐	1.000	0.999	6128.02	0.0016	P	2.6
3	☐	50.000	49.380	298261.71	0.0796	P	1.2
4	☐	125.000	118.251	702091.28	0.1905	P	1.5
5	☐	250.000	233.364	1412396.28	0.3760	P	0.8
6	☐	500.000	510.232	3186370.30	0.8220	A	2.1
7	☐	1000.000	999.918	6357724.28	1.6108	A	2.8
8	☐			653.36	0.0002	P	9.3

y = 0.0016 * x + 1.6069E-005
R = 0.9998
DL = 0.003605
BEC = 0.009975

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.89	0.0000	P	42.7
2	☐	1.000	0.878	83.33	0.0000	P	18.0
3	☐	50.000	53.574	4524.08	0.0012	P	2.8
4	☐	125.000	128.869	10685.13	0.0029	P	2.9
5	☐	250.000	254.056	21463.80	0.0057	P	1.0
6	☐	500.000	509.233	44395.47	0.0114	P	0.2
7	☐	1000.000	993.707	88187.01	0.0223	P	1.7
8	☐			38.89	0.0000	P	17.9

y = 2.2480E-005 * x + 2.3350E-006
R = 0.9999
DL = 0.1329
BEC = 0.1039

Weight: <None>
Min Conc: 0

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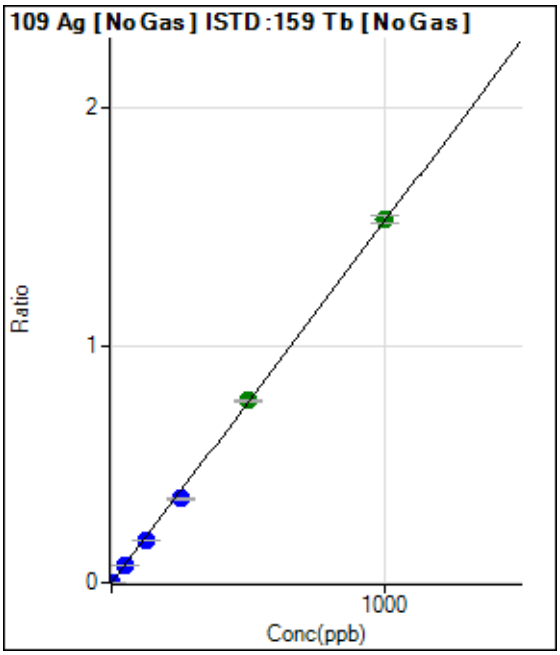
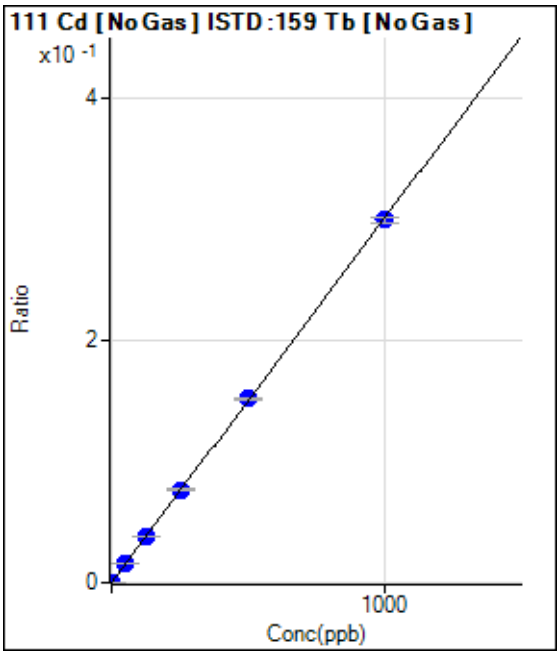


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.22	0.0000	P	12.9
2	☐	1.000	0.968	5617.81	0.0015	P	2.8
3	☐	50.000	48.988	279865.81	0.0747	P	1.8
4	☐	125.000	117.282	658663.25	0.1787	P	0.7
5	☐	250.000	231.517	1325318.50	0.3528	P	1.1
6	☐	500.000	503.304	2973431.94	0.7669	A	0.9
7	☐	1000.000	1003.984	6038647.90	1.5299	A	2.0
8	☐			600.02	0.0002	P	8.5

y = 0.0015 * x + 1.3734E-005
R = 0.9998
DL = 0.003493
BEC = 0.009013

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.27	0.0000	P	5.4
2	☐	1.000	1.166	1510.93	0.0004	P	2.7
3	☐	50.000	52.776	59730.19	0.0159	P	1.2
4	☐	125.000	127.833	141973.49	0.0385	P	1.2
5	☐	250.000	254.411	287829.42	0.0766	P	1.5
6	☐	500.000	505.313	589895.27	0.1521	P	0.7
7	☐	1000.000	995.748	1183258.79	0.2997	P	1.5
8	☐			353.11	0.0001	P	9.0

y = 3.0097E-004 * x + 4.9517E-005
R = 1.0000
DL = 0.02664
BEC = 0.1645

Weight: <None>
Min Conc: 0

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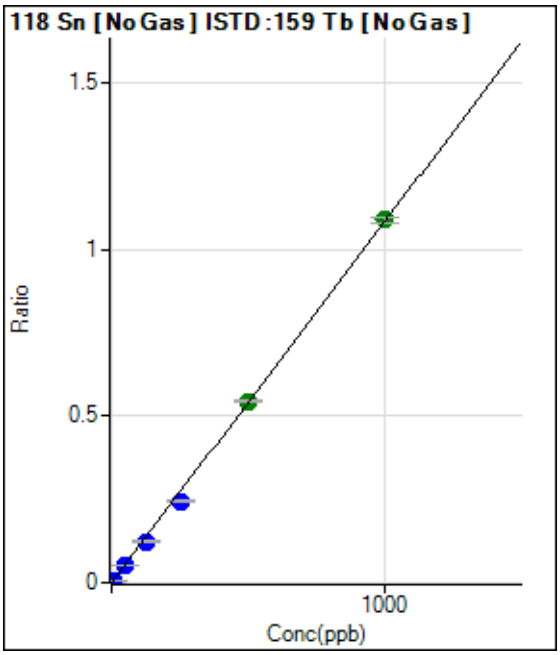
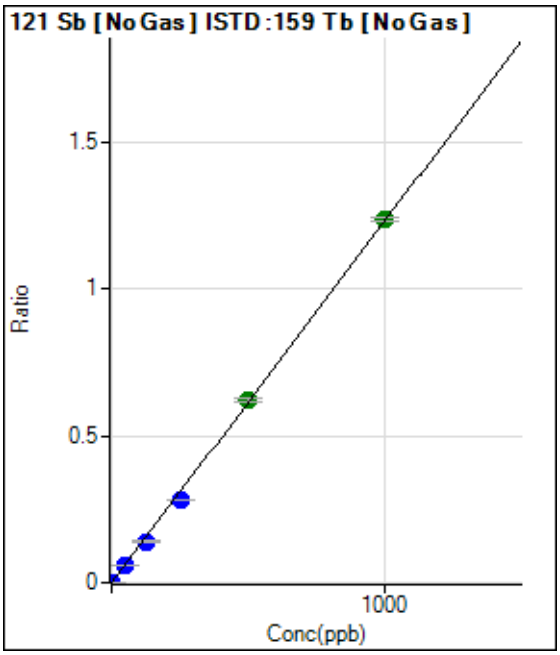


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	897.81	0.0002	P	7.0
2	☐	5.000	4.729	20194.27	0.0054	P	2.4
3	☐	50.000	47.462	193416.02	0.0516	P	1.7
4	☐	125.000	114.172	456198.50	0.1238	P	1.4
5	☐	250.000	226.055	919770.15	0.2449	P	1.8
6	☐	500.000	503.093	2111954.36	0.5447	A	1.1
7	☐	1000.000	1005.922	4297916.98	1.0888	A	1.6
8	☐			1492.31	0.0004	P	2.2

y = 0.0011 * x + 2.3626E-004
R = 0.9997
DL = 0.04578
BEC = 0.2183

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	14.2
2	☐	2.000	1.945	9041.80	0.0024	P	2.6
3	☐	50.000	47.329	218177.72	0.0582	P	1.5
4	☐	125.000	114.395	518367.12	0.1407	P	1.3
5	☐	250.000	228.151	1053892.96	0.2805	P	1.0
6	☐	500.000	505.451	2409603.05	0.6215	A	2.0
7	☐	1000.000	1004.196	4874127.91	1.2347	A	1.1
8	☐			3260.40	0.0009	P	3.4

y = 0.0012 * x + 6.1375E-006
R = 0.9997
DL = 0.002122
BEC = 0.004992

Weight: <None>
Min Conc: 0

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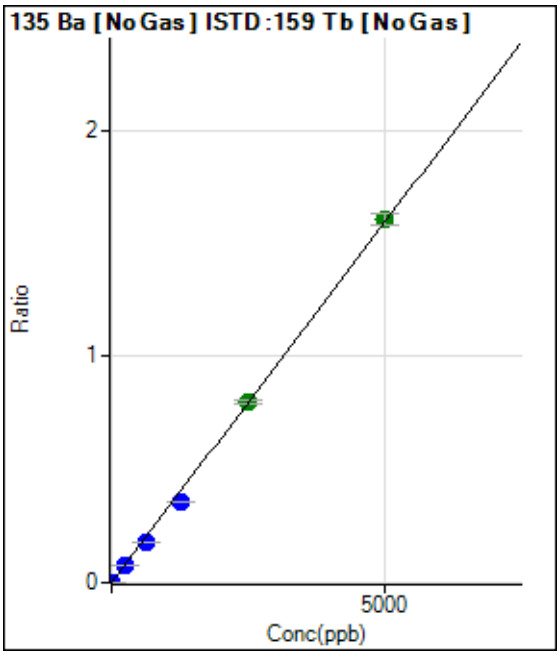
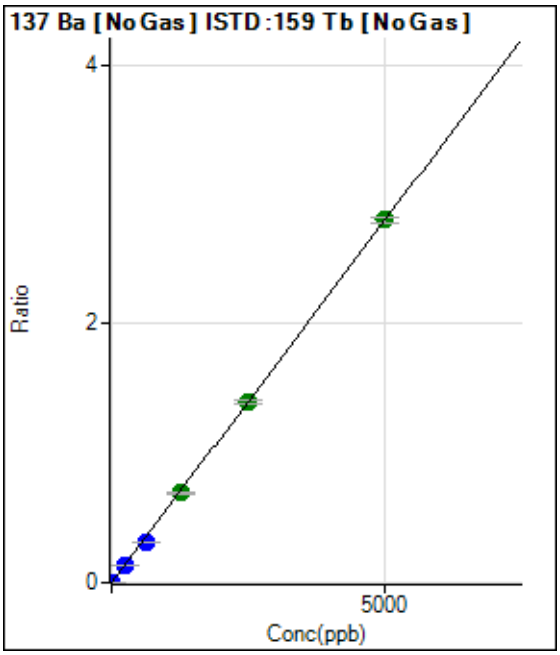


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.89	0.0000	P	12.3
2	☐	10.000	9.526	11515.86	0.0031	P	2.4
3	☐	250.000	234.183	279533.42	0.0746	P	1.3
4	☐	625.000	562.607	660103.07	0.1791	P	1.2
5	☐	1250.000	1122.312	1342182.25	0.3573	P	1.2
6	☐	2500.000	2509.171	3097254.78	0.7988	A	1.9
7	☐	5000.000	5035.928	6327126.57	1.6031	A	3.3
8	☐			2920.33	0.0008	P	4.5

y = 3.1833E-004 * x + 2.0741E-005
R = 0.9996
DL = 0.02404
BEC = 0.06516

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	121.11	0.0000	P	18.3
2	☐	10.000	9.377	19887.30	0.0053	P	1.4
3	☐	250.000	228.987	479841.66	0.1280	P	1.6
4	☐	625.000	555.148	1143491.14	0.3103	P	1.1
5	☐	1250.000	1238.548	2600117.55	0.6922	A	2.1
6	☐	2500.000	2503.165	5423754.95	1.3990	A	1.7
7	☐	5000.000	5011.064	11054502.34	2.8005	A	1.8
8	☐			5126.53	0.0013	P	0.6

y = 5.5886E-004 * x + 3.1846E-005
R = 0.9999
DL = 0.03132
BEC = 0.05698

Weight: <None>
Min Conc: 0

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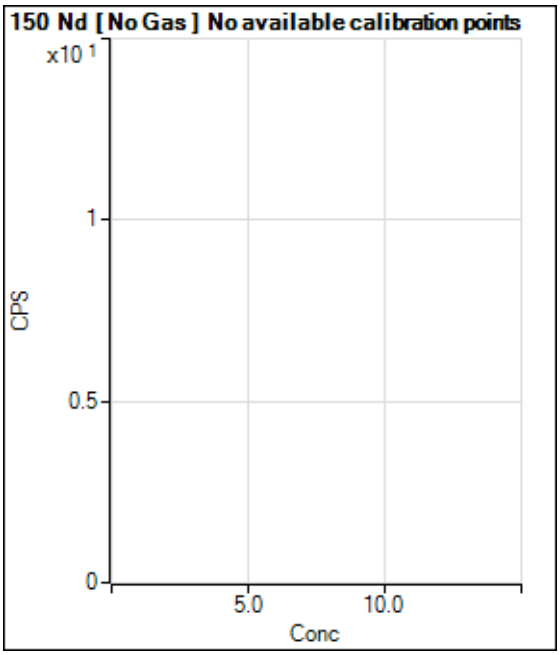
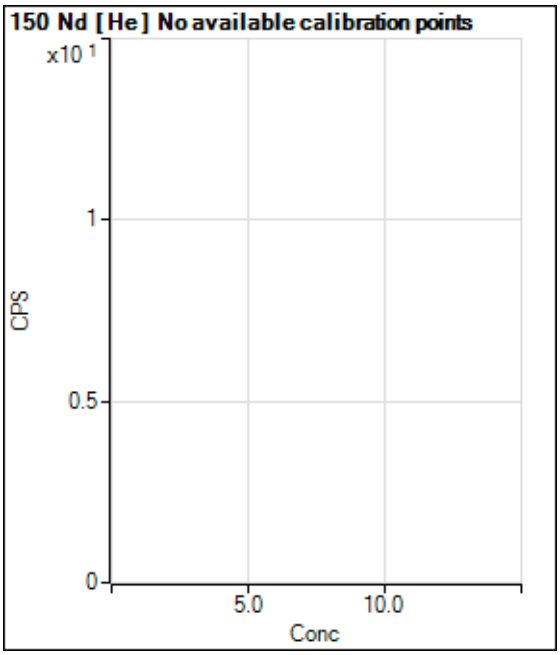


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			7.78		P	65.5
2	☐			5.55		P	69.3
3	☐			14.44		P	35.3
4	☐			33.33		P	40.0
5	☐			56.67		P	41.2
6	☐			150.00		P	12.4
7	☐			267.78		P	23.0
8	☐			111.11		P	11.4



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1	☐			1.11		P	173.
2	☐			2.22		P	86.6
3	☐			4.45		P	86.6
4	☐			8.89		P	21.6
5	☐			8.89		P	21.6
6	☐			33.33		P	26.5
7	☐			67.78		P	17.3
8	☐			62.22		P	6.2

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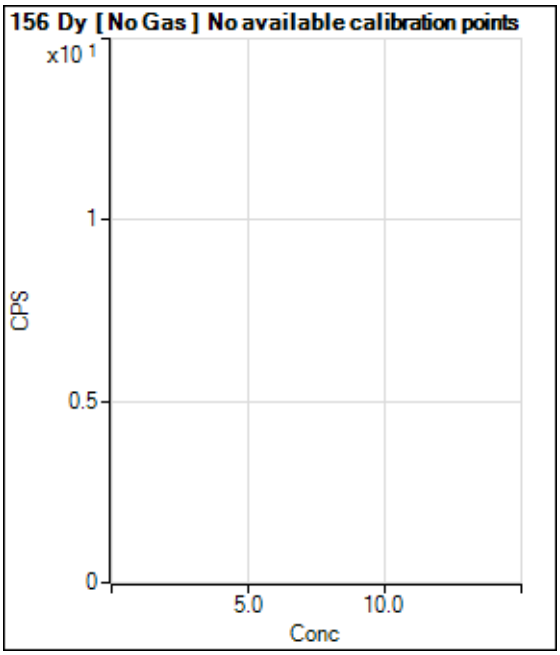

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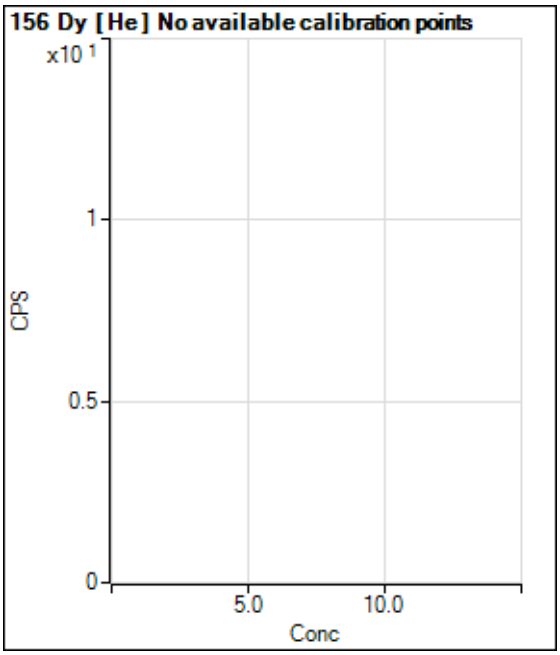
1	☐			2.22		P	86.6
2	☐			7.78		P	65.5
3	☐			10.00		P	33.3
4	☐			14.44		P	53.3
5	☐			36.67		P	9.1
6	☐			45.55		P	15.2
7	☐			121.11		P	27.7
8	☐			217.78		P	7.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			5.55		P	124.
2	☐			4.44		P	43.4
3	☐			13.33		P	50.0
4	☐			50.00		P	6.7
5	☐			70.00		P	33.3
6	☐			150.00		P	13.5
7	☐			344.45		P	10.1
8	☐			236.67		P	17.6

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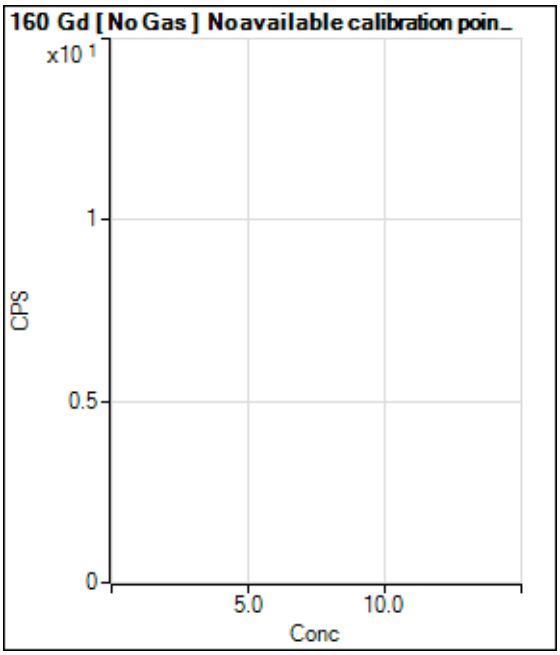
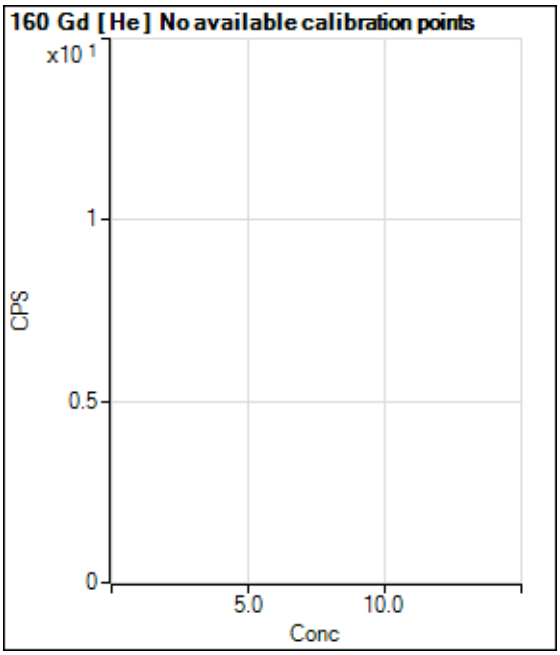


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			31.11		P	16.4
2	☐			38.89		P	62.0
3	☐			33.33		P	17.3
4	☐			35.55		P	30.1
5	☐			30.00		P	29.4
6	☐			54.44		P	30.2
7	☐			81.11		P	12.6
8	☐			268.89		P	15.7



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1	☐			147.78		P	12.4
2	☐			151.12		P	7.1
3	☐			143.33		P	28.2
4	☐			162.23		P	5.9
5	☐			154.45		P	8.7
6	☐			193.34		P	5.2
7	☐			232.22		P	4.6
8	☐			364.46		P	6.6

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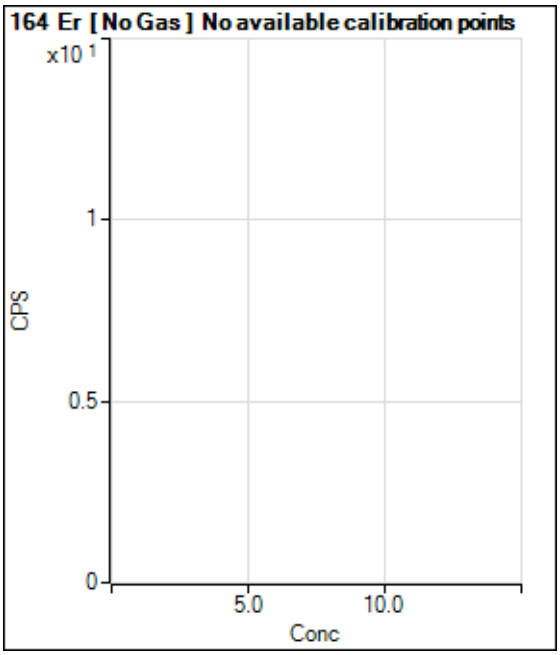

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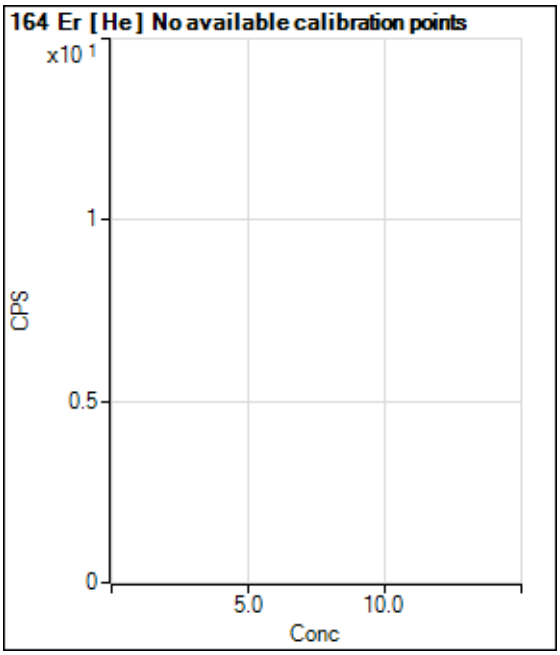
1	☐			32.22		P	73.4
2	☐			28.89		P	13.3
3	☐			34.44		P	49.7
4	☐			45.56		P	40.3
5	☐			63.33		P	10.5
6	☐			103.33		P	23.3
7	☐			133.34		P	22.2
8	☐			516.68		P	10.7



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1	☐			22.22		P	37.8
2	☐			17.78		P	78.1
3	☐			20.00		P	33.4
4	☐			23.33		P	37.8
5	☐			40.00		P	16.7
6	☐			80.00		P	22.0
7	☐			108.89		P	23.0
8	☐			370.01		P	6.3

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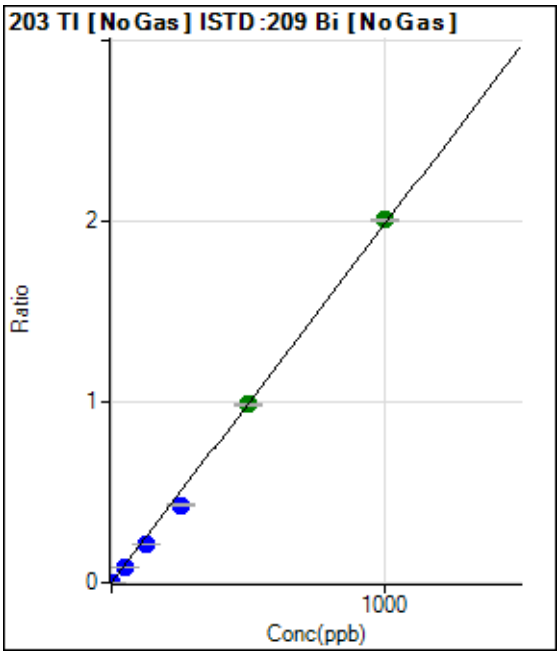
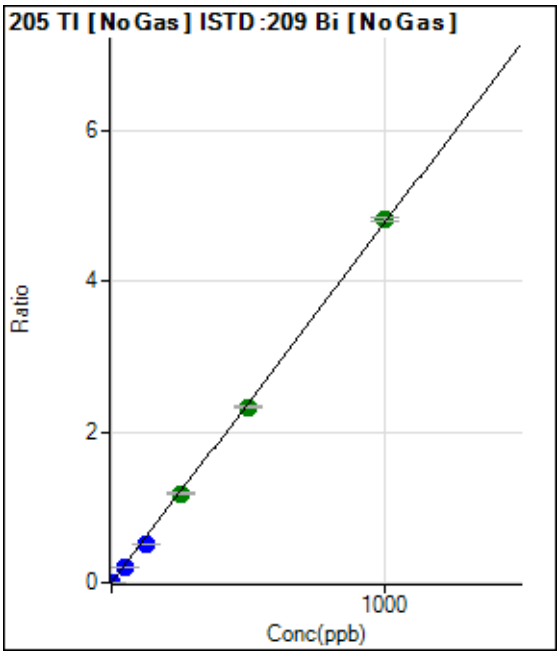


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.00	0.0001	P	16.9
2	☐	1.000	0.904	3851.70	0.0019	P	3.3
3	☐	50.000	44.240	182692.89	0.0879	P	1.7
4	☐	125.000	105.962	435418.74	0.2104	P	0.3
5	☐	250.000	215.798	887365.44	0.4284	P	1.9
6	☐	500.000	496.978	2141581.77	0.9865	A	1.4
7	☐	1000.000	1012.729	4300990.60	2.0102	A	0.7
8	☐			487.79	0.0003	P	3.1

y = 0.0020 * x + 6.2933E-005
R = 0.9993
DL = 0.01612
BEC = 0.03171

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	273.34	0.0001	P	12.5
2	☐	1.000	0.875	8924.13	0.0043	P	0.8
3	☐	50.000	43.340	429637.79	0.2067	P	1.4
4	☐	125.000	104.799	1033855.43	0.4995	P	0.3
5	☐	250.000	246.588	2434274.77	1.1752	A	1.9
6	☐	500.000	488.937	5058439.16	2.3300	A	0.8
7	☐	1000.000	1009.243	10289994.43	4.8094	A	1.1
8	☐			1167.84	0.0006	P	4.9

y = 0.0048 * x + 1.3238E-004
R = 0.9997
DL = 0.01044
BEC = 0.02778

Weight: <None>
Min Conc: 0

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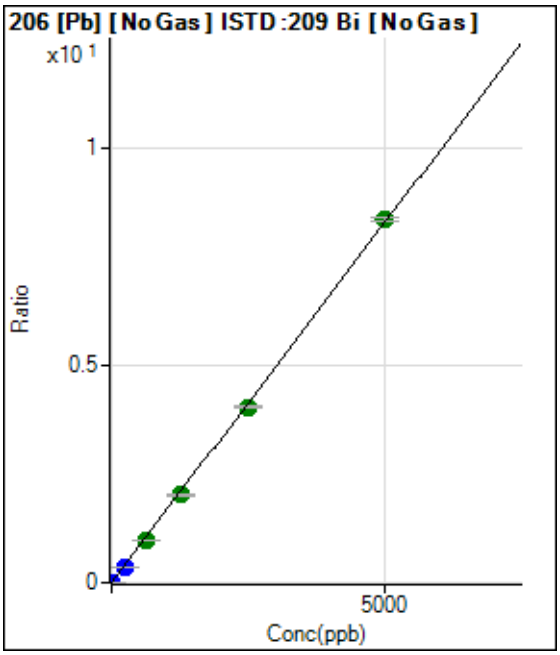
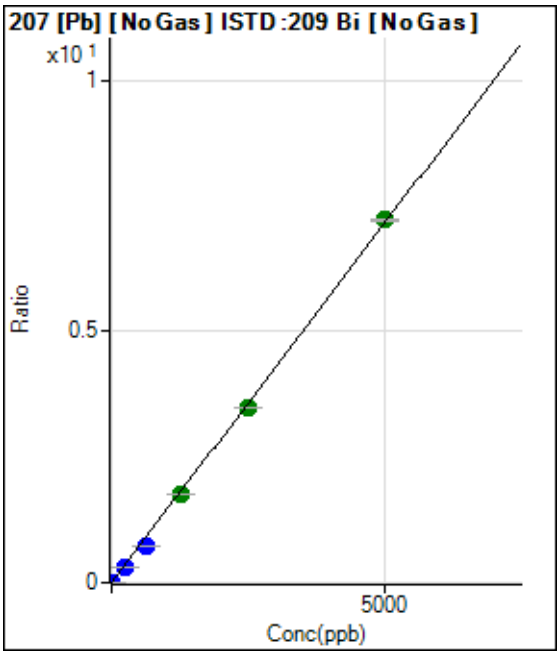


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	276.67	0.0001	P	20.9
2	☐	1.000	0.855	3215.97	0.0016	P	4.7
3	☐	250.000	214.552	739364.52	0.3556	P	1.4
4	☐	625.000	594.464	2038901.60	0.9851	A	0.7
5	☐	1250.000	1220.057	4188035.60	2.0217	A	1.2
6	☐	2500.000	2440.697	8779799.66	4.0443	A	0.9
7	☐	5000.000	5042.727	17877892.10	8.3558	A	1.0
8	☐			3414.91	0.0018	P	1.5

y = 0.0017 * x + 1.3380E-004
R = 0.9999
DL = 0.0507
BEC = 0.08075

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240.00	0.0001	P	19.8
2	☐	1.000	0.895	2894.78	0.0014	P	3.1
3	☐	250.000	216.510	643676.84	0.3096	P	0.9
4	☐	625.000	519.394	1536862.30	0.7425	P	0.2
5	☐	1250.000	1230.013	3642586.27	1.7583	A	0.9
6	☐	2500.000	2441.719	7577241.69	3.4904	A	0.5
7	☐	5000.000	5049.012	15442473.38	7.2173	A	0.2
8	☐			2913.68	0.0015	P	2.5

y = 0.0014 * x + 1.1614E-004
R = 0.9997
DL = 0.04838
BEC = 0.08125

Weight: <None>
Min Conc: 0

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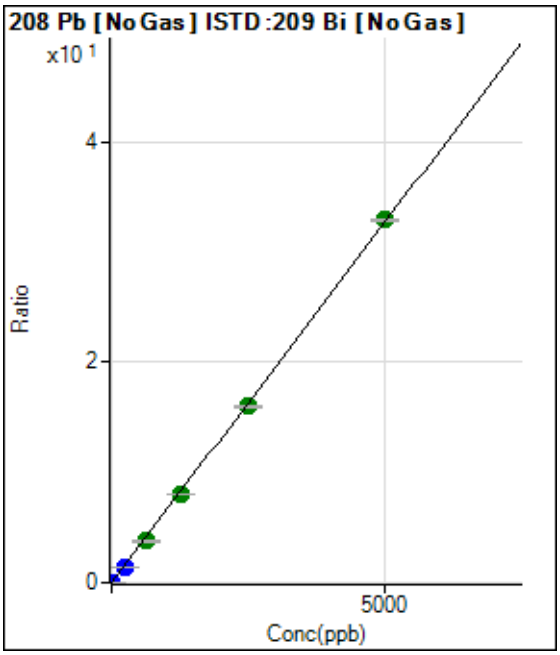
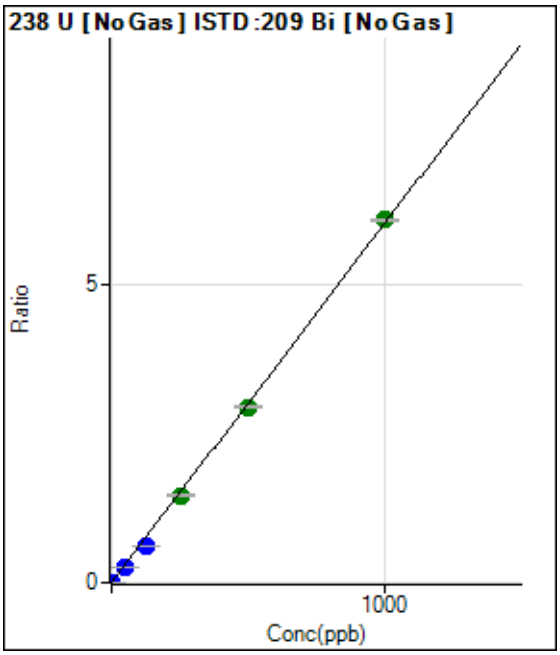


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1086.69	0.0005	P	6.6
2	☐	1.000	0.866	12822.48	0.0062	P	0.4
3	☐	250.000	215.456	2927460.44	1.4081	P	1.3
4	☐	625.000	575.629	7784570.09	3.7612	A	0.5
5	☐	1250.000	1220.649	16521246.52	7.9751	A	0.7
6	☐	2500.000	2447.486	34713458.58	15.9902	A	0.9
7	☐	5000.000	5041.493	70472834.92	32.9370	A	0.6
8	☐			13328.23	0.0069	P	2.2

y = 0.0065 * x + 5.2581E-004
R = 0.9999
DL = 0.01594
BEC = 0.08048

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	74.8
2	☐	1.000	0.876	10947.92	0.0053	P	2.2
3	☐	50.000	41.529	519649.92	0.2500	P	1.4
4	☐	125.000	101.861	1268857.01	0.6131	P	0.4
5	☐	250.000	242.692	3025359.64	1.4607	A	2.5
6	☐	500.000	488.945	6387907.40	2.9428	A	1.2
7	☐	1000.000	1010.670	13014888.56	6.0829	A	0.7
8	☐			326.68	0.0002	P	15.4

y = 0.0060 * x + 6.4292E-006
R = 0.9997
DL = 0.002397
BEC = 0.001068

Weight: <None>
Min Conc: 0

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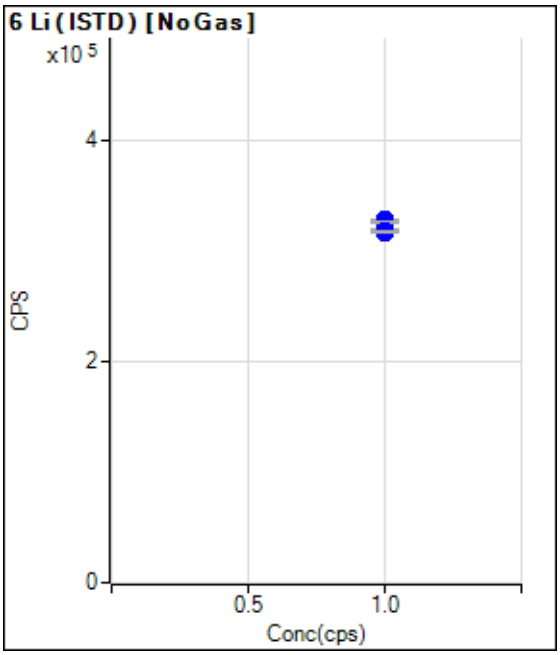

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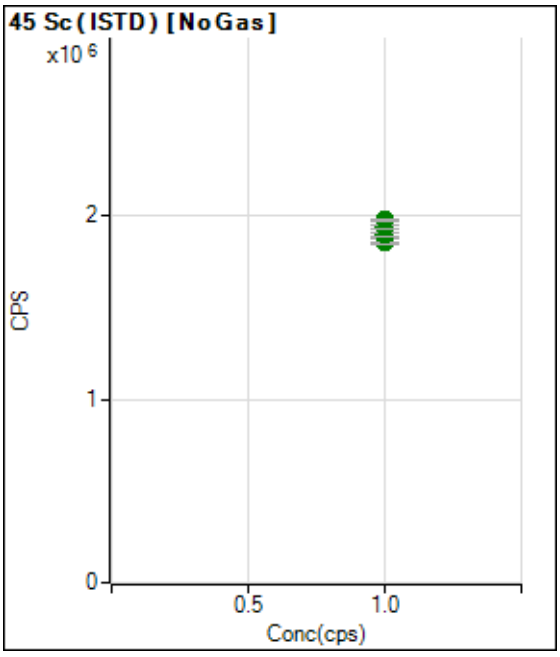
1	☐	1.000		318703.52		P	0.5
2	☐	1.000		317905.29		P	0.3
3	☐	1.000		326075.74		P	0.5
4	☐	1.000		319070.02		P	0.8
5	☐	1.000		320017.86		P	0.9
6	☐	1.000		328785.88		P	0.4
7	☐	1.000		326953.04		P	0.3
8	☐	1.000		318052.54		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1972054.71		A	0.3
2	☐	1.000		1970653.36		A	0.5
3	☐	1.000		1966911.57		A	0.2
4	☐	1.000		1891790.02		A	1.4
5	☐	1.000		1849338.81		A	0.7
6	☐	1.000		1899705.11		A	0.9
7	☐	1.000		1939369.40		A	1.1
8	☐	1.000		1976445.79		A	0.6

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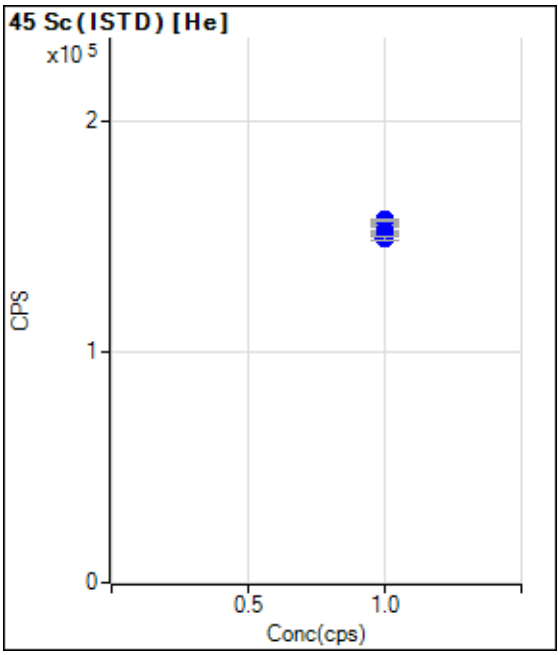

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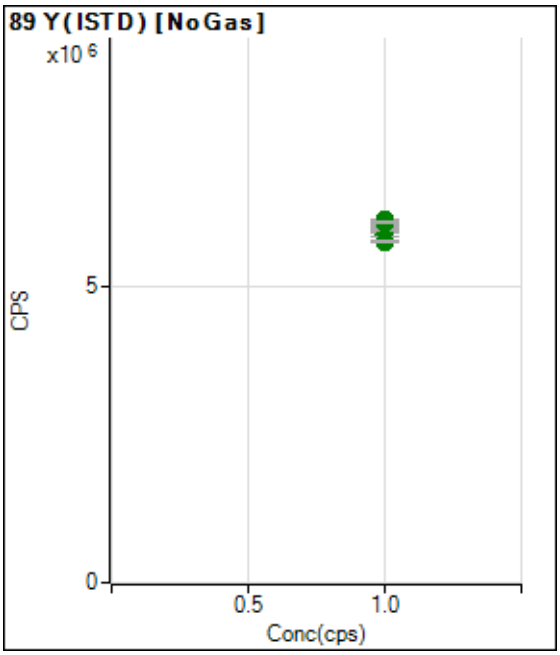
1	☐	1.000		151548.07		P	0.8
2	☐	1.000		152465.85		P	0.6
3	☐	1.000		153962.18		P	0.1
4	☐	1.000		150538.08		P	0.4
5	☐	1.000		149148.81		P	0.7
6	☐	1.000		154766.53		P	1.0
7	☐	1.000		155156.01		P	0.3
8	☐	1.000		157324.16		P	0.2



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1	☐	1.000		6039950.67		A	0.9
2	☐	1.000		6120026.16		A	0.8
3	☐	1.000		6053677.06		A	0.5
4	☐	1.000		5862818.59		A	1.2
5	☐	1.000		5752850.75		A	0.9
6	☐	1.000		5953131.65		A	0.9
7	☐	1.000		6074429.49		A	0.3
8	☐	1.000		6075097.83		A	0.4

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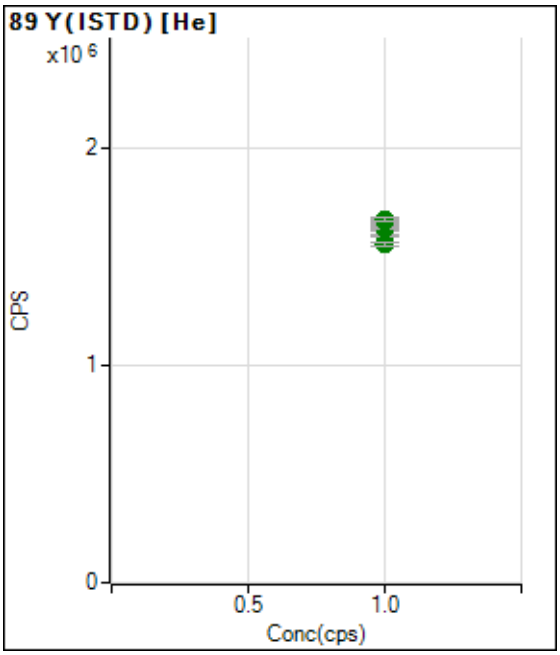

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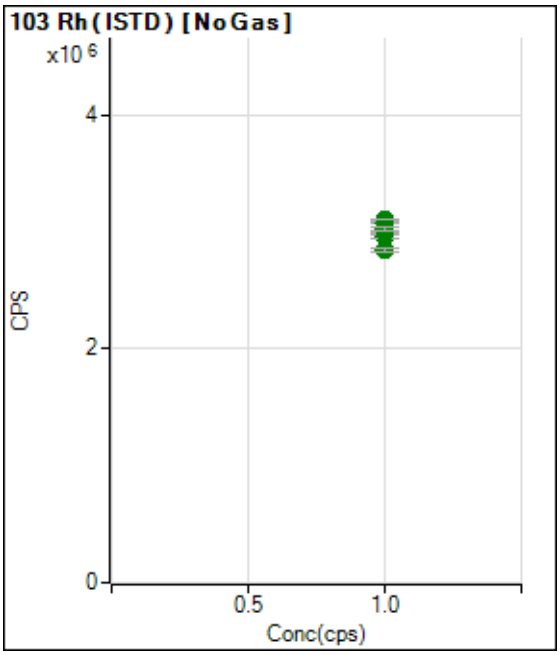
1	☐	1.000		1627830.43		A	1.6
2	☐	1.000		1630433.62		A	1.4
3	☐	1.000		1636493.53		A	0.7
4	☐	1.000		1593643.29		A	0.6
5	☐	1.000		1558514.49		A	1.4
6	☐	1.000		1631157.98		A	0.6
7	☐	1.000		1663327.46		A	1.1
8	☐	1.000		1668813.81		A	1.0



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1	☐	1.000		3096288.91		A	1.4
2	☐	1.000		3105523.42		A	0.3
3	☐	1.000		3085182.94		A	2.1
4	☐	1.000		3012868.32		A	0.4
5	☐	1.000		2964754.05		A	1.3
6	☐	1.000		2993802.70		A	0.4
7	☐	1.000		3025366.17		A	1.2
8	☐	1.000		2848933.67		A	1.2

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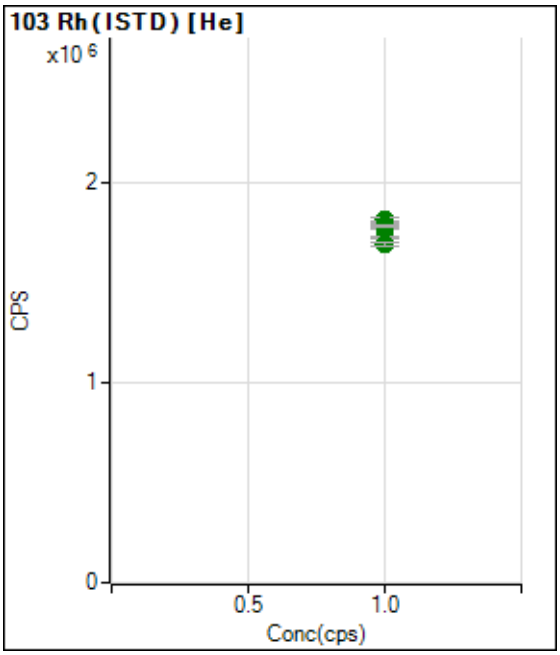

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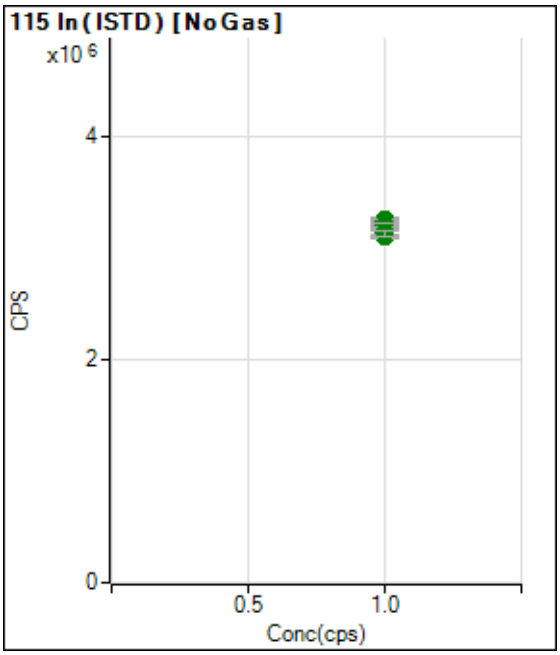
1	☐	1.000		1790896.47		A	1.6
2	☐	1.000		1816586.59		A	1.9
3	☐	1.000		1793149.49		A	1.5
4	☐	1.000		1774828.76		A	0.8
5	☐	1.000		1725288.62		A	0.6
6	☐	1.000		1778908.43		A	0.5
7	☐	1.000		1786966.55		A	0.3
8	☐	1.000		1691540.53		A	1.3



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1	☐	1.000		3230623.25		A	1.4
2	☐	1.000		3254445.11		A	1.2
3	☐	1.000		3242998.50		A	1.4
4	☐	1.000		3197243.64		A	1.9
5	☐	1.000		3107847.82		A	0.9
6	☐	1.000		3166891.14		A	0.9
7	☐	1.000		3206512.95		A	0.8
8	☐	1.000		3130837.00		A	1.8

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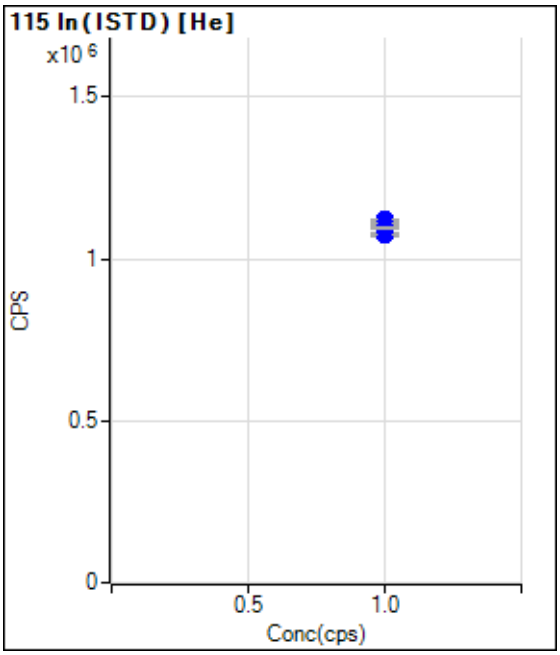

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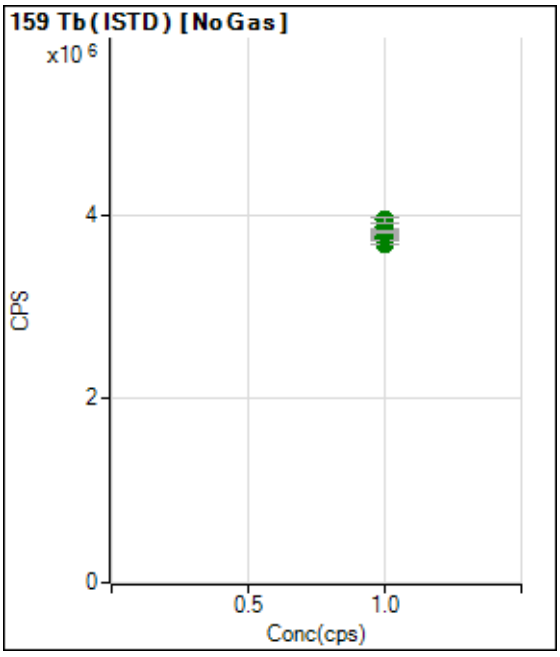
2	☐	1.000		1118547.14		P	0.4
3	☐	1.000		1117787.17		P	0.4
4	☐	1.000		1090662.52		P	0.1
5	☐	1.000		1073448.12		P	0.4
6	☐	1.000		1104747.32		P	0.5
7	☐	1.000		1080144.57		P	0.6
8	☐	1.000		1093632.94		P	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3801666.47		A	0.9
2	☐	1.000		3772299.18		A	0.9
3	☐	1.000		3748959.39		A	1.0
4	☐	1.000		3685380.54		A	0.4
5	☐	1.000		3757108.70		A	1.9
6	☐	1.000		3877325.22		A	1.6
7	☐	1.000		3948127.06		A	1.8
8	☐	1.000		3817026.05		A	0.2

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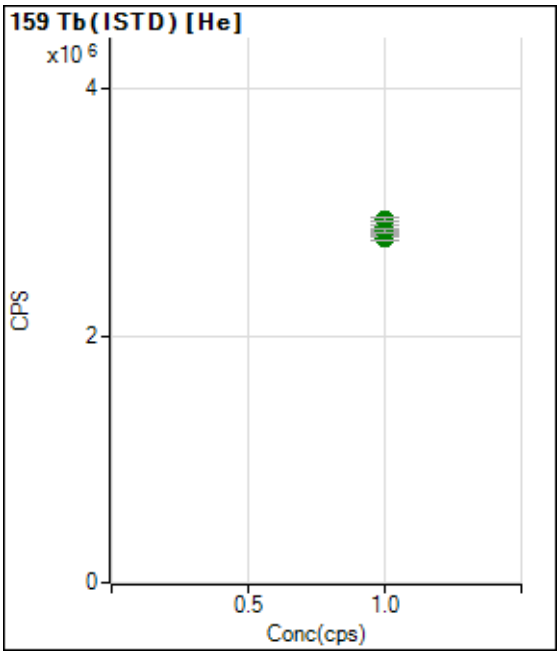

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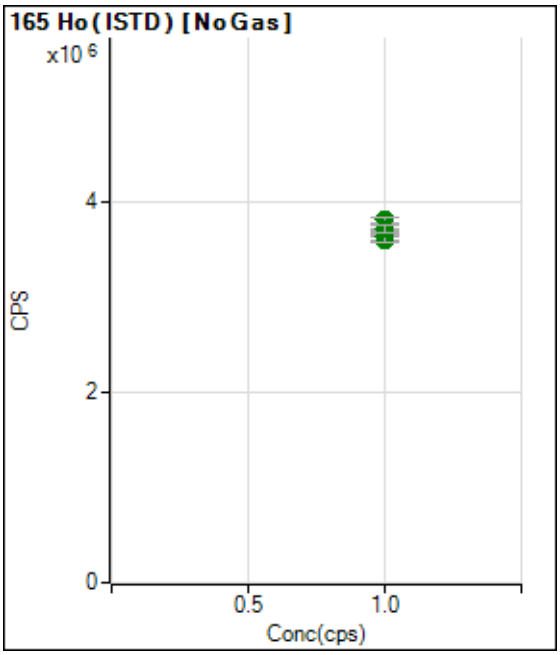
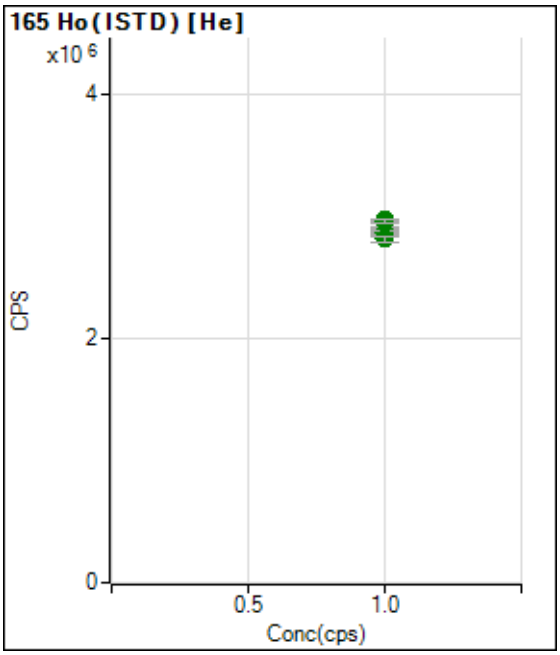
2	☐	1.000		2845447.77		A	0.9
3	☐	1.000		2821776.28		A	0.4
4	☐	1.000		2811743.08		A	0.8
5	☐	1.000		2787883.71		A	1.0
6	☐	1.000		2878094.68		A	1.2
7	☐	1.000		2940259.09		A	0.9
8	☐	1.000		2853947.49		A	1.4

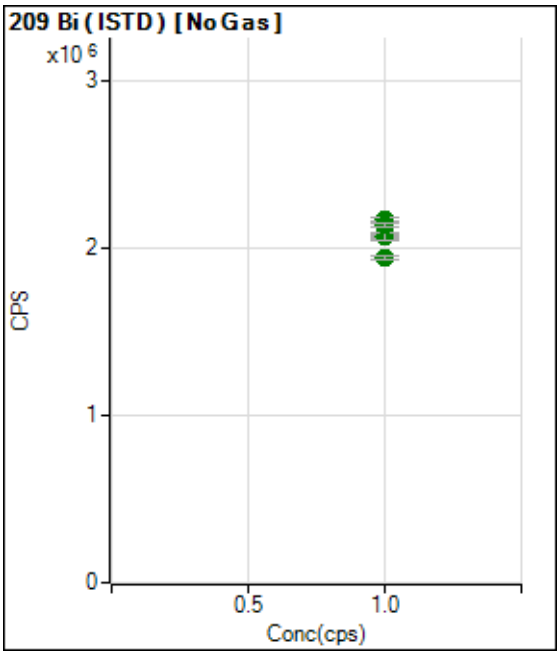


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3655362.00		A	1.0
2	☐	1.000		3636203.63		A	0.3
3	☐	1.000		3670688.63		A	0.9
4	☐	1.000		3583437.27		A	0.4
5	☐	1.000		3621150.22		A	2.3
6	☐	1.000		3744951.75		A	1.3
7	☐	1.000		3804707.79		A	1.4
8	☐	1.000		3717793.31		A	2.1

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

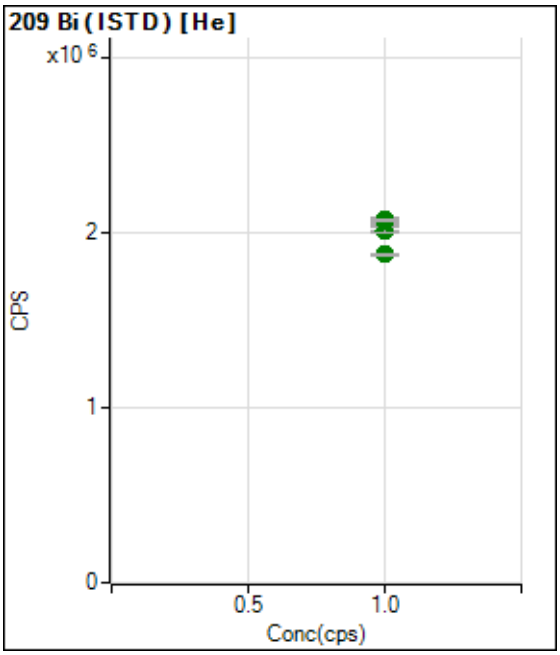


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2882331.90		A	1.2
2	☐	1.000		2894951.59		A	0.7
3	☐	1.000		2887834.82		A	0.6
4	☐	1.000		2867945.72		A	0.8
5	☐	1.000		2811773.39		A	1.6
6	☐	1.000		2946625.06		A	2.3
7	☐	1.000		2970758.84		A	0.2
8	☐	1.000		2956963.57		A	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2066301.95		A	0.8
2	☐	1.000		2074510.28		A	0.2
3	☐	1.000		2079240.28		A	1.4
4	☐	1.000		2069688.20		A	1.0
5	☐	1.000		2071760.54		A	1.8
6	☐	1.000		2170859.73		A	1.0
7	☐	1.000		2139679.57		A	0.9
8	☐	1.000		1942760.44		A	0.8

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2065346.88		A	1.3
2	☐	1.000		2072242.40		A	0.4
3	☐	1.000		2047790.40		A	1.2
4	☐	1.000		2026874.14		A	1.6
5	☐	1.000		2014140.98		A	2.0
6	☐	1.000		2071069.14		A	1.7
7	☐	1.000		2068558.48		A	0.6
8	☐	1.000		1874247.14		A	0.6

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

US EPA Tune Check Report

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P7062025MS.b
Acq. Date-Time	2025-06-20 09:59:42
Report Comment	---
Instrument Name	G8403A JP14410463

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		2684	26840.36			0.812	5.000
24		66751	667514.80			0.886	5.000
25		7550	75500.04			0.516	5.000
26		8619	86194.09			0.413	5.000
59		37079	370786.49			0.965	5.000
113		5073	50728.01			1.147	5.000
115		59687	596872.25			1.395	5.000
206		10475	104752.86			2.060	5.000
207		9218	92181.02			2.245	5.000
208		21880	218796.43			2.044	5.000
220		0	4.60			11.907	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

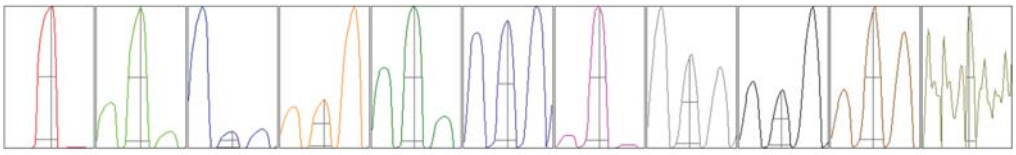
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	2715	2689	2686	2675	2655
24	67163	66585	66965	67247	65797
25	7561	7576	7554	7577	7483
26	8622	8650	8636	8631	8558
59	37601	37140	37152	36839	36662
113	5131	5083	5124	5021	5005
115	60250	60009	60327	59550	58300
206	10489	10557	10784	10308	10238
207	9219	9346	9476	9108	8941
208	21999	22065	22446	21606	21283

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	1	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	4570.10	9.10	8.90 - 9.10	
24	116725.38	24.00	23.90 - 24.10	
25	13410.86	25.00	24.90 - 25.10	
26	15449.06	26.00	25.90 - 26.10	
59	63904.93	58.95	58.90 - 59.10	
113	9628.29	113.00	112.90 - 113.10	
115	113661.00	115.00	114.90 - 115.10	
206	20283.19	205.95	205.90 - 206.10	
207	17789.88	206.95	206.90 - 207.10	
208	42635.19	207.95	207.90 - 208.10	
220	0.95	220.10	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.738	0.900	
24	0.62	0.783	0.900	
25	0.60	0.741	0.900	
26	0.59	0.745	0.900	
59	0.61	0.739	0.900	
113	0.54	0.735	0.900	
115	0.53	0.751	0.900	
206	0.53	0.798	0.900	
207	0.52	0.739	0.900	
208	0.53	0.804	0.900	
220	0.26	0.341		

Integration Time [sec] 0.1
Acquisition Time [sec] 256.770000000002
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.87 L/min	Dilution Gas	0.40 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.3 V	Deflect	16.0 V
Extract 2	-110.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-50 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	190 V		

QP Parameters

Mass Gain	138	Axis Gain	0.9974	QP Bias	-3.0 V
Mass Offset	130	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	0.0 mm		

EM

Discriminator	4.7 mV	Analog HV	2319 V	Pulse HV	1152 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		11295	112952.16			0.596	
89		36861	368606.46			0.575	
205		13206	132056.61			0.729	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	11318	11192	11288	11378	11300
89	36890	36761	36745	37217	36690
205	13346	13115	13133	13260	13174

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.87 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	3.8 V

US EPA Tune Check Report

Extract 2	-145.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-65 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.9 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	138	Axis Gain	0.9974	QP Bias	-13.0 V
Mass Offset	130	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	0.0 mm

EM

Discriminator	4.7 mV	Analog HV	2319 V	Pulse HV	1152 V

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.13	-0.05	-0.08	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.00	0.03	-0.03	0.00	N/A	ppb
Barium	135-1	0.00	0.01	-0.01	0.00	N/A	ppb
Barium	137-1	0.01	-0.01	0.00	0.00	N/A	ppb
Beryllium	9-1	0.01	-0.01	0.00	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.05	-0.03	-0.02	0.00	N/A	ppb
Cadmium	106-1	1.24	-0.46	-0.78	0.00	N/A	ppb
Cadmium	111-1	0.01	-0.01	0.00	0.00	N/A	ppb
Calcium	43-1	-0.61	1.02	-0.41	0.00	N/A	ppb
Calcium	44-1	0.20	-0.61	0.41	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	-0.02	0.02	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	0.04	-0.04	0.00	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	-0.19	0.30	-0.11	0.00	N/A	ppb
Iron	57-2	-1.67	2.24	-0.57	0.00	N/A	ppb
Iron	54-2	-0.41	0.62	-0.21	0.00	N/A	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	-0.01	0.02	0.00	N/A	ppb
Lead	207-1	-0.01	0.00	0.02	0.00	N/A	ppb
Lead	208-1	0.00	0.00	0.01	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.15	-0.06	0.21	0.00	N/A	ppb
Manganese	55-2	-0.03	-0.07	0.09	0.00	N/A	ppb
Molybdenum	94-1	-0.01	0.01	0.00	0.00	N/A	ppb
Molybdenum	95-1	0.00	-0.01	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.01	-0.01	0.00	0.00	N/A	ppb
Molybdenum	97-1	-0.01	0.00	0.01	0.00	N/A	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.03	-0.04	0.01	0.00	N/A	ppb
Phosphorus	31-2	-13.25	-14.31	-14.99	-14.18		ppb
Potassium	39-2	-0.26	1.97	-1.71	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.30	-0.06	-0.24	0.00	N/A	ppb
Selenium	77-2	0.22	-0.11	-0.11	0.00	N/A	ppb
Selenium	78-2	-1.95	0.75	1.20	0.00	N/A	ppb
Silicon	28-1	3.86	-2.47	-1.39	0.00	N/A	ppb
Silver	107-1	0.00	0.00	0.00	0.00	N/A	ppb
Silver	109-1	0.00	0.00	0.00	0.00	N/A	ppb
Sodium	23-2	0.41	-0.73	0.32	0.00	N/A	ppb
Strontium	86-1	0.02	0.01	-0.03	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-75.87	-32.54	87.65	-6.92		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	-0.01	0.00	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	-0.01	-0.01	0.02	0.00	N/A	ppb
Titanium	47-1	-0.03	0.02	0.01	0.00	N/A	ppb

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb
Vanadium	51-2	-0.01	0.00	0.01	0.00	N/A	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.01	0.06	-0.05	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.94	16.45	19.01	18.13	8.03	ppb
Antimony	121-1	1.93	1.90	2.00	1.94	2.65	ppb
Arsenic	75-2	1.10	1.02	0.95	1.02	7.19	ppb
Barium	135-1	9.45	9.35	9.78	9.53	2.38	ppb
Barium	137-1	9.23	9.39	9.50	9.38	1.44	ppb
Beryllium	9-1	1.16	1.21	1.08	1.15	5.42	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.07	0.83	0.73	0.88	20.09	ppb
Cadmium	106-1	0.67	0.26	0.17	0.37	72.21	ppb
Cadmium	111-1	1.13	1.20	1.18	1.17	3.10	ppb
Calcium	43-1	460.89	479.56	495.53	478.66	3.62	ppb
Calcium	44-1	481.69	484.10	479.54	481.78	0.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.07	1.95	1.97	2.00	3.24	ppb
Cobalt	59-2	1.00	1.00	1.02	1.01	1.05	ppb
Copper	63-2	2.18	1.92	1.96	2.02	7.04	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				100		%
Indium	115-1				101		%
Indium	115-2				100		%
Iron	56-2	48.00	47.53	48.47	48.00	0.98	ppb
Iron	57-2	55.01	52.07	52.67	53.25	2.91	ppb
Iron	54-2	51.02	51.62	49.04	50.56	2.67	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.81	0.86	0.90	0.85	5.20	ppb
Lead	207-1	0.87	0.93	0.89	0.89	3.33	ppb
Lead	208-1	0.87	0.87	0.86	0.87	0.45	ppb
Lithium	6-1				100		%
Magnesium	24-2	449.97	443.93	453.95	449.28	1.12	ppb
Manganese	55-2	0.88	0.93	1.05	0.95	9.15	ppb
Molybdenum	94-1	5.42	5.45	5.62	5.50	2.04	ppb
Molybdenum	95-1	4.56	4.68	4.68	4.64	1.50	ppb
Molybdenum	96-1	4.75	4.73	4.96	4.81	2.66	ppb
Molybdenum	97-1	4.77	4.64	4.85	4.75	2.21	ppb
Molybdenum	98-1	4.54	4.60	4.81	4.65	3.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.01	1.23	1.19	1.15	10.26	ppb
Phosphorus	31-2	22.34	22.12	-1.91	14.18	98.26	ppb
Potassium	39-2	468.13	457.45	473.16	466.25	1.72	ppb
Rhodium	103-1				100		%
Rhodium	103-2				101		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	3.42	4.51	4.74	4.22	16.66	ppb
Selenium	77-2	3.88	6.05	5.64	5.19	22.22	ppb
Selenium	78-2	7.01	6.35	1.91	5.09	54.42	ppb
Silicon	28-1	-1.03	-0.60	-0.60	-0.74		ppb
Silver	107-1	0.98	0.99	1.03	1.00	2.67	ppb
Silver	109-1	0.95	0.96	1.00	0.97	2.80	ppb
Sodium	23-2	451.60	440.67	448.70	446.99	1.27	ppb
Strontium	86-1	0.92	0.94	0.82	0.89	7.37	ppb
Strontium	88-1	0.95	0.94	0.96	0.95	1.08	ppb
Sulfur	34-1	47.31	14.92	-41.47	6.92	649.47	ppb
Terbium	159-1				99		%
Terbium	159-2				101		%
Thallium	203-1	0.91	0.87	0.93	0.90	3.42	ppb
Thallium	205-1	0.88	0.87	0.88	0.87	0.87	ppb
Tin	118-1	4.61	4.72	4.85	4.73	2.54	ppb
Titanium	47-1	4.70	4.63	4.78	4.70	1.63	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.89	0.85	0.88	2.20	ppb
Vanadium	51-2	4.88	5.03	5.01	4.98	1.59	ppb
Yttrium	89-1				101		%
Yttrium	89-2				100		%
Zinc	66-2	4.91	5.08	5.45	5.15	5.33	ppb
Zirconium	90-1	0.90	0.90	0.92	0.90	1.63	ppb
Zirconium	91-1	0.92	0.87	0.96	0.92	4.73	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	887.53	885.39	885.99	886.30	0.12	ppb
Antimony	121-1	46.56	47.43	47.99	47.33	1.53	ppb
Arsenic	75-2	50.97	51.52	50.45	50.98	1.05	ppb
Barium	135-1	233.72	231.42	237.41	234.18	1.29	ppb
Barium	137-1	227.15	226.71	233.10	228.99	1.56	ppb
Beryllium	9-1	49.01	51.51	50.49	50.34	2.50	ppb
Bismuth	209-1				101		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	51.94	54.83	53.95	53.57	2.77	ppb
Cadmium	106-1	53.64	50.96	51.96	52.18	2.59	ppb
Cadmium	111-1	52.71	52.18	53.44	52.78	1.19	ppb
Calcium	43-1	4705.56	4784.44	4694.46	4728.15	1.04	ppb
Calcium	44-1	4827.82	4985.96	4902.74	4905.51	1.61	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	47.98	47.90	46.91	47.60	1.25	ppb
Cobalt	59-2	47.47	46.62	46.58	46.89	1.07	ppb
Copper	63-2	472.23	472.13	466.83	470.40	0.66	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	2434.29	2421.42	2353.93	2403.22	1.80	ppb
Iron	57-2	2381.36	2390.17	2354.05	2375.19	0.79	ppb
Iron	54-2	2393.06	2367.06	2362.14	2374.09	0.70	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	215.84	211.09	216.72	214.55	1.41	ppb
Lead	207-1	217.39	214.27	217.87	216.51	0.90	ppb
Lead	208-1	216.85	212.27	217.24	215.46	1.28	ppb
Lithium	6-1				102		%
Magnesium	24-2	4481.52	4404.11	4428.15	4437.93	0.89	ppb
Manganese	55-2	466.68	463.97	461.76	464.14	0.53	ppb
Molybdenum	94-1	452.40	453.22	457.84	454.49	0.65	ppb
Molybdenum	95-1	452.47	449.73	454.50	452.23	0.53	ppb
Molybdenum	96-1	451.26	453.89	454.89	453.35	0.41	ppb
Molybdenum	97-1	459.04	457.65	457.23	457.97	0.21	ppb
Molybdenum	98-1	490.56	499.02	498.38	495.99	0.95	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	52.95	52.31	51.71	52.33	1.18	ppb
Phosphorus	31-2	1016.96	1022.79	1002.88	1014.21	1.01	ppb
Potassium	39-2	2305.01	2281.98	2278.01	2288.33	0.64	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				102		%
Selenium	82-1	50.38	51.82	53.69	51.96	3.20	ppb
Selenium	77-2	49.95	51.09	47.70	49.58	3.48	ppb
Selenium	78-2	51.66	50.14	51.93	51.24	1.88	ppb
Silicon	28-1	42.40	41.24	41.95	41.86	1.39	ppb
Silver	107-1	49.08	49.01	50.05	49.38	1.17	ppb
Silver	109-1	48.72	48.29	49.95	48.99	1.75	ppb
Sodium	23-2	4856.06	4729.82	4793.35	4793.08	1.32	ppb
Strontium	86-1	46.40	46.63	47.47	46.83	1.20	ppb
Strontium	88-1	45.99	45.81	45.96	45.92	0.22	ppb
Sulfur	34-1	1250.50	1362.02	1209.52	1274.01	6.20	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	43.96	43.65	45.11	44.24	1.74	ppb
Thallium	205-1	43.42	42.71	43.88	43.34	1.36	ppb
Tin	118-1	47.22	46.81	48.35	47.46	1.67	ppb
Titanium	47-1	454.03	459.63	459.61	457.76	0.70	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	41.69	40.89	42.01	41.53	1.38	ppb
Vanadium	51-2	46.45	47.25	46.63	46.78	0.89	ppb
Yttrium	89-1				100		%
Yttrium	89-2				101		%
Zinc	66-2	487.56	479.02	480.17	482.25	0.96	ppb
Zirconium	90-1	45.31	45.15	45.82	45.42	0.77	ppb
Zirconium	91-1	46.44	46.86	47.18	46.83	0.79	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2123.60	2153.63	2139.44	2138.89	0.70	ppb
Antimony	121-1	113.11	114.08	116.00	114.39	1.29	ppb
Arsenic	75-2	120.64	123.59	122.70	122.31	1.24	ppb
Barium	135-1	555.55	562.67	569.60	562.61	1.25	ppb
Barium	137-1	549.18	555.22	561.04	555.15	1.07	ppb
Beryllium	9-1	123.37	125.52	124.63	124.50	0.87	ppb
Bismuth	209-1				100		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	133.21	126.73	126.67	128.87	2.92	ppb
Cadmium	106-1	124.93	127.27	133.38	128.53	3.39	ppb
Cadmium	111-1	126.09	128.49	128.92	127.83	1.19	ppb
Calcium	43-1	11676.05	11410.99	11551.75	11546.26	1.15	ppb
Calcium	44-1	12067.73	11868.68	12011.27	11982.56	0.86	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	116.14	114.87	115.16	115.39	0.58	ppb
Cobalt	59-2	114.71	113.22	112.34	113.43	1.06	ppb
Copper	63-2	1227.68	1278.96	1240.63	1249.09	2.13	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				100		%
Indium	115-1				99		%
Indium	115-2				97		%
Iron	56-2	5908.19	5870.07	5828.09	5868.78	0.68	ppb
Iron	57-2	5735.59	5806.84	5768.72	5770.39	0.62	ppb
Iron	54-2	5760.06	5789.49	5792.23	5780.59	0.31	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	595.37	597.81	590.21	594.46	0.65	ppb
Lead	207-1	518.54	519.08	520.56	519.39	0.20	ppb
Lead	208-1	573.11	579.10	574.67	575.63	0.54	ppb
Lithium	6-1				100		%
Magnesium	24-2	11784.09	12070.74	11867.32	11907.38	1.24	ppb
Manganese	55-2	1212.29	1223.00	1206.70	1214.00	0.68	ppb
Molybdenum	94-1	1213.43	1210.20	1180.98	1201.54	1.49	ppb
Molybdenum	95-1	1191.04	1214.41	1211.62	1205.69	1.06	ppb
Molybdenum	96-1	1198.94	1221.93	1221.67	1214.18	1.09	ppb
Molybdenum	97-1	1218.97	1215.07	1203.06	1212.37	0.68	ppb
Molybdenum	98-1	1193.96	1196.55	1196.24	1195.58	0.12	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	126.16	125.31	124.50	125.32	0.66	ppb
Phosphorus	31-2	2494.12	2411.50	2484.41	2463.34	1.83	ppb
Potassium	39-2	5789.10	5851.29	5920.70	5853.69	1.12	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				96		%
Scandium	45-2				99		%
Selenium	82-1	125.49	124.65	123.70	124.61	0.72	ppb
Selenium	77-2	125.47	115.07	119.10	119.88	4.37	ppb
Selenium	78-2	128.60	122.68	123.57	124.95	2.56	ppb
Silicon	28-1	112.05	108.87	111.88	110.93	1.61	ppb
Silver	107-1	116.43	118.48	119.85	118.25	1.45	ppb
Silver	109-1	116.42	117.36	118.06	117.28	0.70	ppb
Sodium	23-2	11772.64	11617.16	11620.45	11670.08	0.76	ppb
Strontium	86-1	114.84	114.77	112.74	114.12	1.05	ppb
Strontium	88-1	122.48	123.74	121.62	122.62	0.87	ppb
Sulfur	34-1	3135.54	2931.72	3025.26	3030.84	3.37	ppb
Terbium	159-1				97		%
Terbium	159-2				99		%
Thallium	203-1	106.26	105.96	105.66	105.96	0.29	ppb
Thallium	205-1	104.80	105.09	104.50	104.80	0.28	ppb
Tin	118-1	112.48	114.49	115.55	114.17	1.37	ppb
Titanium	47-1	1120.78	1109.33	1130.63	1120.24	0.95	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	102.15	101.37	102.07	101.86	0.42	ppb
Vanadium	51-2	112.27	113.92	112.69	112.96	0.76	ppb
Yttrium	89-1				97		%
Yttrium	89-2				98		%
Zinc	66-2	1148.83	1158.36	1152.41	1153.20	0.42	ppb
Zirconium	90-1	110.75	111.66	109.90	110.77	0.79	ppb
Zirconium	91-1	114.10	115.57	113.25	114.31	1.02	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4317.01	4356.05	4399.16	4357.41	0.94	ppb
Antimony	121-1	228.36	225.73	230.37	228.15	1.02	ppb
Arsenic	75-2	254.79	259.41	251.49	255.23	1.56	ppb
Barium	135-1	1134.70	1107.94	1124.30	1122.31	1.20	ppb
Barium	137-1	1252.48	1207.99	1255.17	1238.55	2.14	ppb
Beryllium	9-1	254.57	252.92	252.10	253.19	0.50	ppb
Bismuth	209-1				100		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	257.09	252.56	252.52	254.06	1.03	ppb
Cadmium	106-1	252.67	251.18	248.53	250.79	0.84	ppb
Cadmium	111-1	255.88	249.99	257.37	254.41	1.54	ppb
Calcium	43-1	23065.93	23485.93	23678.17	23410.01	1.34	ppb
Calcium	44-1	24365.12	24257.64	24994.19	24538.99	1.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	233.52	232.31	233.15	232.99	0.27	ppb
Cobalt	59-2	228.44	231.43	232.12	230.66	0.85	ppb
Copper	63-2	2534.67	2466.63	2545.56	2515.62	1.70	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				96		%
Indium	115-2				96		%
Iron	56-2	12056.79	12041.90	12067.85	12055.51	0.11	ppb
Iron	57-2	11659.53	11723.64	11685.13	11689.43	0.28	ppb
Iron	54-2	11668.51	11754.63	11906.99	11776.71	1.03	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1211.88	1211.22	1237.06	1220.06	1.21	ppb
Lead	207-1	1240.21	1219.27	1230.56	1230.01	0.85	ppb
Lead	208-1	1224.19	1211.22	1226.54	1220.65	0.68	ppb
Lithium	6-1				100		%
Magnesium	24-2	23961.54	24192.21	24847.01	24333.59	1.89	ppb
Manganese	55-2	2441.69	2466.55	2494.02	2467.42	1.06	ppb
Molybdenum	94-1	2457.91	2474.42	2497.38	2476.57	0.80	ppb
Molybdenum	95-1	2421.28	2460.44	2502.16	2461.29	1.64	ppb
Molybdenum	96-1	2456.66	2449.49	2517.96	2474.71	1.52	ppb
Molybdenum	97-1	2505.21	2474.58	2493.88	2491.22	0.62	ppb
Molybdenum	98-1	2468.68	2467.78	2488.07	2474.84	0.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	253.35	252.97	257.12	254.48	0.90	ppb
Phosphorus	31-2	5017.13	5002.68	5235.52	5085.11	2.57	ppb
Potassium	39-2	11846.16	11743.29	11881.63	11823.69	0.61	ppb
Rhodium	103-1				96		%
Rhodium	103-2				96		%
Scandium	45-1				94		%
Scandium	45-2				98		%
Selenium	82-1	258.16	254.52	261.24	257.97	1.30	ppb
Selenium	77-2	252.06	257.95	262.97	257.66	2.12	ppb
Selenium	78-2	254.04	263.81	255.88	257.91	2.01	ppb
Silicon	28-1	219.91	226.53	228.67	225.03	2.03	ppb
Silver	107-1	233.76	231.29	235.05	233.36	0.82	ppb
Silver	109-1	233.06	228.56	232.93	231.52	1.10	ppb
Sodium	23-2	23343.95	23813.87	24285.53	23814.45	1.98	ppb
Strontium	86-1	232.02	233.63	236.44	234.03	0.96	ppb
Strontium	88-1	246.37	242.22	249.95	246.18	1.57	ppb
Sulfur	34-1	5623.98	5584.12	5626.78	5611.63	0.43	ppb
Terbium	159-1				99		%
Terbium	159-2				99		%
Thallium	203-1	213.23	213.57	220.59	215.80	1.93	ppb
Thallium	205-1	243.41	244.34	252.01	246.59	1.91	ppb
Tin	118-1	230.05	221.95	226.16	226.05	1.79	ppb
Titanium	47-1	2457.41	2505.27	2522.77	2495.15	1.36	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	240.00	238.39	249.69	242.69	2.52	ppb
Vanadium	51-2	231.10	231.29	232.34	231.58	0.29	ppb
Yttrium	89-1				95		%
Yttrium	89-2				96		%
Zinc	66-2	2333.94	2321.30	2368.29	2341.18	1.04	ppb
Zirconium	90-1	245.05	251.72	249.21	248.66	1.36	ppb
Zirconium	91-1	232.78	233.16	235.57	233.84	0.65	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8695.75	8653.23	8789.07	8712.68	0.80	ppb
Antimony	121-1	496.20	516.02	504.14	505.45	1.97	ppb
Arsenic	75-2	506.94	499.38	508.09	504.80	0.94	ppb
Barium	135-1	2456.14	2548.03	2523.34	2509.17	1.90	ppb
Barium	137-1	2476.54	2551.11	2481.84	2503.16	1.66	ppb
Beryllium	9-1	499.00	503.78	508.55	503.78	0.95	ppb
Bismuth	209-1				105		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	508.42	508.94	510.34	509.23	0.20	ppb
Cadmium	106-1	503.86	509.18	499.27	504.10	0.98	ppb
Cadmium	111-1	501.52	507.38	507.05	505.31	0.65	ppb
Calcium	43-1	45684.48	47048.49	47386.59	46706.52	1.93	ppb
Calcium	44-1	48424.08	50215.23	49702.55	49447.29	1.87	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	468.64	465.05	469.34	467.68	0.49	ppb
Cobalt	59-2	509.68	495.01	493.38	499.36	1.80	ppb
Copper	63-2	5045.23	4934.83	5019.48	4999.85	1.16	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	56-2	23939.37	23883.42	24205.95	24009.58	0.72	ppb
Iron	57-2	23533.05	23302.34	23695.04	23510.15	0.84	ppb
Iron	54-2	24634.06	24861.88	25086.29	24860.75	0.91	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2446.53	2416.08	2459.48	2440.70	0.91	ppb
Lead	207-1	2440.04	2430.27	2454.84	2441.72	0.51	ppb
Lead	208-1	2448.00	2425.98	2468.49	2447.49	0.87	ppb
Lithium	6-1				103		%
Magnesium	24-2	48829.12	48459.06	48773.27	48687.15	0.41	ppb
Manganese	55-2	4914.60	4955.90	4999.26	4956.59	0.85	ppb
Molybdenum	94-1	4972.42	5004.14	5006.80	4994.45	0.38	ppb
Molybdenum	95-1	4980.48	4966.14	5038.85	4995.15	0.77	ppb
Molybdenum	96-1	4974.78	4986.81	4975.64	4979.08	0.13	ppb
Molybdenum	97-1	4968.04	4945.70	5023.30	4979.01	0.80	ppb
Molybdenum	98-1	5015.94	4924.10	4973.81	4971.28	0.92	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	501.53	498.48	506.45	502.15	0.80	ppb
Phosphorus	31-2	10164.12	9799.26	10210.78	10058.05	2.24	ppb
Potassium	39-2	23703.62	23324.72	23697.23	23575.19	0.92	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				96		%
Scandium	45-2				102		%
Selenium	82-1	507.67	501.67	517.89	509.08	1.61	ppb
Selenium	77-2	543.33	506.94	508.48	519.58	3.96	ppb
Selenium	78-2	530.23	503.14	508.87	514.08	2.78	ppb
Silicon	28-1	507.95	542.72	528.52	526.40	3.32	ppb
Silver	107-1	512.14	519.76	498.80	510.23	2.08	ppb
Silver	109-1	502.41	508.08	499.42	503.30	0.87	ppb
Sodium	23-2	47241.77	47619.36	48251.98	47704.37	1.07	ppb
Strontium	86-1	465.90	465.49	475.78	469.06	1.24	ppb
Strontium	88-1	496.59	499.68	500.35	498.88	0.40	ppb
Sulfur	34-1	9888.06	10266.88	10114.41	10089.79	1.89	ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	491.77	504.67	494.50	496.98	1.37	ppb
Thallium	205-1	484.23	490.74	491.85	488.94	0.84	ppb
Tin	118-1	496.70	505.93	506.65	503.09	1.10	ppb
Titanium	47-1	4968.21	5034.34	5079.99	5027.51	1.12	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	495.24	487.77	483.83	488.95	1.19	ppb
Vanadium	51-2	464.68	457.61	466.57	462.95	1.02	ppb
Yttrium	89-1				99		%
Yttrium	89-2				100		%
Zinc	66-2	5061.65	5046.47	5215.58	5107.90	1.83	ppb
Zirconium	90-1	492.52	498.44	495.71	495.56	0.60	ppb
Zirconium	91-1	468.04	468.43	475.67	470.71	0.91	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19302.12	18917.22	18925.65	19048.33	1.15	ppb
Antimony	121-1	1009.13	991.20	1012.26	1004.20	1.13	ppb
Arsenic	75-2	1012.66	977.91	999.16	996.58	1.76	ppb
Barium	135-1	5056.73	4859.96	5191.10	5035.93	3.31	ppb
Barium	137-1	5045.49	4907.21	5080.48	5011.06	1.83	ppb
Beryllium	9-1	995.95	1006.11	990.02	997.36	0.82	ppb
Bismuth	209-1				104		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	997.41	974.95	1008.76	993.71	1.73	ppb
Cadmium	106-1	998.62	976.96	1016.02	997.20	1.96	ppb
Cadmium	111-1	994.07	981.76	1011.42	995.75	1.50	ppb
Calcium	43-1	99171.07	98684.59	96951.73	98269.13	1.19	ppb
Calcium	44-1	98709.71	98272.62	97008.96	97997.10	0.90	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1039.57	1008.74	1016.90	1021.73	1.56	ppb
Cobalt	59-2	1001.24	1015.52	1003.52	1006.76	0.76	ppb
Copper	63-2	10093.25	9988.12	9911.92	9997.77	0.91	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				103		%
Indium	115-1				99		%
Indium	115-2				96		%
Iron	56-2	48939.33	48488.42	48264.88	48564.21	0.71	ppb
Iron	57-2	49204.90	48791.92	48622.94	48873.25	0.61	ppb
Iron	54-2	49738.42	48677.53	49413.33	49276.43	1.10	ppb
Krypton	83-1						cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	5099.04	5010.45	5018.69	5042.73	0.97	ppb
Lead	207-1	5052.85	5036.46	5057.72	5049.01	0.22	ppb
Lead	208-1	5042.86	5010.31	5071.31	5041.49	0.61	ppb
Lithium	6-1				103		%
Magnesium	24-2	97496.15	95749.62	95869.93	96371.90	1.01	ppb
Manganese	55-2	10091.32	10086.47	9930.65	10036.14	0.91	ppb
Molybdenum	94-1	10081.86	9912.86	10056.17	10016.96	0.91	ppb
Molybdenum	95-1	9937.40	9970.24	10152.45	10020.03	1.16	ppb
Molybdenum	96-1	9915.03	10095.80	10059.95	10023.60	0.95	ppb
Molybdenum	97-1	9890.53	10065.45	10102.50	10019.49	1.13	ppb
Molybdenum	98-1	10027.67	9978.34	10076.94	10027.65	0.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1002.39	994.17	996.38	997.65	0.43	ppb
Phosphorus	31-2	20003.67	19884.36	19972.67	19953.57	0.31	ppb
Potassium	39-2	47747.05	48042.26	47275.48	47688.26	0.81	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				98		%
Scandium	45-2				102		%
Selenium	82-1	992.36	992.95	994.96	993.42	0.14	ppb
Selenium	77-2	1004.30	956.87	1005.68	988.95	2.81	ppb
Selenium	78-2	1002.79	977.50	992.49	990.93	1.28	ppb
Silicon	28-1	976.97	986.71	1022.27	995.32	2.40	ppb
Silver	107-1	1009.23	968.79	1021.73	999.92	2.77	ppb
Silver	109-1	1017.71	981.28	1012.96	1003.98	1.97	ppb
Sodium	23-2	96284.29	94574.59	93785.24	94881.37	1.35	ppb
Strontium	86-1	1017.17	1031.00	1014.78	1020.98	0.86	ppb
Strontium	88-1	1004.97	1007.13	993.95	1002.02	0.71	ppb
Sulfur	34-1	19955.46	19737.60	19473.37	19722.14	1.22	ppb
Terbium	159-1				104		%
Terbium	159-2				104		%
Thallium	203-1	1018.63	1004.37	1015.19	1012.73	0.73	ppb
Thallium	205-1	1021.16	999.48	1007.08	1009.24	1.09	ppb
Tin	118-1	1014.45	987.90	1015.42	1005.92	1.55	ppb
Titanium	47-1	10017.08	10010.40	9989.88	10005.79	0.14	ppb

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1017.64	1004.13	1010.23	1010.67	0.67	ppb
Vanadium	51-2	1044.66	1010.75	1018.97	1024.79	1.73	ppb
Yttrium	89-1				101		%
Yttrium	89-2				102		%
Zinc	66-2	10086.22	9935.81	9974.20	9998.74	0.78	ppb
Zirconium	90-1	995.40	1006.02	1012.27	1004.56	0.85	ppb
Zirconium	91-1	1023.68	1026.28	1010.58	1020.18	0.83	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100687.46	99087.32	101309.30	100361.36	1.14	ppb
Antimony	121-1	0.71	0.66	0.70	0.69	3.46	ppb
Arsenic	75-2	0.65	0.42	0.65	0.57	23.57	ppb
Barium	135-1	2.22	2.37	2.43	2.34	4.61	ppb
Barium	137-1	2.35	2.33	2.36	2.35	0.57	ppb
Beryllium	9-1	0.18	0.21	0.10	0.16	34.03	ppb
Bismuth	209-1				94		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.28	0.32	0.44	0.35	23.23	ppb
Cadmium	106-1	-1.37	-0.59	-1.70	-1.22		ppb
Cadmium	111-1	0.17	0.15	0.11	0.14	19.31	ppb
Calcium	43-1	493773.25	501370.63	507200.93	500781.61	1.34	ppb
Calcium	44-1	495317.97	500384.83	505775.61	500492.80	1.04	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.31	1.28	1.23	1.27	3.26	ppb
Cobalt	59-2	1.66	1.62	1.60	1.63	1.90	ppb
Copper	63-2	1.02	1.06	1.08	1.05	2.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				103		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	56-2	251556.75	250549.59	249150.43	250418.92	0.48	ppb
Iron	57-2	249269.62	249709.20	252305.48	250428.10	0.66	ppb
Iron	54-2	252241.75	246882.43	251499.22	250207.80	1.16	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.96	0.99	0.98	0.98	1.62	ppb
Lead	207-1	0.97	0.99	0.94	0.97	2.67	ppb
Lead	208-1	0.96	1.00	0.95	0.97	2.38	ppb
Lithium	6-1				100		%
Magnesium	24-2	503962.06	492970.03	505800.05	500910.71	1.39	ppb
Manganese	55-2	2.75	2.78	3.04	2.86	5.47	ppb
Molybdenum	94-1	2.66	2.76	2.79	2.74	2.43	ppb
Molybdenum	95-1	1.15	1.13	1.05	1.11	4.90	ppb
Molybdenum	96-1	4.60	4.67	4.71	4.66	1.19	ppb
Molybdenum	97-1	1.24	1.29	1.14	1.22	6.61	ppb
Molybdenum	98-1	1.09	1.11	1.02	1.07	4.23	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.35	2.25	2.62	2.41	7.91	ppb
Phosphorus	31-2	-11.37	-9.05	-8.24	-9.55		ppb
Potassium	39-2	251510.14	251723.65	248718.41	250650.74	0.67	ppb
Rhodium	103-1				92		%
Rhodium	103-2				94		%
Scandium	45-1				100		%
Scandium	45-2				104		%
Selenium	82-1	0.68	1.16	2.04	1.29	53.36	ppb
Selenium	77-2	0.89	0.21	-0.11	0.33	154.53	ppb
Selenium	78-2	-0.29	-2.68	1.34	-0.54		ppb
Silicon	28-1	-10.28	-10.15	-9.08	-9.84		ppb
Silver	107-1	0.10	0.10	0.08	0.10	10.24	ppb
Silver	109-1	0.10	0.09	0.08	0.09	9.33	ppb
Sodium	23-2	496002.77	499997.93	508005.61	501335.44	1.22	ppb
Strontium	86-1	12.77	12.97	12.80	12.84	0.83	ppb
Strontium	88-1	12.44	12.62	12.50	12.52	0.72	ppb
Sulfur	34-1	-696.98	-571.12	-366.56	-544.89		ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	0.09	0.09	0.10	0.09	4.08	ppb
Thallium	205-1	0.10	0.10	0.09	0.10	6.34	ppb
Tin	118-1	0.14	0.15	0.14	0.14	5.50	ppb
Titanium	47-1	0.52	0.67	0.59	0.60	13.01	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.03	0.03	0.02	0.03	16.02	ppb
Vanadium	51-2	0.31	0.30	0.33	0.31	5.11	ppb
Yttrium	89-1				101		%
Yttrium	89-2				103		%
Zinc	66-2	4.11	3.87	4.16	4.05	3.88	ppb
Zirconium	90-1	0.79	0.78	0.81	0.79	2.32	ppb
Zirconium	91-1	0.78	0.87	0.89	0.85	6.72	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	452.56	451.80	451.19	451.85	0.15	ppb
Antimony	121-1	188.67	196.13	193.52	192.77	1.96	ppb
Arsenic	75-2	214.98	212.23	215.62	214.27	0.84	ppb
Barium	135-1	97.23	102.05	102.81	100.70	3.01	ppb
Barium	137-1	97.76	99.90	99.78	99.15	1.21	ppb
Beryllium	9-1	102.73	105.12	108.38	105.41	2.69	ppb
Bismuth	209-1				101		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	100.34	106.16	101.80	102.77	2.95	ppb
Cadmium	106-1	95.59	96.67	96.01	96.09	0.57	ppb
Cadmium	111-1	106.56	110.08	111.10	109.25	2.18	ppb
Calcium	43-1	1875.72	1911.77	1911.45	1899.65	1.09	ppb
Calcium	44-1	1891.93	1914.48	1935.78	1914.06	1.15	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	103.35	102.68	102.97	103.00	0.33	ppb
Cobalt	59-2	104.42	102.78	103.53	103.58	0.80	ppb
Copper	63-2	100.81	99.68	100.53	100.34	0.59	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				104		%
Indium	115-1				105		%
Indium	115-2				105		%
Iron	56-2	2043.00	2028.60	2085.82	2052.47	1.45	ppb
Iron	57-2	2003.76	1982.65	1986.62	1991.01	0.56	ppb
Iron	54-2	2072.21	2053.73	2049.27	2058.41	0.59	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	178.36	179.70	181.85	179.97	0.98	ppb
Lead	207-1	179.50	184.80	187.70	184.00	2.26	ppb
Lead	208-1	180.72	182.72	184.00	182.48	0.90	ppb
Lithium	6-1				98		%
Magnesium	24-2	1259.65	1251.64	1248.46	1253.25	0.46	ppb
Manganese	55-2	100.18	98.71	99.79	99.56	0.76	ppb
Molybdenum	94-1	0.29	0.29	0.27	0.28	3.51	ppb
Molybdenum	95-1	0.26	0.35	0.29	0.30	15.23	ppb
Molybdenum	96-1	0.37	0.34	0.35	0.35	3.98	ppb
Molybdenum	97-1	0.26	0.26	0.25	0.26	1.20	ppb
Molybdenum	98-1	0.27	0.31	0.28	0.29	8.50	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	116.56	114.64	115.87	115.69	0.84	ppb
Phosphorus	31-2	-23.98	-25.45	-24.75	-24.73		ppb
Potassium	39-2	1892.20	1881.18	1888.64	1887.34	0.30	ppb
Rhodium	103-1				104		%
Rhodium	103-2				105		%
Scandium	45-1				105		%
Scandium	45-2				104		%
Selenium	82-1	200.48	210.69	208.65	206.61	2.61	ppb
Selenium	77-2	219.87	199.85	236.31	218.68	8.35	ppb
Selenium	78-2	219.52	215.54	213.61	216.22	1.39	ppb
Silicon	28-1	-6.00	-2.46	-5.36	-4.61		ppb
Silver	107-1	46.11	48.14	48.12	47.46	2.46	ppb
Silver	109-1	46.19	47.53	47.28	47.00	1.51	ppb
Sodium	23-2	1766.07	1778.28	1756.60	1766.99	0.62	ppb
Strontium	86-1	-0.01	0.01	0.00	0.00	1064.14	ppb
Strontium	88-1	0.04	0.04	0.04	0.04	6.03	ppb
Sulfur	34-1	-760.79	-726.39	-603.02	-696.73		ppb
Terbium	159-1				102		%
Terbium	159-2				104		%
Thallium	203-1	187.95	189.74	189.76	189.15	0.55	ppb
Thallium	205-1	215.83	212.16	211.75	213.25	1.05	ppb
Tin	118-1	0.04	0.06	0.03	0.04	35.47	ppb
Titanium	47-1	0.04	0.06	0.09	0.06	40.43	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	27.73	ppb
Vanadium	51-2	97.93	97.09	97.24	97.42	0.46	ppb
Yttrium	89-1				105		%
Yttrium	89-2				107		%
Zinc	66-2	200.83	200.00	195.75	198.86	1.37	ppb
Zirconium	90-1	0.02	0.04	0.03	0.03	24.24	ppb
Zirconium	91-1	0.07	0.07	0.06	0.06	11.00	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17.61	16.95	16.93	17.16	2.25	ppb
Antimony	121-1	1.92	2.05	1.94	1.97	3.68	ppb
Arsenic	75-2	1.27	1.05	1.04	1.12	11.50	ppb
Barium	135-1	9.13	9.62	9.40	9.38	2.63	ppb
Barium	137-1	9.27	9.47	9.44	9.39	1.17	ppb
Beryllium	9-1	1.04	1.02	1.16	1.07	6.83	ppb
Bismuth	209-1				99		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.31	1.11	0.81	1.08	23.48	ppb
Cadmium	106-1	-2.59	-1.32	-3.12	-2.34		ppb
Cadmium	111-1	1.13	1.03	1.09	1.08	4.68	ppb
Calcium	43-1	447.01	459.67	465.26	457.31	2.04	ppb
Calcium	44-1	461.78	457.10	483.28	467.39	2.99	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.81	2.01	2.04	1.95	6.44	ppb
Cobalt	59-2	1.07	1.05	1.04	1.05	1.43	ppb
Copper	63-2	1.88	2.00	1.99	1.96	3.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				102		%
Indium	115-2				101		%
Iron	56-2	47.76	46.61	47.91	47.42	1.50	ppb
Iron	57-2	46.45	45.00	48.54	46.66	3.81	ppb
Iron	54-2	52.30	49.04	51.97	51.10	3.51	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.82	0.86	0.88	0.85	3.67	ppb
Lead	207-1	0.85	0.93	0.95	0.91	5.98	ppb
Lead	208-1	0.84	0.92	0.89	0.88	4.84	ppb
Lithium	6-1				97		%
Magnesium	24-2	435.67	428.95	434.43	433.02	0.83	ppb
Manganese	55-2	1.05	0.78	0.91	0.91	14.67	ppb
Molybdenum	94-1	5.26	5.41	5.28	5.32	1.50	ppb
Molybdenum	95-1	4.56	4.70	4.62	4.63	1.51	ppb
Molybdenum	96-1	4.59	4.74	4.71	4.68	1.68	ppb
Molybdenum	97-1	4.70	4.66	4.64	4.67	0.61	ppb
Molybdenum	98-1	4.59	4.62	4.52	4.57	1.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.03	1.09	1.00	1.04	4.31	ppb
Phosphorus	31-2	23.21	5.75	16.00	14.99	58.57	ppb
Potassium	39-2	469.96	463.05	471.79	468.27	0.98	ppb
Rhodium	103-1				101		%
Rhodium	103-2				103		%
Scandium	45-1				102		%
Scandium	45-2				101		%
Selenium	82-1	4.73	4.40	4.47	4.53	3.83	ppb
Selenium	77-2	5.13	5.50	5.29	5.31	3.51	ppb
Selenium	78-2	10.11	5.44	5.96	7.17	35.71	ppb
Silicon	28-1	-5.58	-4.88	-3.85	-4.77		ppb
Silver	107-1	0.96	1.04	1.01	1.00	4.00	ppb
Silver	109-1	1.03	1.00	1.02	1.02	1.60	ppb
Sodium	23-2	440.12	437.55	445.20	440.96	0.88	ppb
Strontium	86-1	0.93	0.97	0.98	0.96	3.18	ppb
Strontium	88-1	0.92	0.98	0.89	0.93	5.22	ppb
Sulfur	34-1	-642.18	-606.57	-510.83	-586.53		ppb
Terbium	159-1				98		%
Terbium	159-2				100		%
Thallium	203-1	0.87	0.82	0.88	0.86	3.64	ppb
Thallium	205-1	0.83	0.89	0.85	0.86	3.39	ppb
Tin	118-1	4.66	4.87	4.68	4.74	2.38	ppb
Titanium	47-1	4.19	4.71	4.64	4.52	6.21	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.79	0.83	0.87	0.83	4.65	ppb
Vanadium	51-2	5.05	4.88	4.90	4.94	1.85	ppb
Yttrium	89-1				103		%
Yttrium	89-2				102		%
Zinc	66-2	5.40	5.53	5.27	5.40	2.45	ppb
Zirconium	90-1	0.89	0.94	0.88	0.90	3.46	ppb
Zirconium	91-1	0.92	1.01	0.94	0.96	5.20	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.23	1.13	0.86	1.07	17.67	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	10.93	ppb
Arsenic	75-2	-0.03	-0.03	-0.03	-0.03		ppb
Barium	135-1	0.00	0.01	0.01	0.01	58.43	ppb
Barium	137-1	0.00	0.04	0.01	0.02	117.35	ppb
Beryllium	9-1	0.02	0.00	-0.01	0.00	347.95	ppb
Bismuth	209-1				97		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	-0.02	-0.02	-0.01		ppb
Cadmium	106-1	-2.05	-3.84	-2.55	-2.81		ppb
Cadmium	111-1	-0.02	-0.04	-0.03	-0.03		ppb
Calcium	43-1	-1.35	1.91	-4.93	-1.46		ppb
Calcium	44-1	-2.08	-0.98	0.65	-0.80		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	0.02	0.04	0.01	294.41	ppb
Cobalt	59-2	0.00	0.00	0.01	0.00		ppb
Copper	63-2	-0.01	0.00	-0.08	-0.03		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				100		%
Indium	115-1				101		%
Indium	115-2				101		%
Iron	56-2	0.11	0.49	0.45	0.35	59.75	ppb
Iron	57-2	-0.74	-0.25	-4.88	-1.96		ppb
Iron	54-2	1.23	2.09	-1.37	0.65	277.99	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.04	0.07	0.06	29.07	ppb
Lead	207-1	0.06	0.05	0.04	0.05	12.61	ppb
Lead	208-1	0.06	0.05	0.06	0.05	7.47	ppb
Lithium	6-1				97		%
Magnesium	24-2	0.34	0.55	0.46	0.45	23.49	ppb
Manganese	55-2	-0.05	-0.12	0.01	-0.06		ppb
Molybdenum	94-1	0.02	0.00	0.01	0.01	82.43	ppb
Molybdenum	95-1	0.00	-0.01	0.01	0.00		ppb
Molybdenum	96-1	0.03	0.02	0.01	0.02	48.43	ppb
Molybdenum	97-1	0.00	0.02	0.00	0.00	224.37	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	208.75	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.10	-0.03	-0.03	-0.05		ppb
Phosphorus	31-2	-32.55	-39.02	-39.17	-36.91		ppb
Potassium	39-2	-5.46	2.12	0.32	-1.01		ppb
Rhodium	103-1				100		%
Rhodium	103-2				103		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	-1.40	0.17	-0.44	-0.55		ppb
Selenium	77-2	0.22	0.21	-0.11	0.11	178.58	ppb
Selenium	78-2	-0.13	1.97	2.43	1.42	95.98	ppb
Silicon	28-1	-3.21	-4.35	-1.61	-3.06		ppb
Silver	107-1	0.01	0.01	0.01	0.01	17.28	ppb
Silver	109-1	0.01	0.00	0.00	0.00	160.00	ppb
Sodium	23-2	5.92	5.96	4.62	5.50	13.86	ppb
Strontium	86-1	-0.01	-0.02	0.03	0.00		ppb
Strontium	88-1	0.00	0.00	0.00	0.00	18.94	ppb
Sulfur	34-1	-427.25	-417.90	-451.10	-432.08		ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.00	0.01	0.00	0.00	114.51	ppb
Thallium	205-1	0.01	0.00	0.01	0.00	143.35	ppb
Tin	118-1	0.04	0.06	0.05	0.05	20.70	ppb
Titanium	47-1	-0.01	0.00	-0.05	-0.02		ppb

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	1484.63	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Yttrium	89-1				101		%
Yttrium	89-2				103		%
Zinc	66-2	0.70	0.56	0.39	0.55	28.20	ppb
Zirconium	90-1	0.00	0.03	0.01	0.01	116.25	ppb
Zirconium	91-1	0.00	0.01	0.01	0.00	138.83	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	92449.77	95834.02	95360.48	94548.09	1.94	ppb
Antimony	121-1	1.10	1.13	1.13	1.12	1.74	ppb
Arsenic	75-2	0.30	0.41	0.37	0.36	15.73	ppb
Barium	135-1	1.44	1.33	1.37	1.38	4.05	ppb
Barium	137-1	1.36	1.44	1.34	1.38	3.64	ppb
Beryllium	9-1	0.31	0.29	0.19	0.27	25.28	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	7.94	7.44	7.75	7.71	3.31	ppb
Cadmium	106-1	-2.72	-3.10	-3.73	-3.18		ppb
Cadmium	111-1	0.24	0.33	0.24	0.27	19.85	ppb
Calcium	43-1	102535.62	102663.54	103084.60	102761.25	0.28	ppb
Calcium	44-1	101933.67	102821.20	103334.79	102696.56	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	20.00	20.06	20.89	20.32	2.45	ppb
Cobalt	59-2	1.29	1.24	1.27	1.27	1.74	ppb
Copper	63-2	8.91	8.93	9.51	9.12	3.76	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				103		%
Indium	115-1				102		%
Indium	115-2				100		%
Iron	56-2	99564.22	101124.08	103552.75	101413.68	1.98	ppb
Iron	57-2	103673.47	102413.46	104221.18	103436.04	0.90	ppb
Iron	54-2	101973.99	102135.78	105072.69	103060.82	1.69	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4.25	4.25	4.29	4.26	0.64	ppb
Lead	207-1	3.79	3.87	3.78	3.82	1.28	ppb
Lead	208-1	3.97	4.05	3.99	4.00	0.95	ppb
Lithium	6-1				102		%
Magnesium	24-2	92669.78	93157.92	96095.93	93974.54	1.97	ppb
Manganese	55-2	7.42	7.57	7.67	7.55	1.64	ppb
Molybdenum	94-1	1714.36	1705.03	1711.00	1710.13	0.28	ppb
Molybdenum	95-1	2061.90	2082.23	2089.19	2077.77	0.68	ppb
Molybdenum	96-1	2032.12	2050.95	2061.89	2048.32	0.73	ppb
Molybdenum	97-1	2068.93	2092.77	2113.98	2091.89	1.08	ppb
Molybdenum	98-1	2054.10	2059.06	2089.96	2067.70	0.94	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.65	5.97	5.71	5.77	2.92	ppb
Phosphorus	31-2	104889.72	105696.25	107243.34	105943.10	1.13	ppb
Potassium	39-2	100478.72	102216.42	103206.00	101967.05	1.35	ppb
Rhodium	103-1				99		%
Rhodium	103-2				101		%
Scandium	45-1				102		%
Scandium	45-2				103		%
Selenium	82-1	0.31	-0.22	0.47	0.19	194.60	ppb
Selenium	77-2	0.55	-0.11	0.22	0.22	152.12	ppb
Selenium	78-2	1.06	-1.01	-1.46	-0.47		ppb
Silicon	28-1	-10.91	-9.95	-9.14	-10.00		ppb
Silver	107-1	0.10	0.10	0.13	0.11	18.07	ppb
Silver	109-1	0.09	0.09	0.11	0.10	12.23	ppb
Sodium	23-2	100351.52	101803.17	102404.60	101519.77	1.04	ppb
Strontium	86-1	33.21	33.13	33.81	33.38	1.12	ppb
Strontium	88-1	32.23	32.43	32.75	32.47	0.80	ppb
Sulfur	34-1	120198.31	117599.23	116316.64	118038.06	1.68	ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	0.04	0.06	0.06	0.05	23.92	ppb
Thallium	205-1	0.03	0.05	0.06	0.05	29.95	ppb
Tin	118-1	1.54	2.19	2.27	2.00	20.05	ppb
Titanium	47-1	2082.04	2152.19	2084.88	2106.37	1.89	ppb

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.02	0.02	16.02	ppb
Vanadium	51-2	0.18	0.17	0.16	0.17	5.69	ppb
Yttrium	89-1				103		%
Yttrium	89-2				103		%
Zinc	66-2	11.30	11.35	11.42	11.36	0.53	ppb
Zirconium	90-1	0.01	0.01	0.02	0.01	24.76	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	26.72	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	87211.13	87219.08	87927.49	87452.57	0.47	ppb
Antimony	121-1	19.62	20.07	19.80	19.83	1.13	ppb
Arsenic	75-2	21.33	20.50	20.18	20.67	2.88	ppb
Barium	135-1	20.03	20.29	19.40	19.90	2.29	ppb
Barium	137-1	19.47	19.82	19.69	19.66	0.89	ppb
Beryllium	9-1	18.80	18.51	19.36	18.89	2.29	ppb
Bismuth	209-1				99		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	24.65	26.59	25.37	25.54	3.84	ppb
Cadmium	106-1	11.54	13.38	13.97	12.96	9.79	ppb
Cadmium	111-1	19.66	19.57	19.94	19.72	0.98	ppb
Calcium	43-1	96319.94	97880.69	97361.01	97187.21	0.82	ppb
Calcium	44-1	97307.87	98417.46	98351.82	98025.72	0.64	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	38.60	38.64	39.10	38.78	0.71	ppb
Cobalt	59-2	20.31	20.50	20.52	20.44	0.58	ppb
Copper	63-2	27.24	27.24	27.14	27.21	0.21	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				102		%
Indium	115-1				101		%
Indium	115-2				99		%
Iron	56-2	97135.30	97244.14	97885.60	97421.68	0.42	ppb
Iron	57-2	96618.33	98306.68	97997.01	97640.68	0.92	ppb
Iron	54-2	97187.75	99962.44	98903.50	98684.57	1.42	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	25.55	25.48	26.32	25.78	1.80	ppb
Lead	207-1	24.72	24.62	25.73	25.02	2.45	ppb
Lead	208-1	24.91	24.91	25.77	25.20	1.97	ppb
Lithium	6-1				97		%
Magnesium	24-2	87461.17	87875.46	88696.63	88011.09	0.71	ppb
Manganese	55-2	25.07	25.18	25.43	25.23	0.73	ppb
Molybdenum	94-1	1641.58	1613.95	1609.33	1621.62	1.08	ppb
Molybdenum	95-1	1999.99	1994.46	1992.18	1995.54	0.20	ppb
Molybdenum	96-1	1963.80	1933.67	1924.50	1940.66	1.06	ppb
Molybdenum	97-1	1990.97	1982.63	1980.19	1984.60	0.28	ppb
Molybdenum	98-1	1961.99	2000.10	1969.03	1977.04	1.03	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	26.05	26.93	26.87	26.62	1.84	ppb
Phosphorus	31-2	98080.04	100479.54	99292.68	99284.08	1.21	ppb
Potassium	39-2	96374.09	96946.45	97854.22	97058.25	0.77	ppb
Rhodium	103-1				99		%
Rhodium	103-2				101		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	19.26	18.63	20.12	19.34	3.87	ppb
Selenium	77-2	18.09	25.24	21.02	21.45	16.74	ppb
Selenium	78-2	18.93	19.55	20.20	19.56	3.25	ppb
Silicon	28-1	-9.70	-5.84	-10.16	-8.56		ppb
Silver	107-1	18.64	19.11	19.15	18.97	1.49	ppb
Silver	109-1	18.44	18.92	18.42	18.59	1.53	ppb
Sodium	23-2	95430.17	94017.16	96482.12	95309.82	1.30	ppb
Strontium	86-1	31.66	31.33	32.00	31.66	1.06	ppb
Strontium	88-1	30.97	31.00	30.65	30.87	0.62	ppb
Sulfur	34-1	110361.45	110487.98	109991.25	110280.23	0.23	ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	18.40	18.14	18.66	18.40	1.41	ppb
Thallium	205-1	17.74	18.14	18.38	18.08	1.77	ppb
Tin	118-1	0.32	0.38	0.36	0.35	8.97	ppb
Titanium	47-1	1994.11	1993.86	1988.91	1992.29	0.15	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.03	0.02	0.03	0.03	14.05	ppb
Vanadium	51-2	19.02	19.49	19.61	19.37	1.59	ppb
Yttrium	89-1				102		%
Yttrium	89-2				103		%
Zinc	66-2	30.06	29.49	30.66	30.07	1.94	ppb
Zirconium	90-1	0.01	0.03	0.01	0.02	81.74	ppb
Zirconium	91-1	0.00	0.02	0.01	0.01	95.31	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	48723.67	47814.60	48462.46	48333.58	0.97	ppb
Antimony	121-1	518.20	504.39	517.96	513.52	1.54	ppb
Arsenic	75-2	489.75	502.21	487.81	493.25	1.58	ppb
Barium	135-1	2581.77	2602.51	2638.84	2607.71	1.11	ppb
Barium	137-1	2583.25	2577.29	2633.31	2597.95	1.18	ppb
Beryllium	9-1	495.38	503.16	502.98	500.51	0.89	ppb
Bismuth	209-1				95		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	499.43	505.56	510.80	505.26	1.13	ppb
Cadmium	106-1	489.68	490.42	500.09	493.40	1.18	ppb
Cadmium	111-1	504.60	495.41	507.24	502.41	1.24	ppb
Calcium	43-1	253314.51	256687.20	258172.56	256058.09	0.97	ppb
Calcium	44-1	257121.52	258439.92	257834.78	257798.74	0.26	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	463.09	463.75	465.05	463.96	0.21	ppb
Cobalt	59-2	506.13	495.92	501.38	501.14	1.02	ppb
Copper	63-2	4821.28	4882.64	4897.42	4867.11	0.83	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				96		%
Indium	115-2				95		%
Iron	56-2	127077.47	128461.32	128927.68	128155.49	0.75	ppb
Iron	57-2	129831.61	125938.53	127395.85	127722.00	1.54	ppb
Iron	54-2	129692.74	130545.32	127812.75	129350.27	1.08	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2448.56	2489.67	2543.03	2493.75	1.90	ppb
Lead	207-1	2446.95	2546.25	2530.00	2507.73	2.12	ppb
Lead	208-1	2473.40	2543.29	2511.91	2509.54	1.39	ppb
Lithium	6-1				95		%
Magnesium	24-2	244241.92	243462.21	245499.53	244401.22	0.42	ppb
Manganese	55-2	4987.02	4939.62	5025.52	4984.05	0.86	ppb
Molybdenum	94-1	4965.80	4947.56	5040.13	4984.50	0.98	ppb
Molybdenum	95-1	4937.11	4982.97	5059.48	4993.19	1.24	ppb
Molybdenum	96-1	5007.80	4933.27	5107.73	5016.27	1.75	ppb
Molybdenum	97-1	5047.23	4965.08	5128.82	5047.04	1.62	ppb
Molybdenum	98-1	5038.66	4983.72	5120.97	5047.78	1.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	489.54	491.64	495.42	492.20	0.61	ppb
Phosphorus	31-2	10107.17	9792.33	10174.50	10024.67	2.04	ppb
Potassium	39-2	126503.89	125263.73	127850.98	126539.53	1.02	ppb
Rhodium	103-1				92		%
Rhodium	103-2				97		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	477.64	476.46	483.74	479.28	0.81	ppb
Selenium	77-2	473.58	500.43	475.77	483.26	3.09	ppb
Selenium	78-2	458.74	485.03	483.64	475.80	3.11	ppb
Silicon	28-1	357.60	370.49	365.06	364.38	1.78	ppb
Silver	107-1	535.69	525.84	539.17	533.57	1.30	ppb
Silver	109-1	532.98	525.14	535.84	531.32	1.04	ppb
Sodium	23-2	246861.85	247550.13	250822.09	248411.36	0.85	ppb
Strontium	86-1	467.97	469.07	480.60	472.55	1.48	ppb
Strontium	88-1	504.82	511.68	509.01	508.50	0.68	ppb
Sulfur	34-1	9414.62	9427.68	9191.98	9344.76	1.42	ppb
Terbium	159-1				98		%
Terbium	159-2				100		%
Thallium	203-1	490.66	520.93	512.54	508.04	3.08	ppb
Thallium	205-1	501.47	518.22	511.29	510.33	1.65	ppb
Tin	118-1	514.77	504.89	528.09	515.92	2.26	ppb
Titanium	47-1	4970.04	4951.36	4919.59	4947.00	0.52	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	497.05	505.59	502.76	501.80	0.87	ppb
Vanadium	51-2	470.63	467.26	466.92	468.27	0.44	ppb
Yttrium	89-1				99		%
Yttrium	89-2				100		%
Zinc	66-2	4833.00	4723.48	4786.34	4780.94	1.15	ppb
Zirconium	90-1	502.06	502.27	495.06	499.80	0.82	ppb
Zirconium	91-1	469.16	470.20	476.58	471.98	0.85	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.34	0.26	0.22	0.05	730.46	ppb
Antimony	121-1	0.09	0.10	0.11	0.10	14.33	ppb
Arsenic	75-2	0.01	-0.02	-0.02	-0.01		ppb
Barium	135-1	0.04	0.00	0.04	0.03	81.43	ppb
Barium	137-1	0.01	0.01	0.01	0.01	31.41	ppb
Beryllium	9-1	0.06	0.03	0.00	0.03	103.17	ppb
Bismuth	209-1				101		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.10	-0.02	-0.06	-0.06		ppb
Cadmium	106-1	-3.27	-3.25	-4.23	-3.58		ppb
Cadmium	111-1	0.00	-0.02	-0.03	-0.02		ppb
Calcium	43-1	-1.36	-1.84	-7.79	-3.66		ppb
Calcium	44-1	-5.69	-4.96	-5.07	-5.24		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	-0.05	-0.01	-0.03		ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	85.84	ppb
Copper	63-2	0.24	0.19	0.18	0.20	16.65	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				103		%
Indium	115-2				100		%
Iron	56-2	0.74	0.70	0.94	0.79	15.92	ppb
Iron	57-2	-3.07	-2.10	0.12	-1.69		ppb
Iron	54-2	2.32	2.67	1.42	2.14	30.00	ppb
Krypton	83-1						cps

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.06	0.03	0.05	0.05	24.12	ppb
Lead	207-1	0.04	0.08	0.04	0.05	45.14	ppb
Lead	208-1	0.05	0.05	0.06	0.05	3.49	ppb
Lithium	6-1				96		%
Magnesium	24-2	1.34	1.15	1.34	1.28	8.48	ppb
Manganese	55-2	0.00	-0.03	0.05	0.01	597.10	ppb
Molybdenum	94-1	0.19	0.12	0.10	0.13	35.45	ppb
Molybdenum	95-1	0.11	0.12	0.10	0.11	5.87	ppb
Molybdenum	96-1	0.13	0.13	0.12	0.13	5.38	ppb
Molybdenum	97-1	0.16	0.10	0.11	0.12	25.89	ppb
Molybdenum	98-1	0.10	0.10	0.10	0.10	3.92	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.08	0.06	-0.05	0.03	221.00	ppb
Phosphorus	31-2	-41.91	-29.40	-27.97	-33.09		ppb
Potassium	39-2	9.63	3.86	11.01	8.17	46.48	ppb
Rhodium	103-1				100		%
Rhodium	103-2				103		%
Scandium	45-1				98		%
Scandium	45-2				100		%
Selenium	82-1	-1.12	-0.67	-0.22	-0.67		ppb
Selenium	77-2	-0.11	0.22	0.22	0.11	175.87	ppb
Selenium	78-2	0.01	1.23	-0.68	0.19	519.34	ppb
Silicon	28-1	-8.05	-7.74	-7.86	-7.88		ppb
Silver	107-1	0.05	0.03	0.04	0.04	23.19	ppb
Silver	109-1	0.05	0.04	0.03	0.04	24.24	ppb
Sodium	23-2	18.72	17.24	18.82	18.26	4.84	ppb
Strontium	86-1	0.02	-0.02	0.00	0.00		ppb
Strontium	88-1	0.01	0.01	0.01	0.01	18.54	ppb
Sulfur	34-1	-1268.32	-1014.75	-1180.96	-1154.67		ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	0.05	0.06	0.07	0.06	14.34	ppb
Thallium	205-1	0.06	0.06	0.05	0.06	8.53	ppb
Tin	118-1	0.04	0.01	0.02	0.03	46.23	ppb
Titanium	47-1	0.04	0.02	0.06	0.04	48.58	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	50.46	ppb
Vanadium	51-2	0.01	0.01	0.00	0.00	98.59	ppb
Yttrium	89-1				100		%
Yttrium	89-2				102		%
Zinc	66-2	0.71	0.49	0.68	0.63	18.70	ppb
Zirconium	90-1	0.06	0.03	0.04	0.04	35.10	ppb
Zirconium	91-1	0.03	0.01	0.03	0.02	41.05	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17.93	17.06	16.04	17.01	5.58	ppb
Antimony	121-1	1.81	1.78	1.82	1.81	1.23	ppb
Arsenic	75-2	1.13	0.96	0.99	1.03	8.93	ppb
Barium	135-1	8.76	8.78	8.53	8.69	1.58	ppb
Barium	137-1	8.39	8.65	8.68	8.57	1.85	ppb
Beryllium	9-1	1.13	0.91	0.94	0.99	12.25	ppb
Bismuth	209-1				100		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.55	0.48	1.11	0.72	48.00	ppb
Cadmium	106-1	-2.90	-2.22	-2.43	-2.52		ppb
Cadmium	111-1	0.91	0.93	0.88	0.91	2.88	ppb
Calcium	43-1	442.30	426.86	428.94	432.70	1.94	ppb
Calcium	44-1	437.18	440.81	442.78	440.26	0.65	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.99	1.82	1.80	1.87	5.46	ppb
Cobalt	59-2	0.95	0.96	0.91	0.94	3.10	ppb
Copper	63-2	1.97	1.92	1.90	1.93	1.77	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				102		%
Indium	115-1				102		%
Indium	115-2				102		%
Iron	56-2	46.37	44.89	45.17	45.48	1.72	ppb
Iron	57-2	49.38	42.30	43.99	45.22	8.18	ppb
Iron	54-2	47.46	46.94	44.60	46.33	3.28	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.79	0.75	0.78	0.78	2.85	ppb
Lead	207-1	0.77	0.78	0.82	0.79	3.11	ppb
Lead	208-1	0.76	0.78	0.79	0.77	1.95	ppb
Lithium	6-1				95		%
Magnesium	24-2	410.65	396.85	391.38	399.63	2.48	ppb
Manganese	55-2	1.15	0.99	1.03	1.06	7.96	ppb
Molybdenum	94-1	5.36	5.31	5.11	5.26	2.54	ppb
Molybdenum	95-1	4.31	4.34	4.35	4.33	0.46	ppb
Molybdenum	96-1	4.31	4.54	4.49	4.45	2.67	ppb
Molybdenum	97-1	4.53	4.44	4.44	4.47	1.16	ppb
Molybdenum	98-1	4.36	4.28	4.26	4.30	1.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.06	0.92	0.97	0.99	7.22	ppb
Phosphorus	31-2	221.40	190.55	228.80	213.58	9.50	ppb
Potassium	39-2	438.78	424.23	427.66	430.22	1.77	ppb
Rhodium	103-1				100		%
Rhodium	103-2				104		%
Scandium	45-1				99		%
Scandium	45-2				102		%
Selenium	82-1	4.77	3.84	4.31	4.31	10.78	ppb
Selenium	77-2	4.77	6.02	4.39	5.06	16.90	ppb
Selenium	78-2	5.80	4.66	6.51	5.66	16.51	ppb
Silicon	28-1	-7.29	-6.29	-7.86	-7.15		ppb
Silver	107-1	0.97	1.00	1.02	1.00	2.78	ppb
Silver	109-1	0.98	1.00	1.02	1.00	2.19	ppb
Sodium	23-2	422.94	404.90	407.35	411.73	2.38	ppb
Strontium	86-1	0.88	0.83	0.96	0.89	7.26	ppb
Strontium	88-1	0.88	0.87	0.88	0.88	0.71	ppb
Sulfur	34-1	-727.31	-825.79	-722.80	-758.64		ppb
Terbium	159-1				100		%
Terbium	159-2				102		%
Thallium	203-1	0.88	0.93	0.90	0.90	3.16	ppb
Thallium	205-1	0.90	0.91	0.88	0.90	1.70	ppb
Tin	118-1	4.47	4.49	4.46	4.47	0.38	ppb
Titanium	47-1	4.38	4.37	4.44	4.40	0.84	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.80	0.78	0.79	0.79	1.36	ppb
Vanadium	51-2	4.36	4.39	4.38	4.38	0.39	ppb
Yttrium	89-1				101		%
Yttrium	89-2				105		%
Zinc	66-2	5.78	5.29	4.88	5.32	8.49	ppb
Zirconium	90-1	0.90	0.94	0.93	0.92	2.06	ppb
Zirconium	91-1	0.92	0.99	0.91	0.94	4.64	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.40	0.07	-0.13	0.11	233.41	ppb
Antimony	121-1	0.01	0.01	0.02	0.02	18.81	ppb
Arsenic	75-2	-0.02	-0.02	-0.02	-0.02		ppb
Barium	135-1	0.01	-0.02	-0.02	-0.01		ppb
Barium	137-1	-0.01	0.01	0.01	0.00	844.09	ppb
Beryllium	9-1	-0.02	0.00	0.00	0.00		ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.07	-0.07	-0.03	-0.05		ppb
Cadmium	106-1	-3.05	-3.05	-3.28	-3.13		ppb
Cadmium	111-1	-0.03	-0.04	-0.04	-0.04		ppb
Calcium	43-1	-0.75	-7.12	-5.50	-4.46		ppb
Calcium	44-1	-4.56	-5.38	-5.41	-5.12		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.03	-0.01	-0.02	0.00		ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	272.60	ppb
Copper	63-2	0.16	0.08	0.06	0.10	51.11	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	0.55	0.41	0.32	0.43	27.04	ppb
Iron	57-2	-0.51	-0.80	-2.28	-1.20		ppb
Iron	54-2	0.98	1.21	0.46	0.88	43.59	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.03	0.05	0.02	0.03	47.20	ppb
Lead	207-1	0.03	0.02	0.02	0.02	18.26	ppb
Lead	208-1	0.03	0.04	0.02	0.03	31.40	ppb
Lithium	6-1				97		%
Magnesium	24-2	0.44	0.28	0.60	0.44	36.01	ppb
Manganese	55-2	-0.07	0.01	-0.16	-0.07		ppb
Molybdenum	94-1	0.01	0.03	0.02	0.02	63.08	ppb
Molybdenum	95-1	0.01	0.05	0.02	0.03	69.87	ppb
Molybdenum	96-1	0.03	0.05	0.01	0.03	53.43	ppb
Molybdenum	97-1	0.00	0.01	0.00	0.00	514.10	ppb
Molybdenum	98-1	0.02	0.01	0.00	0.01	111.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.01	0.02	-0.09	-0.02		ppb
Phosphorus	31-2	-31.69	-38.12	-34.59	-34.80		ppb
Potassium	39-2	0.41	2.96	1.87	1.75	73.36	ppb
Rhodium	103-1				101		%
Rhodium	103-2				105		%
Scandium	45-1				102		%
Scandium	45-2				101		%
Selenium	82-1	0.45	-0.89	-0.33	-0.25		ppb
Selenium	77-2	0.21	-0.11	-0.11	0.00		ppb
Selenium	78-2	0.21	-0.55	-0.38	-0.24		ppb
Silicon	28-1	-12.19	-14.40	-8.76	-11.78		ppb
Silver	107-1	0.01	0.00	0.01	0.01	45.16	ppb
Silver	109-1	0.01	0.01	0.01	0.01	29.77	ppb
Sodium	23-2	11.06	10.85	9.93	10.61	5.67	ppb
Strontium	86-1	-0.03	0.00	-0.03	-0.02		ppb
Strontium	88-1	0.00	0.00	0.00	0.00	100.42	ppb
Sulfur	34-1	-1002.85	-1185.66	-1220.67	-1136.39		ppb
Terbium	159-1				101		%
Terbium	159-2				101		%
Thallium	203-1	0.03	0.02	0.03	0.03	16.72	ppb
Thallium	205-1	0.04	0.03	0.03	0.03	20.61	ppb
Tin	118-1	0.00	0.00	0.01	0.01	93.80	ppb
Titanium	47-1	0.03	-0.02	-0.03	-0.01		ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	156.28	ppb
Vanadium	51-2	-0.01	0.00	0.00	0.00		ppb
Yttrium	89-1				102		%
Yttrium	89-2				103		%
Zinc	66-2	0.20	0.24	0.25	0.23	11.29	ppb
Zirconium	90-1	0.03	0.01	0.00	0.01	97.08	ppb
Zirconium	91-1	0.01	0.00	0.00	0.00	467.10	ppb

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8323.67	8361.75	8449.71	8378.38	0.77	ppb
Antimony	121-1	500.35	493.84	499.94	498.05	0.73	ppb
Arsenic	75-2	497.36	494.14	493.85	495.12	0.39	ppb
Barium	135-1	2477.63	2483.57	2535.10	2498.77	1.26	ppb
Barium	137-1	2436.46	2504.26	2532.03	2490.92	1.97	ppb
Beryllium	9-1	488.06	494.65	491.76	491.49	0.67	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	502.50	498.94	514.19	505.21	1.58	ppb
Cadmium	106-1	502.23	498.24	504.29	501.59	0.61	ppb
Cadmium	111-1	505.02	502.50	507.79	505.10	0.52	ppb
Calcium	43-1	45677.81	46493.76	45970.83	46047.47	0.90	ppb
Calcium	44-1	48602.02	48582.02	48204.08	48462.71	0.46	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	464.44	467.20	467.43	466.36	0.36	ppb
Cobalt	59-2	503.49	507.13	506.52	505.71	0.39	ppb
Copper	63-2	5026.44	4999.94	5014.55	5013.65	0.26	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				102		%
Indium	115-1				102		%
Indium	115-2				100		%
Iron	56-2	24051.81	23719.51	24237.04	24002.79	1.09	ppb
Iron	57-2	23366.42	23429.73	23571.26	23455.80	0.45	ppb
Iron	54-2	25051.47	24701.63	24354.18	24702.43	1.41	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2363.05	2425.54	2412.03	2400.21	1.37	ppb
Lead	207-1	2384.52	2443.30	2451.05	2426.29	1.50	ppb
Lead	208-1	2391.89	2414.21	2451.77	2419.29	1.25	ppb
Lithium	6-1				98		%
Magnesium	24-2	46312.92	46882.27	46812.03	46669.07	0.67	ppb
Manganese	55-2	5011.18	4943.12	4974.15	4976.15	0.68	ppb
Molybdenum	94-1	4883.33	4838.71	4931.34	4884.46	0.95	ppb
Molybdenum	95-1	4843.29	4871.27	4947.85	4887.47	1.11	ppb
Molybdenum	96-1	4817.13	4841.61	4920.93	4859.89	1.12	ppb
Molybdenum	97-1	4932.99	4896.54	4941.57	4923.70	0.49	ppb
Molybdenum	98-1	4875.76	4829.34	4908.54	4871.21	0.82	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	505.13	502.29	505.94	504.45	0.38	ppb
Phosphorus	31-2	9733.94	10037.37	9775.10	9848.80	1.67	ppb
Potassium	39-2	23633.72	23729.72	23914.42	23759.29	0.60	ppb
Rhodium	103-1				101		%
Rhodium	103-2				102		%
Scandium	45-1				102		%
Scandium	45-2				103		%
Selenium	82-1	497.61	493.64	501.47	497.57	0.79	ppb
Selenium	77-2	482.50	517.02	521.15	506.89	4.19	ppb
Selenium	78-2	506.46	496.00	507.97	503.48	1.29	ppb
Silicon	28-1	494.43	500.83	507.28	500.84	1.28	ppb
Silver	107-1	504.24	510.16	512.88	509.09	0.87	ppb
Silver	109-1	517.79	504.32	511.14	511.08	1.32	ppb
Sodium	23-2	46062.80	45604.96	46316.32	45994.69	0.78	ppb
Strontium	86-1	459.76	456.74	461.88	459.46	0.56	ppb
Strontium	88-1	490.11	487.30	496.56	491.32	0.97	ppb
Sulfur	34-1	8976.54	8992.57	8555.78	8841.63	2.80	ppb
Terbium	159-1				103		%
Terbium	159-2				102		%
Thallium	203-1	497.24	492.08	509.95	499.76	1.84	ppb
Thallium	205-1	480.49	485.50	497.33	487.77	1.77	ppb
Tin	118-1	500.72	495.55	515.93	504.07	2.10	ppb
Titanium	47-1	4894.59	4907.35	4817.01	4872.98	1.00	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	464.97	470.78	483.46	473.07	2.00	ppb
Vanadium	51-2	459.51	461.25	462.06	460.94	0.28	ppb
Yttrium	89-1				103		%
Yttrium	89-2				104		%
Zinc	66-2	5081.37	5201.85	5069.22	5117.48	1.43	ppb
Zirconium	90-1	490.49	489.64	498.34	492.82	0.97	ppb
Zirconium	91-1	459.36	454.92	462.75	459.01	0.86	ppb

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.98	-0.38	0.33	0.31	217.34	ppb
Antimony	121-1	0.09	0.10	0.10	0.09	5.94	ppb
Arsenic	75-2	-0.03	0.00	-0.03	-0.02		ppb
Barium	135-1	0.00	-0.01	-0.03	-0.01		ppb
Barium	137-1	0.01	-0.01	0.02	0.01	303.25	ppb
Beryllium	9-1	0.01	0.04	-0.01	0.01	193.55	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.03	0.05	0.00	7407.46	ppb
Cadmium	106-1	-1.71	-2.63	-3.49	-2.61		ppb
Cadmium	111-1	0.00	-0.01	-0.03	-0.01		ppb
Calcium	43-1	-2.04	-8.81	-7.41	-6.09		ppb
Calcium	44-1	-4.74	-4.16	-5.82	-4.91		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.12	-0.01	0.02	0.04	153.02	ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	138.38	ppb
Copper	63-2	0.08	0.08	0.06	0.07	11.77	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				100		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	0.24	0.42	0.63	0.43	46.30	ppb
Iron	57-2	-4.09	-3.70	-1.19	-2.99		ppb
Iron	54-2	-0.06	-1.17	1.26	0.01	10489.19	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.06	0.05	0.05	0.06	11.07	ppb
Lead	207-1	0.09	0.04	0.05	0.06	37.90	ppb
Lead	208-1	0.07	0.05	0.06	0.06	17.17	ppb
Lithium	6-1				97		%
Magnesium	24-2	0.73	0.45	0.67	0.62	24.24	ppb
Manganese	55-2	-0.09	0.07	-0.05	-0.03		ppb
Molybdenum	94-1	0.19	0.15	0.12	0.15	24.27	ppb
Molybdenum	95-1	0.11	0.11	0.11	0.11	1.77	ppb
Molybdenum	96-1	0.13	0.14	0.11	0.13	13.06	ppb
Molybdenum	97-1	0.17	0.09	0.13	0.13	30.89	ppb
Molybdenum	98-1	0.12	0.10	0.08	0.10	20.86	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	0.17	0.06	0.08	112.26	ppb
Phosphorus	31-2	-32.95	-23.64	-28.69	-28.43		ppb
Potassium	39-2	-0.03	2.93	2.16	1.69	90.99	ppb
Rhodium	103-1				101		%
Rhodium	103-2				103		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Selenium	82-1	-0.76	0.32	-0.02	-0.15		ppb
Selenium	77-2	-0.11	-0.11	-0.11	-0.11		ppb
Selenium	78-2	0.39	-1.32	2.87	0.65	324.31	ppb
Silicon	28-1	-8.00	-12.04	-9.38	-9.81		ppb
Silver	107-1	0.05	0.03	0.02	0.03	45.76	ppb
Silver	109-1	0.04	0.03	0.02	0.03	40.94	ppb
Sodium	23-2	12.03	14.45	11.42	12.63	12.68	ppb
Strontium	86-1	0.00	-0.06	0.02	-0.01		ppb
Strontium	88-1	0.01	0.00	0.01	0.01	15.09	ppb
Sulfur	34-1	-1462.04	-1308.50	-1381.16	-1383.90		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.03	0.04	0.03	0.04	16.89	ppb
Thallium	205-1	0.03	0.04	0.04	0.04	15.14	ppb
Tin	118-1	0.03	0.05	0.03	0.04	33.51	ppb
Titanium	47-1	0.09	0.08	0.05	0.07	25.78	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	54.21	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	449.14	ppb
Yttrium	89-1				101		%
Yttrium	89-2				101		%
Zinc	66-2	0.42	0.22	0.05	0.23	79.29	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	6.50	ppb
Zirconium	91-1	0.03	0.01	0.01	0.02	59.69	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4852.71	4929.70	4851.62	4878.01	0.92	ppb
Antimony	121-1	0.02	0.03	0.04	0.03	23.57	ppb
Arsenic	75-2	0.42	0.48	0.46	0.45	7.36	ppb
Barium	135-1	17.18	16.85	17.04	17.03	0.96	ppb
Barium	137-1	16.86	16.99	16.74	16.86	0.74	ppb
Beryllium	9-1	0.30	0.22	0.24	0.25	16.29	ppb
Bismuth	209-1				102		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.09	0.08	0.04	0.07	33.79	ppb
Cadmium	106-1	-3.02	-2.88	-2.49	-2.80		ppb
Cadmium	111-1	0.08	0.10	0.07	0.08	21.64	ppb
Calcium	43-1	55514.94	55419.80	56601.23	55845.32	1.18	ppb
Calcium	44-1	58286.70	58973.62	59384.73	58881.68	0.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.27	1.26	1.24	1.26	1.53	ppb
Cobalt	59-2	24.28	24.81	24.44	24.51	1.12	ppb
Copper	63-2	8.81	9.09	9.05	8.98	1.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				104		%
Indium	115-1				105		%
Indium	115-2				102		%
Iron	56-2	61747.85	63020.21	62671.52	62479.86	1.05	ppb
Iron	57-2	63246.71	62628.64	62574.21	62816.52	0.59	ppb
Iron	54-2	62902.94	63323.77	62257.10	62827.94	0.86	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.12	0.11	0.14	0.12	13.29	ppb
Lead	207-1	0.12	0.11	0.14	0.12	12.47	ppb
Lead	208-1	0.12	0.12	0.13	0.12	5.20	ppb
Lithium	6-1				98		%
Magnesium	24-2	11689.49	11537.27	11711.15	11645.97	0.81	ppb
Manganese	55-2	1477.69	1526.40	1495.43	1499.84	1.64	ppb
Molybdenum	94-1	0.33	0.29	0.30	0.31	7.56	ppb
Molybdenum	95-1	0.09	0.09	0.07	0.08	16.40	ppb
Molybdenum	96-1	0.93	0.87	0.93	0.91	3.65	ppb
Molybdenum	97-1	0.10	0.04	0.09	0.08	40.52	ppb
Molybdenum	98-1	0.04	0.04	0.05	0.05	11.42	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	12.83	12.22	12.27	12.44	2.71	ppb
Phosphorus	31-2	-13.38	-21.21	-5.25	-13.28		ppb
Potassium	39-2	456.69	461.86	449.55	456.03	1.36	ppb
Rhodium	103-1				102		%
Rhodium	103-2				104		%
Scandium	45-1				103		%
Scandium	45-2				103		%
Selenium	82-1	-0.11	-0.47	0.68	0.03	1810.15	ppb
Selenium	77-2	5.20	4.10	2.30	3.86	37.95	ppb
Selenium	78-2	1.03	3.36	-1.17	1.07	210.65	ppb
Silicon	28-1	1976.66	1998.00	1991.31	1988.66	0.55	ppb
Silver	107-1	0.01	0.00	0.01	0.01	54.60	ppb
Silver	109-1	0.00	0.01	0.01	0.01	42.85	ppb
Sodium	23-2	9836.36	9787.29	9866.16	9829.94	0.41	ppb
Strontium	86-1	112.81	111.82	112.47	112.37	0.45	ppb
Strontium	88-1	122.35	117.83	120.04	120.07	1.88	ppb
Sulfur	34-1	94376.57	92088.10	94642.87	93702.51	1.50	ppb
Terbium	159-1				104		%
Terbium	159-2				104		%
Thallium	203-1	0.05	0.03	0.03	0.03	33.02	ppb
Thallium	205-1	0.03	0.03	0.04	0.03	20.30	ppb
Tin	118-1	0.02	0.01	0.03	0.02	43.03	ppb
Titanium	47-1	0.37	0.32	0.33	0.34	8.66	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.69	0.73	0.73	0.72	3.18	ppb
Vanadium	51-2	52.85	53.35	52.50	52.90	0.81	ppb
Yttrium	89-1				113		%
Yttrium	89-2				113		%
Zinc	66-2	134.12	135.09	133.92	134.37	0.47	ppb
Zirconium	90-1	0.09	0.09	0.10	0.09	7.84	ppb
Zirconium	91-1	0.14	0.10	0.10	0.11	21.62	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5247.92	5137.71	5186.64	5190.76	1.06	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	11.81	ppb
Arsenic	75-2	0.46	0.38	0.43	0.42	9.14	ppb
Barium	135-1	19.27	19.23	19.27	19.26	0.12	ppb
Barium	137-1	18.88	18.77	19.07	18.91	0.81	ppb
Beryllium	9-1	0.31	0.27	0.34	0.30	11.15	ppb
Bismuth	209-1				102		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.20	0.15	0.38	0.24	48.64	ppb
Cadmium	106-1	-2.17	-3.59	-3.51	-3.09		ppb
Cadmium	111-1	0.05	0.05	0.07	0.06	11.59	ppb
Calcium	43-1	57879.84	58879.61	58281.43	58346.96	0.86	ppb
Calcium	44-1	61091.70	62449.73	61061.79	61534.40	1.29	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.40	1.38	1.49	1.42	4.06	ppb
Cobalt	59-2	26.41	26.23	26.48	26.37	0.51	ppb
Copper	63-2	19.40	18.67	18.91	18.99	1.96	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				103		%
Indium	115-1				105		%
Indium	115-2				102		%
Iron	56-2	66083.77	64791.45	64949.24	65274.82	1.08	ppb
Iron	57-2	65066.12	63934.03	66063.72	65021.29	1.64	ppb
Iron	54-2	66847.97	64024.45	64847.64	65240.02	2.23	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.16	0.14	0.15	0.15	5.35	ppb
Lead	207-1	0.14	0.15	0.12	0.14	8.54	ppb
Lead	208-1	0.16	0.14	0.14	0.15	5.55	ppb
Lithium	6-1				98		%
Magnesium	24-2	11905.11	11832.09	12077.37	11938.19	1.05	ppb
Manganese	55-2	1588.30	1532.79	1577.04	1566.04	1.87	ppb
Molybdenum	94-1	0.26	0.25	0.27	0.26	4.03	ppb
Molybdenum	95-1	0.06	0.08	0.07	0.07	12.57	ppb
Molybdenum	96-1	0.88	0.85	0.85	0.86	1.69	ppb
Molybdenum	97-1	0.07	0.06	0.05	0.06	10.14	ppb
Molybdenum	98-1	0.02	0.04	0.04	0.03	27.84	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	12.13	12.49	12.36	12.33	1.46	ppb
Phosphorus	31-2	-22.97	-7.86	-10.51	-13.78		ppb
Potassium	39-2	491.21	468.35	484.06	481.21	2.43	ppb
Rhodium	103-1				103		%
Rhodium	103-2				103		%
Scandium	45-1				103		%
Scandium	45-2				103		%
Selenium	82-1	-0.14	0.41	-0.35	-0.03		ppb
Selenium	77-2	4.09	3.72	4.44	4.08	8.86	ppb
Selenium	78-2	2.44	-2.02	-1.02	-0.20		ppb
Silicon	28-1	2074.16	2118.58	2045.37	2079.37	1.77	ppb
Silver	107-1	0.01	0.01	0.00	0.01	39.11	ppb
Silver	109-1	0.01	0.00	0.00	0.00	67.96	ppb
Sodium	23-2	9922.47	9926.21	9958.75	9935.81	0.20	ppb
Strontium	86-1	113.41	114.07	113.86	113.78	0.30	ppb
Strontium	88-1	121.15	122.35	120.59	121.37	0.74	ppb
Sulfur	34-1	98049.38	99887.56	97305.75	98414.23	1.35	ppb
Terbium	159-1				105		%
Terbium	159-2				104		%
Thallium	203-1	0.03	0.03	0.03	0.03	15.94	ppb
Thallium	205-1	0.04	0.03	0.02	0.03	27.18	ppb
Tin	118-1	0.05	0.06	0.05	0.05	15.65	ppb
Titanium	47-1	0.35	0.39	0.43	0.39	10.75	ppb

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.74	0.74	0.75	0.74	0.87	ppb
Vanadium	51-2	52.42	50.80	52.16	51.79	1.68	ppb
Yttrium	89-1				114		%
Yttrium	89-2				113		%
Zinc	66-2	146.39	143.84	145.44	145.22	0.89	ppb
Zirconium	90-1	0.09	0.08	0.09	0.09	6.00	ppb
Zirconium	91-1	0.11	0.09	0.10	0.10	7.18	ppb

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5177.12	5285.49	5228.96	5230.52	1.04	ppb
Antimony	121-1	0.01	0.02	0.02	0.02	23.14	ppb
Arsenic	75-2	0.46	0.26	0.40	0.37	27.69	ppb
Barium	135-1	19.82	19.16	19.98	19.65	2.22	ppb
Barium	137-1	19.14	19.00	19.16	19.10	0.44	ppb
Beryllium	9-1	0.27	0.28	0.29	0.28	4.06	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.09	0.23	0.05	0.12	79.51	ppb
Cadmium	106-1	-3.43	-2.98	-2.65	-3.02		ppb
Cadmium	111-1	0.10	0.05	0.10	0.08	35.69	ppb
Calcium	43-1	59285.12	58373.16	59179.47	58945.92	0.85	ppb
Calcium	44-1	61960.47	61159.65	61739.92	61620.01	0.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.17	1.24	1.24	1.22	3.10	ppb
Cobalt	59-2	26.08	26.39	25.87	26.11	1.00	ppb
Copper	63-2	10.58	10.70	10.30	10.53	1.97	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				103		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	63463.26	65400.15	64621.83	64495.08	1.51	ppb
Iron	57-2	65699.60	66167.46	65336.40	65734.49	0.63	ppb
Iron	54-2	63857.74	66300.60	65253.01	65137.12	1.88	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.13	0.12	0.12	0.13	6.44	ppb
Lead	207-1	0.12	0.13	0.10	0.12	10.46	ppb
Lead	208-1	0.12	0.12	0.12	0.12	2.68	ppb
Lithium	6-1				98		%
Magnesium	24-2	11712.00	11885.68	11728.54	11775.41	0.81	ppb
Manganese	55-2	1512.41	1557.47	1531.18	1533.68	1.48	ppb
Molybdenum	94-1	0.29	0.25	0.24	0.26	10.42	ppb
Molybdenum	95-1	0.08	0.06	0.06	0.06	20.62	ppb
Molybdenum	96-1	0.92	0.87	0.96	0.92	5.08	ppb
Molybdenum	97-1	0.07	0.07	0.06	0.07	14.30	ppb
Molybdenum	98-1	0.03	0.01	0.03	0.02	47.45	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	12.13	12.05	12.36	12.18	1.30	ppb
Phosphorus	31-2	-17.59	-14.48	-14.30	-15.46		ppb
Potassium	39-2	473.05	481.82	480.07	478.31	0.97	ppb
Rhodium	103-1				100		%
Rhodium	103-2				104		%
Scandium	45-1				102		%
Scandium	45-2				102		%
Selenium	82-1	-0.46	0.21	-0.45	-0.23		ppb
Selenium	77-2	5.37	3.52	3.76	4.21	23.92	ppb
Selenium	78-2	0.22	0.10	-1.34	-0.34		ppb
Silicon	28-1	2119.58	2074.62	2094.02	2096.07	1.08	ppb
Silver	107-1	0.00	0.01	0.00	0.00	63.43	ppb
Silver	109-1	0.01	0.00	0.01	0.01	17.24	ppb
Sodium	23-2	9913.97	10037.33	9910.33	9953.88	0.73	ppb
Strontium	86-1	114.15	113.53	115.03	114.23	0.66	ppb
Strontium	88-1	122.52	119.21	126.17	122.63	2.84	ppb
Sulfur	34-1	97678.80	95362.69	100803.30	97948.26	2.79	ppb
Terbium	159-1				104		%
Terbium	159-2				103		%
Thallium	203-1	0.02	0.01	0.00	0.01	59.88	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	15.63	ppb
Tin	118-1	0.03	0.02	0.05	0.03	41.53	ppb
Titanium	47-1	0.41	0.39	0.30	0.37	15.91	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.73	0.71	0.75	0.73	2.15	ppb
Vanadium	51-2	51.23	52.08	52.35	51.89	1.12	ppb
Yttrium	89-1				112		%
Yttrium	89-2				112		%
Zinc	66-2	143.77	146.67	145.57	145.34	1.01	ppb
Zirconium	90-1	0.09	0.08	0.08	0.08	8.45	ppb
Zirconium	91-1	0.09	0.09	0.08	0.09	9.03	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1106.63	1092.68	1093.15	1097.49	0.72	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	38.07	ppb
Arsenic	75-2	0.09	0.09	0.09	0.09	1.60	ppb
Barium	135-1	4.14	4.12	3.90	4.05	3.34	ppb
Barium	137-1	4.10	3.94	3.79	3.94	3.96	ppb
Beryllium	9-1	0.06	0.05	0.06	0.06	15.09	ppb
Bismuth	209-1				100		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.03	-0.07	-0.03		ppb
Cadmium	106-1	-3.69	-4.41	-3.93	-4.01		ppb
Cadmium	111-1	-0.02	-0.02	-0.03	-0.02		ppb
Calcium	43-1	12096.97	11844.42	12251.46	12064.28	1.70	ppb
Calcium	44-1	12535.87	12835.11	12843.25	12738.08	1.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.22	0.34	0.27	0.27	23.02	ppb
Cobalt	59-2	5.49	5.48	5.43	5.47	0.56	ppb
Copper	63-2	3.11	3.05	3.07	3.08	1.05	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	13498.01	13680.70	13499.92	13559.54	0.77	ppb
Iron	57-2	13000.45	13065.14	12890.14	12985.24	0.68	ppb
Iron	54-2	13771.84	13860.34	13659.46	13763.88	0.73	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.05	0.07	0.05	0.05	22.56	ppb
Lead	207-1	0.06	0.05	0.04	0.05	16.68	ppb
Lead	208-1	0.06	0.06	0.06	0.06	3.43	ppb
Lithium	6-1				97		%
Magnesium	24-2	2292.74	2264.78	2247.15	2268.22	1.01	ppb
Manganese	55-2	297.62	297.77	297.46	297.61	0.05	ppb
Molybdenum	94-1	0.05	0.06	0.07	0.06	12.31	ppb
Molybdenum	95-1	0.02	0.02	0.02	0.02	17.77	ppb
Molybdenum	96-1	0.22	0.19	0.23	0.22	9.66	ppb
Molybdenum	97-1	0.01	-0.01	0.01	0.00	239.54	ppb
Molybdenum	98-1	0.01	0.00	-0.01	0.00	1382.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.76	2.31	2.68	2.58	9.29	ppb
Phosphorus	31-2	-37.55	-28.10	-28.65	-31.44		ppb
Potassium	39-2	91.01	96.09	101.83	96.31	5.62	ppb
Rhodium	103-1				100		%
Rhodium	103-2				103		%
Scandium	45-1				101		%
Scandium	45-2				101		%
Selenium	82-1	-0.10	-0.06	0.06	-0.03		ppb
Selenium	77-2	-0.11	1.16	-0.11	0.31	235.51	ppb
Selenium	78-2	0.20	-0.47	1.17	0.30	277.57	ppb
Silicon	28-1	419.11	419.30	414.36	417.59	0.67	ppb
Silver	107-1	0.00	0.00	0.00	0.00	175.78	ppb
Silver	109-1	0.00	0.00	0.00	0.00	147.34	ppb
Sodium	23-2	1896.43	1893.92	1888.78	1893.04	0.21	ppb
Strontium	86-1	24.68	24.76	24.84	24.76	0.32	ppb
Strontium	88-1	24.82	24.26	24.40	24.49	1.18	ppb
Sulfur	34-1	17197.55	16825.37	17220.72	17081.21	1.30	ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	0.01	0.01	0.01	0.01	17.66	ppb
Thallium	205-1	0.01	0.00	0.01	0.01	51.37	ppb
Tin	118-1	0.01	-0.01	0.02	0.01	192.73	ppb
Titanium	47-1	0.03	0.06	0.08	0.06	43.75	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.14	0.16	0.15	0.15	6.31	ppb
Vanadium	51-2	10.53	10.86	11.03	10.81	2.39	ppb
Yttrium	89-1				105		%
Yttrium	89-2				105		%
Zinc	66-2	29.57	31.45	31.38	30.80	3.45	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	12.66	ppb
Zirconium	91-1	0.02	0.02	0.03	0.02	24.74	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47368.82	48487.67	48688.57	48181.69	1.48	ppb
Antimony	121-1	500.40	503.40	505.62	503.14	0.52	ppb
Arsenic	75-2	474.17	480.42	474.70	476.43	0.73	ppb
Barium	135-1	2494.98	2567.28	2513.24	2525.17	1.49	ppb
Barium	137-1	2456.36	2541.28	2529.87	2509.17	1.84	ppb
Beryllium	9-1	480.04	486.79	491.20	486.01	1.16	ppb
Bismuth	209-1				97		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	481.18	490.11	488.30	486.53	0.97	ppb
Cadmium	106-1	470.23	483.41	487.80	480.48	1.90	ppb
Cadmium	111-1	477.97	491.83	485.84	485.21	1.43	ppb
Calcium	43-1	259076.10	256306.33	254595.19	256659.21	0.88	ppb
Calcium	44-1	255690.88	255520.66	257863.04	256358.19	0.51	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	456.62	458.08	456.45	457.05	0.20	ppb
Cobalt	59-2	488.79	488.49	481.17	486.15	0.89	ppb
Copper	63-2	4751.92	4858.12	4807.12	4805.72	1.11	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				99		%
Indium	115-1				97		%
Indium	115-2				95		%
Iron	56-2	124502.77	127306.16	125624.67	125811.20	1.12	ppb
Iron	57-2	125616.02	127070.26	126566.61	126417.63	0.58	ppb
Iron	54-2	124905.89	126629.81	128523.70	126686.47	1.43	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2459.46	2527.91	2436.62	2474.66	1.92	ppb
Lead	207-1	2448.98	2500.95	2397.00	2448.98	2.12	ppb
Lead	208-1	2446.07	2493.22	2439.18	2459.49	1.20	ppb
Lithium	6-1				98		%
Magnesium	24-2	244943.62	246930.14	240885.71	244253.16	1.26	ppb
Manganese	55-2	4787.99	4972.27	4936.30	4898.85	1.99	ppb
Molybdenum	94-1	4964.65	4869.60	5007.33	4947.20	1.43	ppb
Molybdenum	95-1	4949.50	4909.09	5019.43	4959.34	1.13	ppb
Molybdenum	96-1	4961.38	4920.03	5000.27	4960.56	0.81	ppb
Molybdenum	97-1	4985.96	4905.99	5051.78	4981.24	1.47	ppb
Molybdenum	98-1	4927.07	4864.63	4995.59	4929.10	1.33	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	476.60	481.89	479.84	479.44	0.56	ppb
Phosphorus	31-2	9507.61	9717.44	9713.29	9646.11	1.24	ppb
Potassium	39-2	124058.18	125020.92	124788.56	124622.55	0.40	ppb
Rhodium	103-1				94		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				101		%
Selenium	82-1	474.09	474.64	477.52	475.42	0.39	ppb
Selenium	77-2	479.86	446.79	460.55	462.40	3.59	ppb
Selenium	78-2	458.19	472.35	461.81	464.11	1.59	ppb
Silicon	28-1	365.45	372.23	364.54	367.41	1.14	ppb
Silver	107-1	513.84	516.67	512.87	514.46	0.38	ppb
Silver	109-1	508.39	518.36	517.31	514.69	1.06	ppb
Sodium	23-2	241474.59	247406.84	245433.30	244771.58	1.23	ppb
Strontium	86-1	468.60	463.53	471.48	467.87	0.86	ppb
Strontium	88-1	497.71	493.24	499.76	496.90	0.67	ppb
Sulfur	34-1	9523.84	9618.14	9373.34	9505.11	1.30	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	500.69	508.81	500.56	503.35	0.94	ppb
Thallium	205-1	500.10	509.90	487.77	499.26	2.22	ppb
Tin	118-1	510.52	505.39	498.81	504.91	1.16	ppb
Titanium	47-1	4866.61	5020.66	4927.56	4938.28	1.57	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	481.24	509.53	495.12	495.30	2.86	ppb
Vanadium	51-2	455.84	461.28	459.20	458.77	0.60	ppb
Yttrium	89-1				99		%
Yttrium	89-2				102		%
Zinc	66-2	4783.98	4817.22	4680.02	4760.41	1.50	ppb
Zirconium	90-1	496.63	495.85	500.28	497.59	0.48	ppb
Zirconium	91-1	466.08	461.55	470.66	466.10	0.98	ppb

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.13	0.42	0.40	0.32	51.88	ppb
Antimony	121-1	0.10	0.11	0.09	0.10	12.48	ppb
Arsenic	75-2	-0.02	-0.04	-0.02	-0.03		ppb
Barium	135-1	0.05	0.01	0.01	0.03	95.57	ppb
Barium	137-1	0.01	0.03	0.01	0.02	67.72	ppb
Beryllium	9-1	0.01	0.01	0.02	0.01	14.25	ppb
Bismuth	209-1				102		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.07	-0.03	0.05	-0.02		ppb
Cadmium	106-1	-3.50	-5.23	-5.06	-4.60		ppb
Cadmium	111-1	-0.01	-0.05	-0.04	-0.03		ppb
Calcium	43-1	-5.08	-4.98	-4.37	-4.81		ppb
Calcium	44-1	-7.11	-6.74	-8.17	-7.34		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	-0.02	0.04	0.00		ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	64.38	ppb
Copper	63-2	0.02	0.05	0.04	0.03	33.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				101		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	1.36	1.42	1.00	1.26	18.24	ppb
Iron	57-2	-1.18	-4.57	-0.39	-2.05		ppb
Iron	54-2	2.13	2.51	1.02	1.89	41.17	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.08	0.09	0.08	14.12	ppb
Lead	207-1	0.05	0.06	0.06	0.05	9.55	ppb
Lead	208-1	0.06	0.08	0.08	0.07	16.35	ppb
Lithium	6-1				101		%
Magnesium	24-2	1.89	2.56	2.45	2.30	15.66	ppb
Manganese	55-2	0.00	0.14	0.02	0.05	139.52	ppb
Molybdenum	94-1	0.17	0.15	0.15	0.16	6.25	ppb
Molybdenum	95-1	0.14	0.10	0.10	0.12	18.90	ppb
Molybdenum	96-1	0.16	0.13	0.11	0.13	15.87	ppb
Molybdenum	97-1	0.14	0.10	0.07	0.10	34.16	ppb
Molybdenum	98-1	0.13	0.10	0.09	0.11	22.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	0.00	-0.03	-0.01		ppb
Phosphorus	31-2	-34.59	-22.01	-30.69	-29.10		ppb
Potassium	39-2	1.10	3.90	0.17	1.72	112.63	ppb
Rhodium	103-1				101		%
Rhodium	103-2				104		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	-0.82	0.24	-0.16	-0.25		ppb
Selenium	77-2	0.53	-0.11	-0.11	0.10	362.34	ppb
Selenium	78-2	1.39	0.90	-1.73	0.19	893.40	ppb
Silicon	28-1	-17.03	-11.69	-16.30	-15.01		ppb
Silver	107-1	0.04	0.02	0.03	0.03	27.13	ppb
Silver	109-1	0.05	0.03	0.03	0.03	32.69	ppb
Sodium	23-2	17.79	19.09	15.51	17.46	10.38	ppb
Strontium	86-1	0.00	0.02	-0.01	0.00	425.04	ppb
Strontium	88-1	0.01	0.00	0.00	0.00	55.80	ppb
Sulfur	34-1	-1110.22	-1097.32	-1274.24	-1160.59		ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	0.03	0.03	0.02	0.03	19.67	ppb
Thallium	205-1	0.03	0.05	0.04	0.04	18.63	ppb
Tin	118-1	0.03	0.03	0.06	0.04	33.37	ppb
Titanium	47-1	0.06	0.02	0.02	0.03	70.80	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.00	0.00	0.00	47.23	ppb
Vanadium	51-2	0.01	0.00	0.01	0.00	178.27	ppb
Yttrium	89-1				102		%
Yttrium	89-2				104		%
Zinc	66-2	0.52	0.59	0.67	0.60	11.90	ppb
Zirconium	90-1	0.04	0.03	0.03	0.03	16.50	ppb
Zirconium	91-1	0.03	0.03	0.02	0.03	29.78	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6550.77	6451.44	6454.64	6485.62	0.87	ppb
Antimony	121-1	90.40	90.58	89.14	90.04	0.87	ppb
Arsenic	75-2	104.77	106.99	103.62	105.13	1.63	ppb
Barium	135-1	411.85	412.40	409.52	411.26	0.37	ppb
Barium	137-1	409.36	405.79	405.51	406.88	0.53	ppb
Beryllium	9-1	92.32	89.91	91.78	91.33	1.38	ppb
Bismuth	209-1				103		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	98.32	100.26	94.30	97.63	3.11	ppb
Cadmium	106-1	96.47	93.51	91.06	93.68	2.89	ppb
Cadmium	111-1	97.70	98.42	98.05	98.05	0.37	ppb
Calcium	43-1	63766.02	65746.14	64341.57	64617.91	1.58	ppb
Calcium	44-1	67118.33	69452.71	66872.52	67814.52	2.10	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	90.29	90.63	90.21	90.38	0.25	ppb
Cobalt	59-2	115.00	115.23	114.05	114.76	0.55	ppb
Copper	63-2	1001.79	976.66	1012.57	997.00	1.85	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				101		%
Indium	115-1				104		%
Indium	115-2				100		%
Iron	56-2	65189.07	64588.21	65686.25	65154.51	0.84	ppb
Iron	57-2	65748.14	65137.07	65925.24	65603.48	0.63	ppb
Iron	54-2	65504.78	65281.11	65740.52	65508.80	0.35	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	391.93	399.51	395.89	395.78	0.96	ppb
Lead	207-1	392.42	398.88	400.98	397.43	1.12	ppb
Lead	208-1	424.92	434.49	428.92	429.44	1.12	ppb
Lithium	6-1				99		%
Magnesium	24-2	21080.15	20594.00	20879.93	20851.36	1.17	ppb
Manganese	55-2	2456.43	2415.11	2449.79	2440.44	0.91	ppb
Molybdenum	94-1	374.46	381.93	377.28	377.89	1.00	ppb
Molybdenum	95-1	283.90	288.11	286.31	286.11	0.74	ppb
Molybdenum	96-1	292.34	297.80	297.20	295.78	1.01	ppb
Molybdenum	97-1	286.05	289.99	289.03	288.36	0.71	ppb
Molybdenum	98-1	316.61	310.87	310.41	312.63	1.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	110.03	108.65	107.54	108.74	1.15	ppb
Phosphorus	31-2	-14.29	8.09	-16.79	-7.67		ppb
Potassium	39-2	4692.39	4666.46	4696.37	4685.07	0.35	ppb
Rhodium	103-1				101		%
Rhodium	103-2				102		%
Scandium	45-1				101		%
Scandium	45-2				100		%
Selenium	82-1	89.05	87.61	87.99	88.22	0.85	ppb
Selenium	77-2	86.87	96.40	86.12	89.79	6.38	ppb
Selenium	78-2	84.34	96.41	88.41	89.72	6.84	ppb
Silicon	28-1	1967.22	2009.90	1949.04	1975.39	1.58	ppb
Silver	107-1	16.21	16.43	16.57	16.40	1.09	ppb
Silver	109-1	16.25	16.34	16.14	16.25	0.62	ppb
Sodium	23-2	18986.65	19491.75	19051.79	19176.73	1.43	ppb
Strontium	86-1	200.66	204.67	204.63	203.32	1.13	ppb
Strontium	88-1	217.66	218.20	219.90	218.58	0.53	ppb
Sulfur	34-1	93422.45	95382.33	95350.27	94718.35	1.18	ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	80.47	82.36	82.55	81.79	1.40	ppb
Thallium	205-1	79.93	80.99	81.52	80.81	1.00	ppb
Tin	118-1	79.81	78.80	77.91	78.84	1.20	ppb
Titanium	47-1	0.72	0.74	0.76	0.74	2.55	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	75.26	76.05	76.11	75.81	0.63	ppb
Vanadium	51-2	141.07	141.05	140.61	140.91	0.19	ppb
Yttrium	89-1				112		%
Yttrium	89-2				110		%
Zinc	66-2	1038.35	1051.11	1046.07	1045.18	0.62	ppb
Zirconium	90-1	77.59	78.77	78.38	78.25	0.77	ppb
Zirconium	91-1	79.96	81.04	81.04	80.68	0.77	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6317.59	6488.84	6428.55	6411.66	1.35	ppb
Antimony	121-1	89.33	89.53	89.86	89.58	0.30	ppb
Arsenic	75-2	95.63	94.82	93.46	94.64	1.16	ppb
Barium	135-1	405.52	410.52	406.57	407.54	0.65	ppb
Barium	137-1	401.59	403.92	406.35	403.95	0.59	ppb
Beryllium	9-1	89.22	91.79	90.52	90.51	1.42	ppb
Bismuth	209-1				99		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	95.42	95.75	93.70	94.96	1.16	ppb
Cadmium	106-1	93.97	91.70	96.60	94.09	2.60	ppb
Cadmium	111-1	96.84	97.32	97.24	97.13	0.26	ppb
Calcium	43-1	64544.33	63696.66	64327.53	64189.51	0.69	ppb
Calcium	44-1	68152.35	67676.00	68802.34	68210.23	0.83	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	88.36	90.16	89.87	89.47	1.08	ppb
Cobalt	59-2	111.82	114.98	114.11	113.64	1.44	ppb
Copper	63-2	963.85	1016.05	983.52	987.81	2.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	56-2	63719.11	64443.19	64431.92	64198.07	0.65	ppb
Iron	57-2	64831.37	65064.59	66975.16	65623.71	1.79	ppb
Iron	54-2	64298.50	66809.61	64654.45	65254.19	2.08	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	402.28	392.09	389.53	394.63	1.71	ppb
Lead	207-1	402.59	395.57	395.23	397.80	1.04	ppb
Lead	208-1	435.88	425.25	427.53	429.55	1.30	ppb
Lithium	6-1				96		%
Magnesium	24-2	20478.36	21124.31	20175.74	20592.80	2.35	ppb
Manganese	55-2	2401.48	2441.64	2428.65	2423.92	0.85	ppb
Molybdenum	94-1	373.03	378.11	374.31	375.15	0.70	ppb
Molybdenum	95-1	283.25	289.96	283.46	285.56	1.34	ppb
Molybdenum	96-1	292.06	296.76	293.86	294.23	0.81	ppb
Molybdenum	97-1	283.91	292.03	288.00	287.98	1.41	ppb
Molybdenum	98-1	280.64	319.33	284.95	294.97	7.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	107.30	111.04	110.33	109.55	1.81	ppb
Phosphorus	31-2	-17.15	-6.75	-6.50	-10.14		ppb
Potassium	39-2	4593.08	4787.65	4660.36	4680.36	2.11	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				98		%
Scandium	45-2				99		%
Selenium	82-1	88.49	90.74	88.11	89.11	1.59	ppb
Selenium	77-2	98.93	93.82	82.09	91.61	9.42	ppb
Selenium	78-2	90.11	91.70	83.56	88.46	4.87	ppb
Silicon	28-1	1989.74	1935.66	1974.71	1966.70	1.42	ppb
Silver	107-1	16.36	16.39	16.38	16.38	0.08	ppb
Silver	109-1	15.91	16.45	16.46	16.27	1.95	ppb
Sodium	23-2	18669.98	19494.01	18955.61	19039.87	2.20	ppb
Strontium	86-1	201.90	204.39	202.88	203.06	0.62	ppb
Strontium	88-1	217.87	224.45	218.17	220.16	1.69	ppb
Sulfur	34-1	95990.53	93485.32	92236.38	93904.08	2.04	ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	82.83	82.00	81.06	81.96	1.08	ppb
Thallium	205-1	82.05	80.72	80.80	81.19	0.92	ppb
Tin	118-1	78.26	78.23	78.95	78.48	0.51	ppb
Titanium	47-1	0.74	0.65	0.68	0.69	6.68	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	77.44	75.13	75.51	76.03	1.63	ppb
Vanadium	51-2	138.21	141.24	140.12	139.86	1.10	ppb
Yttrium	89-1				108		%
Yttrium	89-2				109		%
Zinc	66-2	1033.64	1060.19	1049.76	1047.86	1.28	ppb
Zirconium	90-1	77.48	79.12	77.60	78.07	1.18	ppb
Zirconium	91-1	79.80	81.29	81.10	80.73	1.00	ppb

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6503.43	6479.31	6518.12	6500.29	0.30	ppb
Antimony	121-1	87.75	87.05	92.05	88.95	3.04	ppb
Arsenic	75-2	100.33	97.94	100.66	99.64	1.49	ppb
Barium	135-1	397.79	399.69	421.81	406.43	3.28	ppb
Barium	137-1	395.13	394.39	412.24	400.59	2.52	ppb
Beryllium	9-1	92.00	89.07	90.14	90.40	1.64	ppb
Bismuth	209-1				103		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	92.44	96.80	98.28	95.84	3.16	ppb
Cadmium	106-1	90.42	91.42	95.59	92.48	2.97	ppb
Cadmium	111-1	95.10	95.00	100.33	96.81	3.15	ppb
Calcium	43-1	64048.74	63796.39	65299.11	64381.41	1.25	ppb
Calcium	44-1	67443.76	67293.23	68260.55	67665.85	0.77	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	90.23	90.61	90.29	90.38	0.23	ppb
Cobalt	59-2	115.23	116.86	115.36	115.82	0.78	ppb
Copper	63-2	1013.49	989.91	1009.53	1004.31	1.26	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				103		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	65047.01	65137.06	64829.37	65004.48	0.24	ppb
Iron	57-2	66453.81	65322.12	65903.24	65893.06	0.86	ppb
Iron	54-2	66322.55	66968.84	66485.99	66592.46	0.50	ppb
Krypton	83-1						cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	388.10	388.48	394.67	390.42	0.94	ppb
Lead	207-1	387.91	395.73	397.78	393.81	1.32	ppb
Lead	208-1	423.66	432.06	434.42	430.04	1.32	ppb
Lithium	6-1				98		%
Magnesium	24-2	20882.11	20777.63	20535.15	20731.63	0.86	ppb
Manganese	55-2	2464.09	2452.76	2416.43	2444.43	1.02	ppb
Molybdenum	94-1	369.42	372.31	378.97	373.57	1.31	ppb
Molybdenum	95-1	279.95	283.16	290.21	284.44	1.84	ppb
Molybdenum	96-1	289.23	291.15	299.49	293.29	1.86	ppb
Molybdenum	97-1	284.80	287.88	291.72	288.13	1.20	ppb
Molybdenum	98-1	303.78	307.84	312.11	307.91	1.35	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	110.28	109.87	109.11	109.75	0.54	ppb
Phosphorus	31-2	-8.90	-13.69	-10.90	-11.16		ppb
Potassium	39-2	4728.81	4734.25	4657.91	4706.99	0.90	ppb
Rhodium	103-1				102		%
Rhodium	103-2				103		%
Scandium	45-1				102		%
Scandium	45-2				101		%
Selenium	82-1	89.95	88.09	88.94	88.99	1.04	ppb
Selenium	77-2	101.46	92.96	87.76	94.06	7.35	ppb
Selenium	78-2	92.66	84.91	94.38	90.65	5.56	ppb
Silicon	28-1	1963.39	1980.47	1997.71	1980.52	0.87	ppb
Silver	107-1	102.06	92.81	100.66	98.51	5.07	ppb
Silver	109-1	102.92	114.00	95.68	104.20	8.86	ppb
Sodium	23-2	18973.78	19057.63	18982.77	19004.73	0.24	ppb
Strontium	86-1	200.10	199.15	207.00	202.08	2.12	ppb
Strontium	88-1	215.81	220.02	219.28	218.37	1.03	ppb
Sulfur	34-1	93903.54	92485.13	94154.64	93514.44	0.96	ppb
Terbium	159-1				104		%
Terbium	159-2				103		%
Thallium	203-1	80.99	82.27	81.71	81.66	0.79	ppb
Thallium	205-1	78.93	80.75	81.24	80.31	1.52	ppb
Tin	118-1	77.31	76.28	80.46	78.02	2.79	ppb
Titanium	47-1	0.67	0.70	0.61	0.66	6.73	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	74.69	74.06	75.17	74.64	0.74	ppb
Vanadium	51-2	142.21	142.47	141.29	141.99	0.44	ppb
Yttrium	89-1				114		%
Yttrium	89-2				112		%
Zinc	66-2	1061.81	1062.89	1063.92	1062.88	0.10	ppb
Zirconium	90-1	76.71	77.55	79.61	77.95	1.91	ppb
Zirconium	91-1	78.61	79.91	82.15	80.23	2.24	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	48411.77	49107.01	48986.89	48835.22	0.76	ppb
Antimony	121-1	493.40	494.76	481.04	489.73	1.54	ppb
Arsenic	75-2	483.86	476.79	485.42	482.02	0.95	ppb
Barium	135-1	2584.30	2530.78	2446.69	2520.59	2.75	ppb
Barium	137-1	2501.35	2537.57	2449.89	2496.27	1.77	ppb
Beryllium	9-1	494.96	503.27	494.67	497.64	0.98	ppb
Bismuth	209-1				96		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	482.63	475.16	472.96	476.91	1.06	ppb
Cadmium	106-1	472.87	479.80	467.92	473.53	1.26	ppb
Cadmium	111-1	482.23	485.08	478.16	481.82	0.72	ppb
Calcium	43-1	256134.46	253688.64	253399.58	254407.56	0.59	ppb
Calcium	44-1	254259.32	254839.18	254604.10	254567.53	0.11	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	450.17	466.43	460.90	459.17	1.80	ppb
Cobalt	59-2	493.32	496.31	497.30	495.64	0.42	ppb
Copper	63-2	4785.32	4876.95	4836.07	4832.78	0.95	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				102		%
Indium	115-1				100		%
Indium	115-2				97		%
Iron	56-2	126536.67	128058.66	126222.45	126939.26	0.77	ppb
Iron	57-2	126791.89	130290.71	129310.71	128797.77	1.40	ppb
Iron	54-2	124992.96	130812.75	126457.65	127421.12	2.38	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2515.23	2520.42	2500.27	2511.97	0.42	ppb
Lead	207-1	2505.27	2493.30	2509.01	2502.53	0.33	ppb
Lead	208-1	2501.13	2488.61	2493.38	2494.37	0.25	ppb
Lithium	6-1				98		%
Magnesium	24-2	242281.96	247920.25	245939.85	245380.69	1.17	ppb
Manganese	55-2	4870.13	4973.82	4907.64	4917.20	1.07	ppb
Molybdenum	94-1	4805.51	5011.23	5010.53	4942.42	2.40	ppb
Molybdenum	95-1	4818.89	4964.56	5007.37	4930.28	2.00	ppb
Molybdenum	96-1	4830.40	4966.10	4961.39	4919.29	1.57	ppb
Molybdenum	97-1	4818.23	4962.10	4943.19	4907.84	1.59	ppb
Molybdenum	98-1	4841.64	4857.89	4941.34	4880.29	1.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	479.38	490.43	484.92	484.91	1.14	ppb
Phosphorus	31-2	9522.28	9902.08	9832.64	9752.33	2.07	ppb
Potassium	39-2	123165.82	126192.80	127632.40	125663.67	1.81	ppb
Rhodium	103-1				96		%
Rhodium	103-2				98		%
Scandium	45-1				102		%
Scandium	45-2				103		%
Selenium	82-1	461.34	467.30	476.35	468.33	1.61	ppb
Selenium	77-2	464.22	476.22	484.02	474.82	2.10	ppb
Selenium	78-2	469.04	475.59	478.59	474.40	1.03	ppb
Silicon	28-1	355.34	362.99	367.96	362.10	1.76	ppb
Silver	107-1	523.16	503.25	508.16	511.52	2.03	ppb
Silver	109-1	519.38	514.78	505.74	513.30	1.35	ppb
Sodium	23-2	250212.36	249178.89	250358.62	249916.62	0.26	ppb
Strontium	86-1	453.20	466.49	470.23	463.31	1.93	ppb
Strontium	88-1	489.10	505.82	506.54	500.48	1.97	ppb
Sulfur	34-1	9646.79	9423.58	9319.63	9463.34	1.77	ppb
Terbium	159-1				103		%
Terbium	159-2				102		%
Thallium	203-1	521.91	512.24	514.21	516.12	0.99	ppb
Thallium	205-1	512.66	510.64	506.80	510.03	0.58	ppb
Tin	118-1	497.68	506.17	486.60	496.82	1.98	ppb
Titanium	47-1	4893.05	4913.23	4955.64	4920.64	0.65	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	501.47	498.62	491.98	497.36	0.98	ppb
Vanadium	51-2	459.84	468.07	460.68	462.86	0.98	ppb
Yttrium	89-1				103		%
Yttrium	89-2				102		%
Zinc	66-2	4748.96	4862.29	4683.50	4764.91	1.90	ppb
Zirconium	90-1	481.75	498.47	500.38	493.54	2.08	ppb
Zirconium	91-1	453.52	466.87	471.89	464.09	2.05	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.08	0.17	0.10	0.06	207.20	ppb
Antimony	121-1	0.11	0.11	0.11	0.11	2.93	ppb
Arsenic	75-2	-0.03	0.03	0.01	0.00	1118.52	ppb
Barium	135-1	0.03	0.02	0.04	0.03	30.86	ppb
Barium	137-1	0.05	0.02	0.03	0.04	45.91	ppb
Beryllium	9-1	0.04	0.06	0.03	0.04	32.94	ppb
Bismuth	209-1				104		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.05	-0.06	-0.03	-0.01		ppb
Cadmium	106-1	-2.78	-3.01	-4.13	-3.31		ppb
Cadmium	111-1	-0.02	-0.02	-0.03	-0.02		ppb
Calcium	43-1	-7.49	-8.69	-6.38	-7.52		ppb
Calcium	44-1	-9.12	-10.64	-8.46	-9.41		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.03	-0.02	0.00	577.47	ppb
Cobalt	59-2	0.01	0.00	0.00	0.00	41.56	ppb
Copper	63-2	-0.06	-0.05	0.02	-0.03		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	1.17	1.58	1.29	1.35	15.36	ppb
Iron	57-2	-3.27	0.84	-2.88	-1.77		ppb
Iron	54-2	1.72	1.88	2.58	2.06	22.24	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.06	0.06	0.07	0.06	5.57	ppb
Lead	207-1	0.09	0.08	0.06	0.08	18.17	ppb
Lead	208-1	0.08	0.07	0.06	0.07	14.55	ppb
Lithium	6-1				99		%
Magnesium	24-2	2.30	1.95	2.03	2.09	8.88	ppb
Manganese	55-2	-0.01	0.00	0.09	0.03	206.38	ppb
Molybdenum	94-1	0.16	0.17	0.14	0.15	9.17	ppb
Molybdenum	95-1	0.14	0.10	0.14	0.13	17.78	ppb
Molybdenum	96-1	0.14	0.15	0.10	0.13	20.17	ppb
Molybdenum	97-1	0.15	0.10	0.10	0.11	23.62	ppb
Molybdenum	98-1	0.14	0.10	0.09	0.11	24.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	0.01	0.06	0.02	164.88	ppb
Phosphorus	31-2	-37.87	-38.05	-37.03	-37.65		ppb
Potassium	39-2	1.46	-2.93	1.26	-0.07		ppb
Rhodium	103-1				100		%
Rhodium	103-2				103		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	-0.29	-0.21	-0.53	-0.35		ppb
Selenium	77-2	-0.11	-0.11	-0.11	-0.11		ppb
Selenium	78-2	0.55	0.83	0.35	0.58	42.25	ppb
Silicon	28-1	-13.14	-14.08	-13.55	-13.59		ppb
Silver	107-1	0.04	0.04	0.03	0.04	21.74	ppb
Silver	109-1	0.04	0.03	0.03	0.03	8.37	ppb
Sodium	23-2	16.43	16.59	15.83	16.28	2.46	ppb
Strontium	86-1	0.01	-0.01	-0.05	-0.01		ppb
Strontium	88-1	0.01	0.01	0.01	0.01	4.23	ppb
Sulfur	34-1	-996.94	-1133.10	-1215.75	-1115.26		ppb
Terbium	159-1				100		%
Terbium	159-2				103		%
Thallium	203-1	0.02	0.03	0.04	0.03	34.04	ppb
Thallium	205-1	0.05	0.04	0.04	0.04	11.07	ppb
Tin	118-1	0.04	0.06	0.06	0.05	26.32	ppb
Titanium	47-1	0.05	0.00	0.02	0.02	133.38	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.00	0.01	19.27	ppb
Vanadium	51-2	0.00	0.01	0.01	0.00	141.80	ppb
Yttrium	89-1				102		%
Yttrium	89-2				104		%
Zinc	66-2	0.66	0.60	0.59	0.61	6.44	ppb
Zirconium	90-1	0.03	0.03	0.04	0.03	6.05	ppb
Zirconium	91-1	0.03	0.04	0.02	0.03	22.97	ppb

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	203	180	177	187	7.79	cps
Antimony	121-1	27	20	23	23	14.29	cps
Arsenic	75-2	10	20	3	11	75.52	cps
Barium	135-1	77	90	70	79	12.91	cps
Barium	137-1	147	103	113	121	18.74	cps
Beryllium	9-1	33	17	23	25	34.29	cps
Bismuth	209-1	2078052	2046273	2074581	2066302	0.84	cps
Bismuth	209-2	2094106	2043802	2058133	2065347	1.25	cps
Bromine	81-1	19927	20064	19840	19944	0.57	cps
Bromine	81-2	160	177	133	157	13.95	cps
Cadmium	108-1	13	7	7	9	43.25	cps
Cadmium	106-1	1903	1697	1633	1745	8.09	cps
Cadmium	111-1	201	182	182	188	5.88	cps
Calcium	43-1	480	503	480	488	2.76	cps
Calcium	44-1	13129	12902	13099	13044	0.94	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1320	1270	1360	1317	3.42	cps
Cobalt	59-2	50	40	37	42	16.43	cps
Copper	63-2	1390	1200	1280	1290	7.40	cps
Dysprosium	156-1	3	0	3	2	86.60	cps
Dysprosium	156-2	0	13	3	6	124.93	cps
Erbium	164-1	7	37	53	32	73.38	cps
Erbium	164-2	23	13	30	22	37.76	cps
Gadolinium	160-1	37	30	27	31	16.37	cps
Gadolinium	160-2	130	167	147	148	12.42	cps
Holmium	165-1	3690559	3618596	3656932	3655362	0.99	cps
Holmium	165-2	2918145	2851329	2877522	2882332	1.17	cps
Indium	115-1	3280231	3223742	3187897	3230623	1.44	cps
Indium	115-2	1120475	1123835	1115086	1119799	0.39	cps
Iron	56-2	19349	20033	19242	19542	2.20	cps
Iron	57-2	1480	1647	1513	1547	5.70	cps
Iron	54-2	2073	2154	2067	2098	2.30	cps
Krypton	83-1	307	313	337	319	4.94	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	257	230	343	277	21.42	cps
Lead	207-1	200	227	293	240	20.03	cps
Lead	208-1	1060	1027	1173	1087	7.08	cps
Lithium	6-1	319744	316750	319617	318704	0.53	cps
Magnesium	24-2	97	113	167	126	29.12	cps
Manganese	55-2	3204	3094	3357	3218	4.11	cps
Molybdenum	94-1	153	173	157	161	6.65	cps
Molybdenum	95-1	167	143	163	158	8.00	cps
Molybdenum	96-1	237	160	210	202	19.25	cps
Molybdenum	97-1	97	100	127	108	15.26	cps
Molybdenum	98-1	260	257	280	266	4.75	cps
Neodymium	150-1	3	7	13	8	65.47	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	373	323	357	351	7.25	cps
Phosphorus	31-2	513	500	497	503	1.75	cps
Potassium	39-2	52958	52764	51895	52539	1.08	cps
Rhodium	103-1	3131853	3050023	3106991	3096289	1.35	cps
Rhodium	103-2	1800281	1813388	1759021	1790896	1.58	cps
Scandium	45-1	1977740	1973045	1965379	1972055	0.32	cps
Scandium	45-2	152950	150768	150927	151548	0.80	cps
Selenium	82-1	223	185	167	192	14.86	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	487	580	577	548	9.67	cps
Silicon	28-1	1762507	1682411	1688701	1711206	2.60	cps
Silver	107-1	70	57	57	61	12.59	cps
Silver	109-1	60	47	50	52	13.28	cps
Sodium	23-2	12352	11825	12162	12113	2.20	cps
Strontium	86-1	610	580	510	567	9.06	cps
Strontium	88-1	127	137	133	132	3.85	cps
Sulfur	34-1	140694	141182	142904	141593	0.82	cps
Terbium	159-1	3824969	3818791	3761240	3801666	0.92	cps
Terbium	159-2	2885687	2816531	2782488	2828235	1.86	cps
Thallium	203-1	107	133	150	130	16.81	cps
Thallium	205-1	253	310	257	273	11.63	cps
Tin	118-1	873	860	960	898	6.05	cps
Titanium	47-1	60	97	93	83	24.33	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:30:48	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	13	3	23	13	75.02	cps
Vanadium	51-2	0	13	20	11	91.66	cps
Yttrium	89-1	6104039	6015226	6000587	6039951	0.93	cps
Yttrium	89-2	1635317	1649197	1598977	1627830	1.59	cps
Zinc	66-2	597	617	570	594	3.94	cps
Zirconium	90-1	217	193	213	208	6.07	cps
Zirconium	91-1	47	43	33	41	16.89	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2400	2124	2394	2306	6.85	cps
Antimony	121-1	9010	8906	9210	9042	1.71	cps
Arsenic	75-2	300	273	257	277	7.90	cps
Barium	135-1	11445	11398	11705	11516	1.44	cps
Barium	137-1	19617	20094	19951	19887	1.23	cps
Beryllium	9-1	782	813	733	776	5.14	cps
Bismuth	209-1	2070256	2079139	2074136	2074510	0.21	cps
Bismuth	209-2	2080798	2073475	2062454	2072242	0.45	cps
Bromine	81-1	20348	19727	19977	20017	1.56	cps
Bromine	81-2	150	120	123	131	12.54	cps
Cadmium	108-1	100	80	70	83	18.33	cps
Cadmium	106-1	1813	1777	1733	1775	2.26	cps
Cadmium	111-1	1468	1559	1506	1511	3.02	cps
Calcium	43-1	7385	7705	7979	7690	3.86	cps
Calcium	44-1	129423	130694	130126	130081	0.49	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5471	5258	5244	5324	2.39	cps
Cobalt	59-2	3224	3227	3250	3234	0.45	cps
Copper	63-2	6145	5594	5611	5783	5.41	cps
Dysprosium	156-1	13	7	3	8	65.47	cps
Dysprosium	156-2	3	7	3	4	43.40	cps
Erbium	164-1	27	27	33	29	13.31	cps
Erbium	164-2	7	13	33	18	78.05	cps
Gadolinium	160-1	23	27	67	39	62.01	cps
Gadolinium	160-2	143	163	147	151	7.09	cps
Holmium	165-1	3631311	3630053	3647247	3636204	0.26	cps
Holmium	165-2	2873061	2908899	2902895	2894952	0.66	cps
Indium	115-1	3211353	3290458	3261524	3254445	1.23	cps
Indium	115-2	1120805	1121055	1113781	1118547	0.37	cps
Iron	56-2	115123	114902	115305	115110	0.18	cps
Iron	57-2	4234	4117	4094	4148	1.81	cps
Iron	54-2	7589	7702	7329	7540	2.54	cps
Krypton	83-1	387	360	333	360	7.41	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3050	3237	3360	3216	4.85	cps
Lead	207-1	2810	2997	2877	2895	3.27	cps
Lead	208-1	12826	12882	12759	12822	0.48	cps
Lithium	6-1	318724	317100	317891	317905	0.26	cps
Magnesium	24-2	89666	89029	89877	89524	0.49	cps
Manganese	55-2	4681	4794	4928	4801	2.57	cps
Molybdenum	94-1	10110	10224	10384	10239	1.34	cps
Molybdenum	95-1	12058	12445	12249	12251	1.58	cps
Molybdenum	96-1	13696	13723	14154	13858	1.85	cps
Molybdenum	97-1	7835	7665	7876	7792	1.43	cps
Molybdenum	98-1	19286	19667	20231	19728	2.41	cps
Neodymium	150-1	10	3	3	6	69.34	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	1110	1283	1237	1210	7.41	cps
Phosphorus	31-2	717	720	573	670	12.50	cps
Potassium	39-2	171969	170332	172135	171478	0.58	cps
Rhodium	103-1	3112097	3110413	3094061	3105523	0.32	cps
Rhodium	103-2	1845114	1779069	1825577	1816587	1.87	cps
Scandium	45-1	1960979	1971377	1979604	1970653	0.47	cps
Scandium	45-2	152468	153442	151488	152466	0.64	cps
Selenium	82-1	532	643	656	611	11.13	cps
Selenium	77-2	40	60	57	52	20.52	cps
Selenium	78-2	790	747	610	716	13.13	cps
Silicon	28-1	1689298	1703416	1710496	1701070	0.63	cps
Silver	107-1	6028	6105	6251	6128	1.85	cps
Silver	109-1	5501	5618	5735	5618	2.08	cps
Sodium	23-2	153655	151191	151767	152205	0.85	cps
Strontium	86-1	2140	2177	1940	2086	6.11	cps
Strontium	88-1	14621	14537	14614	14591	0.32	cps
Sulfur	34-1	141824	141962	141481	141756	0.17	cps
Terbium	159-1	3778195	3804258	3734445	3772299	0.94	cps
Terbium	159-2	2873670	2826521	2836153	2845448	0.88	cps
Thallium	203-1	3874	3721	3961	3852	3.16	cps
Thallium	205-1	8930	8860	8983	8924	0.69	cps
Tin	118-1	19750	20341	20491	20194	1.94	cps
Titanium	47-1	3307	3274	3394	3325	1.86	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:34:06	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	11008	11161	10674	10948	2.27	cps
Vanadium	51-2	8676	8989	8846	8837	1.78	cps
Yttrium	89-1	6128933	6164585	6066561	6120026	0.81	cps
Yttrium	89-2	1655576	1609217	1626508	1630434	1.44	cps
Zinc	66-2	2590	2677	2790	2686	3.74	cps
Zirconium	90-1	8479	8503	8613	8531	0.84	cps
Zirconium	91-1	1873	1777	1917	1856	3.86	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	104748	104647	104866	104753	0.10	cps
Antimony	121-1	214385	220902	219247	218178	1.55	cps
Arsenic	75-2	13303	13323	13233	13286	0.36	cps
Barium	135-1	278672	279098	280830	279533	0.41	cps
Barium	137-1	475454	480005	484066	479842	0.90	cps
Beryllium	9-1	33066	34457	33829	33784	2.06	cps
Bismuth	209-1	2061745	2113228	2062748	2079240	1.42	cps
Bismuth	209-2	2038076	2029470	2075826	2047790	1.20	cps
Bromine	81-1	19780	19803	19857	19813	0.20	cps
Bromine	81-2	110	120	140	123	12.39	cps
Cadmium	108-1	4381	4677	4514	4524	3.29	cps
Cadmium	106-1	8039	7812	7779	7877	1.80	cps
Cadmium	111-1	59588	59674	59929	59730	0.30	cps
Calcium	43-1	71296	72137	71025	71486	0.81	cps
Calcium	44-1	1186167	1218743	1202607	1202506	1.35	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	98297	98271	96409	97659	1.11	cps
Cobalt	59-2	151954	149442	149534	150310	0.95	cps
Copper	63-2	1058496	1059814	1049409	1055906	0.54	cps
Dysprosium	156-1	13	10	7	10	33.30	cps
Dysprosium	156-2	13	7	20	13	49.99	cps
Erbium	164-1	20	30	53	34	49.66	cps
Erbium	164-2	20	27	13	20	33.35	cps
Gadolinium	160-1	30	30	40	33	17.32	cps
Gadolinium	160-2	150	180	100	143	28.20	cps
Holmium	165-1	3660020	3706476	3645570	3670689	0.87	cps
Holmium	165-2	2892257	2901770	2869477	2887835	0.57	cps
Indium	115-1	3294645	3222726	3211625	3242999	1.39	cps
Indium	115-2	1122101	1116971	1114290	1117787	0.36	cps
Iron	56-2	4900992	4882253	4753448	4845564	1.66	cps
Iron	57-2	118452	119057	117448	118319	0.69	cps
Iron	54-2	261206	258766	258597	259523	0.56	cps
Krypton	83-1	353	360	263	326	16.58	cps

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	737657	739441	740995	739365	0.23	cps
Lead	207-1	640904	647497	642629	643677	0.53	cps
Lead	208-1	2921965	2931718	2928698	2927460	0.17	cps
Lithium	6-1	327753	324985	325490	326076	0.45	cps
Magnesium	24-2	899359	885109	891197	891888	0.80	cps
Manganese	55-2	777730	774354	771763	774616	0.39	cps
Molybdenum	94-1	816492	826092	830445	824343	0.87	cps
Molybdenum	95-1	1161449	1165870	1172497	1166605	0.48	cps
Molybdenum	96-1	1260045	1279977	1276552	1272191	0.84	cps
Molybdenum	97-1	730352	735374	731108	732278	0.37	cps
Molybdenum	98-1	2020584	2075811	2063081	2053159	1.41	cps
Neodymium	150-1	13	10	20	14	35.26	cps
Neodymium	150-2	7	7	0	4	86.60	cps
Nickel	60-2	40231	39806	39412	39816	1.03	cps
Phosphorus	31-2	6498	6541	6435	6491	0.83	cps
Potassium	39-2	644678	639697	639580	641318	0.45	cps
Rhodium	103-1	3031022	3158433	3066094	3085183	2.13	cps
Rhodium	103-2	1789738	1768624	1821087	1793149	1.47	cps
Scandium	45-1	1971013	1961596	1968126	1966912	0.25	cps
Scandium	45-2	153741	153964	154182	153962	0.14	cps
Selenium	82-1	5080	5273	5429	5261	3.32	cps
Selenium	77-2	497	503	477	492	2.82	cps
Selenium	78-2	2250	2180	2270	2234	2.12	cps
Silicon	28-1	2218071	2193674	2209392	2207046	0.56	cps
Silver	107-1	296106	299115	299564	298262	0.63	cps
Silver	109-1	278024	278775	282799	279866	0.92	cps
Sodium	23-2	1546226	1508533	1530792	1528517	1.24	cps
Strontium	86-1	77811	78977	79989	78925	1.38	cps
Strontium	88-1	689134	693130	692136	691466	0.30	cps
Sulfur	34-1	165351	166664	164333	165449	0.71	cps
Terbium	159-1	3744453	3787509	3714917	3748959	0.97	cps
Terbium	159-2	2835928	2815780	2813621	2821776	0.44	cps
Thallium	203-1	180034	183219	184826	182693	1.34	cps
Thallium	205-1	426901	430416	431596	429638	0.57	cps
Tin	118-1	192241	192769	195238	193416	0.83	cps
Titanium	47-1	313121	315465	316502	315030	0.55	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:40:45	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	517289	520128	521533	519650	0.42	cps
Vanadium	51-2	83091	84636	83657	83794	0.93	cps
Yttrium	89-1	6023687	6083483	6053862	6053677	0.49	cps
Yttrium	89-2	1638729	1623853	1646899	1636494	0.71	cps
Zinc	66-2	200028	196819	197567	198138	0.85	cps
Zirconium	90-1	410267	412878	416944	413363	0.81	cps
Zirconium	91-1	90601	92315	92495	91804	1.14	cps

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	246134	247544	247052	246910	0.29	cps
Antimony	121-1	513008	518718	523376	518367	1.00	cps
Arsenic	75-2	30819	31226	31036	31027	0.66	cps
Barium	135-1	652424	662471	665414	660103	1.03	cps
Barium	137-1	1132236	1147606	1150632	1143491	0.86	cps
Beryllium	9-1	80524	82171	82516	81737	1.30	cps
Bismuth	209-1	2045529	2076350	2087185	2069688	1.04	cps
Bismuth	209-2	2060293	2023587	1996743	2026874	1.57	cps
Bromine	81-1	18919	19413	17707	18680	4.70	cps
Bromine	81-2	70	90	53	71	25.82	cps
Cadmium	108-1	11054	10544	10457	10685	3.02	cps
Cadmium	106-1	16196	16510	17087	16597	2.72	cps
Cadmium	111-1	140172	143192	142557	141973	1.12	cps
Calcium	43-1	166732	167611	167297	167213	0.27	cps
Calcium	44-1	2787349	2819863	2813635	2806949	0.61	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	232039	227609	229240	229629	0.98	cps
Cobalt	59-2	360957	353313	352186	355485	1.34	cps
Copper	63-2	2703264	2792788	2721646	2739233	1.73	cps
Dysprosium	156-1	10	10	23	14	53.28	cps
Dysprosium	156-2	47	50	53	50	6.66	cps
Erbium	164-1	47	63	27	46	40.29	cps
Erbium	164-2	13	27	30	23	37.81	cps
Gadolinium	160-1	43	23	40	36	30.14	cps
Gadolinium	160-2	157	157	173	162	5.93	cps
Holmium	165-1	3572578	3576238	3601496	3583437	0.44	cps
Holmium	165-2	2892639	2848412	2862786	2867946	0.79	cps
Indium	115-1	3144801	3183631	3263299	3197244	1.89	cps
Indium	115-2	1092185	1090000	1089803	1090663	0.12	cps
Iron	56-2	11666137	11494949	11465646	11542244	0.94	cps
Iron	57-2	278300	279404	278863	278856	0.20	cps
Iron	54-2	615145	613155	616280	614860	0.26	cps
Krypton	83-1	320	340	310	323	4.72	cps

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2018230	2057014	2041460	2038902	0.96	cps
Lead	207-1	1516402	1540862	1553323	1536862	1.22	cps
Lead	208-1	7659896	7856621	7837193	7784570	1.39	cps
Lithium	6-1	317230	318179	321801	319070	0.76	cps
Magnesium	24-2	2324668	2361482	2332424	2339525	0.83	cps
Manganese	55-2	1981025	1981938	1964604	1975856	0.49	cps
Molybdenum	94-1	2109021	2119084	2102205	2110103	0.40	cps
Molybdenum	95-1	2944382	3024512	3067602	3012165	2.08	cps
Molybdenum	96-1	3224088	3310382	3364542	3299671	2.15	cps
Molybdenum	97-1	1867779	1875690	1887922	1877130	0.54	cps
Molybdenum	98-1	4736229	4781867	4859879	4792658	1.30	cps
Neodymium	150-1	20	47	33	33	40.01	cps
Neodymium	150-2	7	10	10	9	21.63	cps
Nickel	60-2	93744	92349	92174	92755	0.93	cps
Phosphorus	31-2	14821	14230	14711	14587	2.15	cps
Potassium	39-2	1512556	1515578	1540028	1522721	0.99	cps
Rhodium	103-1	3013950	3000142	3024512	3012868	0.41	cps
Rhodium	103-2	1764927	1791208	1768351	1774829	0.81	cps
Scandium	45-1	1865235	1918497	1891638	1891790	1.41	cps
Scandium	45-2	151142	149890	150583	150538	0.42	cps
Selenium	82-1	11915	11924	12031	11956	0.54	cps
Selenium	77-2	1220	1107	1147	1158	4.96	cps
Selenium	78-2	4681	4441	4474	4532	2.87	cps
Silicon	28-1	2888444	2933813	2927281	2916513	0.84	cps
Silver	107-1	691911	705868	708495	702091	1.27	cps
Silver	109-1	654412	661402	660176	658663	0.57	cps
Sodium	23-2	3667969	3589691	3607310	3621657	1.13	cps
Strontium	86-1	184693	185952	185696	185447	0.36	cps
Strontium	88-1	1767265	1798829	1797335	1787810	1.00	cps
Sulfur	34-1	190282	191956	190970	191069	0.44	cps
Terbium	159-1	3688667	3698093	3669382	3685381	0.40	cps
Terbium	159-2	2837899	2804645	2792684	2811743	0.83	cps
Thallium	203-1	431572	436839	437845	435419	0.77	cps
Thallium	205-1	1021824	1040064	1039679	1033855	1.01	cps
Tin	118-1	449845	459063	459687	456199	1.21	cps
Titanium	47-1	731344	744540	748212	741366	1.20	cps

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On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:44:02	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1257583	1266798	1282191	1268857	0.98	cps
Vanadium	51-2	197428	198660	197431	197840	0.36	cps
Yttrium	89-1	5801702	5844935	5941818	5862819	1.22	cps
Yttrium	89-2	1604821	1587177	1588931	1593643	0.61	cps
Zinc	66-2	462548	462516	462271	462445	0.03	cps
Zirconium	90-1	965627	980751	981327	975902	0.91	cps
Zirconium	91-1	214319	218692	217863	216958	1.07	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	497391	497584	499523	498166	0.24	cps
Antimony	121-1	1035835	1062506	1063338	1053893	1.48	cps
Arsenic	75-2	62959	63606	63338	63301	0.51	cps
Barium	135-1	1332648	1350240	1343659	1342182	0.66	cps
Barium	137-1	2582374	2584512	2633467	2600118	1.11	cps
Beryllium	9-1	165848	167408	166800	166685	0.47	cps
Bismuth	209-1	2067719	2111889	2035673	2071761	1.85	cps
Bismuth	209-2	2059315	1986319	1996790	2014141	1.96	cps
Bromine	81-1	18765	19099	18495	18786	1.61	cps
Bromine	81-2	103	100	93	99	5.15	cps
Cadmium	108-1	21329	21743	21319	21464	1.13	cps
Cadmium	106-1	31030	32019	31087	31378	1.77	cps
Cadmium	111-1	284289	288215	290984	287829	1.17	cps
Calcium	43-1	327277	333539	332088	330968	0.99	cps
Calcium	44-1	5586990	5567606	5665012	5606536	0.92	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	462646	456308	455237	458064	0.87	cps
Cobalt	59-2	714772	717905	715786	716155	0.22	cps
Copper	63-2	5548830	5353594	5492062	5464829	1.84	cps
Dysprosium	156-1	33	40	37	37	9.10	cps
Dysprosium	156-2	47	93	70	70	33.33	cps
Erbium	164-1	63	57	70	63	10.52	cps
Erbium	164-2	33	47	40	40	16.68	cps
Gadolinium	160-1	37	20	33	30	29.40	cps
Gadolinium	160-2	167	157	140	154	8.72	cps
Holmium	165-1	3542477	3711356	3609617	3621150	2.35	cps
Holmium	165-2	2861185	2796714	2777422	2811773	1.56	cps
Indium	115-1	3083497	3139601	3100446	3107848	0.93	cps
Indium	115-2	1078659	1069971	1071714	1073448	0.43	cps
Iron	56-2	23654657	23422884	23333931	23470491	0.71	cps
Iron	57-2	561014	559253	554111	558126	0.64	cps
Iron	54-2	1237087	1235516	1244072	1238892	0.37	cps
Krypton	83-1	357	350	333	347	3.47	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4152378	4238775	4172954	4188036	1.08	cps
Lead	207-1	3665848	3680959	3580952	3642586	1.48	cps
Lead	208-1	16538109	16712499	16313131	16521247	1.21	cps
Lithium	6-1	316684	321751	321619	320018	0.90	cps
Magnesium	24-2	4700569	4705123	4803775	4736489	1.23	cps
Manganese	55-2	3964619	3970609	3990946	3975391	0.35	cps
Molybdenum	94-1	4218660	4307136	4278194	4267997	1.06	cps
Molybdenum	95-1	5911004	6091622	6096736	6033121	1.75	cps
Molybdenum	96-1	6523786	6596836	6673759	6598127	1.14	cps
Molybdenum	97-1	3790745	3797408	3766373	3784842	0.43	cps
Molybdenum	98-1	9670620	9803949	9727893	9734154	0.69	cps
Neodymium	150-1	33	80	57	57	41.18	cps
Neodymium	150-2	10	10	7	9	21.63	cps
Nickel	60-2	186865	184987	186896	186249	0.59	cps
Phosphorus	31-2	29061	28730	29863	29218	1.99	cps
Potassium	39-2	3023422	2971918	2988465	2994602	0.88	cps
Rhodium	103-1	2927295	3004809	2962157	2964754	1.31	cps
Rhodium	103-2	1716685	1721839	1737342	1725289	0.62	cps
Scandium	45-1	1855874	1857612	1834531	1849339	0.70	cps
Scandium	45-2	150303	149014	148129	149149	0.73	cps
Selenium	82-1	24014	24012	24251	24092	0.57	cps
Selenium	77-2	2370	2407	2520	2432	3.22	cps
Selenium	78-2	8436	8673	8656	8588	1.54	cps
Silicon	28-1	4090178	4168756	4140799	4133244	0.96	cps
Silver	107-1	1389265	1426379	1421546	1412396	1.43	cps
Silver	109-1	1310148	1333315	1332493	1325319	0.99	cps
Sodium	23-2	7221031	7302984	7403167	7309061	1.25	cps
Strontium	86-1	367944	375730	374228	372634	1.11	cps
Strontium	88-1	3510555	3500322	3554757	3521878	0.82	cps
Sulfur	34-1	233730	233237	231091	232686	0.60	cps
Terbium	159-1	3689136	3828142	3754048	3757109	1.85	cps
Terbium	159-2	2772067	2820418	2771166	2787884	1.01	cps
Thallium	203-1	875278	895374	891444	887365	1.20	cps
Thallium	205-1	2398639	2459272	2444913	2434275	1.30	cps
Tin	118-1	919262	920377	919671	919770	0.06	cps
Titanium	47-1	1595392	1627987	1618991	1614123	1.04	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:47:09	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	2986750	3030068	3059261	3025360	1.21	cps
Vanadium	51-2	404113	400966	400404	401828	0.50	cps
Yttrium	89-1	5729468	5810587	5718497	5752851	0.87	cps
Yttrium	89-2	1552564	1540597	1582382	1558514	1.38	cps
Zinc	66-2	933879	920861	933911	929550	0.81	cps
Zirconium	90-1	2109672	2197790	2141348	2149603	2.08	cps
Zirconium	91-1	431761	438595	436089	435482	0.79	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1031978	1036113	1032140	1033410	0.23	cps
Antimony	121-1	2344717	2436044	2448048	2409603	2.35	cps
Arsenic	75-2	131792	130336	130982	131037	0.56	cps
Barium	135-1	3004933	3114396	3172435	3097255	2.75	cps
Barium	137-1	5319205	5474178	5477881	5423755	1.67	cps
Beryllium	9-1	336215	342137	343822	340725	1.17	cps
Bismuth	209-1	2149986	2169533	2193060	2170860	0.99	cps
Bismuth	209-2	2090775	2092110	2030322	2071069	1.70	cps
Bromine	81-1	18749	19530	19116	19131	2.04	cps
Bromine	81-2	127	127	140	131	5.87	cps
Cadmium	108-1	43933	43936	45317	44395	1.80	cps
Cadmium	106-1	62708	63290	63870	63289	0.92	cps
Cadmium	111-1	580285	586509	602891	589895	1.98	cps
Calcium	43-1	669570	676642	687219	677811	1.31	cps
Calcium	44-1	11465199	11666306	11644206	11591904	0.95	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	955189	956358	946608	952718	0.56	cps
Cobalt	59-2	1642886	1609877	1573724	1608829	2.15	cps
Copper	63-2	11377314	11227869	11200862	11268681	0.84	cps
Dysprosium	156-1	43	40	53	46	15.23	cps
Dysprosium	156-2	160	163	127	150	13.52	cps
Erbium	164-1	83	130	97	103	23.26	cps
Erbium	164-2	67	73	100	80	22.05	cps
Gadolinium	160-1	43	47	73	54	30.20	cps
Gadolinium	160-2	183	193	203	193	5.17	cps
Holmium	165-1	3697307	3797445	3740103	3744952	1.34	cps
Holmium	165-2	2982654	2987191	2870030	2946625	2.25	cps
Indium	115-1	3143109	3197066	3160498	3166891	0.87	cps
Indium	115-2	1108899	1106849	1098494	1104747	0.50	cps
Iron	56-2	48367193	48685521	48393984	48482233	0.36	cps
Iron	57-2	1164934	1163840	1160672	1163148	0.19	cps
Iron	54-2	2688228	2737321	2708903	2711484	0.91	cps
Krypton	83-1	387	330	337	351	8.82	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8715977	8685750	8937672	8779800	1.57	cps
Lead	207-1	7499075	7536938	7695712	7577242	1.38	cps
Lead	208-1	34385787	34386300	35368289	34713459	1.63	cps
Lithium	6-1	327540	330151	328667	328786	0.40	cps
Magnesium	24-2	9868213	9880966	9753816	9834332	0.71	cps
Manganese	55-2	8217745	8360846	8271791	8283461	0.87	cps
Molybdenum	94-1	8778182	8994132	8948555	8906956	1.28	cps
Molybdenum	95-1	12505963	12695710	12809522	12670398	1.21	cps
Molybdenum	96-1	13588052	13867533	13759066	13738217	1.03	cps
Molybdenum	97-1	7732071	7836648	7915081	7827933	1.17	cps
Molybdenum	98-1	20210253	20199423	20289219	20232965	0.24	cps
Neodymium	150-1	167	130	153	150	12.37	cps
Neodymium	150-2	37	23	40	33	26.47	cps
Nickel	60-2	380743	381809	380451	381001	0.19	cps
Phosphorus	31-2	60041	58424	59683	59383	1.43	cps
Potassium	39-2	6178818	6135264	6112548	6142210	0.55	cps
Rhodium	103-1	2991633	3006265	2983510	2993803	0.39	cps
Rhodium	103-2	1769767	1785015	1781943	1778908	0.45	cps
Scandium	45-1	1918376	1882473	1898266	1899705	0.95	cps
Scandium	45-2	154845	156229	153225	154767	0.97	cps
Selenium	82-1	48391	48687	49974	49017	1.72	cps
Selenium	77-2	5374	5034	4988	5132	4.11	cps
Selenium	78-2	17928	17107	17083	17373	2.77	cps
Silicon	28-1	7585588	7841256	7743266	7723370	1.67	cps
Silver	107-1	3170777	3214868	3173467	3186370	0.78	cps
Silver	109-1	2942219	2972582	3005495	2973432	1.06	cps
Sodium	23-2	15042329	15297994	15203013	15181112	0.85	cps
Strontium	86-1	759381	772458	785097	772312	1.66	cps
Strontium	88-1	7278085	7455967	7424128	7386060	1.28	cps
Sulfur	34-1	320250	321113	321024	320796	0.15	cps
Terbium	159-1	3843145	3839502	3949329	3877325	1.61	cps
Terbium	159-2	2885969	2907299	2841016	2878095	1.18	cps
Thallium	203-1	2098748	2173348	2152650	2141582	1.80	cps
Thallium	205-1	4961306	5073687	5140324	5058439	1.79	cps
Tin	118-1	2066634	2103004	2166225	2111954	2.39	cps
Titanium	47-1	3334000	3315142	3373273	3340805	0.89	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:50:10	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6408405	6369158	6386160	6387907	0.31	cps
Vanadium	51-2	837102	831727	831719	833516	0.37	cps
Yttrium	89-1	5893189	5999886	5966320	5953132	0.92	cps
Yttrium	89-2	1633586	1639998	1619889	1631158	0.63	cps
Zinc	66-2	2085813	2098147	2126741	2103567	1.00	cps
Zirconium	90-1	4361155	4493516	4443921	4432864	1.51	cps
Zirconium	91-1	892888	909800	918706	907131	1.45	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2289526	2246112	2258940	2264859	0.98	cps
Antimony	121-1	4843908	4910669	4867807	4874128	0.69	cps
Arsenic	75-2	264851	261541	264882	263758	0.73	cps
Barium	135-1	6284399	6233859	6463121	6327127	1.90	cps
Barium	137-1	11008274	11050467	11104766	11054502	0.44	cps
Beryllium	9-1	667828	676199	668241	670756	0.70	cps
Bismuth	209-1	2122917	2161588	2134534	2139680	0.93	cps
Bismuth	209-2	2081964	2067115	2056596	2068558	0.62	cps
Bromine	81-1	19623	19570	19640	19611	0.19	cps
Bromine	81-2	160	170	133	154	12.27	cps
Cadmium	108-1	87542	88320	88699	88187	0.67	cps
Cadmium	106-1	124491	125742	126858	125697	0.94	cps
Cadmium	111-1	1168210	1190806	1190760	1183259	1.10	cps
Calcium	43-1	1452522	1461485	1452069	1455359	0.36	cps
Calcium	44-1	23351320	23506701	23467041	23441687	0.34	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2116331	2055665	2083183	2085060	1.46	cps
Cobalt	59-2	3226001	3275287	3253598	3251629	0.76	cps
Copper	63-2	22750255	22535749	22481542	22589182	0.63	cps
Dysprosium	156-1	117	90	157	121	27.71	cps
Dysprosium	156-2	383	317	333	344	10.07	cps
Erbium	164-1	110	123	167	133	22.22	cps
Erbium	164-2	80	123	123	109	22.98	cps
Gadolinium	160-1	90	83	70	81	12.55	cps
Gadolinium	160-2	237	220	240	232	4.61	cps
Holmium	165-1	3858065	3753790	3802268	3804708	1.37	cps
Holmium	165-2	2963191	2975143	2973942	2970759	0.22	cps
Indium	115-1	3233957	3185498	3200084	3206513	0.78	cps
Indium	115-2	1081277	1073610	1085546	1080145	0.56	cps
Iron	56-2	98815622	98002965	98064709	98294432	0.46	cps
Iron	57-2	2433015	2415013	2419322	2422450	0.39	cps
Iron	54-2	5423358	5313018	5421685	5386021	1.17	cps
Krypton	83-1	267	343	323	311	12.78	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	17936757	17946178	17750741	17877892	0.62	cps
Lead	207-1	15333329	15561993	15432098	15442473	0.74	cps
Lead	208-1	69941538	70755991	70720976	70472835	0.65	cps
Lithium	6-1	325984	326738	328138	326953	0.33	cps
Magnesium	24-2	19695422	19361886	19488255	19515188	0.86	cps
Manganese	55-2	16863352	16872050	16698894	16811432	0.58	cps
Molybdenum	94-1	18284038	18091758	18305423	18227073	0.65	cps
Molybdenum	95-1	25633878	25881956	26286198	25934011	1.27	cps
Molybdenum	96-1	27821030	28508184	28332854	28220689	1.27	cps
Molybdenum	97-1	15813405	16195296	16212512	16073738	1.40	cps
Molybdenum	98-1	41506429	41564571	41865812	41645604	0.46	cps
Neodymium	150-1	200	283	320	268	22.97	cps
Neodymium	150-2	67	57	80	68	17.27	cps
Nickel	60-2	760300	754818	760478	758532	0.42	cps
Phosphorus	31-2	117537	116956	118091	117528	0.48	cps
Potassium	39-2	12386656	12475331	12341697	12401228	0.55	cps
Rhodium	103-1	2990879	3060550	3024670	3025366	1.15	cps
Rhodium	103-2	1792828	1786165	1781907	1786967	0.31	cps
Scandium	45-1	1917830	1939173	1961105	1939369	1.12	cps
Scandium	45-2	154781	154936	155751	155156	0.34	cps
Selenium	82-1	96991	97665	97606	97421	0.38	cps
Selenium	77-2	9993	9737	10144	9958	2.07	cps
Selenium	78-2	33618	33525	33732	33625	0.31	cps
Silicon	28-1	13048975	13308989	13883198	13413721	3.18	cps
Silver	107-1	6347173	6288563	6437437	6357724	1.18	cps
Silver	109-1	6054159	6024961	6036824	6038648	0.24	cps
Sodium	23-2	30632570	30118846	30024779	30258731	1.08	cps
Strontium	86-1	1702519	1736615	1704841	1714658	1.11	cps
Strontium	88-1	15130933	15259697	15020754	15137128	0.79	cps
Sulfur	34-1	505794	507361	508117	507090	0.23	cps
Terbium	159-1	3903963	4029356	3911061	3948127	1.78	cps
Terbium	159-2	2960870	2950899	2909008	2940259	0.94	cps
Thallium	203-1	4292349	4309362	4301261	4300991	0.20	cps
Thallium	205-1	10330584	10295485	10243914	10289994	0.42	cps
Tin	118-1	4286663	4308556	4298532	4297917	0.26	cps
Titanium	47-1	6720123	6790382	6853104	6787870	0.98	cps

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:53:00	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	13002519	13063641	12978506	13014889	0.34	cps
Vanadium	51-2	1881112	1821874	1846357	1849781	1.61	cps
Yttrium	89-1	6054090	6092546	6076652	6074429	0.32	cps
Yttrium	89-2	1643493	1680607	1665883	1663327	1.12	cps
Zinc	66-2	4154026	4096169	4133639	4127945	0.71	cps
Zirconium	90-1	9054465	9209229	9242303	9168666	1.09	cps
Zirconium	91-1	2006155	2024030	1987854	2006013	0.90	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	12155617	11953009	12188546	12099057	1.05	cps
Antimony	121-1	3350	3127	3304	3260	3.61	cps
Arsenic	75-2	183	123	183	163	21.21	cps
Barium	135-1	2780	2954	3027	2920	4.34	cps
Barium	137-1	5148	5084	5148	5127	0.71	cps
Beryllium	9-1	142	162	91	132	27.58	cps
Bismuth	209-1	1957112	1926963	1944206	1942760	0.78	cps
Bismuth	209-2	1860508	1883640	1878594	1874247	0.65	cps
Bromine	81-1	20331	20464	21482	20759	3.03	cps
Bromine	81-2	173	143	173	163	10.60	cps
Cadmium	108-1	33	37	47	39	17.85	cps
Cadmium	106-1	1590	1677	1547	1605	4.13	cps
Cadmium	111-1	383	356	320	353	9.08	cps
Calcium	43-1	7407746	7569140	7695143	7557343	1.91	cps
Calcium	44-1	119999882	121991605	123917455	121969647	1.61	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4074	4024	3894	3997	2.32	cps
Cobalt	59-2	5484	5364	5264	5371	2.05	cps
Copper	63-2	3684	3771	3807	3754	1.69	cps
Dysprosium	156-1	207	210	237	218	7.55	cps
Dysprosium	156-2	283	223	203	237	17.59	cps
Erbium	164-1	460	570	520	517	10.66	cps
Erbium	164-2	393	370	347	370	6.31	cps
Gadolinium	160-1	237	253	317	269	15.70	cps
Gadolinium	160-2	337	380	377	364	6.62	cps
Holmium	165-1	3782709	3632569	3738102	3717793	2.07	cps
Holmium	165-2	2979833	2957491	2933567	2956964	0.78	cps
Indium	115-1	3091683	3106273	3194555	3130837	1.78	cps
Indium	115-2	1097042	1091815	1092042	1093633	0.27	cps
Iron	56-2	516919912	514444446	510211259	513858539	0.66	cps
Iron	57-2	12539194	12551400	12648158	12579584	0.47	cps
Iron	54-2	27986321	27370151	27807795	27721422	1.14	cps
Krypton	83-1	363	370	320	351	7.73	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3384	3430	3430	3415	0.79	cps
Lead	207-1	2944	2957	2840	2914	2.19	cps
Lead	208-1	13336	13546	13103	13328	1.66	cps
Lithium	6-1	317777	317678	318703	318053	0.18	cps
Magnesium	24-2	103624802	101284698	103644365	102851288	1.32	cps
Manganese	55-2	8026	8069	8479	8191	3.06	cps
Molybdenum	94-1	5011	5164	5264	5147	2.48	cps
Molybdenum	95-1	3140	3084	2887	3037	4.38	cps
Molybdenum	96-1	13149	13306	13506	13321	1.34	cps
Molybdenum	97-1	2100	2177	1937	2071	5.92	cps
Molybdenum	98-1	4787	4844	4521	4717	3.66	cps
Neodymium	150-1	97	120	117	111	11.36	cps
Neodymium	150-2	60	67	60	62	6.19	cps
Nickel	60-2	2177	2100	2377	2218	6.44	cps
Phosphorus	31-2	540	553	557	550	1.60	cps
Potassium	39-2	66179947	66183857	65220457	65861421	0.84	cps
Rhodium	103-1	2808849	2867765	2870187	2848934	1.22	cps
Rhodium	103-2	1666637	1703674	1704311	1691541	1.28	cps
Scandium	45-1	1964917	1977305	1987115	1976446	0.56	cps
Scandium	45-2	157547	157422	157004	157324	0.18	cps
Selenium	82-1	259	306	394	319	21.41	cps
Selenium	77-2	10	3	0	4	114.60	cps
Selenium	78-2	547	477	607	543	11.98	cps
Silicon	28-1	1582242	1593793	1614545	1596860	1.03	cps
Silver	107-1	693	683	583	653	9.31	cps
Silver	109-1	650	603	547	600	8.62	cps
Sodium	23-2	160568758	161734371	163887418	162063515	1.04	cps
Strontium	86-1	22006	22260	22137	22134	0.57	cps
Strontium	88-1	188055	190051	189612	189240	0.55	cps
Sulfur	34-1	128048	131248	135807	131701	2.96	cps
Terbium	159-1	3825119	3809741	3816219	3817026	0.20	cps
Terbium	159-2	2888316	2861803	2811724	2853947	1.36	cps
Thallium	203-1	477	483	503	488	2.85	cps
Thallium	205-1	1237	1153	1113	1168	5.39	cps
Tin	118-1	1473	1527	1477	1492	2.00	cps
Titanium	47-1	440	550	497	496	11.10	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 10:55:46	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	337	370	273	327	15.03	cps
Vanadium	51-2	587	553	610	583	4.88	cps
Yttrium	89-1	6074810	6053666	6096817	6075098	0.36	cps
Yttrium	89-2	1652291	1685424	1668727	1668814	0.99	cps
Zinc	66-2	2340	2237	2354	2310	2.76	cps
Zirconium	90-1	7422	7285	7669	7459	2.61	cps
Zirconium	91-1	1583	1743	1803	1710	6.65	cps

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	54640	55195	54620	54819	0.60	cps
Antimony	121-1	917752	921966	910545	916755	0.63	cps
Arsenic	75-2	60041	59348	58669	59352	1.16	cps
Barium	135-1	122535	124279	125326	124047	1.14	cps
Barium	137-1	216277	213576	213516	214456	0.74	cps
Beryllium	9-1	66210	68089	69224	67841	2.24	cps
Bismuth	209-1	2113415	2091759	2071958	2092377	0.99	cps
Bismuth	209-2	2133930	2142296	2144493	2140240	0.26	cps
Bromine	81-1	21139	21432	21205	21259	0.72	cps
Bromine	81-2	130	160	77	122	34.53	cps
Cadmium	108-1	8933	9133	8766	8944	2.05	cps
Cadmium	106-1	13717	13386	13320	13474	1.58	cps
Cadmium	111-1	127074	126854	128150	127359	0.54	cps
Calcium	43-1	30571	30798	30304	30557	0.81	cps
Calcium	44-1	503350	503456	500818	502542	0.30	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	214658	215799	214431	214963	0.34	cps
Cobalt	59-2	341327	339921	339291	340180	0.31	cps
Copper	63-2	231820	231946	231796	231854	0.03	cps
Dysprosium	156-1	17	7	3	9	78.08	cps
Dysprosium	156-2	7	23	23	18	54.11	cps
Erbium	164-1	30	23	40	31	26.97	cps
Erbium	164-2	27	17	17	20	28.86	cps
Gadolinium	160-1	27	23	37	29	24.03	cps
Gadolinium	160-2	203	170	197	190	9.28	cps
Holmium	165-1	3690902	3795062	3853033	3779665	2.17	cps
Holmium	165-2	2997123	2982673	3017749	2999182	0.59	cps
Indium	115-1	3351304	3478945	3392601	3407617	1.91	cps
Indium	115-2	1176963	1179995	1163375	1173444	0.75	cps
Iron	56-2	4203770	4223720	4302843	4243444	1.23	cps
Iron	57-2	102040	102177	101450	101889	0.38	cps
Iron	54-2	231278	231949	229349	230859	0.58	cps
Krypton	83-1	343	297	357	332	9.48	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	624862	623115	624596	624191	0.15	cps
Lead	207-1	542497	552782	556162	550481	1.29	cps
Lead	208-1	2496376	2498119	2491708	2495401	0.13	cps
Lithium	6-1	313223	314786	310421	312810	0.71	cps
Magnesium	24-2	258249	259645	256635	258176	0.58	cps
Manganese	55-2	173117	172648	172908	172891	0.14	cps
Molybdenum	94-1	737	703	687	709	3.59	cps
Molybdenum	95-1	883	1097	950	977	11.17	cps
Molybdenum	96-1	1303	1183	1240	1242	4.83	cps
Molybdenum	97-1	557	537	537	543	2.13	cps
Molybdenum	98-1	1450	1607	1480	1512	5.50	cps
Neodymium	150-1	13	7	17	12	41.65	cps
Neodymium	150-2	3	0	7	3	100.05	cps
Nickel	60-2	90005	89572	89706	89761	0.25	cps
Phosphorus	31-2	463	460	460	461	0.42	cps
Potassium	39-2	550204	553797	550730	551577	0.35	cps
Rhodium	103-1	3306794	3187646	3133326	3209255	2.76	cps
Rhodium	103-2	1885978	1889834	1870104	1881972	0.56	cps
Scandium	45-1	2098526	2074927	2041952	2071802	1.37	cps
Scandium	45-2	157005	158864	157421	157763	0.62	cps
Selenium	82-1	20972	21367	21432	21257	1.17	cps
Selenium	77-2	2337	2127	2447	2304	7.06	cps
Selenium	78-2	8319	8189	7902	8137	2.62	cps
Silicon	28-1	1744372	1769417	1705309	1739699	1.86	cps
Silver	107-1	293901	296551	296705	295719	0.53	cps
Silver	109-1	278501	276935	275730	277055	0.50	cps
Sodium	23-2	582259	593140	580743	585381	1.16	cps
Strontium	86-1	577	610	600	596	2.87	cps
Strontium	88-1	843	757	757	786	6.37	cps
Sulfur	34-1	135467	134630	134912	135003	0.32	cps
Terbium	159-1	3956182	3823129	3826771	3868694	1.96	cps
Terbium	159-2	2906323	2949960	2985543	2947275	1.35	cps
Thallium	203-1	788552	787894	780551	785666	0.57	cps
Thallium	205-1	2173910	2114989	2090995	2126631	2.01	cps
Tin	118-1	1090	1133	1020	1081	5.29	cps
Titanium	47-1	120	130	153	134	12.73	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:31:52	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	37	50	53	47	18.89	cps
Vanadium	51-2	178883	179446	178105	178811	0.38	cps
Yttrium	89-1	6429378	6236199	6315541	6327040	1.53	cps
Yttrium	89-2	1754756	1756958	1709573	1740429	1.54	cps
Zinc	66-2	84504	85155	82600	84086	1.58	cps
Zirconium	90-1	440	560	490	497	12.14	cps
Zirconium	91-1	187	177	157	173	8.81	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2260	2187	2134	2194	2.90	cps
Antimony	121-1	8936	9246	8936	9040	1.98	cps
Arsenic	75-2	350	290	280	307	12.35	cps
Barium	135-1	11068	11281	11281	11210	1.10	cps
Barium	137-1	19707	19480	19887	19691	1.04	cps
Beryllium	9-1	690	673	759	708	6.42	cps
Bismuth	209-1	2116005	1994992	2012255	2041084	3.21	cps
Bismuth	209-2	2085495	2113655	2039450	2079534	1.80	cps
Bromine	81-1	21359	21436	21759	21518	0.99	cps
Bromine	81-2	140	90	107	112	22.69	cps
Cadmium	108-1	120	100	77	99	21.93	cps
Cadmium	106-1	1427	1527	1350	1435	6.18	cps
Cadmium	111-1	1476	1316	1410	1401	5.72	cps
Calcium	43-1	7485	7619	7509	7537	0.95	cps
Calcium	44-1	129955	127695	130818	129489	1.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4981	5401	5328	5237	4.29	cps
Cobalt	59-2	3464	3397	3300	3387	2.43	cps
Copper	63-2	5511	5788	5628	5642	2.46	cps
Dysprosium	156-1	3	0	3	2	86.60	cps
Dysprosium	156-2	3	0	13	6	124.93	cps
Erbium	164-1	27	23	27	26	7.55	cps
Erbium	164-2	33	37	30	33	10.01	cps
Gadolinium	160-1	13	47	20	27	66.16	cps
Gadolinium	160-2	153	127	137	139	9.70	cps
Holmium	165-1	3773330	3587542	3554735	3638536	3.24	cps
Holmium	165-2	2921100	2888292	2804568	2871320	2.09	cps
Indium	115-1	3347014	3257250	3245531	3283265	1.69	cps
Indium	115-2	1146889	1135152	1122917	1134986	1.06	cps
Iron	56-2	115416	113350	113216	113994	1.08	cps
Iron	57-2	3844	3781	3861	3828	1.10	cps
Iron	54-2	7779	7442	7575	7599	2.23	cps
Krypton	83-1	340	360	403	368	8.80	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3150	3117	3197	3155	1.27	cps
Lead	207-1	2814	2890	2970	2891	2.71	cps
Lead	208-1	12686	13069	12696	12817	1.71	cps
Lithium	6-1	311381	309401	309213	309998	0.39	cps
Magnesium	24-2	87417	86247	85281	86315	1.24	cps
Manganese	55-2	4994	4561	4661	4739	4.79	cps
Molybdenum	94-1	10024	10157	9913	10031	1.22	cps
Molybdenum	95-1	12325	12515	12275	12372	1.02	cps
Molybdenum	96-1	13520	13760	13640	13640	0.88	cps
Molybdenum	97-1	7872	7695	7662	7743	1.46	cps
Molybdenum	98-1	19907	19737	19283	19642	1.64	cps
Neodymium	150-1	3	13	10	9	57.30	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	1133	1177	1083	1131	4.13	cps
Phosphorus	31-2	727	627	670	674	7.44	cps
Potassium	39-2	173619	172199	170315	172044	0.96	cps
Rhodium	103-1	3138081	3090025	3115308	3114471	0.77	cps
Rhodium	103-2	1855861	1867956	1810352	1844723	1.65	cps
Scandium	45-1	2045105	2027980	1976254	2016446	1.78	cps
Scandium	45-2	153515	153829	150190	152511	1.32	cps
Selenium	82-1	675	633	639	649	3.51	cps
Selenium	77-2	53	57	53	54	3.54	cps
Selenium	78-2	907	743	743	798	11.82	cps
Silicon	28-1	1705168	1699533	1668593	1691098	1.16	cps
Silver	107-1	5918	6195	6161	6091	2.48	cps
Silver	109-1	6015	5638	5871	5841	3.26	cps
Sodium	23-2	151090	150587	149384	150354	0.58	cps
Strontium	86-1	2187	2230	2254	2224	1.52	cps
Strontium	88-1	14370	15218	13763	14451	5.06	cps
Sulfur	34-1	134351	133920	132323	133531	0.80	cps
Terbium	159-1	3781951	3658886	3745936	3728924	1.70	cps
Terbium	159-2	2862741	2869238	2765326	2832435	2.06	cps
Thallium	203-1	3767	3387	3661	3605	5.44	cps
Thallium	205-1	8686	8726	8416	8609	1.96	cps
Tin	118-1	19967	20127	19860	19985	0.67	cps
Titanium	47-1	3087	3427	3294	3269	5.24	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	LLICV01	Instrumnet Name :	P7
Client Sample ID :	LLICV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:39:27	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10087	10027	10528	10214	2.67	cps
Vanadium	51-2	9029	8753	8569	8784	2.64	cps
Yttrium	89-1	6253724	6165547	6158244	6192505	0.86	cps
Yttrium	89-2	1680511	1667380	1629449	1659113	1.60	cps
Zinc	66-2	2807	2867	2694	2789	3.16	cps
Zirconium	90-1	8619	8903	8332	8618	3.31	cps
Zirconium	91-1	1903	2064	1910	1959	4.62	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	337	317	287	313	8.03	cps
Antimony	121-1	63	73	67	68	7.51	cps
Arsenic	75-2	3	3	3	3	0.00	cps
Barium	135-1	80	90	87	86	5.95	cps
Barium	137-1	127	193	130	150	25.04	cps
Beryllium	9-1	37	27	17	27	37.50	cps
Bismuth	209-1	2010002	2051480	1982027	2014503	1.73	cps
Bismuth	209-2	2133864	2097688	2010266	2080606	3.05	cps
Bromine	81-1	20952	21082	21132	21055	0.44	cps
Bromine	81-2	157	123	120	133	15.21	cps
Cadmium	108-1	10	7	7	8	24.71	cps
Cadmium	106-1	1463	1260	1403	1376	7.60	cps
Cadmium	111-1	156	138	149	148	6.15	cps
Calcium	43-1	467	517	413	466	11.10	cps
Calcium	44-1	12519	12809	13193	12840	2.63	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1293	1357	1387	1346	3.54	cps
Cobalt	59-2	30	33	60	41	40.00	cps
Copper	63-2	1287	1280	1110	1226	8.17	cps
Dysprosium	156-1	3	10	0	4	114.60	cps
Dysprosium	156-2	0	0	10	3	173.21	cps
Erbium	164-1	37	17	10	21	65.74	cps
Erbium	164-2	30	7	30	22	60.61	cps
Gadolinium	160-1	20	13	23	19	26.96	cps
Gadolinium	160-2	190	147	153	163	14.28	cps
Holmium	165-1	3599132	3574103	3510566	3561267	1.28	cps
Holmium	165-2	2882440	2876206	2868924	2875857	0.24	cps
Indium	115-1	3262259	3274732	3298573	3278521	0.56	cps
Indium	115-2	1140044	1133292	1117119	1130152	1.04	cps
Iron	56-2	20180	20441	20411	20344	0.70	cps
Iron	57-2	1543	1530	1310	1461	8.97	cps
Iron	54-2	2277	2314	1950	2180	9.18	cps
Krypton	83-1	443	290	373	369	20.81	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	507	410	490	469	11.02	cps
Lead	207-1	393	393	353	380	6.08	cps
Lead	208-1	1790	1733	1763	1762	1.61	cps
Lithium	6-1	311641	310166	309755	310521	0.32	cps
Magnesium	24-2	197	233	217	216	8.52	cps
Manganese	55-2	3200	3010	3227	3146	3.76	cps
Molybdenum	94-1	197	170	170	179	8.61	cps
Molybdenum	95-1	150	137	180	156	14.27	cps
Molybdenum	96-1	300	247	243	263	12.08	cps
Molybdenum	97-1	110	137	103	117	15.12	cps
Molybdenum	98-1	277	280	260	272	3.94	cps
Neodymium	150-1	3	3	7	4	43.40	cps
Neodymium	150-2	0	0	7	2	173.21	cps
Nickel	60-2	280	330	330	313	9.21	cps
Phosphorus	31-2	407	360	360	376	7.17	cps
Potassium	39-2	52249	52908	52577	52578	0.63	cps
Rhodium	103-1	3128256	3104588	3075498	3102781	0.85	cps
Rhodium	103-2	1870320	1831961	1807902	1836728	1.71	cps
Scandium	45-1	1968897	1972723	1970649	1970756	0.10	cps
Scandium	45-2	154781	151068	151425	152425	1.34	cps
Selenium	82-1	57	210	149	139	55.73	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	560	637	633	610	7.10	cps
Silicon	28-1	1670038	1659619	1690617	1673425	0.94	cps
Silver	107-1	100	93	107	100	6.67	cps
Silver	109-1	93	40	70	68	39.45	cps
Sodium	23-2	14253	13923	13539	13905	2.57	cps
Strontium	86-1	567	530	617	571	7.62	cps
Strontium	88-1	197	190	173	187	6.44	cps
Sulfur	34-1	133413	133850	133080	133447	0.29	cps
Terbium	159-1	3712983	3728718	3706711	3716137	0.31	cps
Terbium	159-2	2869802	2773738	2777569	2807036	1.94	cps
Thallium	203-1	127	157	133	139	11.34	cps
Thallium	205-1	353	247	320	307	17.79	cps
Tin	118-1	1033	1120	1087	1080	4.05	cps
Titanium	47-1	77	80	47	68	27.08	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:42:46	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	20	10	10	13	43.30	cps
Vanadium	51-2	7	3	7	6	34.70	cps
Yttrium	89-1	6168595	6079668	6028170	6092144	1.17	cps
Yttrium	89-2	1676684	1692309	1643582	1670858	1.49	cps
Zinc	66-2	893	817	750	820	8.75	cps
Zirconium	90-1	237	480	260	326	41.25	cps
Zirconium	91-1	37	57	57	50	23.09	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11290670	11435416	11226516	11317534	0.95	cps
Antimony	121-1	5221	5481	5468	5390	2.72	cps
Arsenic	75-2	90	120	110	107	14.32	cps
Barium	135-1	1847	1740	1790	1792	2.98	cps
Barium	137-1	3044	3264	3070	3126	3.84	cps
Beryllium	9-1	238	221	151	203	22.52	cps
Bismuth	209-1	2081525	2099291	2125359	2102058	1.05	cps
Bismuth	209-2	2054866	2035598	2079019	2056494	1.06	cps
Bromine	81-1	22120	22193	22798	22370	1.66	cps
Bromine	81-2	437	393	427	419	5.42	cps
Cadmium	108-1	697	663	693	684	2.68	cps
Cadmium	106-1	1437	1413	1340	1397	3.61	cps
Cadmium	111-1	467	588	483	512	12.82	cps
Calcium	43-1	1579535	1569254	1570382	1573057	0.36	cps
Calcium	44-1	25361985	25384518	25425327	25390610	0.13	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	43279	42416	43523	43073	1.35	cps
Cobalt	59-2	4317	4077	4114	4170	3.10	cps
Copper	63-2	22033	21569	22587	22063	2.31	cps
Dysprosium	156-1	23	27	13	21	32.88	cps
Dysprosium	156-2	17	20	13	17	20.01	cps
Erbium	164-1	30	47	60	46	32.99	cps
Erbium	164-2	30	30	20	27	21.65	cps
Gadolinium	160-1	53	60	27	47	37.79	cps
Gadolinium	160-2	180	163	143	162	11.31	cps
Holmium	165-1	3801810	3916608	3922822	3880413	1.76	cps
Holmium	165-2	2991633	2963134	2985228	2979998	0.50	cps
Indium	115-1	3258415	3303480	3280922	3280939	0.69	cps
Indium	115-2	1129714	1122367	1122257	1124779	0.38	cps
Iron	56-2	206979957	205398630	207514210	206630932	0.53	cps
Iron	57-2	5276644	5092927	5113383	5160985	1.95	cps
Iron	54-2	11446687	11201773	11369481	11339314	1.10	cps
Krypton	83-1	317	317	323	319	1.21	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	14922	15065	15409	15132	1.65	cps
Lead	207-1	11532	11862	11735	11710	1.42	cps
Lead	208-1	55117	56586	56509	56071	1.47	cps
Lithium	6-1	328300	326065	325219	326528	0.49	cps
Magnesium	24-2	19276053	18932952	19268492	19159165	1.02	cps
Manganese	55-2	16152	16025	15979	16052	0.56	cps
Molybdenum	94-1	3206703	3193284	3185726	3195238	0.33	cps
Molybdenum	95-1	5485602	5546720	5532690	5521671	0.58	cps
Molybdenum	96-1	5880945	5942933	5939683	5921187	0.59	cps
Molybdenum	97-1	3411677	3455366	3469973	3445672	0.88	cps
Molybdenum	98-1	8769051	8801360	8881180	8817197	0.65	cps
Neodymium	150-1	23	20	23	22	8.65	cps
Neodymium	150-2	13	23	17	18	28.64	cps
Nickel	60-2	4777	4911	4654	4781	2.69	cps
Phosphorus	31-2	631993	622235	622879	625702	0.87	cps
Potassium	39-2	26779046	26616138	26513384	26636189	0.50	cps
Rhodium	103-1	3024547	3058479	3076235	3053087	0.86	cps
Rhodium	103-2	1830572	1786820	1802508	1806633	1.23	cps
Scandium	45-1	2017119	2001493	1994753	2004455	0.57	cps
Scandium	45-2	159375	155718	153633	156242	1.86	cps
Selenium	82-1	229	176	245	217	16.62	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	597	530	517	548	7.82	cps
Silicon	28-1	1616545	1615655	1620078	1617426	0.14	cps
Silver	107-1	673	703	917	764	17.36	cps
Silver	109-1	553	603	700	619	12.05	cps
Sodium	23-2	32873567	32583700	32337158	32598141	0.82	cps
Strontium	86-1	57896	57827	58663	58129	0.80	cps
Strontium	88-1	500658	504344	506346	503782	0.57	cps
Sulfur	34-1	2476072	2406875	2374171	2419039	2.15	cps
Terbium	159-1	3851219	3912977	3926778	3896991	1.03	cps
Terbium	159-2	2941436	2904821	2882420	2909559	1.02	cps
Thallium	203-1	287	370	390	349	15.71	cps
Thallium	205-1	573	767	850	730	19.44	cps
Tin	118-1	7325	10184	10587	9365	18.99	cps
Titanium	47-1	1469150	1506886	1454841	1476959	1.82	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 11:46:07	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	203	210	270	228	16.12	cps
Vanadium	51-2	347	317	300	321	7.36	cps
Yttrium	89-1	6243878	6251784	6215219	6236960	0.31	cps
Yttrium	89-2	1667255	1675417	1681302	1674658	0.42	cps
Zinc	66-2	5418	5311	5271	5333	1.42	cps
Zirconium	90-1	337	303	360	333	8.54	cps
Zirconium	91-1	70	83	90	81	12.55	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	10321654	10160580	10241526	10241253	0.79	cps
Antimony	121-1	96716	95296	95421	95811	0.82	cps
Arsenic	75-2	5761	5398	5451	5537	3.54	cps
Barium	135-1	25636	25012	24277	24975	2.72	cps
Barium	137-1	43740	42888	43252	43294	0.99	cps
Beryllium	9-1	12037	11636	12434	12035	3.31	cps
Bismuth	209-1	2085627	2049452	2020508	2051862	1.59	cps
Bismuth	209-2	2022651	2017114	2039059	2026275	0.56	cps
Bromine	81-1	23315	23856	24464	23878	2.41	cps
Bromine	81-2	513	493	510	506	2.12	cps
Cadmium	108-1	2230	2317	2244	2264	2.06	cps
Cadmium	106-1	3294	3397	3520	3404	3.33	cps
Cadmium	111-1	23908	22932	23708	23516	2.19	cps
Calcium	43-1	1463836	1455146	1475526	1464836	0.70	cps
Calcium	44-1	23885657	23631666	24074444	23863922	0.93	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	79706	78527	79431	79221	0.78	cps
Cobalt	59-2	65328	64916	64977	65074	0.34	cps
Copper	63-2	62584	61593	61372	61849	1.04	cps
Dysprosium	156-1	23	30	17	23	28.56	cps
Dysprosium	156-2	23	10	17	17	39.99	cps
Erbium	164-1	47	53	43	48	10.66	cps
Erbium	164-2	40	37	33	37	9.10	cps
Gadolinium	160-1	23	47	23	31	43.32	cps
Gadolinium	160-2	150	173	157	160	7.51	cps
Holmium	165-1	3817061	3680017	3756345	3751141	1.83	cps
Holmium	165-2	2960560	2907508	2978098	2948722	1.25	cps
Indium	115-1	3351809	3198278	3219383	3256490	2.56	cps
Indium	115-2	1118134	1106468	1113406	1112669	0.53	cps
Iron	56-2	195688890	192833337	194075284	194199170	0.74	cps
Iron	57-2	4765654	4772799	4757036	4765163	0.17	cps
Iron	54-2	10572289	10703395	10588400	10621362	0.67	cps
Krypton	83-1	360	350	337	349	3.36	cps

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LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	88577	86798	88379	87918	1.11	cps
Lead	207-1	73944	72355	74534	73611	1.53	cps
Lead	208-1	340488	334627	341229	338781	1.07	cps
Lithium	6-1	310581	304998	311607	309062	1.15	cps
Magnesium	24-2	17630247	17435741	17595957	17553982	0.59	cps
Manganese	55-2	45081	44546	44957	44861	0.62	cps
Molybdenum	94-1	3023433	3000808	2989088	3004443	0.58	cps
Molybdenum	95-1	5239227	5274433	5262862	5258841	0.34	cps
Molybdenum	96-1	5596000	5562519	5530335	5562951	0.59	cps
Molybdenum	97-1	3232737	3249806	3242388	3241643	0.26	cps
Molybdenum	98-1	8247288	8487438	8346796	8360507	1.44	cps
Neodymium	150-1	23	23	23	23	0.00	cps
Neodymium	150-2	3	23	7	11	96.43	cps
Nickel	60-2	20067	20404	20357	20276	0.90	cps
Phosphorus	31-2	572733	577522	570619	573625	0.62	cps
Potassium	39-2	24893300	24647802	24874267	24805123	0.55	cps
Rhodium	103-1	3084920	3067340	3018740	3057000	1.12	cps
Rhodium	103-2	1837920	1786488	1803364	1809257	1.45	cps
Scandium	45-1	1989960	1946615	1984410	1973662	1.20	cps
Scandium	45-2	154448	152024	152001	152825	0.92	cps
Selenium	82-1	2103	2060	2207	2124	3.55	cps
Selenium	77-2	187	253	217	219	15.25	cps
Selenium	78-2	1213	1203	1257	1225	2.32	cps
Silicon	28-1	1609454	1620011	1599387	1609617	0.64	cps
Silver	107-1	120424	118953	120922	120100	0.85	cps
Silver	109-1	112657	111370	110034	111354	1.18	cps
Sodium	23-2	30295647	29378795	30144085	29939509	1.64	cps
Strontium	86-1	54367	54323	55421	54703	1.14	cps
Strontium	88-1	473602	478607	472729	474979	0.67	cps
Sulfur	34-1	2254528	2207788	2241177	2234498	1.08	cps
Terbium	159-1	4007594	3860964	3918272	3928943	1.88	cps
Terbium	159-2	2889593	2888034	2936760	2904796	0.95	cps
Thallium	203-1	76293	73939	74982	75071	1.57	cps
Thallium	205-1	176601	177392	177190	177061	0.23	cps
Tin	118-1	2337	2514	2457	2436	3.70	cps
Titanium	47-1	1388166	1357759	1380681	1375535	1.15	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:03:38	DataFile Name :	023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	370	293	377	347	13.36	cps
Vanadium	51-2	34195	34483	34687	34455	0.72	cps
Yttrium	89-1	6148038	6206497	6199977	6184837	0.52	cps
Yttrium	89-2	1693623	1650928	1693839	1679463	1.47	cps
Zinc	66-2	12956	12525	12996	12826	2.03	cps
Zirconium	90-1	283	523	310	372	35.35	cps
Zirconium	91-1	40	73	70	61	30.04	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5678284	5541341	5634202	5617942	1.24	cps
Antimony	121-1	2340446	2323578	2368098	2344041	0.96	cps
Arsenic	75-2	129123	127327	127657	128036	0.75	cps
Barium	135-1	3018992	3104041	3123682	3082238	1.81	cps
Barium	137-1	5303120	5396572	5472372	5390688	1.57	cps
Beryllium	9-1	308852	311538	314305	311565	0.88	cps
Bismuth	209-1	1983235	1938582	1993887	1971901	1.49	cps
Bismuth	209-2	1904866	1941924	1873089	1906626	1.81	cps
Bromine	81-1	21492	21803	21806	21701	0.83	cps
Bromine	81-2	100	113	153	122	22.71	cps
Cadmium	108-1	41249	42589	42706	42181	1.92	cps
Cadmium	106-1	58296	59548	60231	59358	1.65	cps
Cadmium	111-1	558038	558825	567856	561573	0.97	cps
Calcium	43-1	3768016	3813646	3919508	3833723	2.03	cps
Calcium	44-1	61765481	62008431	63214764	62329559	1.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	927037	923199	928702	926312	0.30	cps
Cobalt	59-2	1602321	1561288	1583450	1582353	1.30	cps
Copper	63-2	10678333	10754058	10820739	10751043	0.66	cps
Dysprosium	156-1	110	120	170	133	24.11	cps
Dysprosium	156-2	230	290	223	248	14.82	cps
Erbium	164-1	273	363	280	306	16.41	cps
Erbium	164-2	207	193	273	224	19.10	cps
Gadolinium	160-1	193	167	177	179	7.53	cps
Gadolinium	160-2	247	223	280	250	11.39	cps
Holmium	165-1	3704017	3632188	3741705	3692637	1.51	cps
Holmium	165-2	2932957	2859183	2827500	2873213	1.88	cps
Indium	115-1	3124530	3092965	3099727	3105741	0.54	cps
Indium	115-2	1069271	1063403	1054020	1062232	0.72	cps
Iron	56-2	252081330	253408443	255133523	253541098	0.60	cps
Iron	57-2	6305218	6082170	6172011	6186466	1.81	cps
Iron	54-2	13891355	13904865	13656953	13817724	1.01	cps
Krypton	83-1	387	340	397	374	8.08	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8046631	7997521	8401974	8148708	2.71	cps
Lead	207-1	6937038	7055998	7210994	7068010	1.94	cps
Lead	208-1	32048059	32211659	32721769	32327163	1.09	cps
Lithium	6-1	303084	300994	303778	302619	0.48	cps
Magnesium	24-2	48479124	48055499	48611046	48381890	0.60	cps
Manganese	55-2	8189964	8067015	8233237	8163405	1.06	cps
Molybdenum	94-1	8883537	8960455	9040509	8961500	0.88	cps
Molybdenum	95-1	12562558	12836189	12908190	12768979	1.43	cps
Molybdenum	96-1	13860853	13823565	14175060	13953159	1.38	cps
Molybdenum	97-1	7960181	7927538	8110383	7999367	1.22	cps
Molybdenum	98-1	20572820	20600380	20964525	20712575	1.06	cps
Neodymium	150-1	160	177	213	183	14.88	cps
Neodymium	150-2	93	103	53	83	31.75	cps
Nickel	60-2	365011	364535	368499	366015	0.59	cps
Phosphorus	31-2	58642	56517	58886	58015	2.25	cps
Potassium	39-2	32158587	31666671	32421966	32082408	1.19	cps
Rhodium	103-1	2868046	2874397	2846922	2863122	0.50	cps
Rhodium	103-2	1765120	1713052	1728587	1735586	1.54	cps
Scandium	45-1	1948100	1945788	1988297	1960728	1.22	cps
Scandium	45-2	152082	151236	151714	151677	0.28	cps
Selenium	82-1	46147	46604	46859	46537	0.77	cps
Selenium	77-2	4751	4827	4737	4772	1.02	cps
Selenium	78-2	15805	16039	16509	16118	2.23	cps
Silicon	28-1	5923328	6068753	6135693	6042591	1.80	cps
Silver	107-1	3169948	3173835	3229755	3191179	1.05	cps
Silver	109-1	2983245	2998084	3036116	3005815	0.91	cps
Sodium	23-2	77149552	76934186	78197679	77427139	0.87	cps
Strontium	86-1	772947	784350	795895	784397	1.46	cps
Strontium	88-1	7497385	7693317	7579716	7590139	1.30	cps
Sulfur	34-1	316344	316213	318616	317058	0.43	cps
Terbium	159-1	3673251	3746631	3718428	3712770	1.00	cps
Terbium	159-2	2842631	2832529	2793435	2822865	0.92	cps
Thallium	203-1	1931582	2004569	2028540	1988230	2.54	cps
Thallium	205-1	4739434	4787484	4858207	4795042	1.25	cps
Tin	118-1	2047089	2047932	2125880	2073633	2.18	cps
Titanium	47-1	3386903	3370170	3421699	3392924	0.77	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:08:08	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5932978	5899076	6033388	5955147	1.17	cps
Vanadium	51-2	832685	822118	824126	826310	0.68	cps
Yttrium	89-1	5971863	6045776	5987757	6001799	0.65	cps
Yttrium	89-2	1656681	1593106	1644399	1631395	2.07	cps
Zinc	66-2	1956074	1901125	1932514	1929905	1.43	cps
Zirconium	90-1	4505007	4562685	4453981	4507224	1.21	cps
Zirconium	91-1	906978	920236	923757	916990	0.96	cps

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	147	220	210	192	20.69	cps
Antimony	121-1	427	507	550	494	12.65	cps
Arsenic	75-2	13	7	7	9	43.25	cps
Barium	135-1	123	80	127	110	23.67	cps
Barium	137-1	147	133	147	142	5.41	cps
Beryllium	9-1	60	40	24	41	44.54	cps
Bismuth	209-1	2117140	2073501	2063175	2084605	1.37	cps
Bismuth	209-2	2075489	2081631	2033127	2063416	1.28	cps
Bromine	81-1	21322	21342	21679	21448	0.94	cps
Bromine	81-2	163	143	123	143	13.95	cps
Cadmium	108-1	0	7	3	3	100.05	cps
Cadmium	106-1	1370	1340	1230	1313	5.61	cps
Cadmium	111-1	187	159	157	168	9.89	cps
Calcium	43-1	463	447	367	426	12.14	cps
Calcium	44-1	11561	11495	11688	11581	0.85	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1253	1240	1283	1259	1.76	cps
Cobalt	59-2	50	43	53	49	10.42	cps
Copper	63-2	1820	1743	1667	1743	4.40	cps
Dysprosium	156-1	3	10	7	7	50.03	cps
Dysprosium	156-2	0	0	7	2	173.21	cps
Erbium	164-1	23	20	20	21	9.11	cps
Erbium	164-2	20	10	17	16	32.73	cps
Gadolinium	160-1	20	13	17	17	20.01	cps
Gadolinium	160-2	163	153	150	156	4.46	cps
Holmium	165-1	3726302	3632359	3746318	3701660	1.64	cps
Holmium	165-2	2907374	2937932	2829273	2891527	1.94	cps
Indium	115-1	3372354	3289713	3332010	3331359	1.24	cps
Indium	115-2	1127630	1133463	1105802	1122298	1.30	cps
Iron	56-2	20925	21292	21175	21131	0.89	cps
Iron	57-2	1393	1470	1537	1467	4.89	cps
Iron	54-2	2337	2424	2227	2329	4.23	cps
Krypton	83-1	367	353	347	356	2.87	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	477	393	447	439	9.62	cps
Lead	207-1	360	477	357	398	17.18	cps
Lead	208-1	1860	1787	1827	1825	2.01	cps
Lithium	6-1	306310	305583	306154	306016	0.13	cps
Magnesium	24-2	390	360	387	379	4.34	cps
Manganese	55-2	3200	3230	3264	3231	0.98	cps
Molybdenum	94-1	500	377	337	404	21.05	cps
Molybdenum	95-1	433	460	427	440	4.01	cps
Molybdenum	96-1	553	577	537	556	3.62	cps
Molybdenum	97-1	360	263	290	304	16.40	cps
Molybdenum	98-1	687	690	660	679	2.42	cps
Neodymium	150-1	0	3	7	3	100.05	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	410	400	313	374	14.20	cps
Phosphorus	31-2	343	423	420	396	11.44	cps
Potassium	39-2	54768	54430	54751	54650	0.35	cps
Rhodium	103-1	3153766	3094464	3085376	3111202	1.19	cps
Rhodium	103-2	1858466	1839096	1822717	1840093	0.97	cps
Scandium	45-1	1955261	1914747	1951323	1940444	1.15	cps
Scandium	45-2	150981	154139	149978	151699	1.43	cps
Selenium	82-1	83	127	171	127	34.67	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	563	607	530	567	6.78	cps
Silicon	28-1	1600992	1571339	1600012	1590781	1.06	cps
Silver	107-1	380	270	277	309	19.97	cps
Silver	109-1	323	287	213	274	20.41	cps
Sodium	23-2	17874	17780	17787	17814	0.29	cps
Strontium	86-1	597	543	563	568	4.75	cps
Strontium	88-1	210	220	243	224	7.62	cps
Sulfur	34-1	116678	118928	118082	117896	0.96	cps
Terbium	159-1	3851106	3759324	3777726	3796052	1.28	cps
Terbium	159-2	2829337	2945811	2776442	2850530	3.04	cps
Thallium	203-1	343	373	403	373	8.04	cps
Thallium	205-1	843	897	800	847	5.72	cps
Tin	118-1	1067	947	990	1001	6.07	cps
Titanium	47-1	110	97	127	111	13.53	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:11:01	DataFile Name :	025CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	63	30	43	46	36.83	cps
Vanadium	51-2	23	23	10	19	40.75	cps
Yttrium	89-1	6042678	6079521	6057856	6060018	0.31	cps
Yttrium	89-2	1672443	1679125	1640868	1664145	1.23	cps
Zinc	66-2	877	807	860	848	4.31	cps
Zirconium	90-1	744	493	540	592	22.46	cps
Zirconium	91-1	93	67	103	88	21.59	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2247	2230	2117	2198	3.22	cps
Antimony	121-1	8586	8302	8506	8465	1.73	cps
Arsenic	75-2	317	273	280	290	8.04	cps
Barium	135-1	10784	10641	10354	10593	2.07	cps
Barium	137-1	18118	18392	18469	18326	1.01	cps
Beryllium	9-1	726	591	613	643	11.24	cps
Bismuth	209-1	2049670	2041261	2093165	2061366	1.35	cps
Bismuth	209-2	2078275	2118072	2105638	2100662	0.97	cps
Bromine	81-1	21916	22938	22177	22344	2.38	cps
Bromine	81-2	120	160	117	132	18.24	cps
Cadmium	108-1	57	50	103	70	41.52	cps
Cadmium	106-1	1410	1470	1447	1442	2.10	cps
Cadmium	111-1	1238	1247	1189	1225	2.55	cps
Calcium	43-1	7038	6915	6815	6923	1.62	cps
Calcium	44-1	117518	120222	118418	118720	1.16	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5221	5078	5071	5123	1.65	cps
Cobalt	59-2	2997	3164	2994	3051	3.19	cps
Copper	63-2	5578	5691	5668	5646	1.06	cps
Dysprosium	156-1	7	10	7	8	24.71	cps
Dysprosium	156-2	3	7	7	6	34.70	cps
Erbium	164-1	37	43	13	31	50.64	cps
Erbium	164-2	10	37	33	27	54.49	cps
Gadolinium	160-1	37	27	20	28	30.20	cps
Gadolinium	160-2	150	153	133	146	7.36	cps
Holmium	165-1	3625401	3633522	3680322	3646415	0.81	cps
Holmium	165-2	2904172	2920604	2967080	2930618	1.11	cps
Indium	115-1	3312704	3297772	3316636	3309037	0.30	cps
Indium	115-2	1128720	1147581	1147927	1141409	0.96	cps
Iron	56-2	110089	111389	112430	111302	1.05	cps
Iron	57-2	3897	3697	3797	3797	2.63	cps
Iron	54-2	7092	7312	7085	7163	1.80	cps
Krypton	83-1	337	337	330	334	1.15	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2964	2810	2997	2924	3.41	cps
Lead	207-1	2490	2514	2684	2562	4.12	cps
Lead	208-1	11205	11412	11849	11489	2.86	cps
Lithium	6-1	302115	304777	305291	304061	0.56	cps
Magnesium	24-2	80543	80885	80104	80511	0.49	cps
Manganese	55-2	5051	4974	5071	5032	1.01	cps
Molybdenum	94-1	9927	9853	9580	9787	1.87	cps
Molybdenum	95-1	11331	11435	11558	11441	0.99	cps
Molybdenum	96-1	12362	13013	13019	12798	2.95	cps
Molybdenum	97-1	7385	7252	7325	7321	0.91	cps
Molybdenum	98-1	18402	18088	18181	18224	0.88	cps
Neodymium	150-1	0	0	0	0	0.00	cps
Neodymium	150-2	7	0	0	2	173.21	cps
Nickel	60-2	1130	1067	1110	1102	2.94	cps
Phosphorus	31-2	1833	1723	1957	1838	6.35	cps
Potassium	39-2	161890	164434	166014	164113	1.27	cps
Rhodium	103-1	3042970	3095131	3136800	3091634	1.52	cps
Rhodium	103-2	1810169	1864648	1886194	1853670	2.11	cps
Scandium	45-1	1942088	1972176	1934899	1949721	1.01	cps
Scandium	45-2	150049	155916	156563	154176	2.33	cps
Selenium	82-1	661	571	623	618	7.33	cps
Selenium	77-2	50	63	47	53	16.53	cps
Selenium	78-2	767	733	800	767	4.35	cps
Silicon	28-1	1599101	1635894	1586455	1607150	1.60	cps
Silver	107-1	6038	6161	6285	6161	2.00	cps
Silver	109-1	5785	5828	5955	5856	1.51	cps
Sodium	23-2	142381	142170	143549	142700	0.52	cps
Strontium	86-1	2044	1970	2207	2074	5.84	cps
Strontium	88-1	13383	13296	13623	13434	1.26	cps
Sulfur	34-1	125994	126078	125611	125894	0.20	cps
Terbium	159-1	3838376	3780129	3783321	3800609	0.86	cps
Terbium	159-2	2862572	2944741	2873500	2893604	1.54	cps
Thallium	203-1	3697	3911	3861	3823	2.92	cps
Thallium	205-1	9026	9170	9100	9099	0.79	cps
Tin	118-1	19467	19260	19140	19289	0.86	cps
Titanium	47-1	3057	3100	3087	3081	0.72	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:14:21	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9850	9550	9967	9789	2.20	cps
Vanadium	51-2	7622	7982	7989	7864	2.67	cps
Yttrium	89-1	6082553	6091552	6154249	6109452	0.64	cps
Yttrium	89-2	1692682	1704880	1711982	1703181	0.57	cps
Zinc	66-2	2897	2807	2647	2784	4.55	cps
Zirconium	90-1	8439	8776	8813	8676	2.37	cps
Zirconium	91-1	1847	1990	1853	1897	4.27	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	233	197	173	201	15.04	cps
Antimony	121-1	83	93	110	96	14.10	cps
Arsenic	75-2	7	7	7	7	0.00	cps
Barium	135-1	90	60	60	70	24.74	cps
Barium	137-1	103	133	137	124	14.76	cps
Beryllium	9-1	10	27	27	21	44.99	cps
Bismuth	209-1	2087186	2144533	2081033	2104251	1.66	cps
Bismuth	209-2	2066345	2067318	2086996	2073553	0.56	cps
Bromine	81-1	21996	22260	21840	22032	0.96	cps
Bromine	81-2	137	150	177	154	13.19	cps
Cadmium	108-1	3	3	7	4	43.40	cps
Cadmium	106-1	1393	1393	1363	1383	1.25	cps
Cadmium	111-1	154	140	145	146	4.66	cps
Calcium	43-1	477	390	413	427	10.51	cps
Calcium	44-1	11938	12028	11972	11979	0.38	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1370	1303	1293	1322	3.15	cps
Cobalt	59-2	47	77	30	51	46.27	cps
Copper	63-2	1637	1477	1440	1518	6.89	cps
Dysprosium	156-1	7	3	0	3	100.05	cps
Dysprosium	156-2	3	0	3	2	86.60	cps
Erbium	164-1	23	33	20	26	27.15	cps
Erbium	164-2	17	27	27	23	24.74	cps
Gadolinium	160-1	20	13	33	22	45.83	cps
Gadolinium	160-2	90	140	157	129	26.92	cps
Holmium	165-1	3701749	3727598	3710975	3713441	0.35	cps
Holmium	165-2	2920166	2932518	2957167	2936617	0.64	cps
Indium	115-1	3333106	3403056	3340930	3359031	1.14	cps
Indium	115-2	1130221	1135014	1141391	1135542	0.49	cps
Iron	56-2	20644	20564	20361	20523	0.71	cps
Iron	57-2	1523	1523	1450	1499	2.82	cps
Iron	54-2	2204	2250	2167	2207	1.89	cps
Krypton	83-1	273	383	353	337	16.89	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	390	467	343	400	15.57	cps
Lead	207-1	330	320	303	318	4.24	cps
Lead	208-1	1490	1683	1380	1518	10.12	cps
Lithium	6-1	307105	308744	308238	308029	0.27	cps
Magnesium	24-2	213	183	247	214	14.77	cps
Manganese	55-2	3107	3267	2984	3119	4.56	cps
Molybdenum	94-1	177	217	203	199	10.24	cps
Molybdenum	95-1	197	280	207	228	19.98	cps
Molybdenum	96-1	297	340	247	294	15.86	cps
Molybdenum	97-1	103	123	110	112	9.08	cps
Molybdenum	98-1	347	297	270	304	12.78	cps
Neodymium	150-1	13	7	0	7	99.98	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	357	367	287	337	12.95	cps
Phosphorus	31-2	403	370	390	388	4.33	cps
Potassium	39-2	52674	53825	53493	53331	1.11	cps
Rhodium	103-1	3124185	3123098	3107114	3118132	0.31	cps
Rhodium	103-2	1834421	1915206	1868332	1872653	2.17	cps
Scandium	45-1	1972611	2021225	2012817	2002218	1.30	cps
Scandium	45-2	151637	153070	152923	152544	0.52	cps
Selenium	82-1	243	107	163	171	40.01	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	577	547	547	557	3.11	cps
Silicon	28-1	1565497	1577010	1639356	1593954	2.49	cps
Silver	107-1	117	83	120	107	19.01	cps
Silver	109-1	83	90	107	93	12.88	cps
Sodium	23-2	15565	15645	15341	15517	1.01	cps
Strontium	86-1	523	573	527	541	5.17	cps
Strontium	88-1	160	203	140	168	19.30	cps
Sulfur	34-1	122748	122220	121034	122001	0.72	cps
Terbium	159-1	3841286	3840629	3836442	3839452	0.07	cps
Terbium	159-2	2838744	2891602	2842068	2857471	1.04	cps
Thallium	203-1	263	240	273	259	6.61	cps
Thallium	205-1	660	543	593	599	9.77	cps
Tin	118-1	927	913	960	933	2.58	cps
Titanium	47-1	103	70	67	80	25.35	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BL	Instrumnet Name :	P7
Client Sample ID :	PB168389BL	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:17:48	DataFile Name :	027CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	40	10	20	23	65.47	cps
Vanadium	51-2	0	13	20	11	91.66	cps
Yttrium	89-1	6219946	6138974	6147386	6168769	0.72	cps
Yttrium	89-2	1691992	1678735	1661098	1677275	0.92	cps
Zinc	66-2	677	697	703	692	2.00	cps
Zirconium	90-1	473	310	230	338	36.73	cps
Zirconium	91-1	57	33	43	44	26.35	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1007186	997532	996971	1000563	0.57	cps
Antimony	121-1	2382707	2399102	2432419	2404743	1.05	cps
Arsenic	75-2	134846	133494	131692	133344	1.19	cps
Barium	135-1	3054773	3123811	3193458	3124014	2.22	cps
Barium	137-1	5273788	5529766	5599560	5467705	3.14	cps
Beryllium	9-1	309547	314486	320448	314827	1.73	cps
Bismuth	209-1	2082903	2125547	2089764	2099405	1.09	cps
Bismuth	209-2	2102484	2051735	2026838	2060352	1.87	cps
Bromine	81-1	22160	22304	22501	22321	0.77	cps
Bromine	81-2	143	163	140	149	8.48	cps
Cadmium	108-1	43759	44324	45749	44611	2.30	cps
Cadmium	106-1	62996	63769	64620	63795	1.27	cps
Cadmium	111-1	588878	597747	604961	597195	1.35	cps
Calcium	43-1	693525	704366	714931	704274	1.52	cps
Calcium	44-1	11920702	11889836	12110516	11973685	1.00	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	965190	957221	947201	956537	0.94	cps
Cobalt	59-2	1654741	1643210	1623234	1640395	0.97	cps
Copper	63-2	11557078	11334120	11242592	11377930	1.42	cps
Dysprosium	156-1	83	57	70	70	19.04	cps
Dysprosium	156-2	127	180	157	154	17.31	cps
Erbium	164-1	47	80	63	63	26.31	cps
Erbium	164-2	53	40	57	50	17.64	cps
Gadolinium	160-1	30	43	77	50	48.08	cps
Gadolinium	160-2	167	120	143	143	16.28	cps
Holmium	165-1	3737130	3797807	3815440	3783459	1.09	cps
Holmium	165-2	3018340	2932023	2881963	2944109	2.34	cps
Indium	115-1	3287892	3311080	3317489	3305487	0.47	cps
Indium	115-2	1135344	1120945	1106933	1121074	1.27	cps
Iron	56-2	49546499	48173551	48684439	48801496	1.42	cps
Iron	57-2	1179362	1165885	1160057	1168435	0.85	cps
Iron	54-2	2787311	2709679	2642300	2713097	2.67	cps
Krypton	83-1	333	363	330	342	5.36	cps

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8155922	8542995	8352362	8350426	2.32	cps
Lead	207-1	7099779	7423728	7321894	7281801	2.27	cps
Lead	208-1	32549432	33525787	33474212	33183144	1.66	cps
Lithium	6-1	308322	309070	316776	311390	1.50	cps
Magnesium	24-2	9543109	9524267	9405718	9491031	0.78	cps
Manganese	55-2	8543366	8308595	8269051	8373671	1.77	cps
Molybdenum	94-1	9015108	9147512	9270155	9144258	1.39	cps
Molybdenum	95-1	12717574	13098593	13229598	13015255	2.04	cps
Molybdenum	96-1	13759098	14161504	14312511	14077705	2.03	cps
Molybdenum	97-1	8028570	8160850	8189555	8126325	1.06	cps
Molybdenum	98-1	20543765	20837391	21059908	20813688	1.24	cps
Neodymium	150-1	143	180	90	138	32.85	cps
Neodymium	150-2	30	60	27	39	47.20	cps
Nickel	60-2	390982	383306	381859	385382	1.27	cps
Phosphorus	31-2	58652	59609	57431	58564	1.86	cps
Potassium	39-2	6281477	6217879	6197148	6232168	0.71	cps
Rhodium	103-1	3145678	3120606	3130765	3132350	0.40	cps
Rhodium	103-2	1816601	1845478	1835941	1832673	0.80	cps
Scandium	45-1	1987297	1982967	2035590	2001951	1.46	cps
Scandium	45-2	157879	155654	153947	155827	1.27	cps
Selenium	82-1	49605	50394	50902	50300	1.30	cps
Selenium	77-2	4978	5314	5288	5193	3.61	cps
Selenium	78-2	17884	17464	17641	17663	1.20	cps
Silicon	28-1	7694751	7755091	8040729	7830190	2.36	cps
Silver	107-1	3146105	3247185	3269479	3220923	2.04	cps
Silver	109-1	3055797	3036301	3082057	3058052	0.75	cps
Sodium	23-2	14954649	14597446	14662390	14738162	1.29	cps
Strontium	86-1	783652	797228	801646	794176	1.18	cps
Strontium	88-1	7511509	7647941	7749479	7636310	1.56	cps
Sulfur	34-1	314339	313960	313743	314014	0.10	cps
Terbium	159-1	3873000	3951056	3957046	3927034	1.19	cps
Terbium	159-2	2943051	2865013	2874552	2894205	1.47	cps
Thallium	203-1	2055879	2076208	2115349	2082479	1.45	cps
Thallium	205-1	4769442	4917803	4952798	4880014	1.99	cps
Tin	118-1	2099517	2119748	2210223	2143163	2.75	cps
Titanium	47-1	3402601	3404032	3430044	3412226	0.45	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389BS	Instrumnet Name :	P7
Client Sample ID :	PB168389BS	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:21:08	DataFile Name :	028LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5829011	6022677	6080756	5977481	2.21	cps
Vanadium	51-2	844013	835268	827551	835611	0.99	cps
Yttrium	89-1	6162661	6310830	6275308	6249600	1.24	cps
Yttrium	89-2	1703654	1697527	1675617	1692266	0.87	cps
Zinc	66-2	2134965	2154767	2076818	2122183	1.91	cps
Zirconium	90-1	4541761	4642880	4698855	4627832	1.72	cps
Zirconium	91-1	916403	929363	940040	928602	1.27	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	303	140	223	222	36.76	cps
Antimony	121-1	427	477	473	459	6.09	cps
Arsenic	75-2	3	10	3	6	69.34	cps
Barium	135-1	77	70	47	64	24.44	cps
Barium	137-1	140	93	163	132	26.96	cps
Beryllium	9-1	30	50	17	33	51.93	cps
Bismuth	209-1	2107021	2120875	2118809	2115568	0.35	cps
Bismuth	209-2	2071080	2058754	2050462	2060099	0.50	cps
Bromine	81-1	21623	21496	21970	21696	1.13	cps
Bromine	81-2	153	183	143	160	13.01	cps
Cadmium	108-1	7	7	13	9	43.25	cps
Cadmium	106-1	1523	1427	1323	1425	7.02	cps
Cadmium	111-1	185	178	156	173	8.52	cps
Calcium	43-1	457	350	370	392	14.46	cps
Calcium	44-1	11882	11858	11438	11726	2.13	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1563	1280	1337	1393	10.76	cps
Cobalt	59-2	37	70	57	54	30.81	cps
Copper	63-2	1483	1433	1420	1446	2.31	cps
Dysprosium	156-1	13	3	7	8	65.47	cps
Dysprosium	156-2	3	7	3	4	43.40	cps
Erbium	164-1	27	7	43	26	71.82	cps
Erbium	164-2	17	27	7	17	59.99	cps
Gadolinium	160-1	13	7	17	12	41.65	cps
Gadolinium	160-2	170	137	150	152	11.02	cps
Holmium	165-1	3717533	3716103	3761740	3731792	0.70	cps
Holmium	165-2	2905487	2899463	2863987	2889646	0.78	cps
Indium	115-1	3277052	3304062	3358110	3313075	1.25	cps
Indium	115-2	1136066	1118078	1123466	1125870	0.82	cps
Iron	56-2	20220	19950	20618	20263	1.66	cps
Iron	57-2	1363	1340	1477	1393	5.25	cps
Iron	54-2	2114	1933	2214	2087	6.80	cps
Krypton	83-1	350	287	303	313	10.48	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	503	477	463	481	4.23	cps
Lead	207-1	513	380	410	434	16.10	cps
Lead	208-1	2060	1807	1877	1915	6.83	cps
Lithium	6-1	309037	303451	312081	308190	1.42	cps
Magnesium	24-2	273	210	257	247	13.31	cps
Manganese	55-2	3100	3257	3104	3154	2.84	cps
Molybdenum	94-1	507	443	370	440	15.54	cps
Molybdenum	95-1	443	450	450	448	0.86	cps
Molybdenum	96-1	573	613	510	566	9.21	cps
Molybdenum	97-1	377	253	310	313	19.70	cps
Molybdenum	98-1	767	673	593	678	12.80	cps
Neodymium	150-1	0	10	3	4	114.60	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	357	470	390	406	14.36	cps
Phosphorus	31-2	400	440	417	419	4.80	cps
Potassium	39-2	53079	52192	52630	52634	0.84	cps
Rhodium	103-1	3080411	3150328	3146222	3125653	1.26	cps
Rhodium	103-2	1880415	1821960	1835676	1846017	1.66	cps
Scandium	45-1	1970565	1943588	1939594	1951249	0.86	cps
Scandium	45-2	153125	148453	150250	150609	1.56	cps
Selenium	82-1	118	227	189	178	31.10	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	577	500	643	573	12.51	cps
Silicon	28-1	1614117	1544219	1572406	1576914	2.23	cps
Silver	107-1	360	247	180	262	34.71	cps
Silver	109-1	280	227	147	218	30.82	cps
Sodium	23-2	16022	16272	15535	15943	2.35	cps
Strontium	86-1	563	477	600	547	11.59	cps
Strontium	88-1	223	203	220	216	4.97	cps
Sulfur	34-1	113921	115230	113638	114263	0.74	cps
Terbium	159-1	3762742	3794588	3791790	3783040	0.47	cps
Terbium	159-2	2878383	2801453	2787596	2822477	1.73	cps
Thallium	203-1	273	320	273	289	9.33	cps
Thallium	205-1	577	663	683	641	8.84	cps
Tin	118-1	1003	1097	1013	1038	4.94	cps
Titanium	47-1	143	133	117	131	10.28	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	PB168389TB	Instrumnet Name :	P7
Client Sample ID :	PB168389TB	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:23:59	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	67	73	30	57	41.18	cps
Vanadium	51-2	17	13	7	12	41.65	cps
Yttrium	89-1	6072968	6145935	6036011	6084971	0.92	cps
Yttrium	89-2	1673648	1611706	1631999	1639117	1.93	cps
Zinc	66-2	770	670	610	683	11.83	cps
Zirconium	90-1	390	420	403	404	3.72	cps
Zirconium	91-1	97	60	67	74	26.24	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	580846	585324	579401	581857	0.53	cps
Antimony	121-1	143	180	223	182	21.98	cps
Arsenic	75-2	137	153	147	146	5.76	cps
Barium	135-1	21443	21359	21950	21584	1.48	cps
Barium	137-1	36918	37787	37854	37520	1.39	cps
Beryllium	9-1	218	167	179	188	14.19	cps
Bismuth	209-1	2138148	2130152	2071890	2113397	1.71	cps
Bismuth	209-2	2113737	2052064	2081033	2082278	1.48	cps
Bromine	81-1	22347	21786	22681	22271	2.03	cps
Bromine	81-2	190	187	217	198	8.31	cps
Cadmium	108-1	17	17	13	16	12.40	cps
Cadmium	106-1	1420	1460	1533	1471	3.91	cps
Cadmium	111-1	287	319	281	296	6.88	cps
Calcium	43-1	858852	868879	870673	866134	0.74	cps
Calcium	44-1	14566109	14935255	14755950	14752438	1.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3967	3921	3884	3924	1.06	cps
Cobalt	59-2	78960	80049	79318	79442	0.70	cps
Copper	63-2	21359	21813	21853	21675	1.27	cps
Dysprosium	156-1	17932	19604	18469	18668	4.57	cps
Dysprosium	156-2	16810	16376	16440	16542	1.42	cps
Erbium	164-1	23971	24755	24552	24426	1.67	cps
Erbium	164-2	19527	19013	18863	19134	1.82	cps
Gadolinium	160-1	19858	20218	19944	20007	0.94	cps
Gadolinium	160-2	16153	15762	16143	16019	1.39	cps
Holmium	165-1	3797883	3872534	3798245	3822888	1.12	cps
Holmium	165-2	2973695	2996608	3031265	3000523	0.97	cps
Indium	115-1	3332228	3426693	3375655	3378192	1.40	cps
Indium	115-2	1147855	1142473	1140218	1143515	0.34	cps
Iron	56-2	125776645	127337925	127368878	126827816	0.72	cps
Iron	57-2	3154572	3098695	3113983	3122416	0.92	cps
Iron	54-2	6918948	6909334	6832432	6886905	0.69	cps
Krypton	83-1	463	420	380	421	9.90	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	717	660	753	710	6.62	cps
Lead	207-1	613	577	650	613	5.98	cps
Lead	208-1	2773	2803	2853	2810	1.44	cps
Lithium	6-1	314271	316573	309362	313402	1.18	cps
Magnesium	24-2	2382446	2332554	2381457	2365486	1.21	cps
Manganese	55-2	2494026	2555454	2518216	2522565	1.23	cps
Molybdenum	94-1	857	783	803	814	4.65	cps
Molybdenum	95-1	437	460	380	426	9.67	cps
Molybdenum	96-1	3150	3037	3187	3125	2.50	cps
Molybdenum	97-1	300	200	287	262	20.71	cps
Molybdenum	98-1	487	510	540	512	5.22	cps
Neodymium	150-1	19731	20448	20158	20112	1.80	cps
Neodymium	150-2	13490	13507	13620	13539	0.52	cps
Nickel	60-2	10174	9633	9723	9843	2.94	cps
Phosphorus	31-2	523	473	570	522	9.26	cps
Potassium	39-2	173142	173089	170894	172375	0.74	cps
Rhodium	103-1	3159504	3151538	3148450	3153164	0.18	cps
Rhodium	103-2	1872810	1867461	1838737	1859670	0.99	cps
Scandium	45-1	2025205	2052364	2013700	2030423	0.98	cps
Scandium	45-2	156152	154899	155798	155616	0.42	cps
Selenium	82-1	203	167	292	221	29.18	cps
Selenium	77-2	60	47	27	44	37.74	cps
Selenium	78-2	667	740	573	660	12.66	cps
Silicon	28-1	26081485	26697317	26112521	26297108	1.32	cps
Silver	107-1	140	87	117	114	23.36	cps
Silver	109-1	77	87	110	91	18.77	cps
Sodium	23-2	3168324	3127286	3170693	3155434	0.77	cps
Strontium	86-1	211555	214767	213953	213425	0.78	cps
Strontium	88-1	2058545	2030278	2048751	2045858	0.70	cps
Sulfur	34-1	1983208	1964646	1977097	1974984	0.48	cps
Terbium	159-1	3905691	3965571	4031459	3967574	1.59	cps
Terbium	159-2	2960494	2945003	2911073	2938857	0.86	cps
Thallium	203-1	333	250	243	276	18.20	cps
Thallium	205-1	583	543	650	592	9.10	cps
Tin	118-1	1010	987	1080	1026	4.74	cps
Titanium	47-1	350	313	320	328	5.96	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-02DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-36-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:27:21	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8880	9347	9100	9109	2.57	cps
Vanadium	51-2	96013	96147	95161	95774	0.56	cps
Yttrium	89-1	6765151	6928171	6862490	6851937	1.20	cps
Yttrium	89-2	1865923	1831898	1830153	1842658	1.09	cps
Zinc	66-2	56329	56279	56119	56242	0.20	cps
Zirconium	90-1	1117	1190	1280	1196	6.84	cps
Zirconium	91-1	353	273	260	296	17.08	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	623463	619474	612822	618586	0.87	cps
Antimony	121-1	163	193	160	172	10.66	cps
Arsenic	75-2	147	127	137	137	7.32	cps
Barium	135-1	24281	24688	24691	24553	0.96	cps
Barium	137-1	41751	42283	42878	42304	1.33	cps
Beryllium	9-1	220	197	238	218	9.42	cps
Bismuth	209-1	2098929	2113182	2124235	2112115	0.60	cps
Bismuth	209-2	2094096	2094194	2068769	2085686	0.70	cps
Bromine	81-1	22678	22444	22087	22403	1.33	cps
Bromine	81-2	300	270	183	251	24.13	cps
Cadmium	108-1	27	23	43	31	34.44	cps
Cadmium	106-1	1540	1390	1397	1442	5.88	cps
Cadmium	111-1	260	264	278	268	3.53	cps
Calcium	43-1	902536	906658	902044	903746	0.28	cps
Calcium	44-1	15387827	15533268	15266052	15395716	0.87	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4197	4224	4357	4260	2.01	cps
Cobalt	59-2	85257	85918	85026	85400	0.54	cps
Copper	63-2	45105	44105	43750	44320	1.58	cps
Dysprosium	156-1	18696	18552	18452	18567	0.66	cps
Dysprosium	156-2	16163	16677	15615	16152	3.29	cps
Erbium	164-1	24505	24982	24962	24817	1.09	cps
Erbium	164-2	19187	19203	19046	19145	0.45	cps
Gadolinium	160-1	20345	20398	20599	20447	0.65	cps
Gadolinium	160-2	16189	16256	15706	16050	1.87	cps
Holmium	165-1	3865290	3844874	3859285	3856483	0.27	cps
Holmium	165-2	3004577	2929754	2954346	2962892	1.29	cps
Indium	115-1	3363104	3418677	3379299	3387027	0.84	cps
Indium	115-2	1139538	1145645	1125154	1136779	0.93	cps
Iron	56-2	133606101	132946528	130595951	132382860	1.20	cps
Iron	57-2	3221137	3212304	3252648	3228696	0.66	cps
Iron	54-2	7298056	7094096	7041093	7144415	1.90	cps
Krypton	83-1	390	383	377	383	1.74	cps

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	830	780	807	806	3.11	cps
Lead	207-1	670	687	623	660	4.97	cps
Lead	208-1	3234	3070	3070	3125	3.02	cps
Lithium	6-1	311411	312400	309159	310990	0.53	cps
Magnesium	24-2	2408342	2429254	2429852	2422483	0.51	cps
Manganese	55-2	2660527	2605940	2627267	2631245	1.05	cps
Molybdenum	94-1	723	700	757	727	3.92	cps
Molybdenum	95-1	370	417	387	391	6.05	cps
Molybdenum	96-1	3034	2914	2984	2977	2.03	cps
Molybdenum	97-1	243	227	223	231	4.64	cps
Molybdenum	98-1	417	500	480	466	9.34	cps
Neodymium	150-1	20422	20472	20268	20387	0.52	cps
Neodymium	150-2	13507	13557	13356	13473	0.77	cps
Nickel	60-2	9570	9987	9690	9749	2.20	cps
Phosphorus	31-2	463	560	533	519	9.62	cps
Potassium	39-2	180783	177479	177958	178740	1.00	cps
Rhodium	103-1	3168416	3191085	3163521	3174341	0.46	cps
Rhodium	103-2	1846520	1836010	1851489	1844673	0.43	cps
Scandium	45-1	2041307	2015830	2026144	2027760	0.63	cps
Scandium	45-2	154991	157301	154145	155479	1.05	cps
Selenium	82-1	204	261	181	215	19.09	cps
Selenium	77-2	47	43	50	47	7.15	cps
Selenium	78-2	707	553	573	611	13.64	cps
Silicon	28-1	27498224	27699055	26939480	27378919	1.44	cps
Silver	107-1	107	103	83	98	12.91	cps
Silver	109-1	107	73	73	84	22.80	cps
Sodium	23-2	3172182	3220681	3166358	3186407	0.94	cps
Strontium	86-1	216800	215609	219263	217224	0.86	cps
Strontium	88-1	2077987	2074967	2083539	2078831	0.21	cps
Sulfur	34-1	2071060	2080838	2041190	2064363	1.00	cps
Terbium	159-1	3944240	4018804	4010561	3991201	1.02	cps
Terbium	159-2	2926902	2950712	2922208	2933274	0.52	cps
Thallium	203-1	277	257	240	258	7.12	cps
Thallium	205-1	667	587	507	587	13.64	cps
Tin	118-1	1133	1227	1173	1178	3.98	cps
Titanium	47-1	333	363	390	362	7.83	cps

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LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:30:33	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9387	9403	9614	9468	1.34	cps
Vanadium	51-2	94527	92978	93542	93682	0.84	cps
Yttrium	89-1	6896366	6818768	6947097	6887410	0.94	cps
Yttrium	89-2	1832661	1868546	1813614	1838274	1.52	cps
Zinc	66-2	60970	60813	60248	60677	0.63	cps
Zirconium	90-1	1170	1073	1197	1147	5.66	cps
Zirconium	91-1	283	250	263	266	6.32	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	613213	620178	624383	619258	0.91	cps
Antimony	121-1	80	117	107	101	18.75	cps
Arsenic	75-2	143	87	130	120	24.69	cps
Barium	135-1	24658	24478	25109	24748	1.31	cps
Barium	137-1	41781	42607	42259	42216	0.98	cps
Beryllium	9-1	193	209	207	203	4.35	cps
Bismuth	209-1	2101205	2128105	2093542	2107617	0.86	cps
Bismuth	209-2	2034585	2073952	2057913	2055483	0.96	cps
Bromine	81-1	22374	22307	22143	22275	0.53	cps
Bromine	81-2	260	193	217	223	15.15	cps
Cadmium	108-1	17	30	13	20	44.10	cps
Cadmium	106-1	1367	1460	1477	1435	4.13	cps
Cadmium	111-1	306	256	313	292	10.73	cps
Calcium	43-1	901260	910224	892508	901331	0.98	cps
Calcium	44-1	15215181	15404928	15040644	15220251	1.20	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3724	3817	3891	3811	2.19	cps
Cobalt	59-2	83933	84138	83940	84003	0.14	cps
Copper	63-2	25131	25151	24680	24988	1.07	cps
Dysprosium	156-1	18312	18392	17965	18223	1.25	cps
Dysprosium	156-2	16503	16500	16513	16505	0.04	cps
Erbium	164-1	24765	25590	24695	25017	1.99	cps
Erbium	164-2	19520	19187	19654	19454	1.24	cps
Gadolinium	160-1	19661	20445	19844	19983	2.05	cps
Gadolinium	160-2	15742	15859	16653	16085	3.08	cps
Holmium	165-1	3820930	3853585	3750378	3808298	1.39	cps
Holmium	165-2	2967918	2995693	2928687	2964099	1.14	cps
Indium	115-1	3290475	3427968	3353838	3357427	2.05	cps
Indium	115-2	1129052	1132931	1142826	1134936	0.63	cps
Iron	56-2	127924595	130592611	131317818	129945008	1.38	cps
Iron	57-2	3242742	3235213	3251023	3242993	0.24	cps
Iron	54-2	6950820	7148999	7160348	7086722	1.66	cps
Krypton	83-1	477	380	450	436	11.46	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	750	707	703	720	3.62	cps
Lead	207-1	617	630	553	600	6.83	cps
Lead	208-1	2707	2773	2783	2755	1.51	cps
Lithium	6-1	309158	316029	310623	311937	1.16	cps
Magnesium	24-2	2362185	2374742	2384736	2373888	0.48	cps
Manganese	55-2	2525970	2576750	2578066	2560262	1.16	cps
Molybdenum	94-1	763	697	650	703	8.10	cps
Molybdenum	95-1	407	350	333	363	10.58	cps
Molybdenum	96-1	3110	3027	3190	3109	2.63	cps
Molybdenum	97-1	253	250	217	240	8.45	cps
Molybdenum	98-1	430	353	423	402	10.56	cps
Neodymium	150-1	19801	20361	20415	20192	1.69	cps
Neodymium	150-2	13473	13406	13770	13550	1.43	cps
Nickel	60-2	9536	9393	9790	9573	2.10	cps
Phosphorus	31-2	493	507	517	506	2.32	cps
Potassium	39-2	175560	176153	178810	176841	0.98	cps
Rhodium	103-1	3126537	3139011	3030109	3098552	1.92	cps
Rhodium	103-2	1855926	1837675	1875483	1856361	1.02	cps
Scandium	45-1	1990128	2041307	1974320	2001919	1.75	cps
Scandium	45-2	154526	153078	155782	154462	0.88	cps
Selenium	82-1	165	243	163	190	23.92	cps
Selenium	77-2	60	40	43	48	22.43	cps
Selenium	78-2	617	617	573	602	4.15	cps
Silicon	28-1	27357997	27503916	26834023	27231979	1.29	cps
Silver	107-1	90	100	70	87	17.63	cps
Silver	109-1	90	83	93	89	5.73	cps
Sodium	23-2	3159985	3169167	3184490	3171214	0.39	cps
Strontium	86-1	214273	218344	212180	214932	1.46	cps
Strontium	88-1	2063459	2057100	2088167	2069575	0.79	cps
Sulfur	34-1	2012044	2018330	2055373	2028582	1.15	cps
Terbium	159-1	3894688	4000177	3935528	3943464	1.35	cps
Terbium	159-2	2976718	2892184	2896728	2921876	1.63	cps
Thallium	203-1	200	193	147	180	16.14	cps
Thallium	205-1	460	417	430	436	5.10	cps
Tin	118-1	1063	1027	1127	1072	4.72	cps
Titanium	47-1	367	367	290	341	12.98	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 12:33:46	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9253	9167	9413	9278	1.35	cps
Vanadium	51-2	92115	92753	94883	93250	1.55	cps
Yttrium	89-1	6771704	6938213	6654493	6788136	2.10	cps
Yttrium	89-2	1808037	1820664	1850783	1826495	1.20	cps
Zinc	66-2	59712	60335	60944	60330	1.02	cps
Zirconium	90-1	1167	1050	1053	1090	6.09	cps
Zirconium	91-1	247	253	213	238	9.01	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	130005	128984	127992	128994	0.78	cps
Antimony	121-1	53	87	60	67	26.46	cps
Arsenic	75-2	37	37	37	37	0.00	cps
Barium	135-1	5041	5224	4858	5041	3.64	cps
Barium	137-1	8749	8743	8276	8589	3.16	cps
Beryllium	9-1	62	54	63	60	8.71	cps
Bismuth	209-1	2072817	2080916	2067677	2073803	0.32	cps
Bismuth	209-2	2091849	2068343	2106046	2088746	0.91	cps
Bromine	81-1	22344	21212	21963	21840	2.64	cps
Bromine	81-2	143	157	160	153	5.75	cps
Cadmium	108-1	10	7	3	7	50.03	cps
Cadmium	106-1	1290	1253	1290	1278	1.66	cps
Cadmium	111-1	161	170	159	163	3.67	cps
Calcium	43-1	183341	182449	187001	184264	1.31	cps
Calcium	44-1	3072921	3197222	3170409	3146851	2.08	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1763	2027	1863	1885	7.05	cps
Cobalt	59-2	17540	17577	17293	17470	0.88	cps
Copper	63-2	8236	8132	8119	8162	0.78	cps
Dysprosium	156-1	3564	4007	3664	3745	6.21	cps
Dysprosium	156-2	3387	3370	3277	3345	1.77	cps
Erbium	164-1	5254	4974	4874	5034	3.91	cps
Erbium	164-2	4097	3884	3961	3981	2.72	cps
Gadolinium	160-1	4107	3967	4191	4088	2.76	cps
Gadolinium	160-2	3504	3350	3290	3382	3.25	cps
Holmium	165-1	3637907	3875718	3707448	3740358	3.27	cps
Holmium	165-2	2896242	2975010	2917630	2929627	1.39	cps
Indium	115-1	3341660	3380403	3338302	3353455	0.70	cps
Indium	115-2	1140438	1138577	1130712	1136576	0.45	cps
Iron	56-2	26970620	27466446	26883677	27106914	1.16	cps
Iron	57-2	636946	643177	629430	636518	1.08	cps
Iron	54-2	1486755	1503469	1469679	1486634	1.14	cps
Krypton	83-1	343	343	323	337	3.43	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	437	513	440	463	9.35	cps
Lead	207-1	423	403	370	399	6.75	cps
Lead	208-1	1910	1867	1863	1880	1.38	cps
Lithium	6-1	306918	309881	308539	308446	0.48	cps
Magnesium	24-2	458219	454804	447599	453541	1.20	cps
Manganese	55-2	495057	497680	493125	495287	0.46	cps
Molybdenum	94-1	267	287	300	284	5.90	cps
Molybdenum	95-1	207	230	220	219	5.35	cps
Molybdenum	96-1	860	787	903	850	6.94	cps
Molybdenum	97-1	127	100	137	121	15.65	cps
Molybdenum	98-1	327	297	223	282	18.84	cps
Neodymium	150-1	4084	4287	4364	4245	3.41	cps
Neodymium	150-2	2700	2897	2634	2744	4.99	cps
Nickel	60-2	2424	2097	2357	2292	7.53	cps
Phosphorus	31-2	373	430	423	409	7.57	cps
Potassium	39-2	76323	77995	78823	77714	1.64	cps
Rhodium	103-1	3118027	3095517	3111851	3108465	0.37	cps
Rhodium	103-2	1870371	1862942	1826713	1853342	1.26	cps
Scandium	45-1	1979870	2012130	1993996	1995332	0.81	cps
Scandium	45-2	153088	153822	152573	153161	0.41	cps
Selenium	82-1	188	196	208	198	5.12	cps
Selenium	77-2	0	13	0	4	173.21	cps
Selenium	78-2	583	567	610	587	3.73	cps
Silicon	28-1	6759964	6872419	6750658	6794347	1.00	cps
Silver	107-1	60	63	80	68	15.81	cps
Silver	109-1	80	57	53	63	22.94	cps
Sodium	23-2	608737	610864	604292	607964	0.55	cps
Strontium	86-1	43233	44263	44290	43929	1.37	cps
Strontium	88-1	386073	385108	386473	385885	0.18	cps
Sulfur	34-1	469657	470109	473452	471073	0.44	cps
Terbium	159-1	3765953	3918272	3850731	3844985	1.98	cps
Terbium	159-2	2864957	2929212	2858648	2884272	1.35	cps
Thallium	203-1	157	160	167	161	3.16	cps
Thallium	205-1	420	320	383	374	13.51	cps
Tin	118-1	933	890	997	940	5.71	cps
Titanium	47-1	103	130	137	123	14.30	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04LDLX25	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	25
Date & Time Acquired :	2025-06-20 12:36:57	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1803	2047	1880	1910	6.51	cps
Vanadium	51-2	18758	19446	19596	19267	2.32	cps
Yttrium	89-1	6253137	6380358	6365556	6333017	1.10	cps
Yttrium	89-2	1712862	1731906	1694333	1713034	1.10	cps
Zinc	66-2	12645	13473	13336	13151	3.37	cps
Zirconium	90-1	417	393	380	397	4.68	cps
Zirconium	91-1	77	80	97	84	12.69	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5608505	5624642	5778308	5670485	1.65	cps
Antimony	121-1	2351277	2313632	2352287	2339065	0.94	cps
Arsenic	75-2	124766	123609	127610	125328	1.64	cps
Barium	135-1	3035279	3054902	3027264	3039148	0.47	cps
Barium	137-1	5246205	5308814	5349772	5301597	0.98	cps
Beryllium	9-1	309258	314120	314589	312655	0.94	cps
Bismuth	209-1	2015297	1962658	2024813	2000923	1.67	cps
Bismuth	209-2	1898853	1885140	1887935	1890643	0.38	cps
Bromine	81-1	20671	20805	21142	20873	1.16	cps
Bromine	81-2	163	180	170	171	4.90	cps
Cadmium	108-1	41346	41192	41543	41360	0.43	cps
Cadmium	106-1	58310	58584	59826	58907	1.37	cps
Cadmium	111-1	549938	553499	553467	552302	0.37	cps
Calcium	43-1	3853292	3767205	3814470	3811656	1.13	cps
Calcium	44-1	61415256	60651554	62391846	61486219	1.42	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	928691	912789	930528	924002	1.06	cps
Cobalt	59-2	1572134	1539324	1551278	1554246	1.07	cps
Copper	63-2	10692725	10710149	10842328	10748401	0.76	cps
Dysprosium	156-1	123	190	160	158	21.16	cps
Dysprosium	156-2	230	177	240	216	15.80	cps
Erbium	164-1	283	307	257	282	8.86	cps
Erbium	164-2	247	217	190	218	13.02	cps
Gadolinium	160-1	153	147	113	138	15.56	cps
Gadolinium	160-2	250	243	263	252	4.04	cps
Holmium	165-1	3788123	3755716	3719725	3754521	0.91	cps
Holmium	165-2	2858668	2798563	2896947	2851393	1.74	cps
Indium	115-1	3179537	3101248	3146729	3142505	1.25	cps
Indium	115-2	1062197	1042366	1070598	1058387	1.37	cps
Iron	56-2	250916310	251366756	253772136	252018401	0.61	cps
Iron	57-2	6197911	6142601	6259477	6199996	0.94	cps
Iron	54-2	13592252	13500594	14018749	13703865	2.02	cps
Krypton	83-1	287	337	317	313	8.03	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8213137	8221221	8175265	8203208	0.30	cps
Lead	207-1	7055032	7016561	6937877	7003157	0.85	cps
Lead	208-1	32206265	31969641	32267168	32147691	0.49	cps
Lithium	6-1	313180	313690	311339	312736	0.40	cps
Magnesium	24-2	49394404	48785981	48690261	48956882	0.78	cps
Manganese	55-2	7988748	8127978	8255447	8124058	1.64	cps
Molybdenum	94-1	8907860	8811107	8938484	8885817	0.75	cps
Molybdenum	95-1	12631478	12634182	12744454	12670038	0.51	cps
Molybdenum	96-1	13773147	13773721	13810140	13785670	0.15	cps
Molybdenum	97-1	7886901	7825947	7950153	7887667	0.79	cps
Molybdenum	98-1	20176958	20089496	20352933	20206463	0.66	cps
Neodymium	150-1	173	143	170	162	10.13	cps
Neodymium	150-2	77	67	53	66	17.86	cps
Nickel	60-2	361046	357650	364356	361017	0.93	cps
Phosphorus	31-2	56079	56142	57414	56545	1.33	cps
Potassium	39-2	32041258	31635200	32305326	31993928	1.06	cps
Rhodium	103-1	2924032	2864134	2912663	2900276	1.10	cps
Rhodium	103-2	1720024	1709292	1737135	1722150	0.82	cps
Scandium	45-1	1947890	1924949	1962198	1945012	0.97	cps
Scandium	45-2	154509	151378	154872	153586	1.25	cps
Selenium	82-1	45942	46384	46036	46121	0.50	cps
Selenium	77-2	4804	4374	4711	4630	4.89	cps
Selenium	78-2	15755	15865	16219	15946	1.52	cps
Silicon	28-1	6015652	6024064	6048995	6029570	0.29	cps
Silver	107-1	3163370	3111227	3126225	3133607	0.86	cps
Silver	109-1	2960477	2952494	2982617	2965196	0.53	cps
Sodium	23-2	76670704	76962179	78110569	77247817	0.99	cps
Strontium	86-1	776280	774367	777059	775902	0.18	cps
Strontium	88-1	7413745	7409232	7406263	7409747	0.05	cps
Sulfur	34-1	318356	316352	317855	317521	0.33	cps
Terbium	159-1	3821533	3737919	3783753	3781068	1.11	cps
Terbium	159-2	2855268	2810767	2840153	2835396	0.80	cps
Thallium	203-1	2002938	1982262	2011861	1999021	0.76	cps
Thallium	205-1	4802949	4769148	4706661	4759586	1.03	cps
Tin	118-1	2112134	2045193	2043316	2066881	1.90	cps
Titanium	47-1	3316063	3380740	3382256	3359686	1.12	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:46:34	DataFile Name :	036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5837193	6018894	6033861	5963316	1.84	cps
Vanadium	51-2	819394	812365	827368	819709	0.92	cps
Yttrium	89-1	5989599	6040184	5958968	5996250	0.68	cps
Yttrium	89-2	1653362	1616725	1689179	1653089	2.19	cps
Zinc	66-2	1967143	1940671	1928934	1945583	1.01	cps
Zirconium	90-1	4469458	4500137	4479357	4482984	0.35	cps
Zirconium	91-1	903694	902459	907912	904688	0.32	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	203	237	240	227	8.94	cps
Antimony	121-1	483	560	450	498	11.33	cps
Arsenic	75-2	7	0	7	4	86.60	cps
Barium	135-1	147	93	97	112	26.62	cps
Barium	137-1	140	183	150	158	14.38	cps
Beryllium	9-1	34	34	37	35	5.22	cps
Bismuth	209-1	2130548	2064888	2148500	2114645	2.08	cps
Bismuth	209-2	2141335	2119372	2077920	2112876	1.52	cps
Bromine	81-1	20638	20284	20778	20567	1.24	cps
Bromine	81-2	137	117	120	124	8.61	cps
Cadmium	108-1	3	7	13	8	65.47	cps
Cadmium	106-1	1347	1137	1173	1219	9.20	cps
Cadmium	111-1	176	136	151	154	13.08	cps
Calcium	43-1	407	407	427	413	2.79	cps
Calcium	44-1	11188	11234	11181	11201	0.26	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1277	1283	1433	1331	6.66	cps
Cobalt	59-2	57	60	47	54	12.74	cps
Copper	63-2	1350	1393	1407	1383	2.14	cps
Dysprosium	156-1	3	10	10	8	49.52	cps
Dysprosium	156-2	0	0	0	0	0.00	cps
Erbium	164-1	20	30	40	30	33.33	cps
Erbium	164-2	3	13	27	14	81.07	cps
Gadolinium	160-1	30	27	17	24	28.38	cps
Gadolinium	160-2	90	140	163	131	28.58	cps
Holmium	165-1	3749864	3763170	3743268	3752100	0.27	cps
Holmium	165-2	2935073	2896089	2917535	2916232	0.67	cps
Indium	115-1	3333029	3367812	3388456	3363099	0.83	cps
Indium	115-2	1139013	1132866	1130439	1134106	0.39	cps
Iron	56-2	22440	22427	22103	22323	0.86	cps
Iron	57-2	1503	1330	1570	1468	8.44	cps
Iron	54-2	2347	2374	2267	2329	2.38	cps
Krypton	83-1	313	283	330	309	7.66	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	523	557	607	562	7.46	cps
Lead	207-1	393	410	420	408	3.30	cps
Lead	208-1	1917	2130	2210	2086	7.27	cps
Lithium	6-1	318915	323037	327668	323206	1.35	cps
Magnesium	24-2	503	633	627	588	12.45	cps
Manganese	55-2	3244	3454	3347	3348	3.14	cps
Molybdenum	94-1	460	440	447	449	2.27	cps
Molybdenum	95-1	523	433	443	467	10.57	cps
Molybdenum	96-1	633	583	537	584	8.27	cps
Molybdenum	97-1	327	280	223	277	18.70	cps
Molybdenum	98-1	817	687	653	719	12.01	cps
Neodymium	150-1	0	3	3	2	86.60	cps
Neodymium	150-2	0	7	0	2	173.21	cps
Nickel	60-2	357	350	340	349	2.40	cps
Phosphorus	31-2	390	460	420	423	8.30	cps
Potassium	39-2	53296	53698	54019	53671	0.67	cps
Rhodium	103-1	3119290	3114729	3130396	3121472	0.26	cps
Rhodium	103-2	1869888	1873530	1867092	1870170	0.17	cps
Scandium	45-1	1950048	1942439	1994248	1962245	1.43	cps
Scandium	45-2	152923	152031	155684	153546	1.24	cps
Selenium	82-1	111	219	182	171	32.04	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	623	593	513	577	9.86	cps
Silicon	28-1	1490220	1547475	1532926	1523540	1.95	cps
Silver	107-1	323	217	253	264	20.49	cps
Silver	109-1	337	223	220	260	25.54	cps
Sodium	23-2	17810	18114	17403	17776	2.01	cps
Strontium	86-1	563	613	570	582	4.66	cps
Strontium	88-1	250	200	177	209	17.94	cps
Sulfur	34-1	119331	119106	118891	119109	0.18	cps
Terbium	159-1	3864813	3865565	3916920	3882433	0.77	cps
Terbium	159-2	2908088	2896183	2889649	2897973	0.32	cps
Thallium	203-1	273	267	233	258	8.31	cps
Thallium	205-1	600	723	700	674	9.71	cps
Tin	118-1	1050	1050	1163	1088	6.02	cps
Titanium	47-1	123	97	97	106	14.59	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 12:49:22	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	97	70	43	70	38.10	cps
Vanadium	51-2	27	3	27	19	71.34	cps
Yttrium	89-1	6013221	6143669	6262136	6139676	2.03	cps
Yttrium	89-2	1709791	1672748	1699999	1694179	1.13	cps
Zinc	66-2	813	837	887	846	4.43	cps
Zirconium	90-1	563	513	483	520	7.77	cps
Zirconium	91-1	97	103	77	92	15.05	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	761903	752398	752239	755513	0.73	cps
Antimony	121-1	433187	434568	431234	432996	0.39	cps
Arsenic	75-2	30094	29930	29914	29979	0.33	cps
Barium	135-1	511010	512324	512952	512095	0.19	cps
Barium	137-1	891679	884978	891693	889450	0.44	cps
Beryllium	9-1	60249	58728	58988	59322	1.37	cps
Bismuth	209-1	2144820	2118544	2100492	2121285	1.05	cps
Bismuth	209-2	2049193	2061915	1999413	2036840	1.62	cps
Bromine	81-1	21933	21679	22190	21934	1.16	cps
Bromine	81-2	317	293	330	313	5.92	cps
Cadmium	108-1	8623	8803	8349	8592	2.66	cps
Cadmium	106-1	13620	13273	13079	13324	2.06	cps
Cadmium	111-1	114786	115771	116289	115616	0.66	cps
Calcium	43-1	989921	988744	983397	987354	0.35	cps
Calcium	44-1	16830563	16871114	16509504	16737060	1.18	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	181419	182585	181620	181875	0.34	cps
Cobalt	59-2	363291	365031	361023	363115	0.55	cps
Copper	63-2	2214899	2165276	2243236	2207804	1.79	cps
Dysprosium	156-1	17184	17424	17354	17321	0.71	cps
Dysprosium	156-2	15442	14928	15178	15183	1.69	cps
Erbium	164-1	23527	24087	23366	23660	1.60	cps
Erbium	164-2	18008	17648	17908	17855	1.04	cps
Gadolinium	160-1	18459	19270	19106	18945	2.26	cps
Gadolinium	160-2	15022	14661	14654	14779	1.42	cps
Holmium	165-1	3888242	3883667	3855930	3875946	0.45	cps
Holmium	165-2	2885147	2948894	2935969	2923336	1.15	cps
Indium	115-1	3360021	3372300	3344756	3359026	0.41	cps
Indium	115-2	1119063	1120676	1123707	1121149	0.21	cps
Iron	56-2	129037665	128197198	130284028	129172964	0.81	cps
Iron	57-2	3186727	3165735	3201755	3184739	0.57	cps
Iron	54-2	7001707	6996839	7041078	7013208	0.35	cps
Krypton	83-1	420	353	443	406	11.52	cps

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1393163	1402720	1378165	1391349	0.89	cps
Lead	207-1	1203352	1208180	1204180	1205237	0.21	cps
Lead	208-1	5955215	6014763	5887068	5952349	1.07	cps
Lithium	6-1	317163	317438	312345	315649	0.91	cps
Magnesium	24-2	4175013	4089856	4143703	4136191	1.04	cps
Manganese	55-2	4026790	3969912	4024020	4006908	0.80	cps
Molybdenum	94-1	769751	772928	764462	769047	0.56	cps
Molybdenum	95-1	830065	829311	825140	828172	0.32	cps
Molybdenum	96-1	929795	932469	931726	931330	0.15	cps
Molybdenum	97-1	518405	517378	516309	517364	0.20	cps
Molybdenum	98-1	1485395	1435873	1435474	1452247	1.98	cps
Neodymium	150-1	18712	19243	19517	19158	2.13	cps
Neodymium	150-2	12199	12632	12092	12308	2.33	cps
Nickel	60-2	82130	81326	80444	81300	1.04	cps
Phosphorus	31-2	503	633	490	542	14.60	cps
Potassium	39-2	1240870	1237669	1244384	1240974	0.27	cps
Rhodium	103-1	3142555	3104658	3130537	3125917	0.62	cps
Rhodium	103-2	1823828	1822150	1825137	1823705	0.08	cps
Scandium	45-1	2032380	1968855	2000933	2000723	1.59	cps
Scandium	45-2	151745	152159	152051	151985	0.14	cps
Selenium	82-1	10062	9748	9802	9870	1.70	cps
Selenium	77-2	950	1027	947	974	4.64	cps
Selenium	78-2	3660	3991	3827	3826	4.31	cps
Silicon	28-1	26057261	25753425	25433098	25747928	1.21	cps
Silver	107-1	101841	103344	105053	103413	1.55	cps
Silver	109-1	96562	97233	96834	96876	0.35	cps
Sodium	23-2	5931789	6105879	5964109	6000592	1.54	cps
Strontium	86-1	381125	382698	383096	382306	0.27	cps
Strontium	88-1	3713750	3665270	3698317	3692446	0.67	cps
Sulfur	34-1	1971590	1947065	1978171	1965609	0.83	cps
Terbium	159-1	3897054	3901842	3934157	3911017	0.52	cps
Terbium	159-2	2922283	2931315	2899169	2917589	0.57	cps
Thallium	203-1	342724	346467	344294	344495	0.55	cps
Thallium	205-1	817193	817936	816262	817130	0.10	cps
Tin	118-1	337491	333635	332637	334587	0.77	cps
Titanium	47-1	600	590	617	602	2.24	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:02:36	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	971492	969742	962243	967826	0.51	cps
Vanadium	51-2	249058	249692	248737	249162	0.20	cps
Yttrium	89-1	6860680	6754244	6762558	6792494	0.87	cps
Yttrium	89-2	1804256	1757318	1813433	1791669	1.68	cps
Zinc	66-2	419791	426103	423761	423218	0.75	cps
Zirconium	90-1	800074	799625	796610	798770	0.24	cps
Zirconium	91-1	177632	177230	177435	177432	0.11	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	739383	736468	741318	739056	0.33	cps
Antimony	121-1	412940	423324	415465	417243	1.30	cps
Arsenic	75-2	27172	26547	26711	26810	1.21	cps
Barium	135-1	485376	502599	486717	491564	1.95	cps
Barium	137-1	843841	868165	853988	855331	1.43	cps
Beryllium	9-1	56181	58307	56256	56915	2.12	cps
Bismuth	209-1	1983624	2095733	2061319	2046892	2.81	cps
Bismuth	209-2	2030044	2035689	2020357	2028697	0.38	cps
Bromine	81-1	21119	22267	21973	21786	2.74	cps
Bromine	81-2	313	343	270	309	11.93	cps
Cadmium	108-1	8072	8286	7929	8096	2.22	cps
Cadmium	106-1	12842	12863	13156	12954	1.36	cps
Cadmium	111-1	109758	112825	110226	110936	1.49	cps
Calcium	43-1	938813	956703	943023	946180	0.99	cps
Calcium	44-1	16011991	16418677	16291769	16240812	1.28	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	178669	176780	179040	178163	0.68	cps
Cobalt	59-2	355467	354455	357425	355783	0.42	cps
Copper	63-2	2144395	2192156	2156011	2164187	1.15	cps
Dysprosium	156-1	16713	17398	16507	16872	2.76	cps
Dysprosium	156-2	14775	14514	14741	14677	0.97	cps
Erbium	164-1	22295	23176	22582	22684	1.98	cps
Erbium	164-2	17651	17448	17538	17546	0.58	cps
Gadolinium	160-1	18365	18589	18432	18462	0.62	cps
Gadolinium	160-2	14598	14915	14648	14720	1.16	cps
Holmium	165-1	3614898	3778058	3698641	3697199	2.21	cps
Holmium	165-2	2876969	2867361	2897042	2880457	0.53	cps
Indium	115-1	3212204	3283133	3171123	3222154	1.76	cps
Indium	115-2	1105403	1096630	1109380	1103805	0.59	cps
Iron	56-2	126917081	124479791	126452001	125949625	1.03	cps
Iron	57-2	3161963	3077426	3218499	3152629	2.25	cps
Iron	54-2	6915784	6968619	6851935	6912113	0.85	cps
Krypton	83-1	393	337	363	364	7.78	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1322476	1361846	1330742	1338355	1.55	cps
Lead	207-1	1141742	1185257	1164770	1163923	1.87	cps
Lead	208-1	5649665	5823480	5758520	5743889	1.53	cps
Lithium	6-1	306001	308714	302014	305576	1.10	cps
Magnesium	24-2	4081189	4082686	3961834	4041903	1.72	cps
Manganese	55-2	3961400	3905868	3947347	3938205	0.73	cps
Molybdenum	94-1	733097	740942	734170	736070	0.58	cps
Molybdenum	95-1	791747	808159	790790	796898	1.23	cps
Molybdenum	96-1	888048	899746	891778	893191	0.67	cps
Molybdenum	97-1	491893	504506	498008	498135	1.27	cps
Molybdenum	98-1	1258773	1428141	1275592	1320835	7.06	cps
Neodymium	150-1	18476	18569	18479	18508	0.29	cps
Neodymium	150-2	11925	12045	12095	12022	0.73	cps
Nickel	60-2	80605	80877	81651	81044	0.67	cps
Phosphorus	31-2	490	533	543	522	5.43	cps
Potassium	39-2	1223323	1234432	1222251	1226669	0.55	cps
Rhodium	103-1	2972579	3085569	3024109	3027419	1.87	cps
Rhodium	103-2	1815281	1780066	1802418	1799255	0.99	cps
Scandium	45-1	1904221	1966318	1919203	1929914	1.68	cps
Scandium	45-2	152694	148079	150452	150408	1.53	cps
Selenium	82-1	9560	9769	9501	9610	1.47	cps
Selenium	77-2	1070	1000	893	988	9.01	cps
Selenium	78-2	3827	3827	3614	3756	3.28	cps
Silicon	28-1	24674692	24833183	24693624	24733833	0.35	cps
Silver	107-1	99152	101579	99280	100004	1.37	cps
Silver	109-1	91167	96458	94361	93996	2.83	cps
Sodium	23-2	5869530	5942851	5871630	5894670	0.71	cps
Strontium	86-1	366612	370054	367668	368111	0.48	cps
Strontium	88-1	3553935	3650659	3551838	3585477	1.57	cps
Sulfur	34-1	1894281	1908693	1839913	1880962	1.93	cps
Terbium	159-1	3759324	3845361	3760000	3788228	1.31	cps
Terbium	159-2	2813902	2851550	2901497	2855650	1.54	cps
Thallium	203-1	326250	341212	331788	333084	2.27	cps
Thallium	205-1	775847	806406	793995	792083	1.94	cps
Tin	118-1	319279	326443	322108	322610	1.12	cps
Titanium	47-1	573	530	537	547	4.27	cps

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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:05:56	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	924510	947692	936795	936332	1.24	cps
Vanadium	51-2	245519	243333	245270	244707	0.49	cps
Yttrium	89-1	6558979	6540085	6546068	6548377	0.15	cps
Yttrium	89-2	1784678	1758556	1795104	1779446	1.06	cps
Zinc	66-2	420501	418255	420781	419846	0.33	cps
Zirconium	90-1	763736	777711	763426	768291	1.06	cps
Zirconium	91-1	169476	172140	171898	171171	0.86	cps

Reviewed By:MOHAN
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Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	764570	763337	763703	763870	0.08	cps
Antimony	121-1	426071	431225	436322	431206	1.19	cps
Arsenic	75-2	29005	29149	28818	28991	0.57	cps
Barium	135-1	500147	512678	517726	510184	1.77	cps
Barium	137-1	872160	888089	888267	882839	1.05	cps
Beryllium	9-1	58996	57618	58302	58306	1.18	cps
Bismuth	209-1	2137850	2135135	2117869	2130285	0.51	cps
Bismuth	209-2	2052992	2087036	2042213	2060747	1.14	cps
Bromine	81-1	22197	22661	22577	22478	1.10	cps
Bromine	81-2	267	340	290	299	12.54	cps
Cadmium	108-1	8216	8776	8526	8506	3.30	cps
Cadmium	106-1	13049	13440	13366	13285	1.56	cps
Cadmium	111-1	113228	115387	116602	115072	1.49	cps
Calcium	43-1	988488	987162	1000023	991891	0.71	cps
Calcium	44-1	16813096	16819351	16885662	16839370	0.24	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	183250	184403	182747	183467	0.46	cps
Cobalt	59-2	367957	373950	367123	369677	1.01	cps
Copper	63-2	2264963	2216960	2248497	2243474	1.09	cps
Dysprosium	156-1	16897	17391	17234	17174	1.47	cps
Dysprosium	156-2	15105	15348	14855	15103	1.64	cps
Erbium	164-1	22759	23413	23186	23119	1.44	cps
Erbium	164-2	17688	18352	18048	18030	1.84	cps
Gadolinium	160-1	18409	19327	18903	18879	2.43	cps
Gadolinium	160-2	15312	14871	14871	15018	1.69	cps
Holmium	165-1	3767268	3747119	3917961	3810783	2.45	cps
Holmium	165-2	2952592	2974228	2960865	2962562	0.37	cps
Indium	115-1	3358480	3324552	3378092	3353708	0.81	cps
Indium	115-2	1134653	1139701	1122457	1132270	0.78	cps
Iron	56-2	130147701	130601998	129273211	130007637	0.52	cps
Iron	57-2	3255715	3207029	3217824	3226856	0.79	cps
Iron	54-2	7165688	7250713	7159025	7191809	0.71	cps
Krypton	83-1	347	350	457	384	16.28	cps

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1375068	1374679	1385275	1378341	0.44	cps
Lead	207-1	1185652	1208011	1204458	1199373	1.00	cps
Lead	208-1	5918229	6027891	6011832	5985984	0.99	cps
Lithium	6-1	311630	314368	314326	313441	0.50	cps
Magnesium	24-2	4180478	4168311	4097104	4148631	1.09	cps
Manganese	55-2	4082987	4072773	3990528	4048763	1.25	cps
Molybdenum	94-1	763650	768617	771889	768052	0.54	cps
Molybdenum	95-1	823119	831473	840732	831775	1.06	cps
Molybdenum	96-1	925058	929975	943803	932945	1.04	cps
Molybdenum	97-1	519018	523949	523831	522266	0.54	cps
Molybdenum	98-1	1433182	1450469	1450861	1444837	0.70	cps
Neodymium	150-1	19053	18683	19407	19047	1.90	cps
Neodymium	150-2	12592	12709	12706	12669	0.52	cps
Nickel	60-2	83206	83072	82046	82775	0.77	cps
Phosphorus	31-2	540	513	527	527	2.53	cps
Potassium	39-2	1263599	1267653	1241236	1257496	1.13	cps
Rhodium	103-1	3164048	3155030	3174803	3164627	0.31	cps
Rhodium	103-2	1869426	1831039	1847777	1849414	1.04	cps
Scandium	45-1	2020482	2025752	2004941	2017058	0.54	cps
Scandium	45-2	153385	153707	152865	153319	0.28	cps
Selenium	82-1	10218	9998	9957	10057	1.39	cps
Selenium	77-2	1117	1053	957	1042	7.73	cps
Selenium	78-2	3987	3814	4011	3937	2.73	cps
Silicon	28-1	25857708	26135453	26076951	26023371	0.56	cps
Silver	107-1	649349	602370	625204	625641	3.75	cps
Silver	109-1	619347	699856	562073	627092	11.04	cps
Sodium	23-2	5991826	6030910	5974365	5999033	0.48	cps
Strontium	86-1	382184	379891	389537	383871	1.31	cps
Strontium	88-1	3702913	3770114	3707090	3726706	1.01	cps
Sulfur	34-1	1969394	1946904	1959086	1958461	0.57	cps
Terbium	159-1	3948972	4028680	3855068	3944240	2.20	cps
Terbium	159-2	2943126	2951181	2872768	2922358	1.48	cps
Thallium	203-1	343802	348792	343618	345404	0.85	cps
Thallium	205-1	804393	821897	820178	815489	1.18	cps
Tin	118-1	331318	333522	336581	333807	0.79	cps
Titanium	47-1	560	580	513	551	6.21	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	Q2259-04ADLX5	Instrumnet Name :	P7
Client Sample ID :	OU4-PCS-TC-37-060525	Dilution Factor :	5
Date & Time Acquired :	2025-06-20 13:19:09	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	961078	951759	958131	956989	0.50	cps
Vanadium	51-2	253785	254774	251289	253282	0.71	cps
Yttrium	89-1	6899088	6890106	6797771	6862321	0.82	cps
Yttrium	89-2	1816026	1869428	1798407	1827954	2.02	cps
Zinc	66-2	433902	435256	433290	434149	0.23	cps
Zirconium	90-1	795358	803003	813305	803889	1.12	cps
Zirconium	91-1	175600	178275	180822	178232	1.47	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5823288	5771976	5872381	5822548	0.86	cps
Antimony	121-1	2331582	2383126	2352179	2355629	1.10	cps
Arsenic	75-2	128954	125713	128120	127596	1.32	cps
Barium	135-1	3161877	3156147	3097537	3138521	1.13	cps
Barium	137-1	5372748	5555745	5445085	5457860	1.69	cps
Beryllium	9-1	313690	322782	318843	318438	1.43	cps
Bismuth	209-1	1963385	2002652	2015498	1993845	1.36	cps
Bismuth	209-2	1951269	1915909	1964628	1943936	1.29	cps
Bromine	81-1	21920	22374	21953	22082	1.15	cps
Bromine	81-2	117	157	153	142	15.61	cps
Cadmium	108-1	41707	41854	42291	41951	0.73	cps
Cadmium	106-1	58962	60954	60392	60103	1.71	cps
Cadmium	111-1	558010	572132	572523	567555	1.46	cps
Calcium	43-1	3891358	3900759	3881564	3891227	0.25	cps
Calcium	44-1	62383014	63280502	62982794	62882104	0.73	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	930174	941716	949082	940324	1.01	cps
Cobalt	59-2	1611992	1584722	1619435	1605383	1.14	cps
Copper	63-2	10939379	10894129	11017700	10950403	0.57	cps
Dysprosium	156-1	170	137	143	150	11.76	cps
Dysprosium	156-2	207	313	217	246	23.99	cps
Erbium	164-1	207	303	263	258	18.84	cps
Erbium	164-2	210	167	207	194	12.40	cps
Gadolinium	160-1	150	160	167	159	5.28	cps
Gadolinium	160-2	300	227	277	268	13.99	cps
Holmium	165-1	3706552	3828823	3723194	3752856	1.77	cps
Holmium	165-2	2942812	2882783	2969653	2931750	1.52	cps
Indium	115-1	3208722	3277531	3242681	3242978	1.06	cps
Indium	115-2	1092226	1069740	1088589	1083518	1.11	cps
Iron	56-2	259076956	256203323	257552776	257611018	0.56	cps
Iron	57-2	6355559	6381704	6459693	6398985	0.85	cps
Iron	54-2	13818378	14131310	13932628	13960772	1.13	cps
Krypton	83-1	380	397	337	371	8.35	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8183015	8363872	8350252	8299046	1.21	cps
Lead	207-1	7031274	7137641	7228666	7132527	1.39	cps
Lead	208-1	32082929	32560723	32832438	32492030	1.17	cps
Lithium	6-1	308091	311786	313338	311072	0.87	cps
Magnesium	24-2	49635886	49630711	50213531	49826709	0.67	cps
Manganese	55-2	8255169	8238268	8290363	8261266	0.32	cps
Molybdenum	94-1	8972715	9323093	9234960	9176923	1.99	cps
Molybdenum	95-1	12797951	13137290	13127127	13020789	1.48	cps
Molybdenum	96-1	13954483	14294786	14148194	14132488	1.21	cps
Molybdenum	97-1	7931312	8138694	8032148	8034051	1.29	cps
Molybdenum	98-1	20632870	20627497	20786348	20682238	0.44	cps
Neodymium	150-1	187	180	163	177	6.80	cps
Neodymium	150-2	43	70	63	59	23.57	cps
Nickel	60-2	368939	368809	371923	369890	0.48	cps
Phosphorus	31-2	57059	57956	58699	57905	1.42	cps
Potassium	39-2	32317866	32354401	33373750	32682006	1.83	cps
Rhodium	103-1	2952543	2974123	2966351	2964339	0.37	cps
Rhodium	103-2	1768624	1738987	1746855	1751488	0.88	cps
Scandium	45-1	1989722	2013756	2006132	2003203	0.61	cps
Scandium	45-2	156970	153384	156435	155597	1.24	cps
Selenium	82-1	46528	46957	47417	46967	0.95	cps
Selenium	77-2	4707	4777	4861	4782	1.61	cps
Selenium	78-2	16322	16366	16483	16390	0.51	cps
Silicon	28-1	6022517	6188981	6226111	6145870	1.76	cps
Silver	107-1	3239133	3175991	3255587	3223570	1.30	cps
Silver	109-1	3041752	3072965	3064760	3059826	0.53	cps
Sodium	23-2	80710009	78540559	80481919	79910829	1.49	cps
Strontium	86-1	781291	801300	800184	794258	1.42	cps
Strontium	88-1	7581562	7812503	7750704	7714923	1.55	cps
Sulfur	34-1	327545	327179	323936	326220	0.61	cps
Terbium	159-1	3843333	3917502	3976893	3912576	1.71	cps
Terbium	159-2	2893573	2892484	2910510	2898856	0.35	cps
Thallium	203-1	2034052	2036275	2057232	2042520	0.63	cps
Thallium	205-1	4796746	4873358	4867742	4845948	0.88	cps
Tin	118-1	2070798	2146754	2095056	2104203	1.84	cps
Titanium	47-1	3405675	3461030	3477691	3448132	1.09	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:23:06	DataFile Name :	043CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5925803	6010053	5968051	5967969	0.71	cps
Vanadium	51-2	839745	835247	838413	837802	0.28	cps
Yttrium	89-1	6233004	6210540	6152684	6198743	0.67	cps
Yttrium	89-2	1674647	1656752	1658481	1663293	0.59	cps
Zinc	66-2	1983853	1984779	1949845	1972826	1.01	cps
Zirconium	90-1	4511805	4651526	4625893	4596408	1.62	cps
Zirconium	91-1	915071	938623	939859	931185	1.50	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	180	210	200	197	7.77	cps
Antimony	121-1	553	520	543	539	3.17	cps
Arsenic	75-2	3	20	13	12	68.66	cps
Barium	135-1	113	107	130	117	10.30	cps
Barium	137-1	233	163	193	197	17.86	cps
Beryllium	9-1	47	61	44	50	17.57	cps
Bismuth	209-1	2097308	2136781	2190330	2141473	2.18	cps
Bismuth	209-2	2123340	2092324	2119555	2111740	0.80	cps
Bromine	81-1	21132	21302	21336	21257	0.51	cps
Bromine	81-2	123	113	153	130	16.01	cps
Cadmium	108-1	13	3	7	8	65.47	cps
Cadmium	106-1	1417	1380	1257	1351	6.20	cps
Cadmium	111-1	166	163	158	162	2.50	cps
Calcium	43-1	373	357	397	376	5.35	cps
Calcium	44-1	10777	10450	11124	10784	3.12	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1343	1397	1293	1345	3.84	cps
Cobalt	59-2	63	53	53	57	10.19	cps
Copper	63-2	1167	1193	1350	1237	8.01	cps
Dysprosium	156-1	10	3	3	6	69.34	cps
Dysprosium	156-2	0	0	0	0	0.00	cps
Erbium	164-1	23	43	23	30	38.49	cps
Erbium	164-2	10	23	20	18	39.03	cps
Gadolinium	160-1	17	33	17	22	43.28	cps
Gadolinium	160-2	173	193	113	160	26.02	cps
Holmium	165-1	3734442	3744316	3729237	3735998	0.21	cps
Holmium	165-2	2942584	2954536	2918717	2938612	0.62	cps
Indium	115-1	3350831	3298734	3320713	3323426	0.79	cps
Indium	115-2	1130026	1132806	1143102	1135311	0.61	cps
Iron	56-2	22197	23068	22337	22534	2.08	cps
Iron	57-2	1410	1617	1423	1483	7.80	cps
Iron	54-2	2317	2340	2400	2352	1.83	cps
Krypton	83-1	337	320	343	333	3.61	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	500	507	543	517	4.52	cps
Lead	207-1	510	487	447	481	6.66	cps
Lead	208-1	2243	2140	2040	2141	4.75	cps
Lithium	6-1	315934	316941	313694	315523	0.53	cps
Magnesium	24-2	590	520	533	548	6.79	cps
Manganese	55-2	3254	3274	3400	3309	2.40	cps
Molybdenum	94-1	447	477	417	447	6.72	cps
Molybdenum	95-1	530	437	533	500	10.97	cps
Molybdenum	96-1	590	640	487	572	13.67	cps
Molybdenum	97-1	343	270	273	296	14.01	cps
Molybdenum	98-1	863	690	663	739	14.70	cps
Neodymium	150-1	3	10	7	7	50.03	cps
Neodymium	150-2	0	7	0	2	173.21	cps
Nickel	60-2	350	367	397	371	6.37	cps
Phosphorus	31-2	373	373	377	374	0.51	cps
Potassium	39-2	53714	52737	53443	53298	0.95	cps
Rhodium	103-1	3064269	3155065	3115834	3111723	1.46	cps
Rhodium	103-2	1851654	1854109	1842619	1849461	0.33	cps
Scandium	45-1	1963039	1970915	1996659	1976871	0.89	cps
Scandium	45-2	153856	154293	153229	153793	0.35	cps
Selenium	82-1	165	176	142	161	10.88	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	590	597	583	590	1.13	cps
Silicon	28-1	1546567	1541545	1568136	1552083	0.91	cps
Silver	107-1	310	307	227	281	16.78	cps
Silver	109-1	270	253	237	253	6.58	cps
Sodium	23-2	17490	17590	17230	17437	1.07	cps
Strontium	86-1	587	573	497	552	8.80	cps
Strontium	88-1	227	227	220	224	1.72	cps
Sulfur	34-1	122264	120174	120157	120865	1.00	cps
Terbium	159-1	3816237	3791170	3821176	3809528	0.42	cps
Terbium	159-2	2876017	2909327	2928367	2904570	0.91	cps
Thallium	203-1	227	267	333	276	19.56	cps
Thallium	205-1	763	703	703	723	4.79	cps
Tin	118-1	1057	1153	1157	1122	5.06	cps
Titanium	47-1	120	80	97	99	20.32	cps

Reviewed By:MOHAN
On:6/20/2025 3:02:13 PM
Inst Id :P7
LB :LB136217

LB Number :	LB136217	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-06-20 13:25:59	DataFile Name :	044CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	100	100	77	92	14.61	cps
Vanadium	51-2	7	23	27	19	56.72	cps
Yttrium	89-1	6100208	6237145	6120097	6152483	1.20	cps
Yttrium	89-2	1696599	1688659	1697775	1694345	0.29	cps
Zinc	66-2	873	850	840	854	2.00	cps
Zirconium	90-1	507	540	547	531	4.04	cps
Zirconium	91-1	100	120	90	103	14.78	cps

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB168424

SOP ID : M7470A-Mercury-20

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 06/11/2025 **Time :** 11:05 **Temp :** 94 °C

End Digest Date: 06/11/2025 **Time :** 13:05 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: JPP

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85945
CCV	30mL	MP85947
CRA	30mL	MP85949
Blank Spike	0.48mL	MP85935
Matrix Spike	0.48mL	MP85935

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.25mL	MP85892
KMnO4 (5%)	4.5mL	MP85893
K2S2O8 (5%)	2.4mL	MP85894
Hydroxylamine HCL (12%)	1.8mL	MP85895
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP85936
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85938
2.5 ppb	S2.5	30mL	MP85940
5.0 ppb	S5.0	30mL	MP85941
7.5 ppb	S7.5	30mL	MP85943
10.0 ppb	S10.0	30mL	MP85944
ICV	ICV	30mL	MP85945
ICB	ICB	30mL	MP85946
CCV	CCV	30mL	MP85947
CCB	CCB	30mL	MP85948
CRI	CRI	30mL	MP85949
CHK STD	CHK STD	30mL	MP85950

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/11/25 13:05	MB / Mercury dig.	JPP / Net dig
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB168424

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB168424BL	PBW424	30	30	<2	N/A	3-18
PB168424BS	LCS424	30	30	N/A	N/A	N/A
PB168424TB	LEB424	30	30	<2	N/A	19
Q2259-02	OU4-PCS-TC-36-060525	30	30	<2	MP85935	20
Q2259-04	OU4-PCS-TC-37-060525	30	30	<2	N/A	21
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	30	30	<2	N/A	22
Q2259-04MS	OU4-PCS-TC-37-060525MS	30	30	<2	MP85935	23
Q2259-04MSD	OU4-PCS-TC-37-060525MSD	30	30	<2	MP85935	24

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB168362

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 : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2

TCLP Filter ID : 115525

Start Prep Date : 06/09/2025 **Time :** 14:00

End Prep Date : 06/10/2025 **Time :** 07:25

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 10

Initial Room Temperature: 23 °C

Final Room Temperature: 21 °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	WP112802	N/A
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP112799
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	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-2 checked,30 rpm. q2259-04 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/10/25 0940	JP ICP AUTO	SHG - INVENTORY
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168389

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 06/10/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 06/10/2025 **Time :** 14:32 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SJ

Supervisor Signature: SJ

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
Spike Sol 1	0.50	MP85846
Spike Sol 2	1.00	MP85847
Spike Sol 3	1.00	MP85848
Spike Sol 4	1.00	MP85849
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1 CELL#50 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/10/25 15:32	SJ metals	SJ metals lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168389

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB168389BL	PBW389	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	9
PB168389BS	LCS389	<2	50	50	Colorless	Colorless	Clear	Clear	MP85846,MP85847,MP85848,N	10
~~PB168389TB~~ PB168389TB	~~LCB389~~ PB168362 LCB362 SR 05/01/25	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
Q2259-02	OU4-PCS-TC-36-060525	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
Q2259-04	OU4-PCS-TC-37-060525	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
Q2259-04MS	OU4-PCS-TC-37-060525MS	<2	50	50	Colorless	Colorless	Clear	Clear	MP85846,MP85847,MP85848,N	15
Q2259-04MSD	OU4-PCS-TC-37-060525MS D	<2	50	50	Colorless	Colorless	Clear	Clear	MP85846,MP85847,MP85848,N	16
Q2259-04DUP	OU4-PCS-TC-37-060525DUP	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	14

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB168362

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 P
PB168362TB	LEB362	13	N/A	2000	N/A	N/A	N/A	4.24	1.0	T-2
Q2259-02	OU4-PCS-TC-36-060525	11	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q2259-04	OU4-PCS-TC-37-060525	12	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136124

Review By	MOHAN	Review On	6/13/2025 3:23:20 PM
Supervise By	jaswal	Supervise On	6/16/2025 5:53:40 PM

STD. NAME	STD REF.#
ICAL Standard	MP85936,MP85938,MP85940,MP85941,MP85943,MP85944
ICV Standard	MP85945
CCV Standard	MP85947
ICSA Standard	
CRI Standard	MP85949
LCS Standard	
Chk Standard	MP85946,MP85948,MP85950,MP85954

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	06/12/25 09:52		mohan	OK
2	S0.2	S0.2	CAL2	06/12/25 09:55		mohan	OK
3	S2.5	S2.5	CAL3	06/12/25 09:57		mohan	OK
4	S5	S5	CAL4	06/12/25 09:59		mohan	OK
5	S7.5	S7.5	CAL5	06/12/25 10:01		mohan	OK
6	S10	S10	CAL6	06/12/25 10:04		mohan	OK
7	ICV35	ICV35	ICV	06/12/25 10:12		mohan	OK
8	ICB35	ICB35	ICB	06/12/25 10:14		mohan	OK
9	CCV30	CCV30	CCV	06/12/25 10:16		mohan	OK
10	CCB30	CCB30	CCB	06/12/25 10:19		mohan	OK
11	CRA	CRA	CRDL	06/12/25 10:21		mohan	OK
12	HighStd	HighStd	HIGH STD	06/12/25 10:23		mohan	OK
13	ChkStd	ChkStd	SAM	06/12/25 10:25		mohan	OK
14	PB168424BL	PB168424BL	MB	06/12/25 10:28		mohan	OK
15	PB168424BS	PB168424BS	LCS	06/12/25 10:30		mohan	OK
16	Q2259-02	OU4-PCS-TC-36-060	SAM	06/12/25 10:32		mohan	OK
17	Q2259-04	OU4-PCS-TC-37-060	SAM	06/12/25 10:35		mohan	OK
18	Q2259-04DUP	OU4-PCS-TC-37-060	DUP	06/12/25 10:37		mohan	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136124

Review By	MOHAN	Review On	6/13/2025 3:23:20 PM
Supervise By	jaswal	Supervise On	6/16/2025 5:53:40 PM

STD. NAME	STD REF.#
ICAL Standard	MP85936,MP85938,MP85940,MP85941,MP85943,MP85944
ICV Standard	MP85945
CCV Standard	MP85947
ICSA Standard	
CRI Standard	MP85949
LCS Standard	
Chk Standard	MP85946,MP85948,MP85950,MP85954

19	Q2259-04MS	OU4-PCS-TC-37-060	MS	06/12/25 10:39		mohan	OK
20	Q2259-04MSD	OU4-PCS-TC-37-060	MSD	06/12/25 10:42		mohan	OK
21	CCV31	CCV31	CCV	06/12/25 10:50		mohan	OK
22	CCB31	CCB31	CCB	06/12/25 10:52		mohan	OK
23	PB168425BL	PB168425BL	MB	06/12/25 10:54		mohan	OK
24	PB168425BS	PB168425BS	LCS	06/12/25 10:57		mohan	OK
25	Q2267-01	WC-20250605	SAM	06/12/25 10:59		mohan	OK
26	Q2271-04	TP12-MHK-WC	SAM	06/12/25 11:01		mohan	OK
27	Q2272-04	TP-6	SAM	06/12/25 11:04		mohan	OK
28	Q2273-04	WC-4	SAM	06/12/25 11:06		mohan	OK
29	Q2273-08	WC-6	SAM	06/12/25 11:08		mohan	OK
30	Q2274-04	TP-13-MHP-WC	SAM	06/12/25 11:10		mohan	OK
31	Q2278-04	TP-2	SAM	06/12/25 11:13		mohan	OK
32	Q2280-02	VNJ-210	SAM	06/12/25 11:15		mohan	OK
33	CCV32	CCV32	CCV	06/12/25 11:17		mohan	OK
34	CCB32	CCB32	CCB	06/12/25 11:20		mohan	OK
35	Q2280-04	RT-4643	SAM	06/12/25 11:22		mohan	OK
36	Q2285-05	HAM-CONCRETE	SAM	06/12/25 11:24		mohan	OK
37	Q2285-05DUP	HAM-CONCRETEDU	DUP	06/12/25 11:26		mohan	OK
38	Q2285-05MS	HAM-CONCRETEMS	MS	06/12/25 11:29		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136124

Review By	MOHAN	Review On	6/13/2025 3:23:20 PM
Supervise By	jaswal	Supervise On	6/16/2025 5:53:40 PM

STD. NAME	STD REF.#
ICAL Standard	MP85936,MP85938,MP85940,MP85941,MP85943,MP85944
ICV Standard	MP85945
CCV Standard	MP85947
ICSA Standard	
CRI Standard	MP85949
LCS Standard	
Chk Standard	MP85946,MP85948,MP85950,MP85954

39	Q2285-05MSD	HAM-CONCRETEMS	MSD	06/12/25 11:31		mohan	OK
40	CCV33	CCV33	CCV	06/12/25 11:38		mohan	OK
41	CCB33	CCB33	CCB	06/12/25 11:40		mohan	OK
42	PB168424TB	PB168424TB	MB	06/12/25 11:42		mohan	OK
43	PB168369TB	PB168369TB	MB	06/12/25 11:45		mohan	OK
44	PB168390TB	PB168390TB	MB	06/12/25 11:47		mohan	OK
45	Q2259-04L	OU4-PCS-TC-37-060	SD	06/12/25 11:49		mohan	OK
46	Q2259-04A	OU4-PCS-TC-37-060	PS	06/12/25 11:52		mohan	OK
47	Q2285-05L	HAM-CONCRETEL	SD	06/12/25 11:54		mohan	OK
48	Q2285-05A	HAM-CONCRETEA	PS	06/12/25 11:56		mohan	OK
49	CCV34	CCV34	CCV	06/12/25 11:58		mohan	OK
50	CCB34	CCB34	CCB	06/12/25 12:01		mohan	OK

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Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB136217

Review By	jaswal	Review On	6/20/2025 2:56:43 PM
Supervise By	MOHAN	Supervise On	6/20/2025 3:02:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP85829,MPMP85838,MP85837,MP85835,MP85834,MP85833,MP85832,MP85831,MP85830
ICV Standard	MP85839,MP85837
CCV Standard	MP85840
ICSA Standard	MP85841,MP85842
CRI Standard	MP85837
LCS Standard	
Chk Standard	MP85844,MP85845

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE	TUNE	06/20/25 10:02		Jaswal	OK
2	S0	S0	CAL1	06/20/25 10:30		Jaswal	OK
3	S2	S2	CAL3	06/20/25 10:34		Jaswal	OK
4	S3	S3	CAL4	06/20/25 10:40		Jaswal	OK
5	S4	S4	CAL5	06/20/25 10:44		Jaswal	OK
6	S5	S5	CAL6	06/20/25 10:47		Jaswal	OK
7	S6	S6	CAL7	06/20/25 10:50		Jaswal	OK
8	S7	S7	CAL8	06/20/25 10:53		Jaswal	OK
9	S8	S8	CAL9	06/20/25 10:55		Jaswal	OK
10	ICV01	ICV01	ICV	06/20/25 11:31		Jaswal	OK
11	LLICV01	LLICV01	LLICV	06/20/25 11:39		Jaswal	OK
12	ICB01	ICB01	ICB	06/20/25 11:42		Jaswal	OK
13	ICSA01	ICSA01	ICSA	06/20/25 11:46		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	06/20/25 12:03		Jaswal	OK
15	CCV01	CCV01	CCV	06/20/25 12:08		Jaswal	OK
16	CCB01	CCB01	CCB	06/20/25 12:11		Jaswal	OK
17	CRI	CRI	CRDL	06/20/25 12:14		Jaswal	OK
18	PB168389BL	PB168389BL	MB	06/20/25 12:17		Jaswal	OK

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Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB136217

Review By	jaswal	Review On	6/20/2025 2:56:43 PM
Supervise By	MOHAN	Supervise On	6/20/2025 3:02:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP85829,MPMP85838,MP85837,MP85835,MP85834,MP85833,MP85832,MP85831,MP85830
ICV Standard	MP85839,MP85837
CCV Standard	MP85840
ICSA Standard	MP85841,MP85842
CRI Standard	MP85837
LCS Standard	
Chk Standard	MP85844,MP85845

19	PB168389BS	PB168389BS	LCS	06/20/25 12:21		Jaswal	OK
20	PB168389TB	PB168389TB	MB	06/20/25 12:23		Jaswal	OK
21	Q2259-02DL	OU4-PCS-TC-36-060	SAM	06/20/25 12:27		Jaswal	OK
22	Q2259-04DL	OU4-PCS-TC-37-060	SAM	06/20/25 12:30		Jaswal	OK
23	Q2259-04DUPDL	OU4-PCS-TC-37-060	DUP	06/20/25 12:33		Jaswal	OK
24	Q2259-04LDL	OU4-PCS-TC-37-060	SD	06/20/25 12:36		Jaswal	OK
25	CCV02	CCV02	CCV	06/20/25 12:46		Jaswal	OK
26	CCB02	CCB02	CCB	06/20/25 12:49		Jaswal	OK
27	Q2259-04MSDL	OU4-PCS-TC-37-060	MS	06/20/25 13:02		Jaswal	OK
28	Q2259-04MSDDL	OU4-PCS-TC-37-060	MSD	06/20/25 13:05		Jaswal	OK
29	Q2259-04ADL	OU4-PCS-TC-37-060	PS	06/20/25 13:19		Jaswal	OK
30	CCV03	CCV03	CCV	06/20/25 13:23		Jaswal	OK
31	CCB03	CCB03	CCB	06/20/25 13:25		Jaswal	OK

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SPLP EXTRACTION LOGPAGE

PB168362

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 : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2

TCLP Filter ID : 115525

Start Prep Date : 06/09/2025 **Time :** 14:00

End Prep Date : 06/10/2025 **Time :** 07:25

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 10

Initial Room Temperature: 23 °C

Final Room Temperature: 21 °C

TCLP Technician Signature : JP

Supervisor By : JP

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	WP112802	N/A
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP112799
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	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-2 checked,30 rpm. q2259-04 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/10/25 09:40	JP ICP ROOM	SRG. ICP-OES
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB168362

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
PB168362TB	LEB362	13	N/A	2000	N/A	N/A	N/A	4.24	1.0	T-2
Q2259-02	OU4-PCS-TC-36-060525	11	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q2259-04	OU4-PCS-TC-37-060525	12	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB168362TB	LEB362	N/A	N/A	N/A	N/A	N/A	N/A
Q2259-02	OU4-PCS-TC-36-060525	N/A	N/A	N/A	N/A	100	N/A
Q2259-04	OU4-PCS-TC-37-060525	N/A	N/A	N/A	N/A	100	N/A

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SPLP Fluid Determination

PB168362

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
PB168362TB	LEB362	N/A	N/A	N/A	N/A	#1	4.24
Q2259-02	OU4-PCS-TC-36-060525	N/A	N/A	N/A	N/A	#1	4.24
Q2259-04	OU4-PCS-TC-37-060525	N/A	N/A	N/A	N/A	#1	4.24

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Prep Standard - Chemical Standard Summary

Order ID : Q2259

Test : SPLP Mercury,SPLP MetalGroup3

Prepbatch ID : PB168389,PB168424,

Sequence ID/Qc Batch ID: LB136124,LB136217,

Standard ID :
MP85156,MP85829,MP85830,MP85831,MP85832,MP85833,MP85834,MP85835,MP85836,MP85837,MP85839,MP858
40,MP85841,MP85842,MP85843,MP85844,MP85845,MP85846,MP85847,MP85848,MP85849,MP85892,MP85893,MP
85894,MP85895,MP85935,MP85936,MP85938,MP85940,MP85941,MP85943,MP85944,MP85945,MP85946,MP85947,
MP85948,MP85949,MP85950,MP85954,MPMP85838,

Chemical ID :
M4371,M4465,M4916,M5062,M5305,M5471,M5520,M5658,M5739,M5751,M5798,M5799,M5800,M5801,M 5811,M5815,
M5817,M5873,M5874,M5882,M5884,M5942,M5961,M5962,M5977,M5981,M6021,M6023,M6025,M6026,M6028,M6030
,M6032,M6041,M6055,M6079,M6086,M6127,M6128,M6137,M6142,M6144,M6145,M6150,M6151,M6153,M6158,M615
9,M6160,M6161,M6162,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	08/18/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP85829	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 25.00000ml of M6151 + 4925.00000ml of W3112 + 50.00000ml of M6162 = Final Quantity: 5000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2902	S8 ICPMS	MP85830	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 1.00000ml of M6159 + 2.50000ml of M5811 + 2.50000ml of M6142 + 5.00000ml of M6086 + 5.00000ml of M6127 + 5.00000ml of M6144 + 79.00000ml of MP85829 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3947	S7(SFAM,6020,200.8)	MP85831	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.10000ml of M6153 + 0.40000ml of M6026 + 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M6079 + 1.00000ml of M6137 + 1.90000ml of M6159 + 10.00000ml of M5942 + 10.00000ml of M5977 + 10.00000ml of M6162 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6032 + 4.90000ml of M5520 + 4.90000ml of M5811 + 5.00000ml of M6151 + 50.00000ml of M5305 + 834.10000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M6086 + 9.90000ml of M6127 + 9.90000ml of M6144 = Final Quantity: 1000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3948	S6(SFAM,6020,200.8)	MP85832	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6162 + 48.50000ml of W3112 + 50.00000ml of MP85831 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3949	S5(SFAM,6020,200.8)	MP85833	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6162 + 73.50000ml of W3112 + 25.00000ml of MP85831 = 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
3954	S4(SFAM,6020,200.8)	MP85834	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6162 + 86.00000ml of W3112 + 12.50000ml of MP85831 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3951	S3(SFAM, 6020,200.8)	MP85835	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6162 + 88.50000ml of W3112 + 10.00000ml of MP85832 = 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
3955	S2CONC(SFAM,6020,200.8)	MP85836	05/30/2025	08/18/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.00500ml of M6153 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M6159 + 0.10000ml of M6160 + 0.25000ml of M5799 + 0.25000ml of M5811 + 0.25000ml of M5942 + 0.25000ml of M5962 + 0.25000ml of M5977 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.50000ml of M6032 + 0.50000ml of M6137 + 1.25000ml of M5815 + 1.25000ml of M5817 + 1.25000ml of M6151 + 2.50000ml of M5520 + 2.50000ml of M6086 + 2.50000ml of M6127 + 2.50000ml of M6144 + 2.50000ml of M6162 + 230.04500ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3956	S2(SFAM,6020,200.8)	MP85837	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6162 + 98.00000ml of W3112 + 0.50000ml of MP85836 = 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
3958	ICV(SFAM)	MP85839	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 2.00000ml of M6150 + 98.00000ml of MP85829 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3961	CCV	MP85840	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.20000ml of M6026 + 0.50000ml of M5471 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M6079 + 0.50000ml of M6137 + 1.00000ml of M5815 + 1.00000ml of M5817 + 10.00000ml of M6162 + 12.45000ml of M5520 + 12.45000ml of M5811 + 2.00000ml of M6032 + 24.95000ml of M6086 + 24.95000ml of M6127 + 24.95000ml of M6144 + 25.00000ml of M5305 + 4.50000ml of M5751 + 4.50000ml of M6128 + 4.50000ml of M6145 + 4.95000ml of M6159 + 5.00000ml of M6151 + 5.50000ml of M5942 + 5.50000ml of M5977 + 824.10000ml of W3112 = Final Quantity: 1000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1142	ICSA ICPMS	MP85841	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP85829 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1143	ICSAB ICPMS	MP85842	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP85829 = 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
3962	MG 10PPM FOR TUNE	MP85843	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP85829 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3894	TUNE 200PPB	MP85844	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP85843 + 96.00000ml of MP85829 = 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
3903	ISS 3PPM	MP85845	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 5.00000ml of M6162 + 75.00000ml of M5739 + 170.00000ml of MP85829 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3880	M&B SPIKE-1	MP85846	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 5.00000ml of M5471 + 5.00000ml of M5658 + 5.00000ml of M5798 + 5.00000ml of M5800 + 5.00000ml of M5961 + 5.00000ml of M5962 + 5.00000ml of M5981 + 5.00000ml of M6021 + 5.00000ml of M6023 + 5.00000ml of M6028 + 5.00000ml of M6030 + 5.00000ml of M6079 + 5.00000ml of M6160 + 35.00000ml of MP85829 = 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
3881	M&B SPIKE-2	MP85847	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 10.00000ml of M5942 + 10.00000ml of M5977 + 12.50000ml of M5520 + 12.50000ml of M5811 + 12.50000ml of M6032 + 2.50000ml of M5799 + 2.50000ml of M6137 + 5.00000ml of M6159 + 32.50000ml of MP85829 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3882	M&B SPIKE-3	MP85848	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.62500ml of M6026 + 12.50000ml of M5751 + 12.50000ml of M6128 + 12.50000ml of M6145 + 11.87500ml of MP85829 = 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
3900	M&B SPIKE-4	MP85849	05/30/2025	06/20/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 6.25000ml of M6086 + 6.25000ml of M6127 + 6.25000ml of M6144 + 6.25000ml of MP85829 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP85892	06/05/2025	11/27/2025	Mohan Bera	None	None	Sarabjit Jaswal 06/14/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6162 = Final Quantity: 3200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85893	06/05/2025	12/05/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP85894	06/05/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85895	06/05/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85935	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 1.00000ml of M6162 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85936	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85938	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP85935 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85940	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 245.00000ml of W3112 + 2.50000ml of MP85935 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85941	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 242.50000ml of W3112 + 5.00000ml of MP85935 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85943	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 240.00000ml of W3112 + 7.50000ml of MP85935 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85944	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 237.50000ml of W3112 + 10.00000ml of MP85935 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85945	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6162 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85946	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85947	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6162 + 10.00000ml of MP85935 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP85948	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6162 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85949	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP85935 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85950	06/11/2025	06/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 2.50000ml of M6162 + 240.50000ml of W3112 + 7.00000ml of MP85935 = 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
68	STANNOUS CHLORIDE SOLUTION	MP85954	06/12/2025	06/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 06/14/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / manojkumar	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	03/07/2025 / JANVI	04/01/2022 / jaswal	M5305

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5520

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 #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB709511	09/03/2026	08/07/2024 / jaswal	04/11/2022 / jaswal	M5739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

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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.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	06/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	06/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	01/16/2025 / JANVI	02/22/2024 / Jaswal	M5977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

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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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	01/15/2025 / Jaswal	09/30/2024 / Jaswal	M6079

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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.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / Jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSR10 / Strontium (SR), 125mL 10,000ppm	V2-SR754329	02/28/2026	02/28/2025 / JANVI	01/07/2025 / JANVI	M6153

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	07/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
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Certified Reference Material CRM

M6032

R 8/5/24

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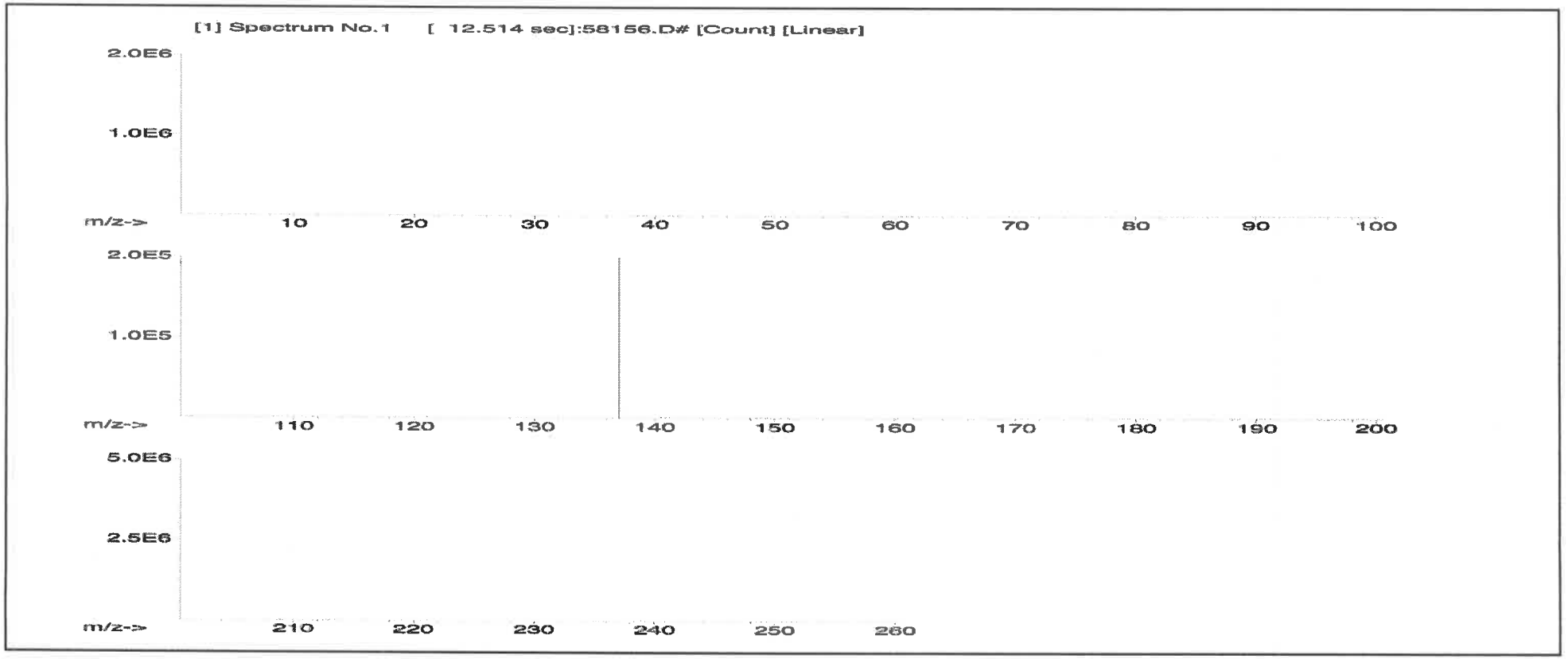
CERTIFIED WEIGHT REPORT:

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
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

Part Number:	**58120**		**Lot #**		
Lot Number:	**082324**		**Solvent:**	24002546	Nitric Acid
Description:	**Calcium (Ca)**				
			2%	80.0 (mL)	Nitric Acid
Expiration Date:	082327				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

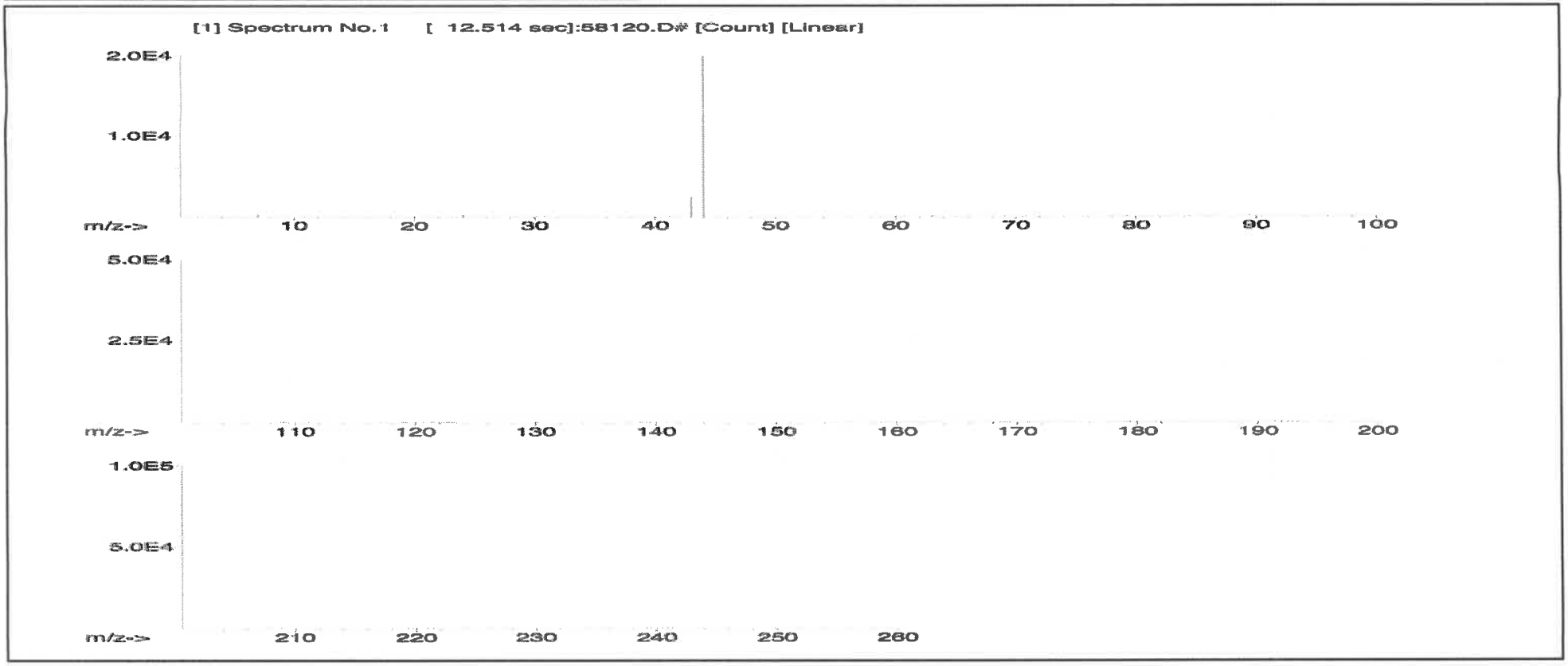
Giovanni Esposito

Formulated By:	Giovanni Esposito	082324

Pedro Rentas

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	CAD03203383	10000	99.999	0.10	39.9	100.2537	100.2656	**10001.2**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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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 Reference Material CRM

M6028

R 8/5/24

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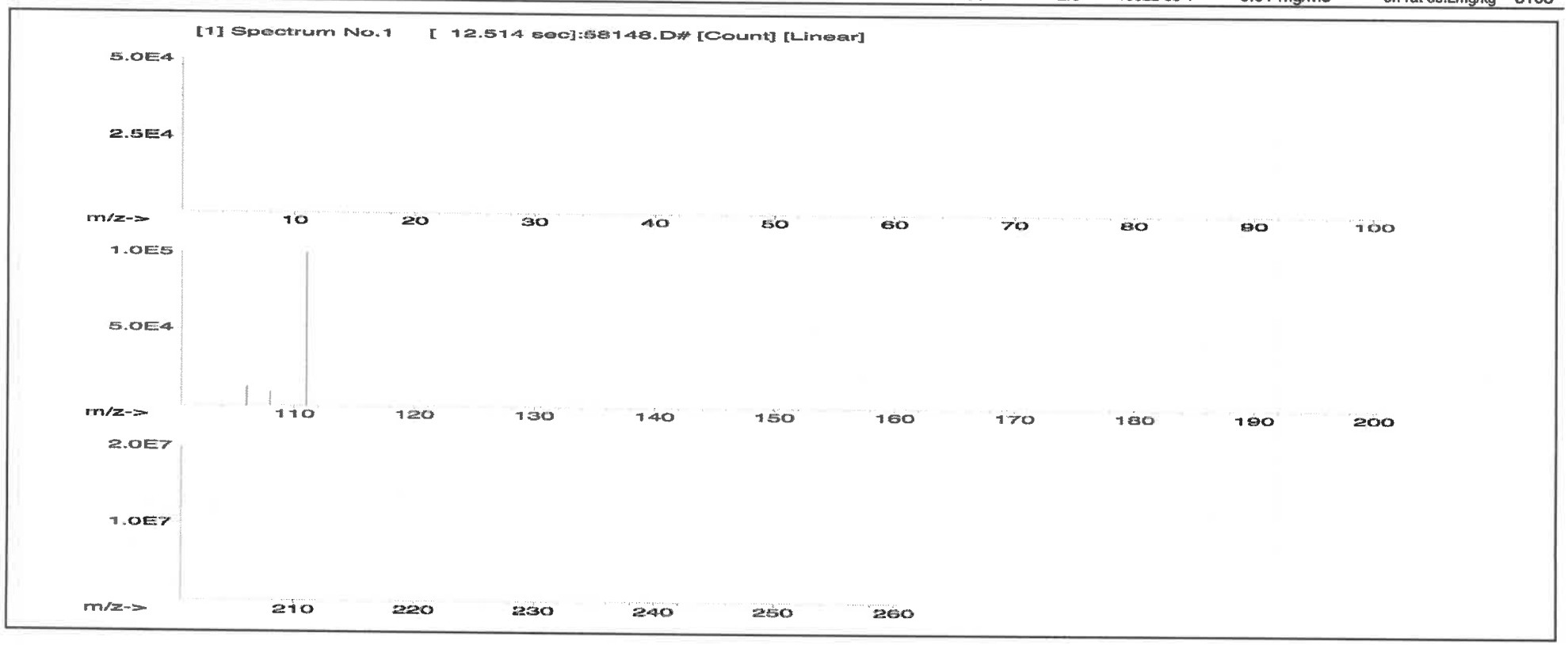
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady		
Formulated By:	Aleah O'Brady	070124
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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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R : 01/03/24. M5810, M5811

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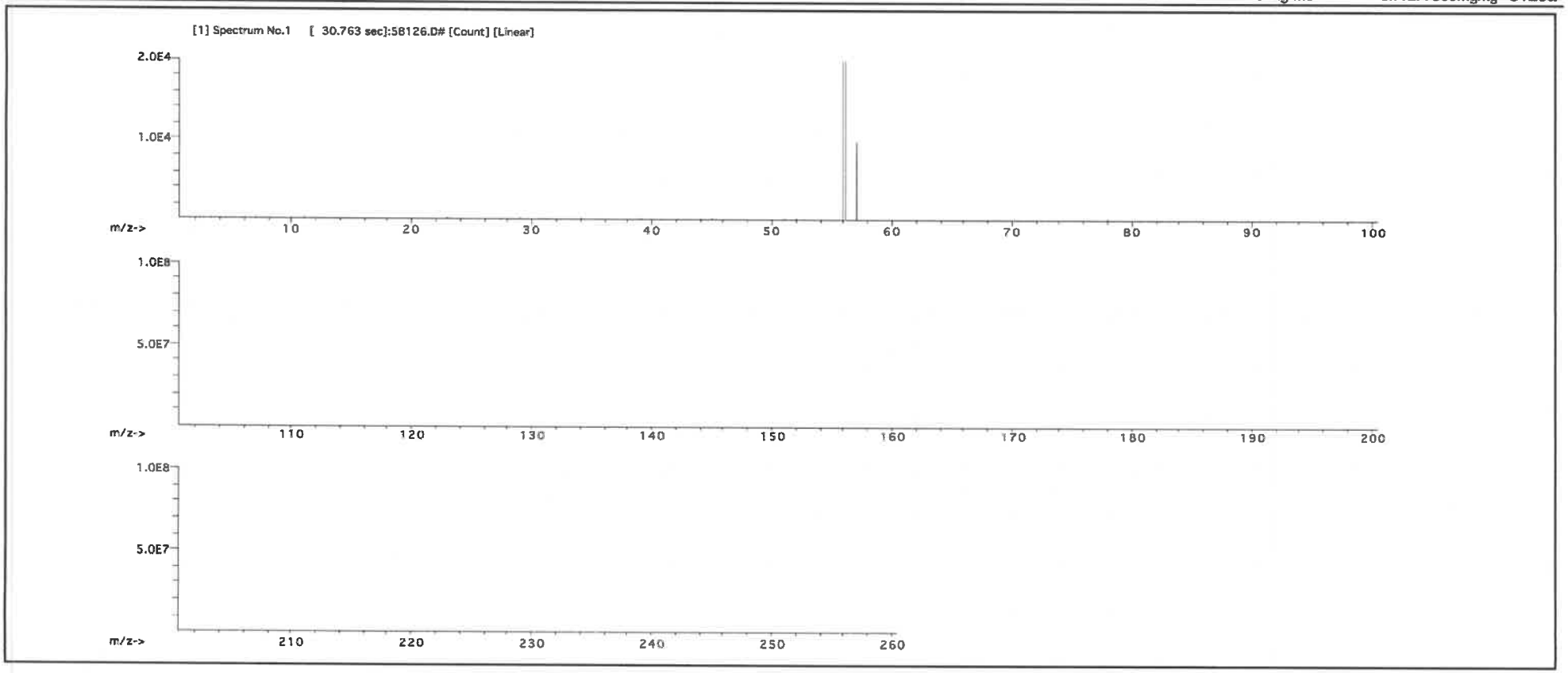
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**58126**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**051523**			
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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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 Reference Material CRM

R: 8/5/24 M6025

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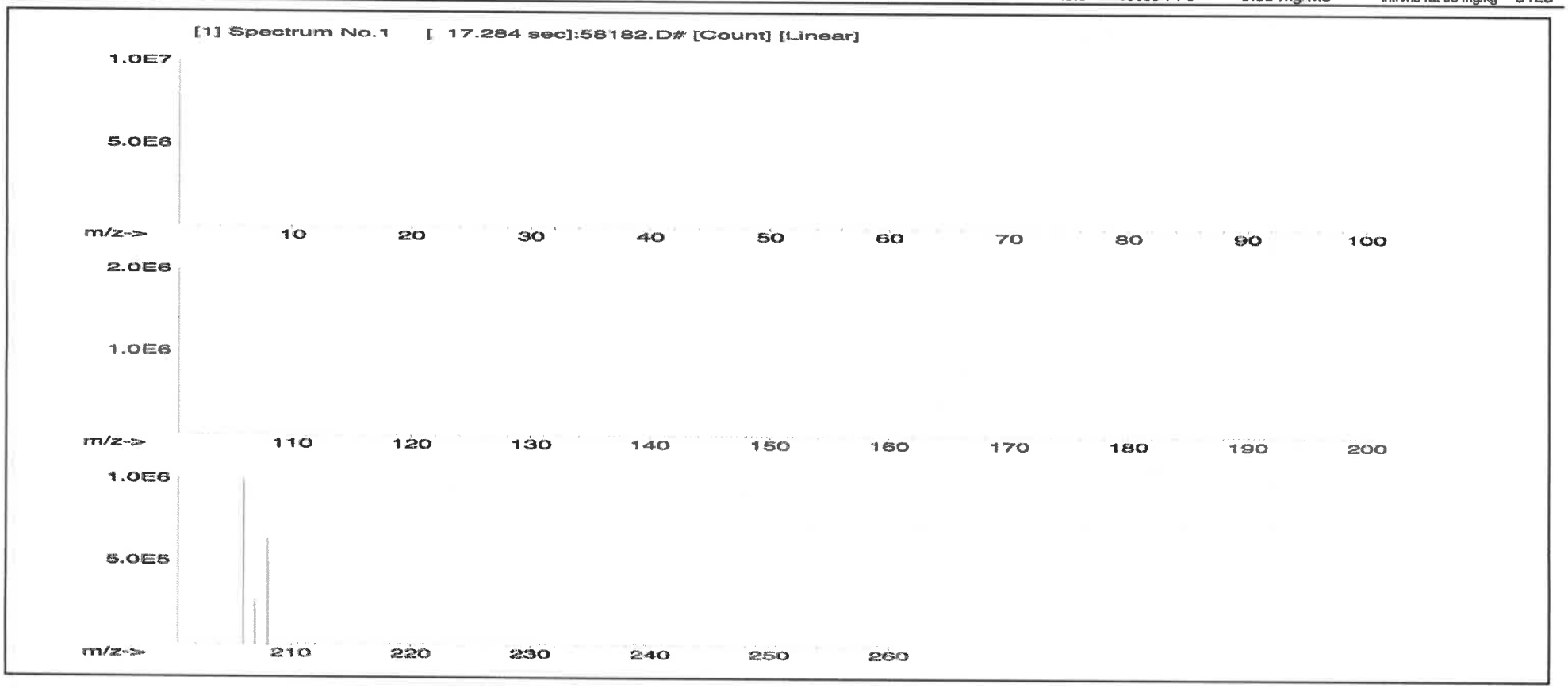
CERTIFIED WEIGHT REPORT:

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6026

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

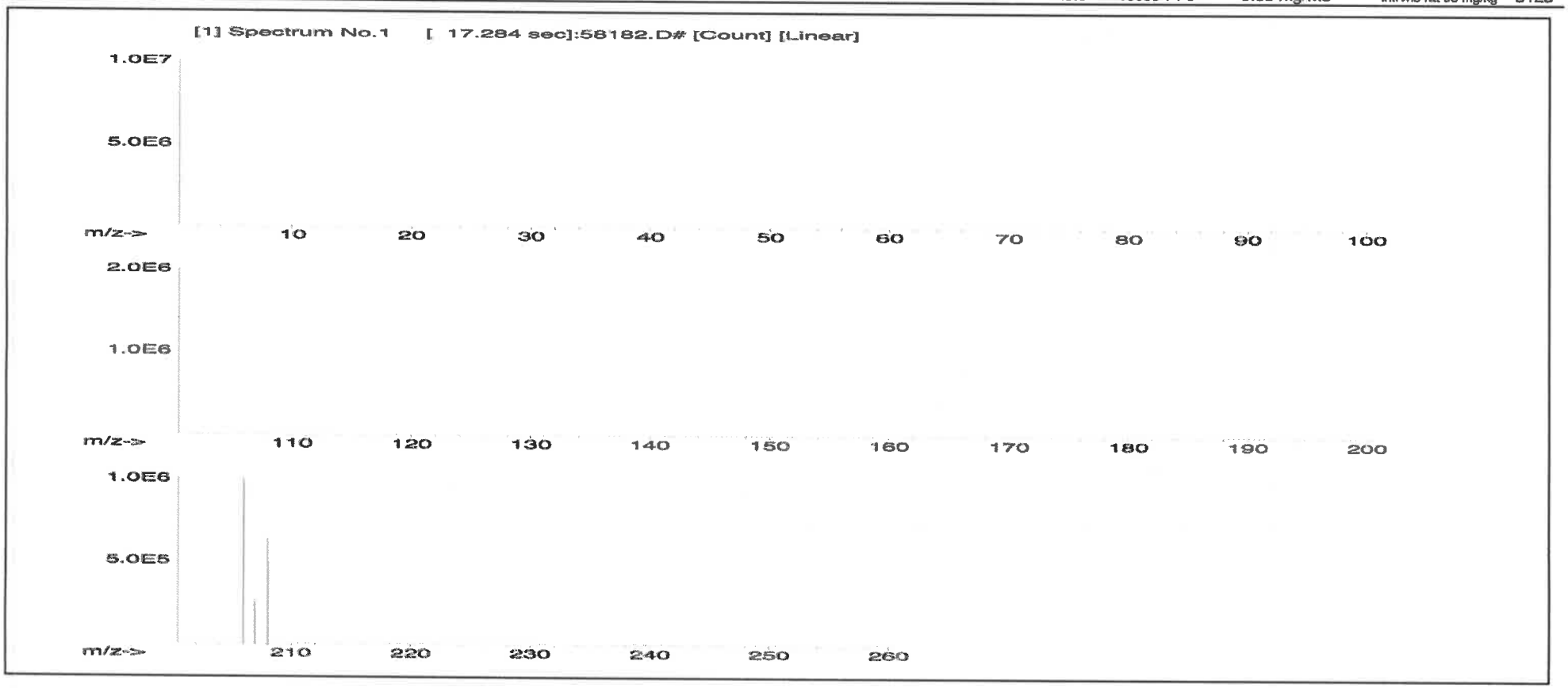
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

		Lot #		
Solvent:	24002546	Nitric Acid		
2%	40.0 (mL)	Nitric Acid		
	5E-05	Balance Uncertainty		
	0.058	Flask Uncertainty		

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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).

M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

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Certificate of Analysis

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F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\ (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Christiansburg, VA 24073 USA
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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver,	Aluminum,
Arsenic,	Barium,
Beryllium,	Calcium,
Cadmium,	Cobalt,
Chromium,	Copper,
Iron,	Potassium,
Magnesium,	Manganese,
Sodium,	Nickel,
Lead,	Antimony,
Selenium,	Thallium,
Vanadium,	Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 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
As	ICP Assay	3103a	100818
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
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5519. M5520 (BH) R:03/17/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

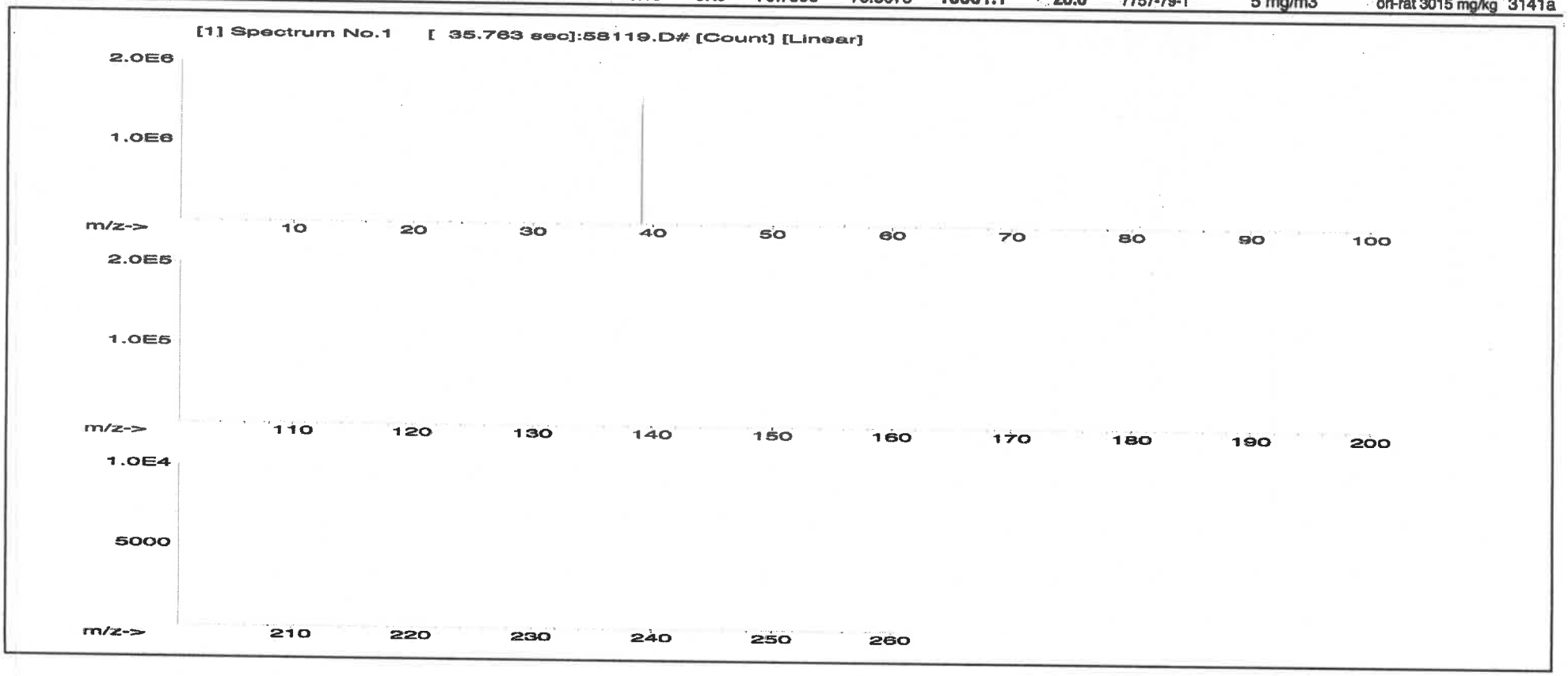
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5658 R ! 8/25/23

ANAB ISO 17034 Accredited
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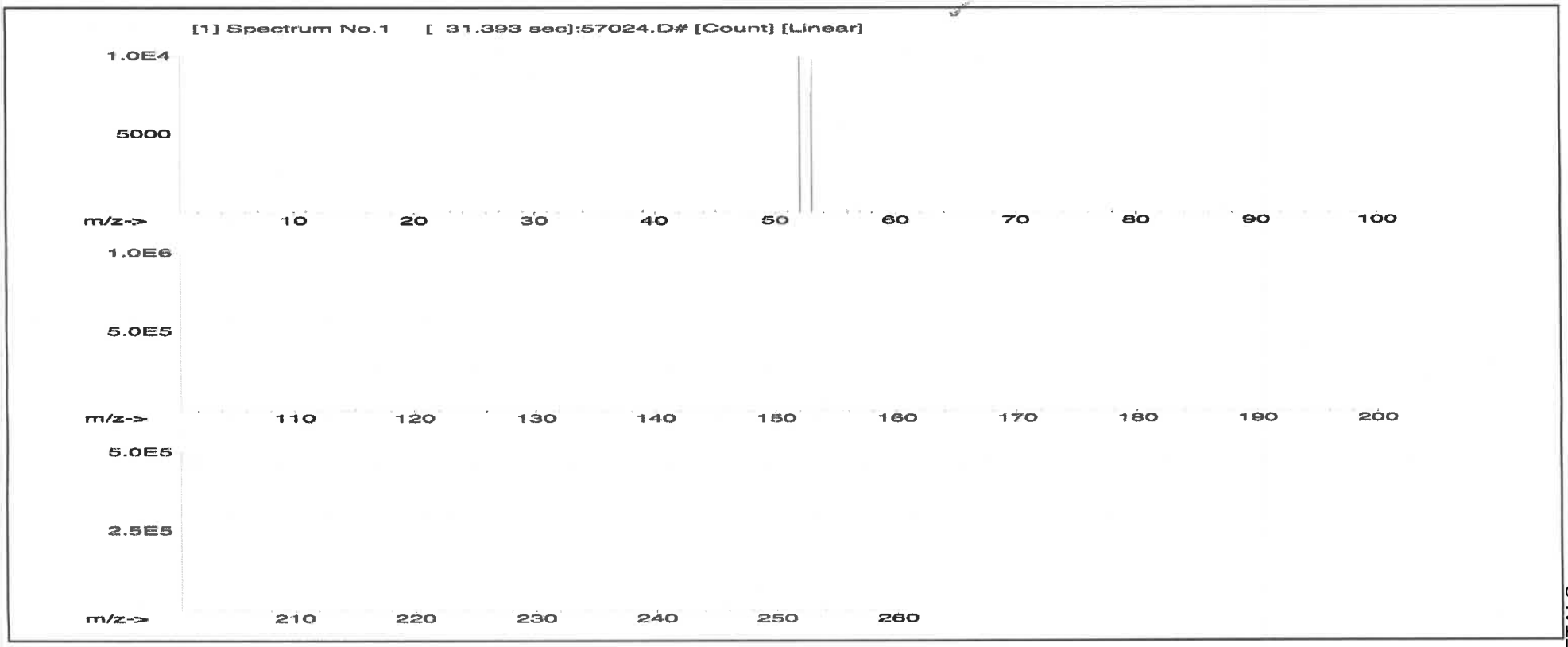
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 8/25/23 M5751

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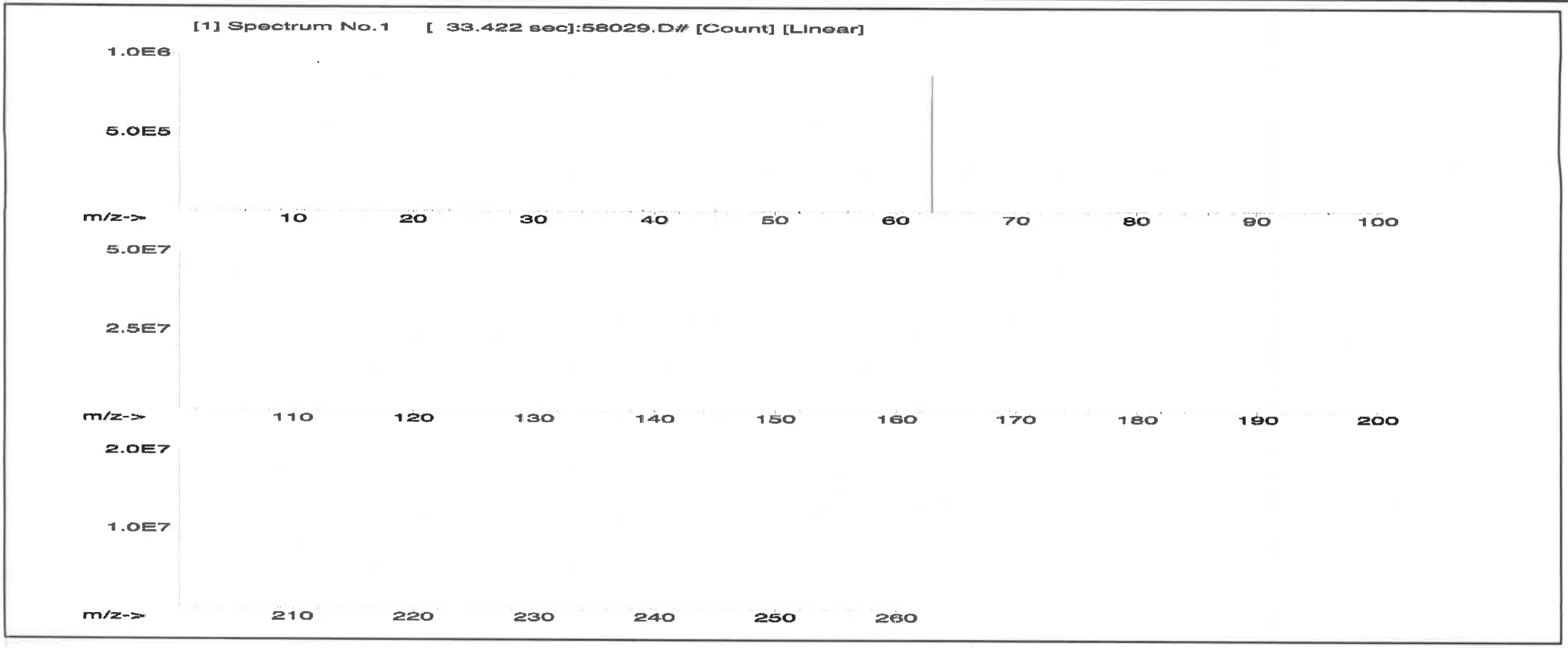
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5798

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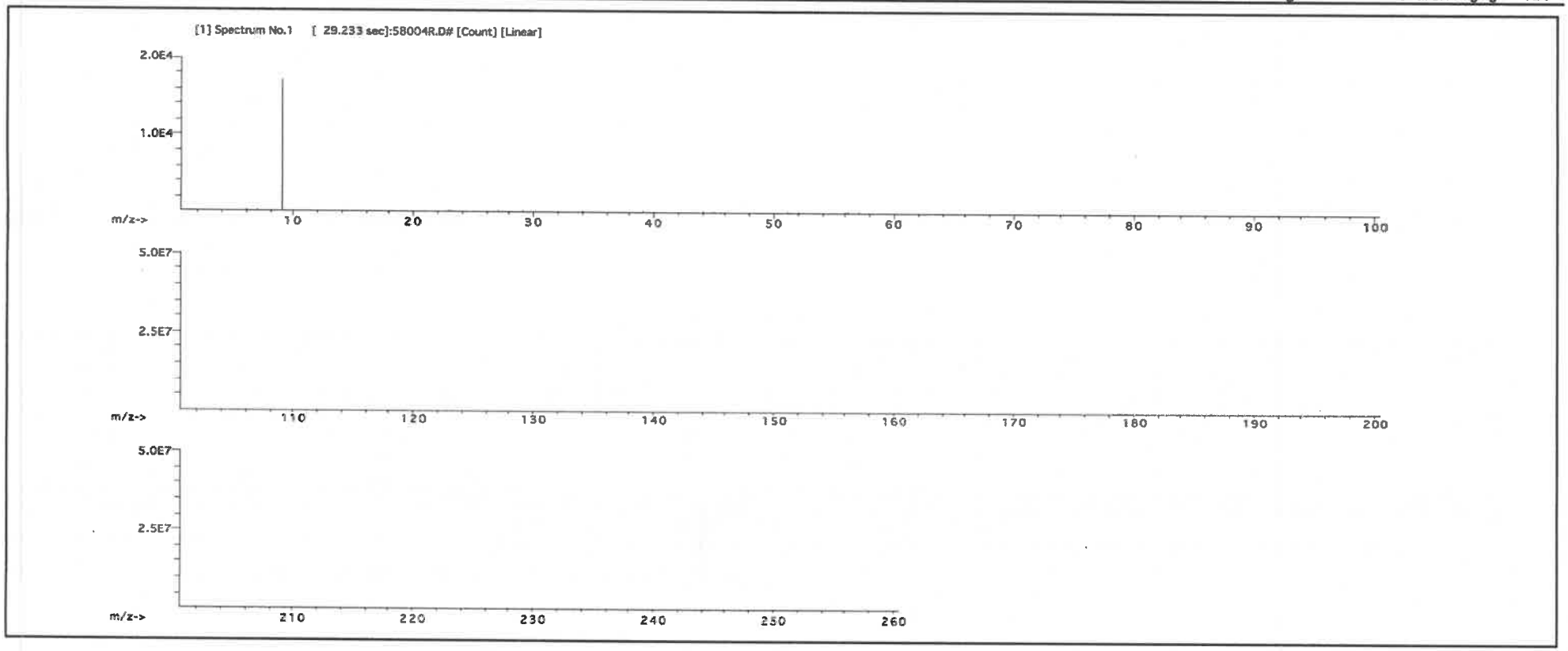
CERTIFIED WEIGHT REPORT:

		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.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R? 02/09/24 IV15799

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

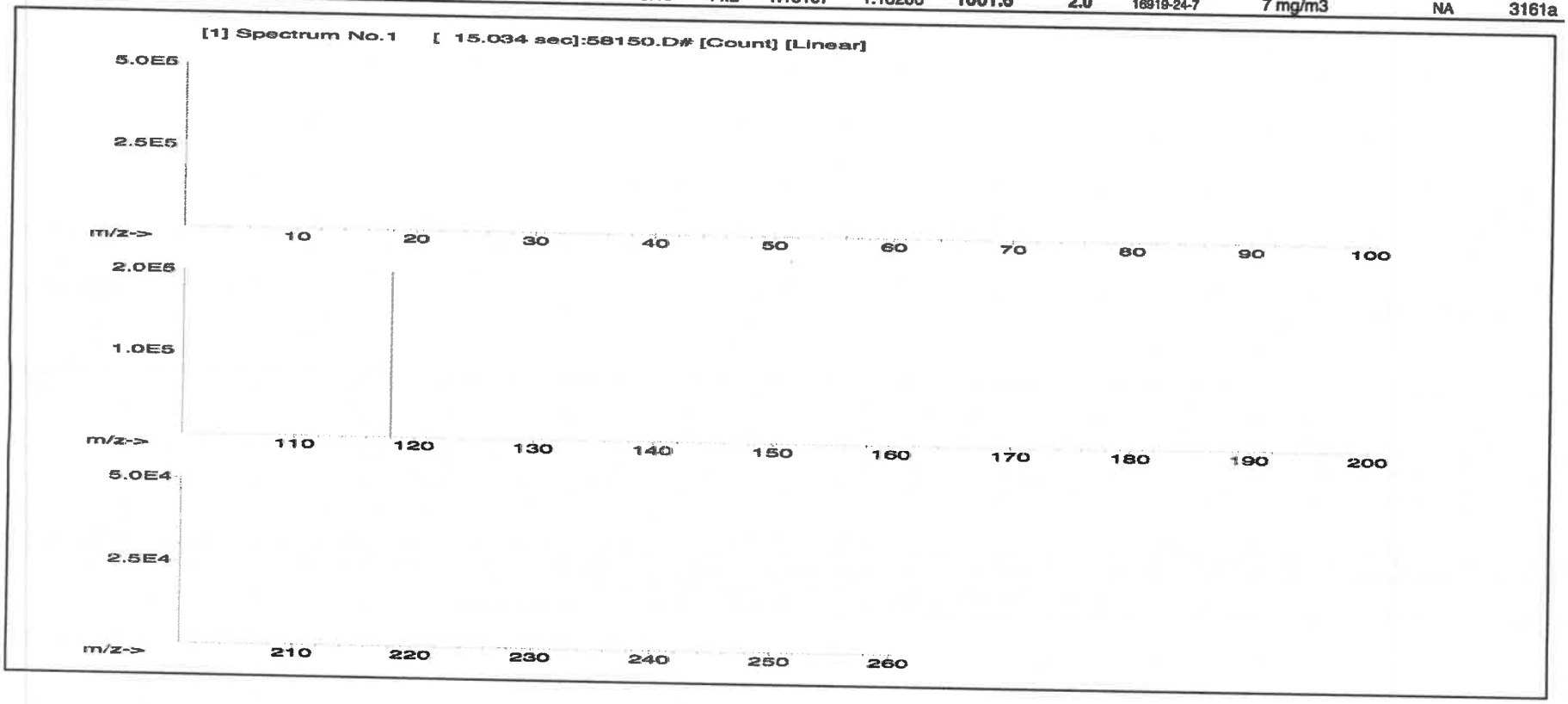
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 IM5800 BH

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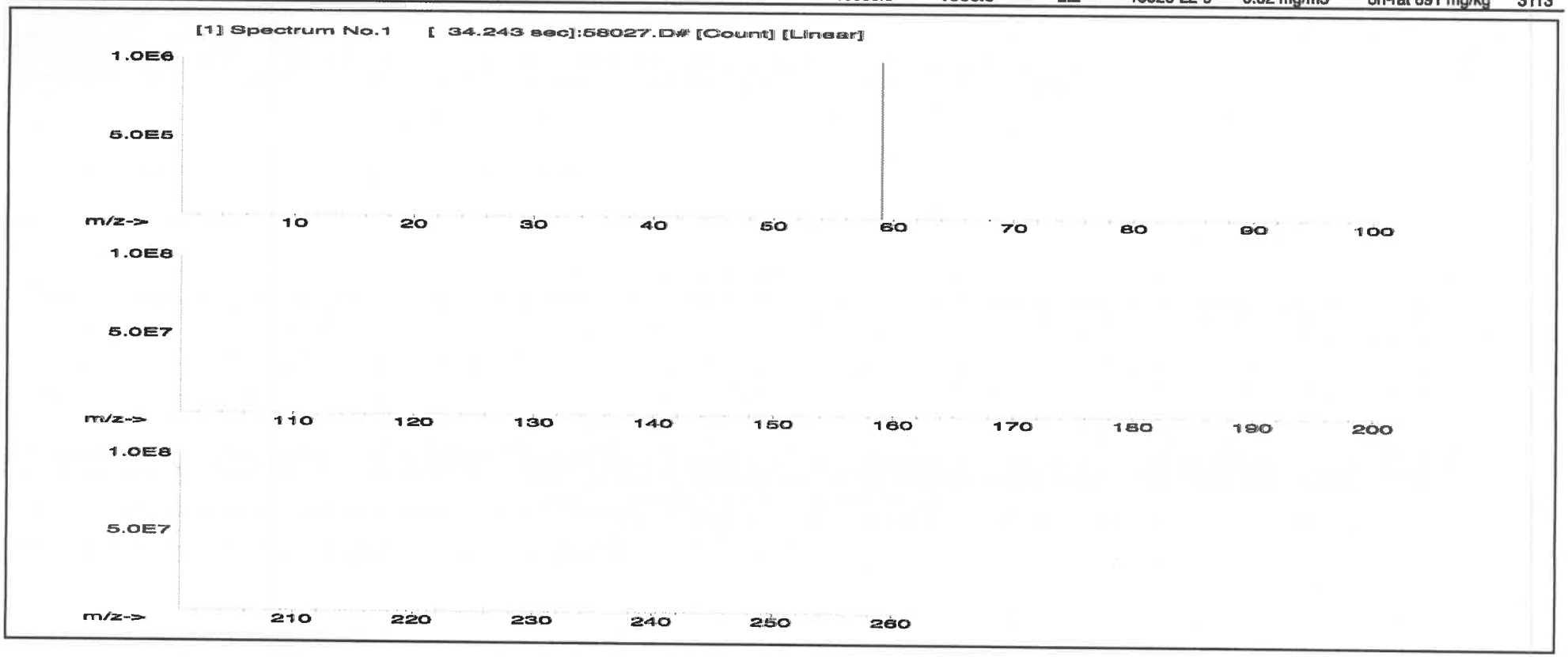
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By: Lawrence Barry 091923

Reviewed By: Pedro L. Rentas 091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	2.2	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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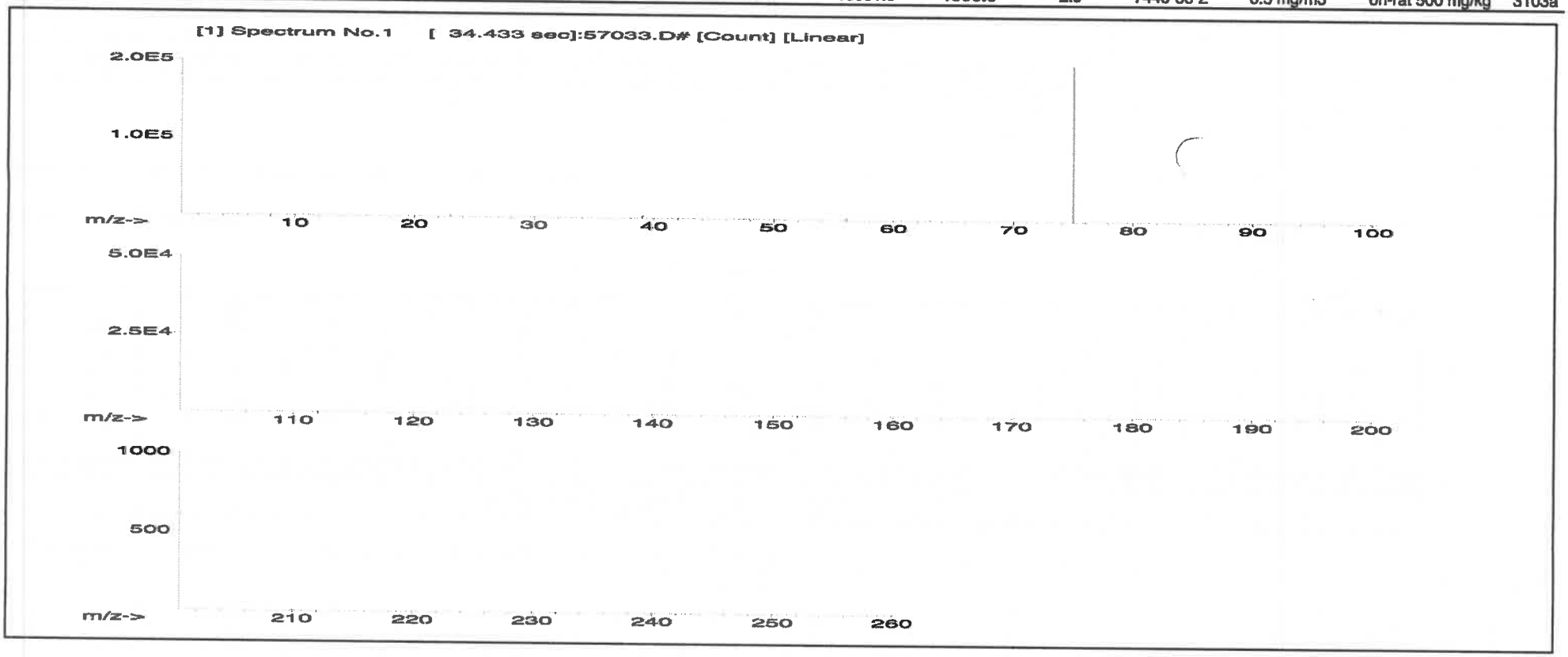
CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

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Certified Reference Material CRM

R1 02/09/24. M58165

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CERTIFIED WEIGHT REPORT:

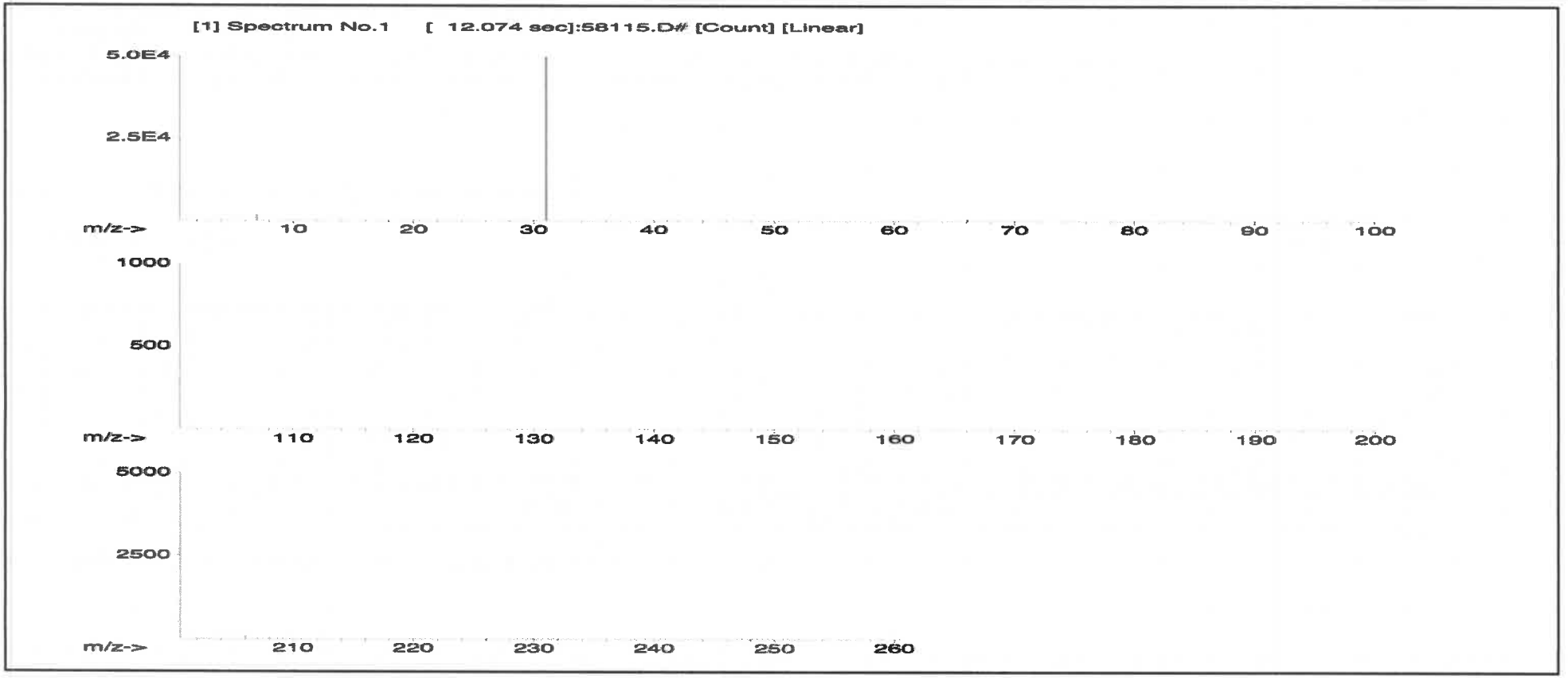
Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221		Nitric Acid
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	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:

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R: 02/09/24 M5817

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CERTIFIED WEIGHT REPORT:

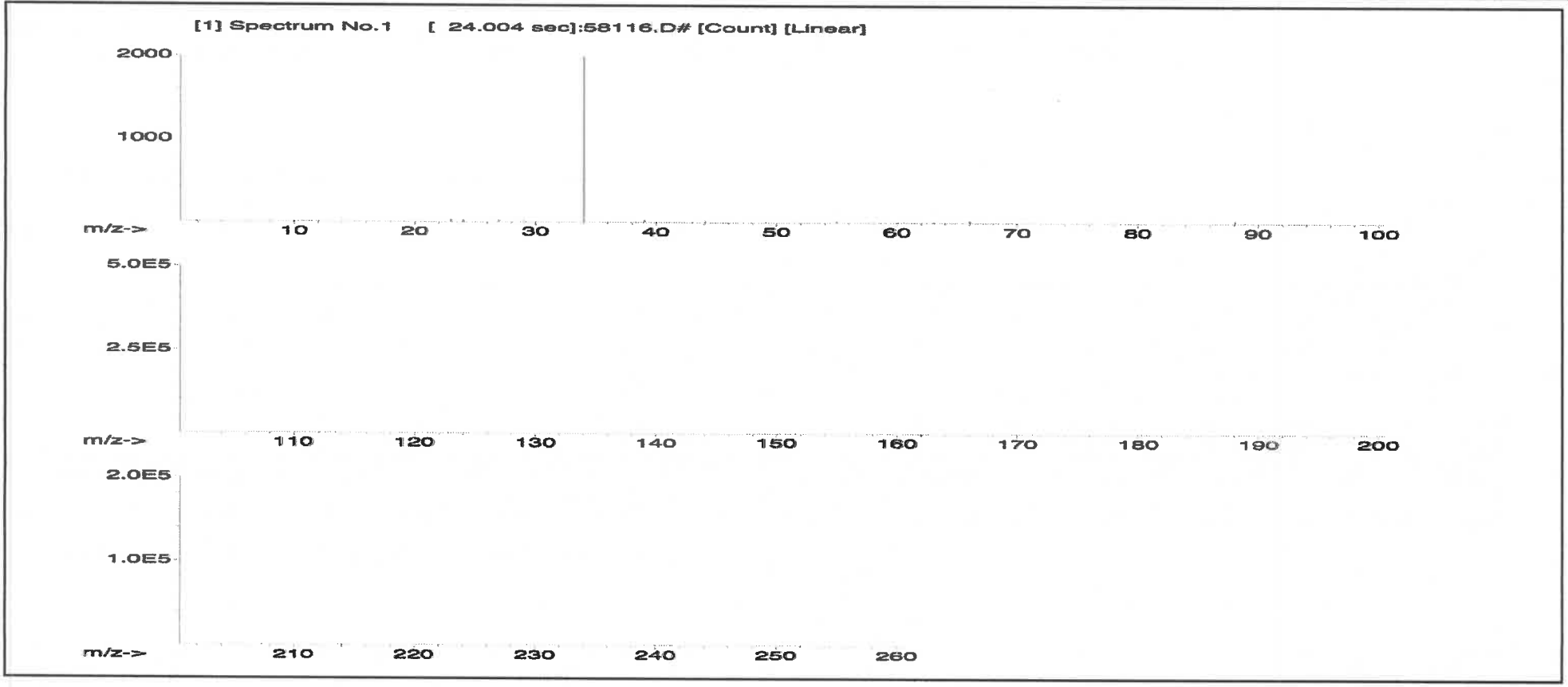
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	ori-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

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Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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Certificate of Analysis

R: 02/22/24 M5942

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5961 R: 6/11/24

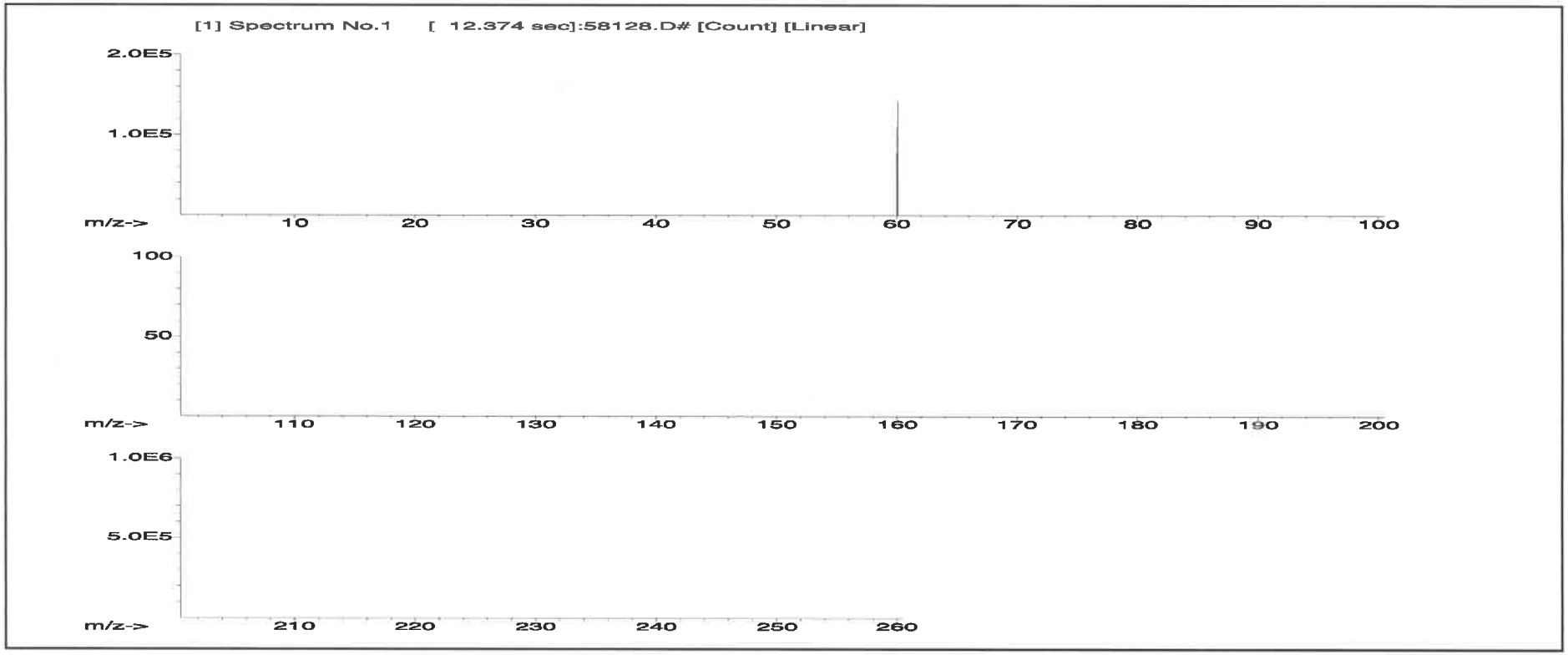
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #		
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid	
Lot Number:	**041124**				
Description:	**Nickel (Ni)**		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127				
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):	249.85	0.002	Flask Uncertainty		

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

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. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

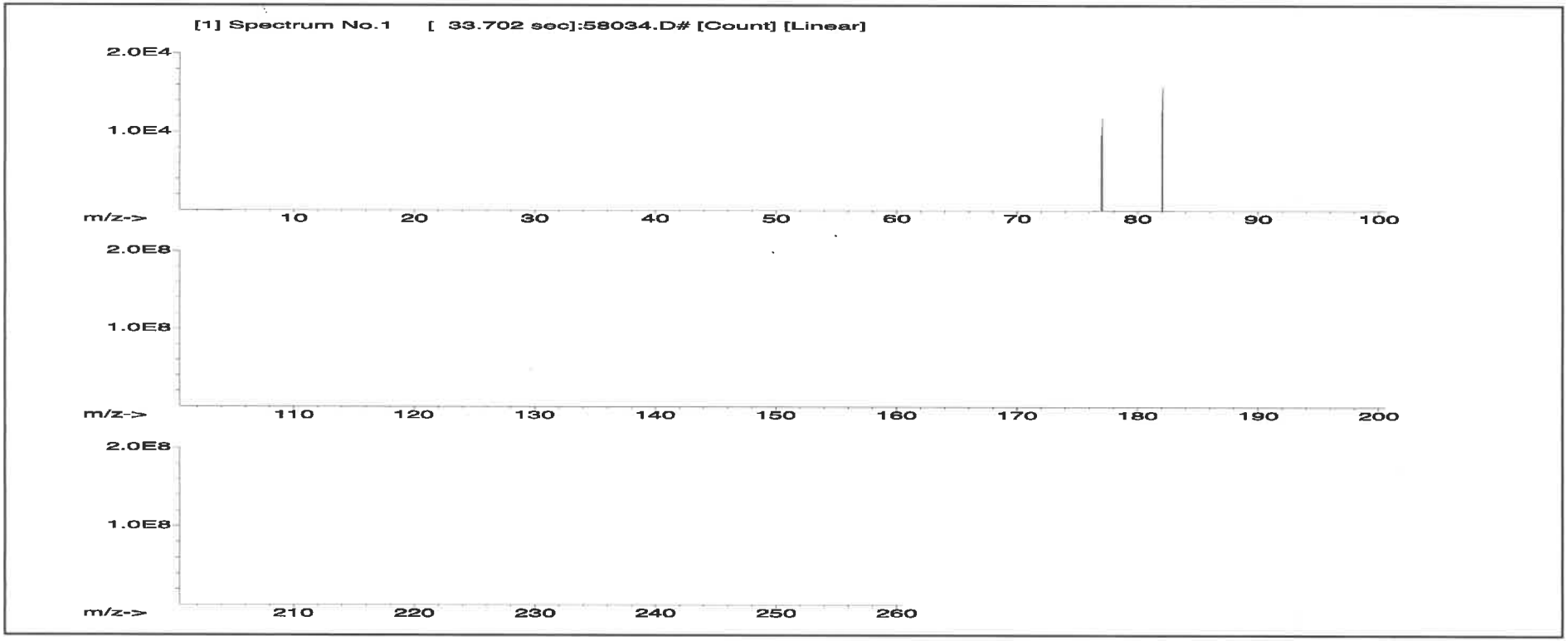
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5976, M5977
R: 02/22/24

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Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- 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	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

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 - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or 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 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

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 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

- July 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 Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5981 R:6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	57092	24002546	Nitric Acid		
Lot Number:	060724				
Description:	Uranium (U)	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	060727				
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		

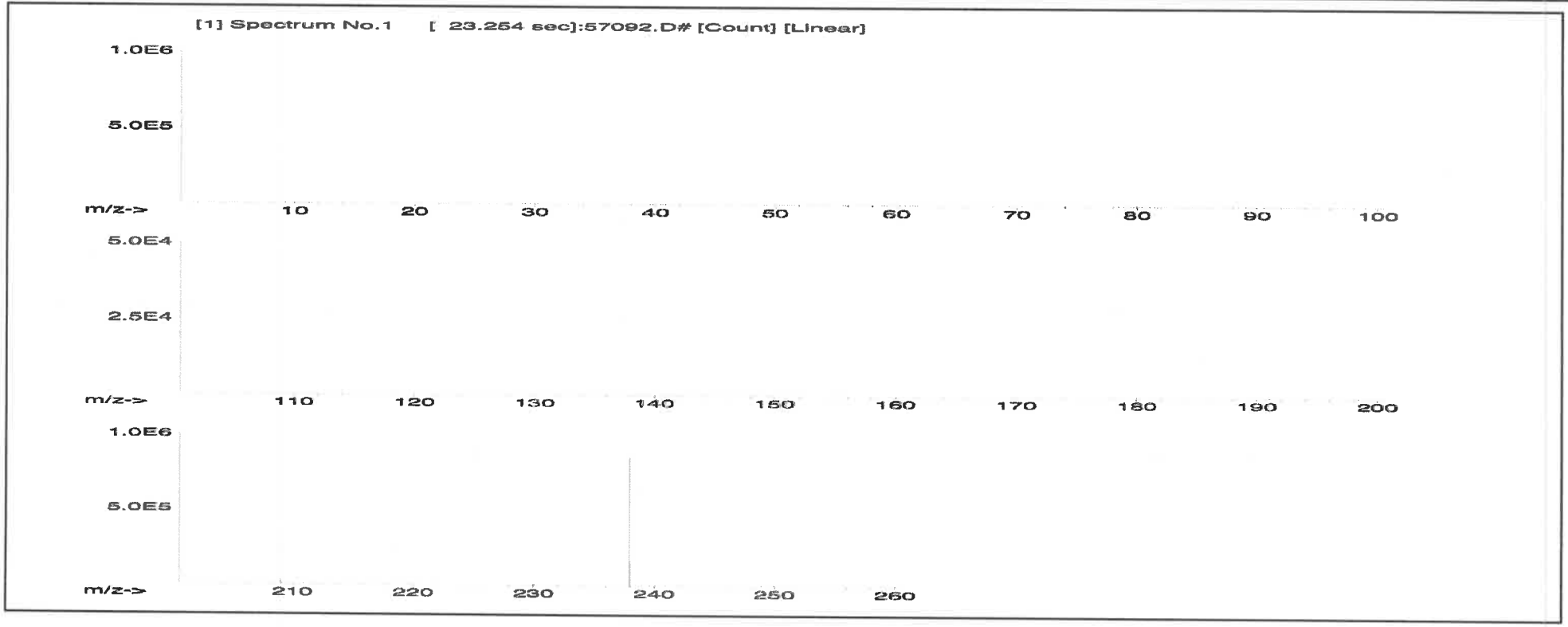
Giovanni Esposito

Formulated By:	Giovanni Esposito	060724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	060724

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. Uranyl nitrate hexahydrate (U)	58192	041524	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13520-83-7	0.05 mg/m3	orl-rat 1040 mg/kg	3164



Absolute Standards, Inc.
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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	T
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).

Part # **57092** Lot # **060724**

Printed: 6/7/2024, 3:58:45 PM

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

A 8/19/24, M60055

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:	IV-STOCK-12
Lot Number:	U2-MEB734294
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

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 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

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6079 R: 9/30/24

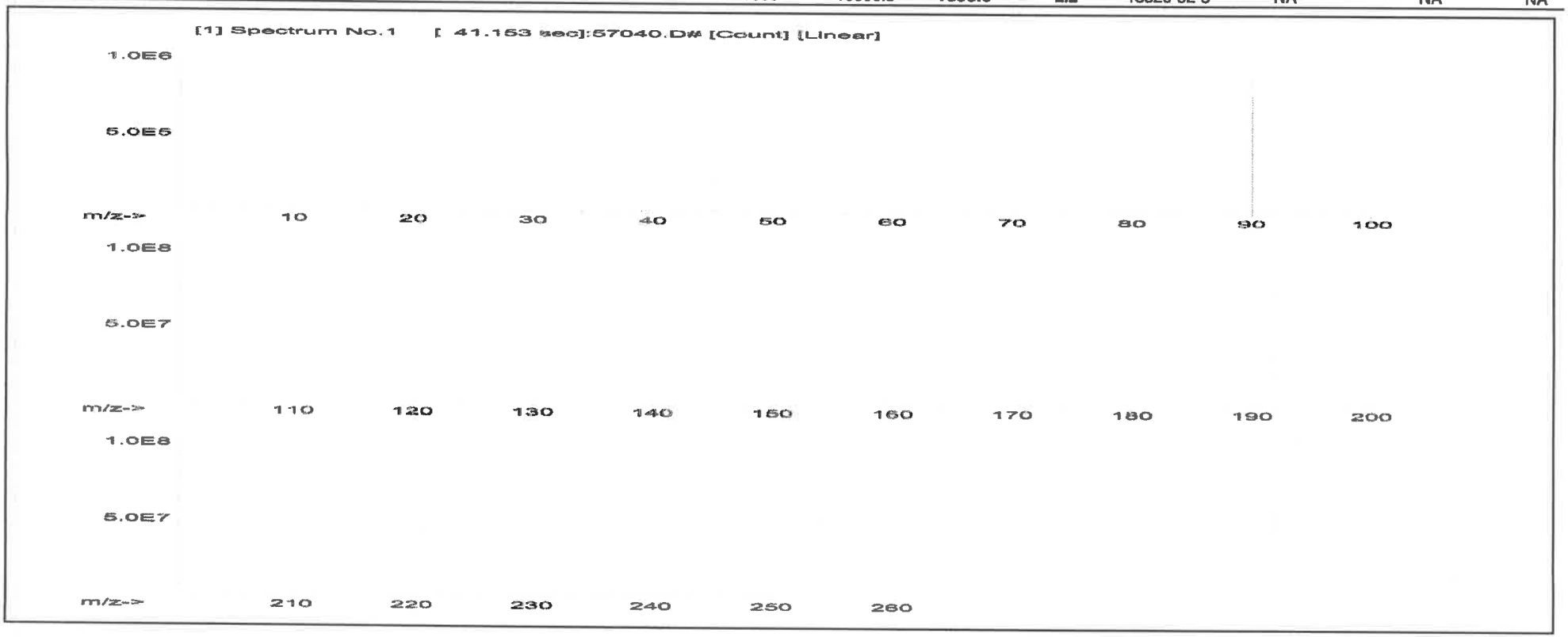
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57040**	21110221	Nitric Acid		
Lot Number:	**071423**				
Description:	**Zirconium (Zr)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	071426				
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	071423
Reviewed By:	Pedro L. Rentas	071423

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. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(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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800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

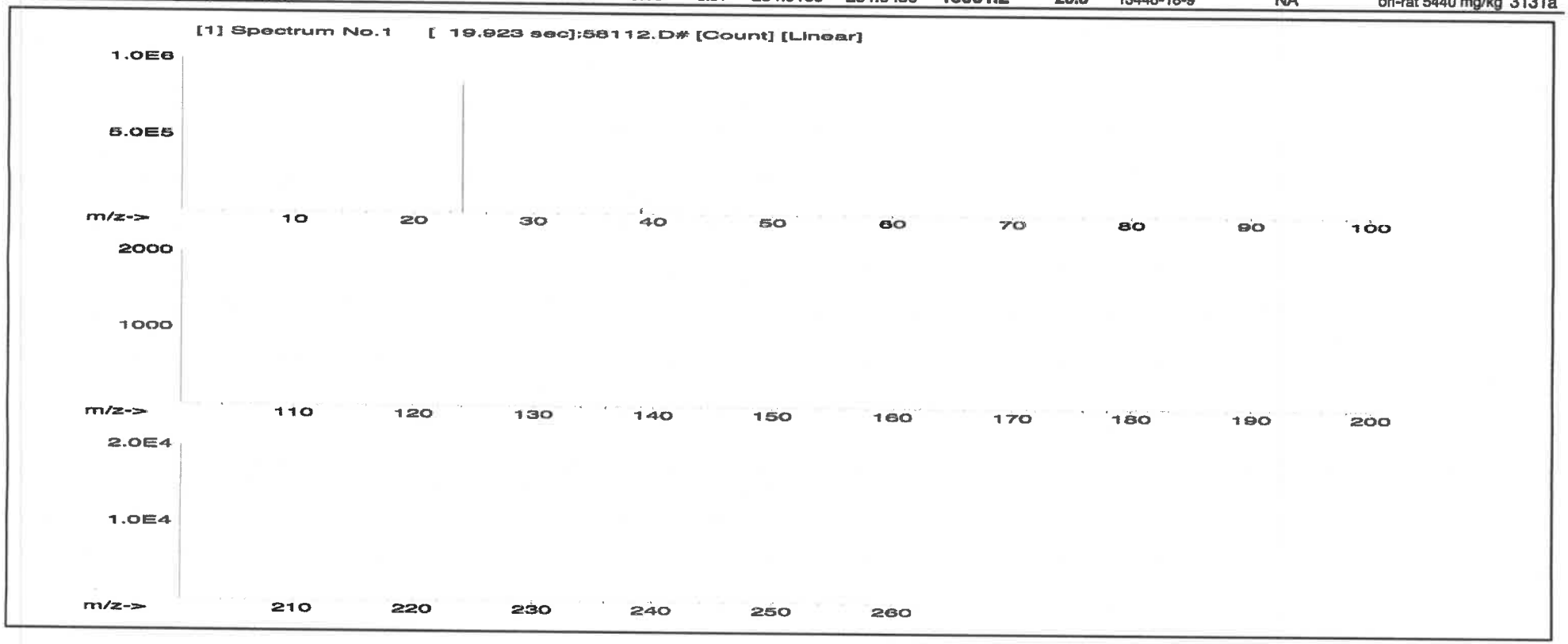
R -> 1/13/25
M 6127

Part Number:	**58112**		**Lot #**		
Lot Number:	**112124**	**Solvent:**	24012496	Nitric Acid	
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	112127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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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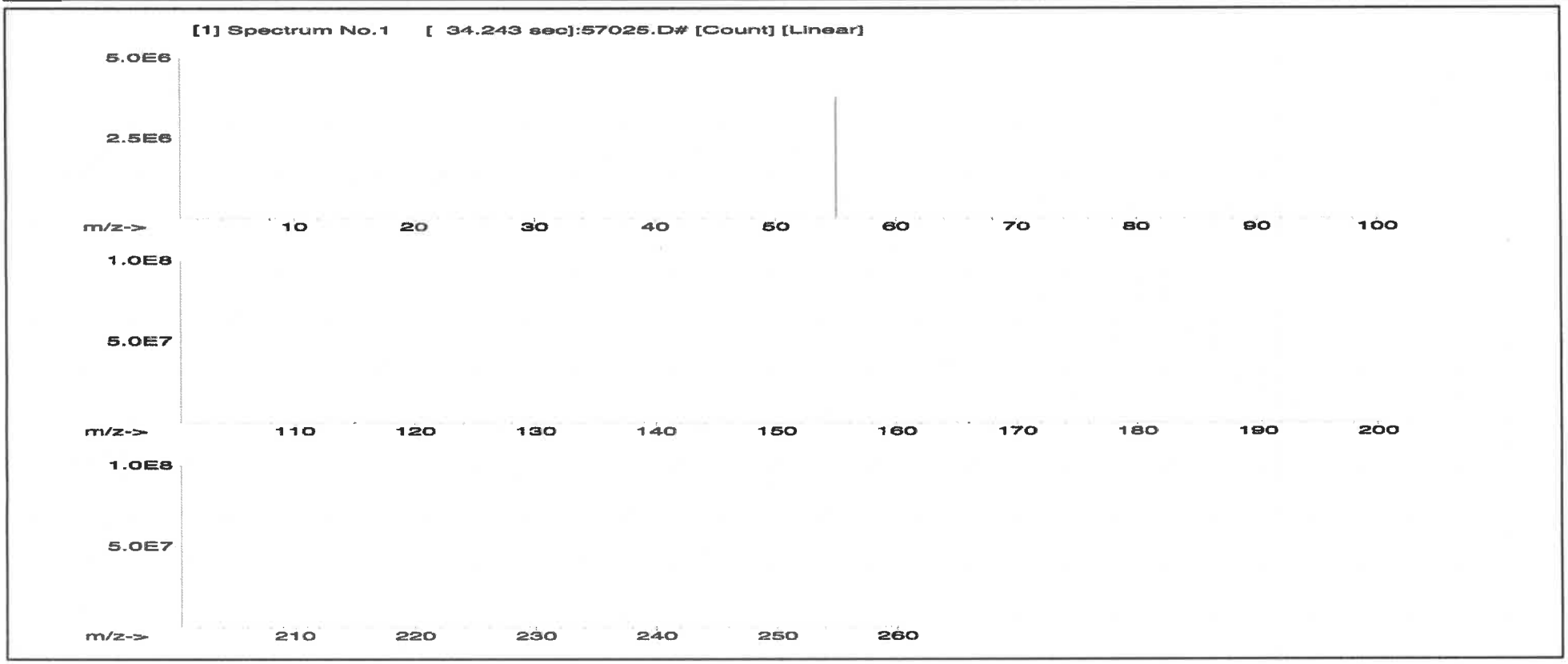
CERTIFIED WEIGHT REPORT:

R->1/13/28
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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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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info@inorganicventures.com

M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **999 ± 5 µg/mL**
ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546

Assay Method #2 **1000 ± 7 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

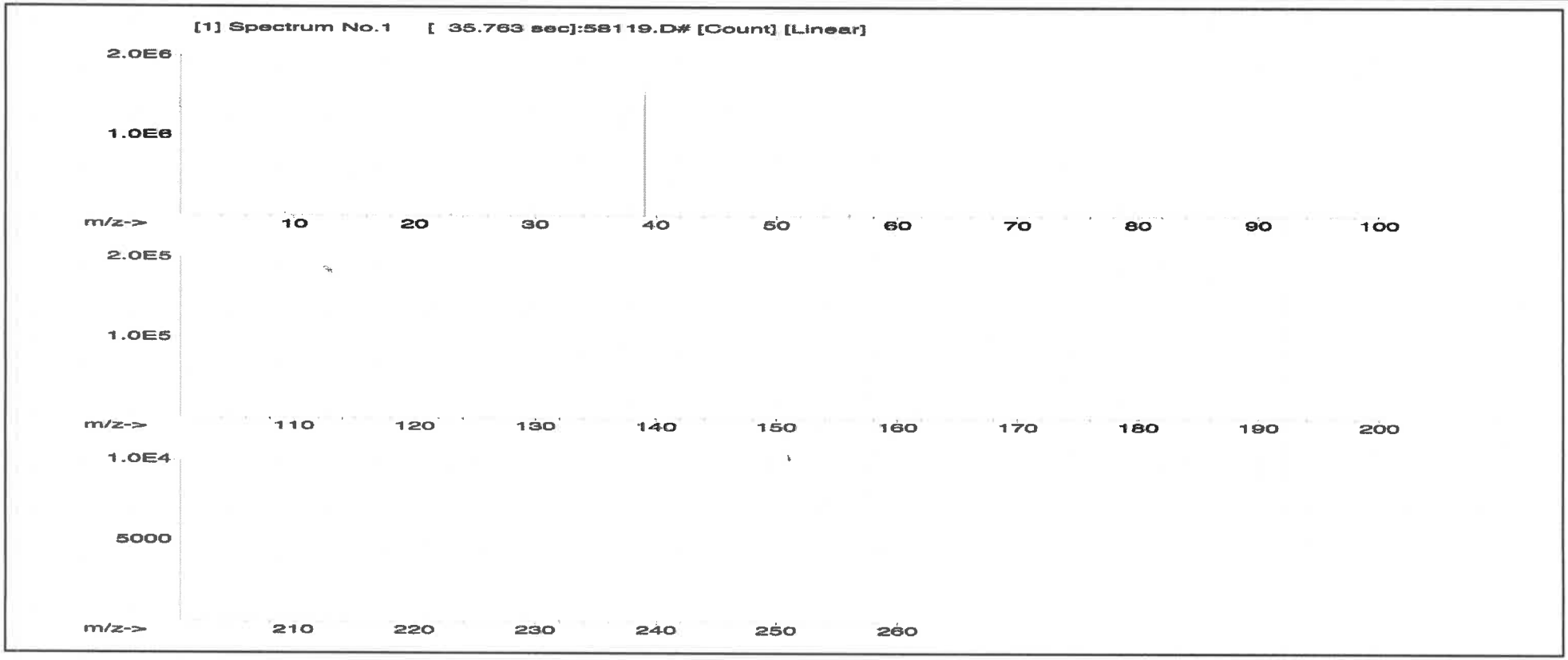
Part Number:	**57119**		**Lot #**		
Lot Number:	**103024**	**Solvent:**	24002546	Nitric Acid	
Description:	**Potassium (K)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	103027				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

M6141
M6142
M6143

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

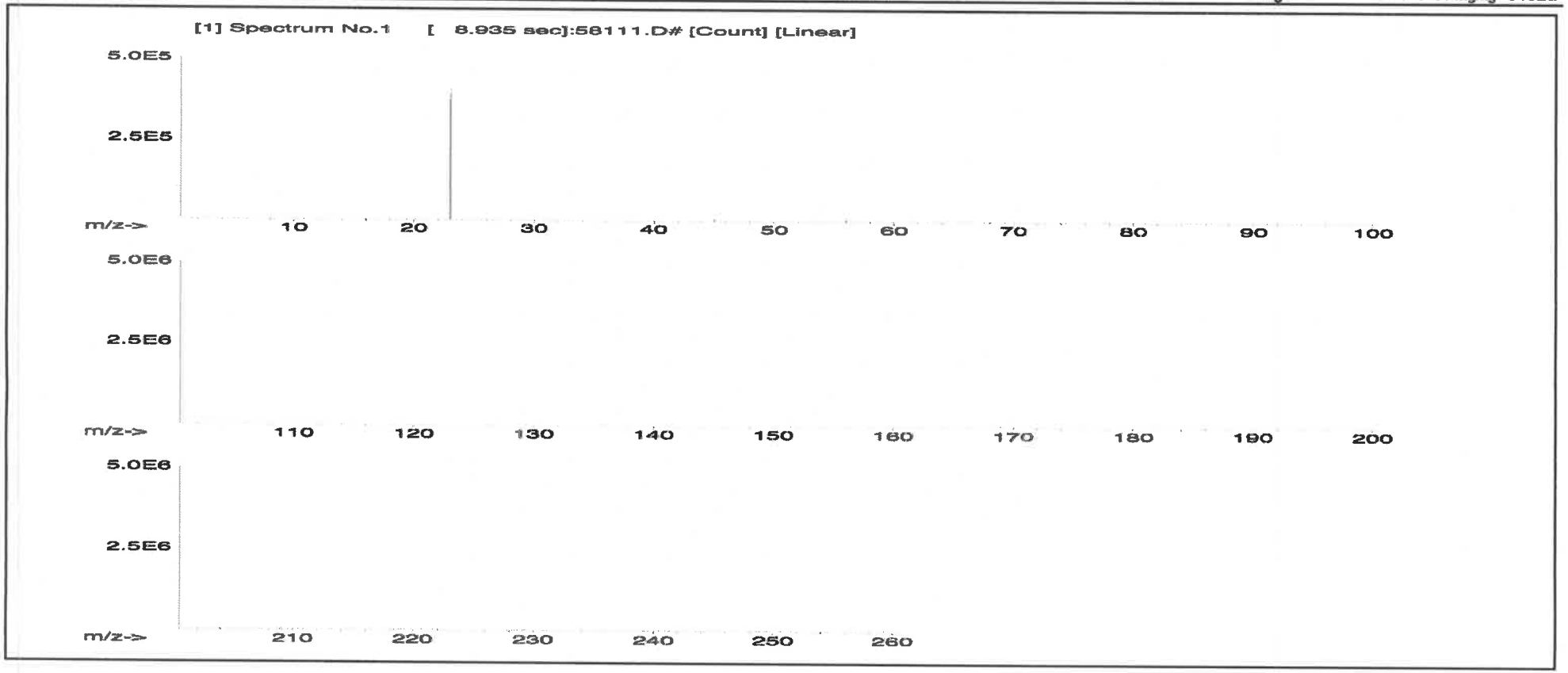
R->1/13/25

MG144

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.1 ± 0.10 Flask Uncertainty

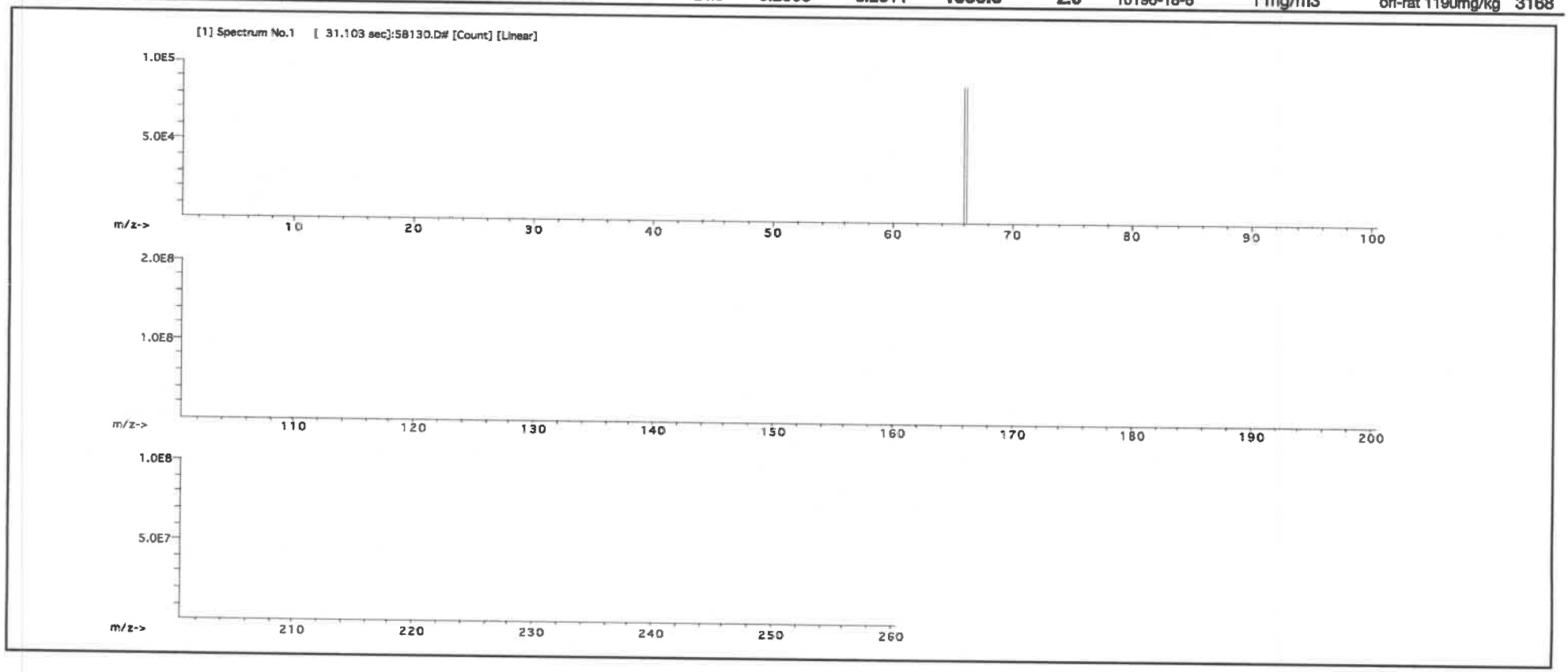
		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 121724

Pedro Rentas
Reviewed By: Pedro L. Rentas 121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
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R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) ***CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS***

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	CN^-	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R→1/7/23
M6153

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:	CGSR10
Lot Number:	V2-SR745329
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Strontium
Starting Material:	Strontium Carbonate
Starting Material Lot#:	2647
Starting Material Purity:	99.9960%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10081 ± 39 µg/mL

Density: 1.030 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10059 ± 50 µg/mL** ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	**10087 ± 26 µg/mL** EDTA NIST SRM 928 Lot Number: 928

- 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	<	0.000960	M	Eu	<	0.000480	O	Na		0.002964	M	Se	<	0.042000	M	Zn	0.004560
M	Al		0.003420	O	Fe		0.013225	M	Nb	<	0.000480	O	Si		0.012997	M	Zr	0.001847
M	As	<	0.007200	M	Ga	<	0.002900	M	Nd	<	0.000480	M	Sm	<	0.000480			
M	Au	<	0.003900	M	Gd	<	0.000480	O	Ni		0.001482	M	Sn	<	0.000480			
O	B	<	0.003200	M	Ge	<	0.004800	M	Os	<	0.001500	s	Sr	<				
M	Ba		0.638494	M	Hf	<	0.000480	O	P	<	0.017000	M	Ta	<	0.000480			
O	Be	<	0.000450	M	Hg	<	0.000960	M	Pb		0.010717	M	Tb	<	0.000480			
M	Bi	<	0.002000	M	Ho	<	0.000480	M	Pd	<	0.002000	M	Te	<	0.016000			
O	Ca		0.025083	M	In	<	0.008600	M	Pr		0.000547	M	Th	<	0.000480			
M	Cd	<	0.000960	M	Ir	<	0.000480	M	Pt	<	0.000480	M	Ti		0.004560			
M	Ce		0.000661	O	K		0.025083	M	Rb	<	0.003400	M	Tl	<	0.000480			
M	Co		0.001527	M	La	<	0.000480	M	Re	<	0.000480	M	Tm		0.004332			
O	Cr	<	0.004700	O	Li	<	0.005600	O	Rh	<	0.013000	M	U	<	0.000480			
M	Cs	<	0.000480	M	Lu	<	0.000480	M	Ru	<	0.000960	M	V	<	0.000960			
O	Cu	<	0.003800	O	Mg		0.001048	O	S	<	0.045000	M	W	<	0.002400			
M	Dy	<	0.000960	O	Mn		0.000319	M	Sb	<	0.009600	O	Y	<	0.001200			
M	Er	<	0.000480	M	Mo	<	0.002900	M	Sc	<	0.001500	M	Yb	<	0.000480			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 26, 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 26, 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

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

M-5162

R. Date :- 04/27/2025

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

INORGANIC VENTURES™
Refine your results. Redefine your industry.

A: 4/11/22

Certificate of Analysis

M5738, M5739, M5740, M5741, M5742, M5743

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:	6020ISS
Lot Number:	S2-MEB709511
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.07 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 03, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 03, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an 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-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

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 the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, 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*

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS 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:

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICSA-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, 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 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS 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-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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Certified Reference Material CRM

M6030

R: 8/5/24

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

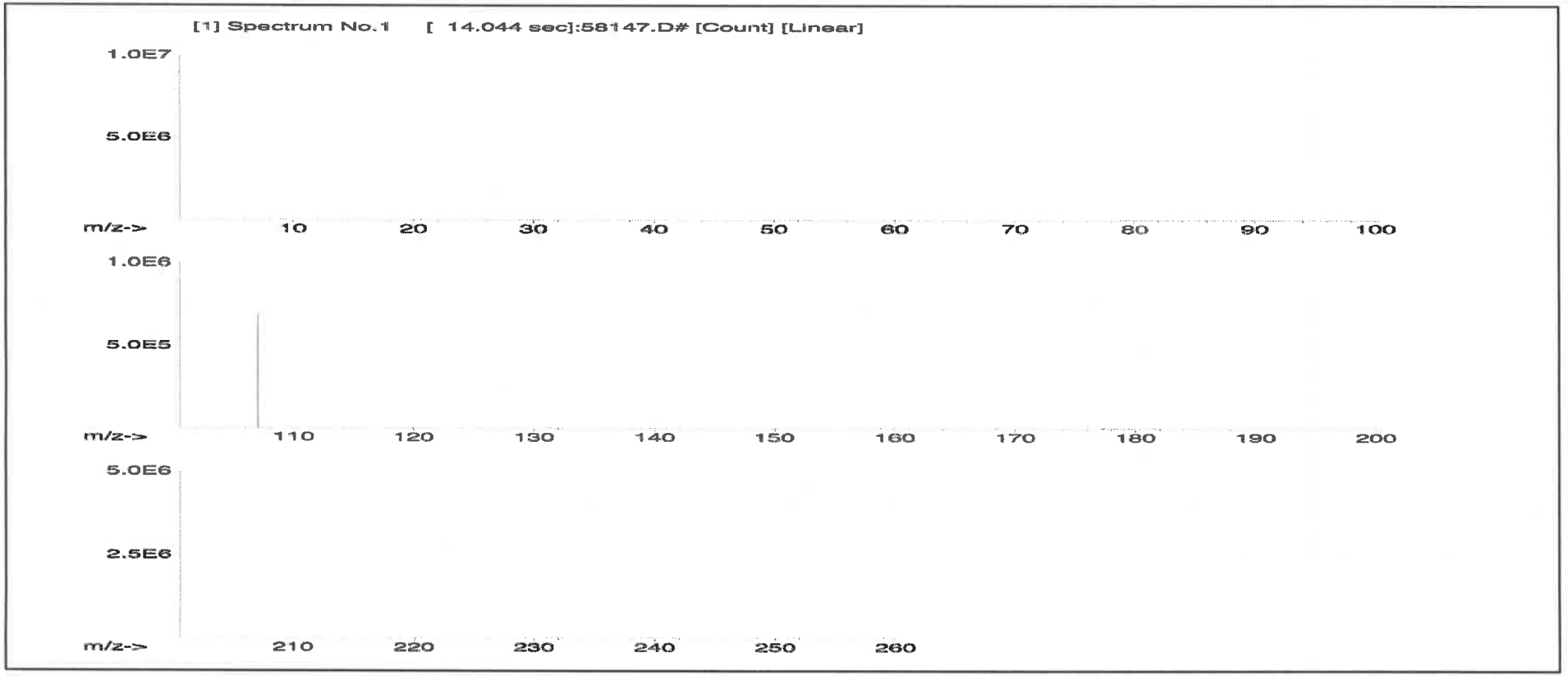
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

opened : 3/24/25

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Certified Reference Material CRM

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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 ± 0.058 Flask Uncertainty

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

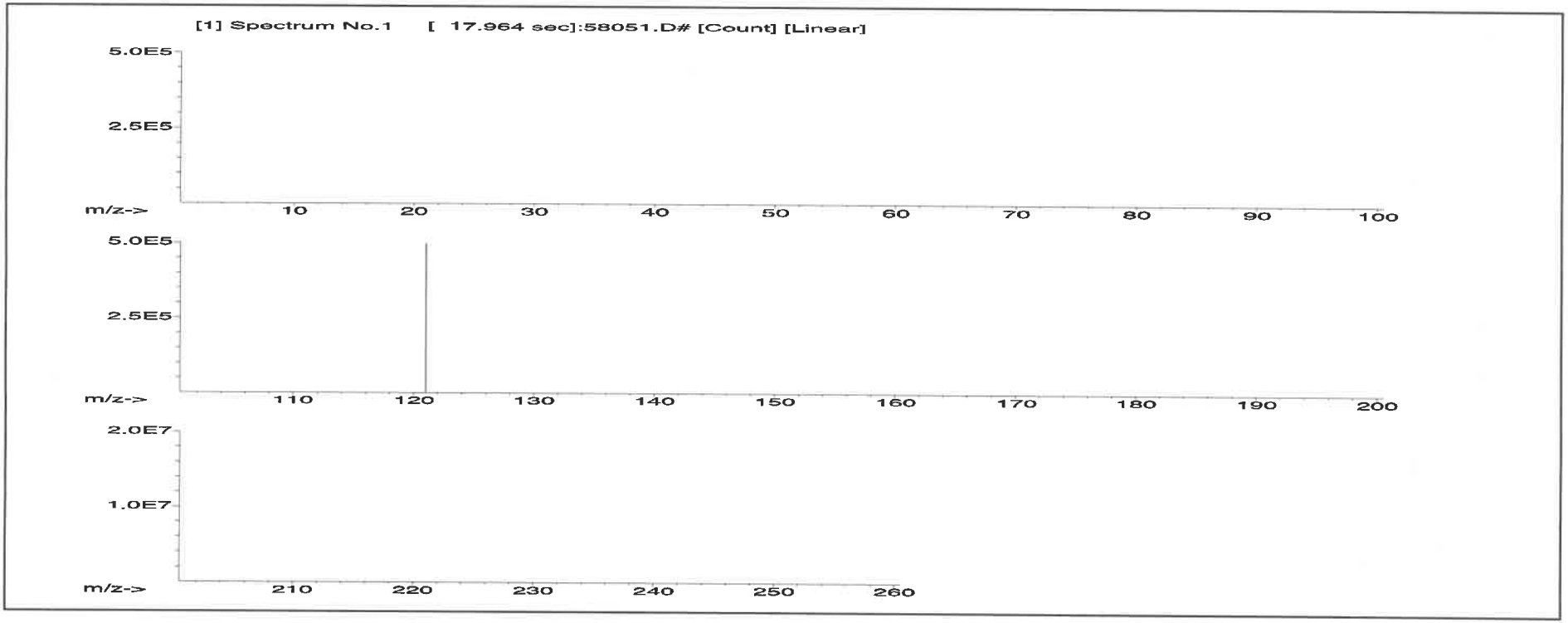
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

M6023

B ! 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (Tl)

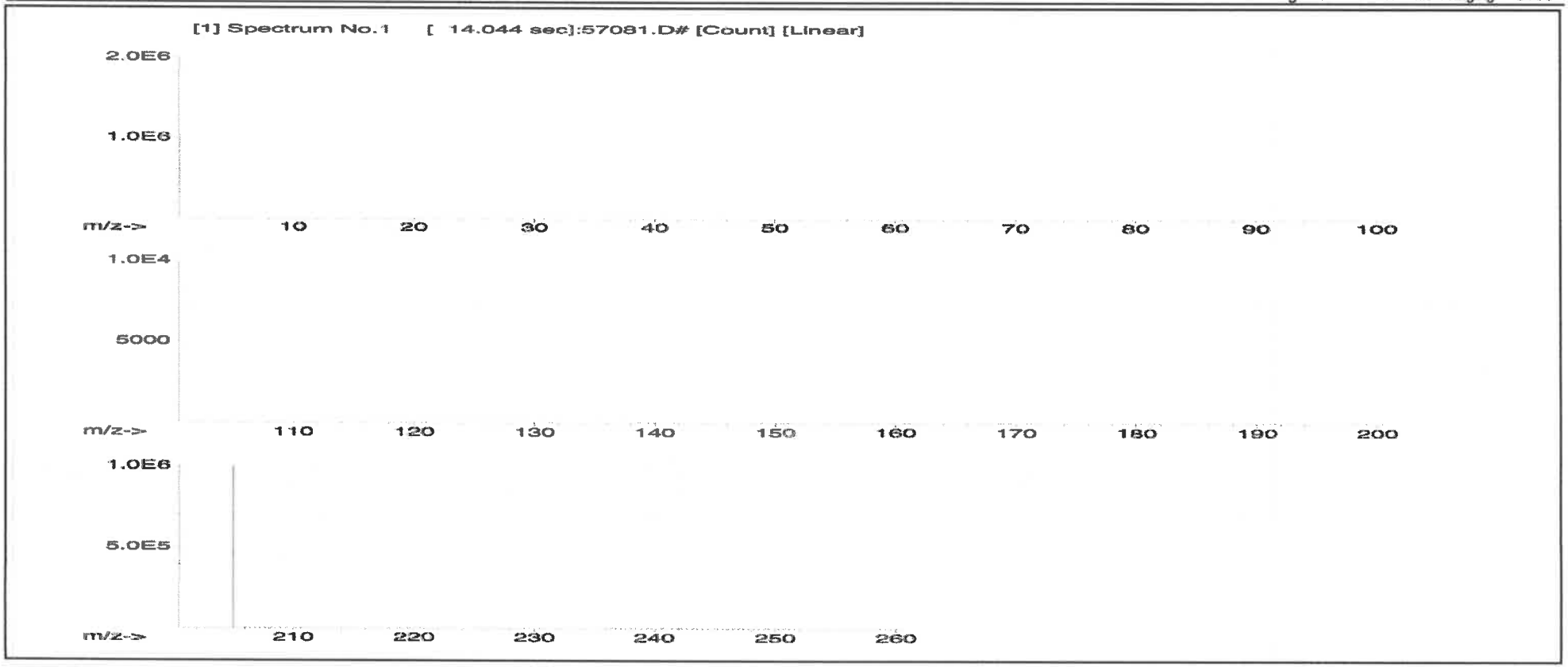
Expiration Date: 062727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.1

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

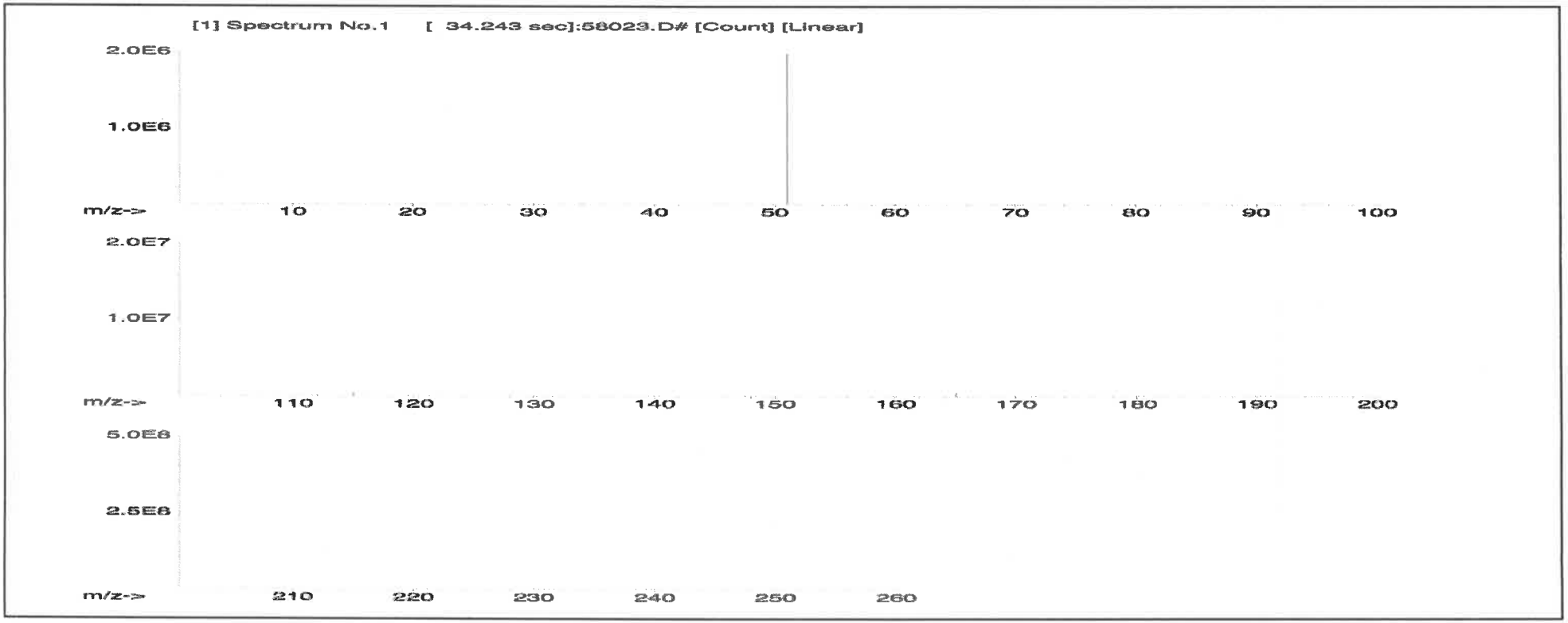
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

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Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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Certified by:

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SHIPPING DOCUMENTS

Q2259

Chemtech

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

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 4_01/08/2020

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name:	Nobis Group
Address:	55 Technology Dr Suite 101, Lowell, MA 01851
Phone:	978-703-6014
Project Name:	Raymark
Project Location:	Stratford, CT
Project Number:	95700
Project Manager:	Adam Roy
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	B. Fortier

Requested Turnaround Time
5-Day ☐ 10-Day ☑
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐ No
Email To: aroy@nobis-group.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☑
NON SOXHLET ☐

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	M/O	RCP VOCs	% Solids	PAHs	Herbicides	Pesticides	PCBs	Metals ICP + Hg - 6010	Cyanide	SPLP RCP Metals - 6020
	OU4-PCS-TC-36-060525	6/5/25	11:25	G	SO		3	2	1				X	X	X	X	X	X	X	X	X
	OU4-PCS-TC-37-060525	6/5/25	11:35	G	SO		3	2	1				X	X	X	X	X	X	X	X	X
	OU4-TS-29-060525	6/5/25	13:30	G	SO			1											X		
	OU4-TS-30-060525	6/5/25	13:35	G	SO			1											X		

[2] Preservation Code

Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)	Date/Time: 6/5/25 13:45	Client Comments:
Received by: (signature) Cooler	Date/Time: 6/5/25 13:45	
Relinquished by: (signature) FedEx	Date/Time: 6/6/25 1004	
Received by: (signature)	Date/Time: 6/6/25 1004	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☑ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments: 3.4°C

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2259 NOBI03
Client Name : Nobis Group
Client Contact : Adam Roy
Invoice Name : Nobis Group
Invoice Contact : Adam Roy

Order Date : 6/6/2025 10:57:00 AM
Project Name : Raymark Superfund Site
Receive DateTime : 6/6/2025 10:04:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2259-01	OU4-PCS-TC-36-060525	Solid	06/05/2025	11:25					
					VOCMS Group3		8260D	10 Bus. Days	
Q2259-03	OU4-PCS-TC-37-060525	Solid	06/05/2025	11:35					
					VOCMS Group3		8260D	10 Bus. Days	

Relinguished By :
Date / Time : 6/6/25 1136

Received By :
Date / Time : 06/06/25 11:36
Storage Area : VOA Refridgerator Room