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

DATA PACKAGE

METALS

PROJECT NAME : ARC SAYREVILLE POSTEX 2025

ARCADIS

50 Millstone Road

Suite 220

East Windsor, NJ - 08520

Phone No: 267-685-1822

ORDER ID : Q3084

ATTENTION : Kaiti Liao

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

Cover Page

Order ID : Q3084

Project ID : ARC Sayreville PostEx 2025

Client : Arcadis

Lab Sample Number	Client Sample Number
Q3084-01	PMW-9S(20250909)
Q3084-02	PMW-9D(20250909)
Q3084-03	PMW-8D(20250909)
Q3084-04	PMW-8S(20250909)
Q3084-05	FB(20250909)
Q3084-06	PMW-6(20250910)
Q3084-07	PMW-3(20250910)
Q3084-08	PMW-7S(20250910)
Q3084-09	PMW-7D(20250910)
Q3084-10	DUP(20250910)
Q3084-11	PMW-10(20250910)
Q3084-12	FB(20250910)
Q3084-13	PMW-4(20250911)
Q3084-14	MW-1(MCUA)(20250911)
Q3084-15	MW-2(MCUA)(20250911)
Q3084-16	PMW-1(20250911)
Q3084-17	PMW-5(20250911)
Q3084-18	PMW-2(20250911)
Q3084-19	PMW-2(20250911)MS
Q3084-20	PMW-2(20250911)MSD
Q3084-21	FB(20250911)
Q3084-22	EB(20250911)
Q3084-23	TB(20250911)
Q3084-25	VHBLK001

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 9:09 am, Sep 25, 2025

Date: 9/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q3084
COC Number 2045076

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Arcadis US Inc
ADDRESS: 50 Millstone Rd
CITY East Windsor STATE: NJ ZIP: 08520
ATTENTION: Kaiti Liao
PHONE: 267-567-2900 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ARC HRDD
PROJECT NO.: 30184323 LOCATION: Sayreville, NJ
PROJECT MANAGER: Kaiti Liao
e-mail: kaiti.liao@arcadis.com
PHONE: 267-567-2900 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS: 3
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE): Standard DAYS*
EDD: Standard DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced ☑ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 VOC CLP SOW Stars Gl.1 (Tentatively Identified Compounds) 2 SVOC CLP SOW Stars Gl.1 3 Metals CLP SOW SOM01.1 (using ICP-MS) 4 5 6 7 8 9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES A	E	B	4	5	6	7	8	9	COMMENTS
								1	2	3							← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER
1.	PMW-9S(20250909)	GW		X	9/9/25	1245	4	X	X	X							
2.	PMW-9D(20250909)			X		1400	4	X	X	X							
3.	PMW-8D(20250909)			X		1300	4	X	X	X							
4.	PMW-8S(20250909)			X		1440	4	X	X	X							
5.	FB(20250909)			X		1500	4	X	X	X							
6.	PMW-6(20250910)			X	9/10/25	1225	4	X	X	X							
7.	PMW-3(20250910)			X		1340	4	X	X	X							
8.	PMW-7S(20250910)			X		1240	4	X	X	X							
9.	PMW-7D(20250910)			X		1420	4	X	X	X							
10.	DUP(20250910)			X		—	4	X	X	X							

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Trinity Dawson	9/11/25 1438	1. 1438 9.11.25
2.		2.
3.	DATE/TIME: 1535 9.11.25	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.4 °C
Comments:

Page 1 of 3

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

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www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q3084
COC Number 2045077

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Arcadis US Inc
ADDRESS: 50 Millstone Rd
CITY East windsor STATE: NJ ZIP: 08520
ATTENTION: Kaiti Liao
PHONE: 267-507-2908 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ARC HRDD
PROJECT NO.: 30184323 LOCATION: Sayreville, NJ
PROJECT MANAGER: Kaiti Liao
e-mail: kaiti.liao@arcadis.com
PHONE: 267-507-2908 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE): Standard DAYS*
EDD: Standard DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced
- ☑ US EPA CLP
- ☐ NYS ASP A
- ☐ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 VOC CLP SOW SFAM (Full TCL + Tentative Volatile)
2 SVOC CLP SOW SFAM (TCL)
3 Metals CLP SOW SFAM01.1 (Hg by CVAA, Rest by ICP-MS)
4
5
6
7
8
9

PRESERVATIVES

A-HCl B-HN03 C-H2SO4 D-NaOH E-ICE F-OTHER

COMMENTS

← Specify Preservatives

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
								A	E	B							
1.	PMW-10(20250910)	GW		X	9/10/25	1450	4	X	X	X							
2.	FB(20250910)			X	"	1500	4	X	X	X							
3.	PMW-4(20250911)			X	9/11/25	1045	4	X	X	X							
4.	MW-1(MCUA)(20250911)			X		1105	4	X	X	X							
5.	MW-2(MCUA)(20250911)			X		1215	4	X	X	X							
6.	PMW-1(20250911)			X		1210	4	X	X	X							
7.	PMW-5(20250911)			X		1320	4	X	X	X							
8.	PMW-2(20250911)			X		1330	4	X	X	X							
9.	PMW-2(20250911)-MS			X		1330	4	X	X	X							
10.	PMW-2(20250911)-MSD	"		X	"	1330	4	X	X	X							

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Trinity Dameus	9/11/25 1438	1. 9.11.25 1438
2.		2.
3.	9-11-25 1525	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.1 °C
Comments:

Page 2 of 3

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

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www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q3084
COC Number 2045080

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Arcadis US Inc
ADDRESS: 50 Millstone Rd
CITY East Windsor STATE: NJ ZIP 08520
ATTENTION: Kaiti Liao
PHONE: 267-567-2900 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ARC HRDD
PROJECT NO.: 30184023 LOCATION: Dayreville, NJ
PROJECT MANAGER: Kaiti Liao
e-mail: Kaiti.Liao@arcadis.com
PHONE: 267-567-2900 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE): Standard DAYS*
EDD: Standard DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☑ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ Other
☐ EDD FORMAT

ANALYSIS

1: VOC CLP SOW SFAM (Full Suite)
2: SVOC CLP SOW SFAM 01.1
3: Metals CLP SOW SFAM 01.1 (using ICP-MS)
4
5
6
7
8
9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (E)	3 (B)	4	5	6	7	8	9	COMMENTS
1.	FB(20250911)	GW		G	9/11/25	1400	4	X	X	X							
2.	EB(20250911)	"		"	"	1350	4	X	X	X							
3.	TB(20250911)	"		"	"	—	2	X									
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

PRESERVATIVES: A-HCl B-HN03 C-H2SO4 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1: Printing or Manor	9/11/25 1438	1: 9-11-25 1438
2.		2.
3.	9-11-25 1535	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.1 °C
Comments:

Page 3 of 3

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

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FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 2
Received By (Print Name) Cassandra Reis		Log-in Date 9/11/2025
Received By (Signature)		
Case Number ARC Sayreville PostE	SDG No. ~~PMW-9S(20250909)~~ Q3084	MA No. N/A

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	N/A
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	~~Present~~ N/A
5. Airbill No. and Shipping Container ID No.	N/A 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	4.4 Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Not Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	09/11/2025
12.Time Received	15:35

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	PMW-9S(20250909)	,1.5	N/A	Q3084-01	Intact
2	PMW-9D(20250909)	,1.5		Q3084-02	Intact
3	PMW-8D(20250909)	,1.5		Q3084-03	Intact
4	PMW-8S(20250909)	,1.5		Q3084-04	Intact
5	FB(20250909)	,1.5		Q3084-05	Intact
6	PMW-6(20250910)	,1.5		Q3084-06	Intact
7	PMW-3(20250910)	,1.5		Q3084-07	Intact
8	PMW-7S(20250910)	,1.5		Q3084-08	Intact
9	PMW-7D(20250910)	,1.5		Q3084-09	Intact
10	DUP(20250910)	,1.5		Q3084-10	Intact
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	9/11/25	Logbook Page No.	N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC			Page 2 of 2
Received By (Print Name) Cassandra Rene			Log-in Date 9/11/2025
Received By (Signature)			
Case Number ARC Sayreville PostE	SDG No. ~~PMW-9S(20250909)~~ Q3084		MA No. N/A

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	N/A
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	~~Present~~ N/A
5. Airbill No. and Shipping Container ID No.	N/A 2
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	4.1 Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Not Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	09/11/2025
12.Time Received	15:35

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	PMW-10(20250910)	,1.5	N/A	Q3084-11	Intact
2	FB(20250910)	,1.5		Q3084-12	Intact
3	PMW-4(20250911)	,1.5		Q3084-13	Intact
4	MW-1(MCUA)(2025(	,1.5		Q3084-14	Intact
5	MW-2(MCUA)(2025(	,1.5		Q3084-15	Intact
6	PMW-1(20250911)	,1.5		Q3084-16	Intact
7	PMW-5(20250911)	,1.5		Q3084-17	Intact
8	PMW-2(20250911)	,1.5		Q3084-18	Intact
9	Q3084-18MS	,1.5		Q3084-19	Intact
10	Q3084-18MSD	,1.5		Q3084-20	Intact
11	FB(20250911)	,1.5		Q3084-21	Intact
12	EB(20250911)	,1.5		Q3084-22	Intact
13	TB(20250911)	N/A	N/A	Q3084-23	Intact
14	EMS	N/A	N/A	Q3084-24	Intact
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	9/11/25	Logbook Page No.	N/A

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LAB NAME	**Alliance Technical Group, LLC**
LAB CODE	**ACE**
CONTRACT NO.	**68HERH20D0011**
CASE NO.	**ARC Sayreville PostEx 2025** SDG NO. **Q3084**
MA NO.	
SOW NO.	**SFAM01.1**

All documents delivered in the Complete SDG File must be original documents where possible.
(Reference - Exhibit B Section 2.4)

	PAGE NOS: FROM	TO	CHECK LAB	REGION
1 . SDG Cover Page	1	2	✓	
2 . Sample TR/COCs	3	5	✓	
3 . Sample Login Sheet (DC-1)	6	7	✓	
4 . CSF Inventory Sheet (DC-2)	8	11	✓	
5 . SDG Narrative	12	14	✓	
Inorganic Analysis				
ICP-AES				
6 . Inorganic Analysis Data Sheet (Form 1-IN)	NA	NA	✓	
7 . Initial and Continuing Calibration Verification (Form 2-IN)	NA	NA	✓	
8 . Blanks (Form 3-IN)	NA	NA	✓	
9 . ICP Interference Check Sample (Form 4-IN)	NA	NA	✓	
10 . Matrix Spike Sample Recovery (Form 5A-IN)	NA	NA	✓	
11 . Post-Digestion Spike Sample Recovery (Form 5B-IN)	NA	NA	✓	
12 . Duplicates (Form 6-IN)	NA	NA	✓	
13 . Laboratory Control Sample (Form 7-IN)	NA	NA	✓	
14 . ICP-AES Serial Dilutions (Form 8-IN)	NA	NA	✓	
15 . Method Detection Limits (Form 9-IN)	NA	NA	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

	PAGE NOS: FROM	TO	CHECK LAB	REGION
16. ICP-AES Interelement Correction Factors (Form 10A-IN)	NA	NA	✓	
17. ICP-AES Interelement Correction Factors (Form 10B-IN)	NA	NA	✓	
18. Analysis Log (Form 12-IN)	NA	NA	✓	
19. Initial Calibration (Form 15-IN)	NA	NA	✓	
20. Initial Calibration Summary (Form 16-IN)	NA	NA	✓	
21. ICP-AES Raw Data	NA	NA	✓	
22. ICP-AES Preparation Log Books,Preparation records, Analysis records, and PE Instructions	NA	NA	✓	
ICP-MS				
23. Inorganic Analysis Data Sheet (Form 1-IN)	15	34	✓	
24. Initial and Continuing Calibration Verification (Form 2-IN)	35	36	✓	
25. Blanks (Form 3-IN)	37	37	✓	
26. ICP Interference Check Sample (Form 4-IN)	38	38	✓	
27. Matrix Spike Sample Recovery (Form 5A-IN)	39	39	✓	
28. Post-Digestion Spike Sample Recovery (Form 5B-IN)	40	40	✓	
29. Duplicates (Form 6-IN)	41	41	✓	
30. Laboratory Control Sample (Form 7-IN)	42	42	✓	
31. ICP-MS Serial Dilutions (Form 8-IN)	43	43	✓	
32. Method Detection Limits (Form 9-IN)	44	44	✓	
33. ICP-MS Internal Standard Association (Form 11-IN)	45	45	✓	
34. Analysis Log (Form 12-IN)	46	47	✓	
35. ICP-MS Tune (Form 13-IN)	48	48	✓	
36. ICP-MS Internal Standard Relative Intensity Summary (Form 14-IN)	49	56	✓	
37. Initial Calibration (Form 15-IN)	57	59	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

	PAGE NOS: FROM	TO	CHECK LAB	REGION
38 . Initial Calibration Summary (Form 16-IN)	60	60	✓	
39 . ICP-MS Raw Data	61	393	✓	
40 . ICP-MS Preparation Log Books,Preparation records, Analysis records, and PE Instructions	394	551	✓	
Mercury				
41 . Inorganic Analysis Data Sheet (Form 1-IN)	552	571	✓	
42 . Initial and Continuing Calibration Verification (Form 2-IN)	572	573	✓	
43 . Blanks (Form 3-IN)	574	574	✓	
44 . Matrix Spike Sample Recovery (Form 5A-IN)	575	575	✓	
45 . Duplicates (Form 6-IN)	576	576	✓	
46 . Method Detection Limits (Form 9-IN)	577	577	✓	
47 . Analysis Log (Form 12-IN)	578	578	✓	
48 . Initial Calibration (Form 15-IN)	579	580	✓	
49 . Initial Calibration Summary (Form 16-IN)	581	581	✓	
50 . Mercury Raw Data	582	583	✓	
51 . Mercury Preparation Log Books,Preparation records, Analysis records, and PE Instructions	584	614	✓	
Cyanide				
52 . Inorganic Analysis Data Sheet (Form 1-IN)	NA	NA	✓	
53 . Initial and Continuing Calibration Verification (Form 2-IN)	NA	NA	✓	
54 . Blanks (Form 3-IN)	NA	NA	✓	
55 . Matrix Spike Sample Recovery (Form 5A-IN)	NA	NA	✓	
56 . Post-Distillation Spike Sample Recovery (Form 5B-IN)	NA	NA	✓	
57 . Duplicates (Form 6-IN)	NA	NA	✓	
58 . Method Detection Limits (Form 9-IN)	NA	NA	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

	PAGE NOS: FROM	TO	CHECK LAB	REGION
59. Analysis Log (Form 12-IN)	NA	NA	✓	
60. Initial Calibration (Form 15-IN)	NA	NA	✓	
61. Initial Calibration Summary (Form 16-IN)	NA	NA	✓	
62. Cyanide Raw Data	NA	NA	✓	
63. Cyanide Preparation Log Books,Preparation records, Analysis records, and PE Instructions	NA	NA	✓	
Additional				
64. Percent Solids Determination Log	NA	NA	✓	
65. EPA Shipping/Receiving Documents	NA	NA	✓	
Airbill (No. of Shipments 0)	NA	NA	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	615	618	✓	
66. Misc. Shipping/Receiving Records(list all individual records)				
Communication Logs	NA	NA	✓	
67. Internal Lab Sample Transfer Records &				
Tracking Sheets (describe or list)	619	622	✓	
68. Other Records (describe or list) Communication Logs	NA	NA	✓	

69. Comments:

Completed by: (CLP Lab) N. N. Pandya (Signature) | Nimisha Pandya, Document Control Officer (Print Name & Title) | 09/25/2025 (Date)

Audited by: (EPA) (Signature) | (Print Name & Title) | (Date)

284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # Q3084
CASE # ARC Sayreville PostEx 2025
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID #Q3084

A. Number of Samples and Date of Receipt

20 Water samples were delivered to the laboratory intact on 09/11/2025.

B. Parameters

Test requested for Metals CLP MS = Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Iron, Lead, Manganese, Nickel, Thallium and Hg.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence
Cooler: 4.1°C, 4.4°C

D. Analytical Techniques:

All analyses were based on CLP Methodology by method SFAM01.1.

E. Calculation:

Calculation for ICP-MS Water Sample:

$$\text{Concentration or Result } (\mu g/L) = C \times \frac{Vf}{Vi} \times DF$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Example Calculation For Sample PMW-9S(20250909) For Nickel:

If C = 0.40 ppb
Vf = 50 ml
Vi = 50 ml
DF = 1

Concentration or Result (µg/L) = $5.95 \times \frac{50}{50} \times 1$

= 5.95 µg/L

= 6.0 µg/L (Reported Result with Signification)

Calculation for Hg Water Sample:

Concentration or Result (µg/L) = C x DF

Where,
C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

Example Calculation For Sample PMW-9S(20250909):

If C = 1.3197 ppb
DF = 1

Concentration or Result (µg/L) = 0.1113 x 1

= 0.1113 µg/L

= 0.11 µg/L (Reported Result with Signification)

F. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

284 Sheffield Street
Mountainside, NJ 07092

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.

Internal Standard Association for ICP-MS analysis.

Target Analyte	Associated Internal Standard
Aluminum	45Sc
Antimony	159Tb
Arsenic	89Y
Beryllium	6Li
Cadmium	159Tb
Chromium	45Sc
Iron	45Sc
Lead	209Bi
Manganese	45Sc
Nickel	45Sc
Thallium	209Bi

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 Director or his designee, as verified by the following signature.

Signature _ APPROVED
By Nimisha Pandya, QA/QC Supervisor at 9:12 am, Sep 25, 2025

Name: Nimisha Pandya

Date _____

Title: Document Control Officer

EPA SAMPLE NO.

DUP(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-10

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5.6	J	09/23/2025	1641
7440-36-0	Antimony	2.0	U	09/23/2025	1641
7440-38-2	Arsenic	9.5		09/23/2025	1641
7440-41-7	Beryllium	1.0	U	09/23/2025	1641
7440-43-9	Cadmium	1.0	U	09/23/2025	1641
7440-47-3	Chromium	0.41	J	09/23/2025	1641
7439-89-6	Iron	35000		09/23/2025	1641
7439-92-1	Lead	1.0	U	09/23/2025	1641
7439-96-5	Manganese	830		09/23/2025	1641
7440-02-0	Nickel	1.7		09/23/2025	1641
7440-28-0	Thallium	1.0	U	09/23/2025	1641

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

EB(20250911)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-22

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	09/23/2025	1746
7440-36-0	Antimony	2.0	U	09/23/2025	1746
7440-38-2	Arsenic	1.0	U	09/23/2025	1746
7440-41-7	Beryllium	1.0	U	09/23/2025	1746
7440-43-9	Cadmium	1.0	U	09/23/2025	1746
7440-47-3	Chromium	0.31	J	09/23/2025	1746
7439-89-6	Iron	11	J	09/23/2025	1746
7439-92-1	Lead	1.0	U	09/23/2025	1746
7439-96-5	Manganese	1.0	U	09/23/2025	1746
7440-02-0	Nickel	1.0	U	09/23/2025	1746
7440-28-0	Thallium	1.0	U	09/23/2025	1746

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250909)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-05

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	09/23/2025	1625
7440-36-0	Antimony	2.0	U	09/23/2025	1625
7440-38-2	Arsenic	1.0	U	09/23/2025	1625
7440-41-7	Beryllium	1.0	U	09/23/2025	1625
7440-43-9	Cadmium	1.0	U	09/23/2025	1625
7440-47-3	Chromium	0.24	J	09/23/2025	1625
7439-89-6	Iron	12	J	09/23/2025	1625
7439-92-1	Lead	1.0	U	09/23/2025	1625
7439-96-5	Manganese	1.0	U	09/23/2025	1625
7440-02-0	Nickel	1.0	U	09/23/2025	1625
7440-28-0	Thallium	1.0	U	09/23/2025	1625

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250910)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-12

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	09/23/2025	1651
7440-36-0	Antimony	2.0	U	09/23/2025	1651
7440-38-2	Arsenic	1.0	U	09/23/2025	1651
7440-41-7	Beryllium	1.0	U	09/23/2025	1651
7440-43-9	Cadmium	1.0	U	09/23/2025	1651
7440-47-3	Chromium	0.30	J	09/23/2025	1651
7439-89-6	Iron	95	J	09/23/2025	1651
7439-92-1	Lead	1.0	U	09/23/2025	1651
7439-96-5	Manganese	2.1		09/23/2025	1651
7440-02-0	Nickel	1.0	U	09/23/2025	1651
7440-28-0	Thallium	1.0	U	09/23/2025	1651

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-21

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	09/23/2025	1740
7440-36-0	Antimony	2.0	U	09/23/2025	1740
7440-38-2	Arsenic	1.0	U	09/23/2025	1740
7440-41-7	Beryllium	1.0	U	09/23/2025	1740
7440-43-9	Cadmium	1.0	U	09/23/2025	1740
7440-47-3	Chromium	0.29	J	09/23/2025	1740
7439-89-6	Iron	27	J	09/23/2025	1740
7439-92-1	Lead	1.0	U	09/23/2025	1740
7439-96-5	Manganese	0.51	J	09/23/2025	1740
7440-02-0	Nickel	1.0	U	09/23/2025	1740
7440-28-0	Thallium	1.0	U	09/23/2025	1740

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MW-1(MCUA)(20250

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-14

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	420		09/23/2025	1658
7440-36-0	Antimony	2.0	U	09/23/2025	1658
7440-38-2	Arsenic	0.23	J	09/23/2025	1658
7440-41-7	Beryllium	1.0	U	09/23/2025	1658
7440-43-9	Cadmium	1.0	U	09/23/2025	1658
7440-47-3	Chromium	1.3	J	09/23/2025	1658
7439-89-6	Iron	3500		09/23/2025	1658
7439-92-1	Lead	0.23	J	09/23/2025	1658
7439-96-5	Manganese	250		09/23/2025	1658
7440-02-0	Nickel	2.8		09/23/2025	1658
7440-28-0	Thallium	1.0	U	09/23/2025	1658

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MW-2(MCUA)(20250

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-15

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11	J	09/23/2025	1701
7440-36-0	Antimony	2.0	U	09/23/2025	1701
7440-38-2	Arsenic	1.0	U	09/23/2025	1701
7440-41-7	Beryllium	1.0	U	09/23/2025	1701
7440-43-9	Cadmium	1.0	U	09/23/2025	1701
7440-47-3	Chromium	0.58	J	09/23/2025	1701
7439-89-6	Iron	4100		09/23/2025	1701
7439-92-1	Lead	1.0	U	09/23/2025	1701
7439-96-5	Manganese	90		09/23/2025	1701
7440-02-0	Nickel	1.0	U	09/23/2025	1701
7440-28-0	Thallium	1.0	U	09/23/2025	1701

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-1(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-16

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	560		09/23/2025	1704
7440-36-0	Antimony	2.0	U	09/23/2025	1704
7440-38-2	Arsenic	1.8		09/23/2025	1704
7440-41-7	Beryllium	1.0	U	09/23/2025	1704
7440-43-9	Cadmium	1.0	U	09/23/2025	1704
7440-47-3	Chromium	1.8	J	09/23/2025	1704
7439-89-6	Iron	72000		09/23/2025	1704
7439-92-1	Lead	0.30	J	09/23/2025	1704
7439-96-5	Manganese	2800		09/23/2025	1704
7440-02-0	Nickel	37		09/23/2025	1704
7440-28-0	Thallium	1.0	U	09/23/2025	1704

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-10(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-11

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	2400		09/23/2025	1724
7440-36-0	Antimony	2.0	U	09/23/2025	1724
7440-38-2	Arsenic	1.3		09/23/2025	1724
7440-41-7	Beryllium	2.6		09/23/2025	1724
7440-43-9	Cadmium	1.0	U	09/23/2025	1724
7440-47-3	Chromium	1.2	J	09/23/2025	1724
7439-89-6	Iron	280000	D	09/23/2025	1727
7439-92-1	Lead	1.0	U	09/23/2025	1724
7439-96-5	Manganese	5700		09/23/2025	1724
7440-02-0	Nickel	150		09/23/2025	1724
7440-28-0	Thallium	1.0	U	09/23/2025	1724

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-2(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-18

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	510		09/23/2025	1711
7440-36-0	Antimony	2.0	U	09/23/2025	1711
7440-38-2	Arsenic	1.7		09/23/2025	1711
7440-41-7	Beryllium	1.1		09/23/2025	1711
7440-43-9	Cadmium	1.0	U	09/23/2025	1711
7440-47-3	Chromium	0.91	J	09/23/2025	1711
7439-89-6	Iron	72000		09/23/2025	1711
7439-92-1	Lead	0.19	J	09/23/2025	1711
7439-96-5	Manganese	1500		09/23/2025	1711
7440-02-0	Nickel	12		09/23/2025	1711
7440-28-0	Thallium	1.0	U	09/23/2025	1711

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-3(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-07

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	390		09/23/2025	1632
7440-36-0	Antimony	2.0	U	09/23/2025	1632
7440-38-2	Arsenic	1.5		09/23/2025	1632
7440-41-7	Beryllium	0.26	J	09/23/2025	1632
7440-43-9	Cadmium	1.0	U	09/23/2025	1632
7440-47-3	Chromium	2.3		09/23/2025	1632
7439-89-6	Iron	180000		09/23/2025	1632
7439-92-1	Lead	1.0	U	09/23/2025	1632
7439-96-5	Manganese	2100		09/23/2025	1632
7440-02-0	Nickel	18		09/23/2025	1632
7440-28-0	Thallium	0.30	J	09/23/2025	1632

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-4(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-13

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	900		09/23/2025	1654
7440-36-0	Antimony	2.0	U	09/23/2025	1654
7440-38-2	Arsenic	3.3		09/23/2025	1654
7440-41-7	Beryllium	1.0	U	09/23/2025	1654
7440-43-9	Cadmium	1.0	U	09/23/2025	1654
7440-47-3	Chromium	6.7		09/23/2025	1654
7439-89-6	Iron	79000		09/23/2025	1654
7439-92-1	Lead	0.23	J	09/23/2025	1654
7439-96-5	Manganese	290		09/23/2025	1654
7440-02-0	Nickel	13		09/23/2025	1654
7440-28-0	Thallium	1.0	U	09/23/2025	1654

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-5(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-17

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	81		09/23/2025	1707
7440-36-0	Antimony	2.0	U	09/23/2025	1707
7440-38-2	Arsenic	8.3		09/23/2025	1707
7440-41-7	Beryllium	1.0	U	09/23/2025	1707
7440-43-9	Cadmium	1.0	U	09/23/2025	1707
7440-47-3	Chromium	17		09/23/2025	1707
7439-89-6	Iron	67000		09/23/2025	1707
7439-92-1	Lead	0.52	J	09/23/2025	1707
7439-96-5	Manganese	290		09/23/2025	1707
7440-02-0	Nickel	28		09/23/2025	1707
7440-28-0	Thallium	1.0	U	09/23/2025	1707

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-6(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-06

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	380		09/23/2025	1629
7440-36-0	Antimony	2.0	U	09/23/2025	1629
7440-38-2	Arsenic	2.1		09/23/2025	1629
7440-41-7	Beryllium	0.78	J	09/23/2025	1629
7440-43-9	Cadmium	1.0	U	09/23/2025	1629
7440-47-3	Chromium	3.2		09/23/2025	1629
7439-89-6	Iron	320000	D	09/23/2025	1756
7439-92-1	Lead	0.26	J	09/23/2025	1629
7439-96-5	Manganese	4200		09/23/2025	1629
7440-02-0	Nickel	3.8		09/23/2025	1629
7440-28-0	Thallium	1.0	U	09/23/2025	1629

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-7D(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-09

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	09/23/2025	1638
7440-36-0	Antimony	2.0	U	09/23/2025	1638
7440-38-2	Arsenic	9.5		09/23/2025	1638
7440-41-7	Beryllium	1.0	U	09/23/2025	1638
7440-43-9	Cadmium	1.0	U	09/23/2025	1638
7440-47-3	Chromium	0.55	J	09/23/2025	1638
7439-89-6	Iron	34000		09/23/2025	1638
7439-92-1	Lead	1.0	U	09/23/2025	1638
7439-96-5	Manganese	880		09/23/2025	1638
7440-02-0	Nickel	0.87	J	09/23/2025	1638
7440-28-0	Thallium	1.0	U	09/23/2025	1638

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-7S(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-08

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7.6	J	09/23/2025	1635
7440-36-0	Antimony	2.0	U	09/23/2025	1635
7440-38-2	Arsenic	9.9		09/23/2025	1635
7440-41-7	Beryllium	1.0	U	09/23/2025	1635
7440-43-9	Cadmium	1.0	U	09/23/2025	1635
7440-47-3	Chromium	0.77	J	09/23/2025	1635
7439-89-6	Iron	37000		09/23/2025	1635
7439-92-1	Lead	1.0	U	09/23/2025	1635
7439-96-5	Manganese	870		09/23/2025	1635
7440-02-0	Nickel	1.9		09/23/2025	1635
7440-28-0	Thallium	1.0	U	09/23/2025	1635

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-8D(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-03

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8.1	J	09/23/2025	1619
7440-36-0	Antimony	0.16	J	09/23/2025	1619
7440-38-2	Arsenic	0.92	J	09/23/2025	1619
7440-41-7	Beryllium	0.35	J	09/23/2025	1619
7440-43-9	Cadmium	1.0	U	09/23/2025	1619
7440-47-3	Chromium	1.2	J	09/23/2025	1619
7439-89-6	Iron	98000		09/23/2025	1619
7439-92-1	Lead	1.4		09/23/2025	1619
7439-96-5	Manganese	2800		09/23/2025	1619
7440-02-0	Nickel	1.4		09/23/2025	1619
7440-28-0	Thallium	1.1		09/23/2025	1619

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-8S(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-04

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	61		09/23/2025	1622
7440-36-0	Antimony	2.0	U	09/23/2025	1622
7440-38-2	Arsenic	1.2		09/23/2025	1622
7440-41-7	Beryllium	1.0	U	09/23/2025	1622
7440-43-9	Cadmium	1.0	U	09/23/2025	1622
7440-47-3	Chromium	2.8		09/23/2025	1622
7439-89-6	Iron	81000		09/23/2025	1622
7439-92-1	Lead	1.0	U	09/23/2025	1622
7439-96-5	Manganese	2800		09/23/2025	1622
7440-02-0	Nickel	2.5		09/23/2025	1622
7440-28-0	Thallium	1.0	U	09/23/2025	1622

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-9D(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-02

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	10	J	09/23/2025	1616
7440-36-0	Antimony	2.0	U	09/23/2025	1616
7440-38-2	Arsenic	0.45	J	09/23/2025	1616
7440-41-7	Beryllium	1.0	U	09/23/2025	1616
7440-43-9	Cadmium	1.0	U	09/23/2025	1616
7440-47-3	Chromium	0.81	J	09/23/2025	1616
7439-89-6	Iron	81000		09/23/2025	1616
7439-92-1	Lead	1.0	U	09/23/2025	1616
7439-96-5	Manganese	9000		09/23/2025	1616
7440-02-0	Nickel	32		09/23/2025	1616
7440-28-0	Thallium	1.0	U	09/23/2025	1616

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-9S(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-01

% Solids: Date Received: 09/11/2025

Analytical Method: ICP_MS

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15	J	09/23/2025	1613
7440-36-0	Antimony	0.42	J	09/23/2025	1613
7440-38-2	Arsenic	4.1		09/23/2025	1613
7440-41-7	Beryllium	1.0	U	09/23/2025	1613
7440-43-9	Cadmium	1.0	U	09/23/2025	1613
7440-47-3	Chromium	3.1		09/23/2025	1613
7439-89-6	Iron	40000		09/23/2025	1613
7439-92-1	Lead	0.40	J	09/23/2025	1613
7439-96-5	Manganese	3200		09/23/2025	1613
7440-02-0	Nickel	6.0		09/23/2025	1613
7440-28-0	Thallium	1.0	U	09/23/2025	1613

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2 - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : SDG No.: Q3084

Initial Calibration Verification Source : MP87085

Continuing Calibration Verification Source : MP87086

Run Batch: LB137284 Analytical Method: ICP-MS

Concentration Units: µg/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV001				ID: CCV001				ID: CCV002		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum	1600	1600	98	2	50000	51000	101	1	52000	103	1
Antimony	400	420	105	2	500	500	101	6	520	105	1
Arsenic	400	410	101	2	500	490	98	1	490	98	0
Beryllium	40.0	43	107	4	500	500	100	6	510	102	3
Cadmium	200	210	104	3	500	490	98	6	500	100	2
Chromium	160	160	100	1	500	500	100	1	500	100	1
Iron	800	830	104	2	125000	130000	105	0	130000	105	2
Lead	400	390	97	2	2500	2500	100	5	2500	100	1
Manganese	400	360	91	2	5000	5000	101	1	5000	101	2
Nickel	400	410	102	2	500	490	98	1	490	97	1
Thallium	400	380	96	2	500	500	100	5	510	103	1

FORM 2 - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : S DG No.: Q3084

Initial Calibration Verification Source : MP87085

Continuing Calibration Verification Source : MP87086

Run Batch: LB137284 Analytical Method: ICP-MS

Concentration Units: µg/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV003				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					50000	51000	102	2			
Antimony					500	520	103	1			
Arsenic					500	480	95	1			
Beryllium					500	520	104	1			
Cadmium					500	490	99	1			
Chromium					500	500	99	1			
Iron					125000	130000	106	2			
Lead					2500	2500	102	2			
Manganese					5000	5000	101	2			
Nickel					500	480	97	2			
Thallium					500	520	104	1			

FORM 3 - IN
BLANKS

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevil MA No. : S DG No.: Q3084

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): ug/L

Analytical Method: ICP-MS Preparation Batch: PB169799

Run Batch: LB137284 Preparation Method: 200.8

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID: ICB001	Q	ID: CCB001	Q	ID: CCB002	Q	ID: CCB003	Q	ID: PBW799	Q
Aluminum	20.0	U	20.0	U	5.1	J	20.0	U	20.0	U
Antimony	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	U	1.0	U	-0.35	J	-0.29	J	1.0	U
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Iron	200	U	200	U	16	J	200	U	200	U
Lead	1.0	U	1.0	U	0.27	J	1.0	U	1.0	U
Manganese	1.0	U	1.0	U	0.49	J	1.0	U	1.0	U
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

FORM 4 - IN

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevi MA No. : SDG No.: Q3084

Analytical Method: ICP-MS ICSA Source: EPA-0803

Instrument ID: P7 ICSB Source: EPA-0803

Run Batch: LB137284

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	100000	100000	93000	93	90000	90
Antimony	1.5	22	1.2	77	21	96
Arsenic	0.1	19	0.32	320	19	101
Barium	1.2	22	1.4	115	21	96
Beryllium	0	19	0.3		21	113
Cadmium	0.7	20	0.35	50	20	101
Calcium	100000	100000	100000	101	98000	98
Chromium	21	40	20	94	39	98
Cobalt	1	20	1.3	127	21	104
Copper	8	25	7.2	90	25	101
Iron	100000	100000	100000	101	99000	99
Lead	4	25	4.1	102	23	91
Magnesium	100000	100000	91000	91	90000	90
Manganese	7	27	7.3	104	25	93
Nickel	6	24	5.6	93	25	104
Potassium	100000	100000	100000	100	100000	100
Selenium	0.3	19	0.14	47	20	106
Silver	0	18	0.06		20	111
Sodium	100000	100000	100000	100	98000	98
Thallium	0	21	0.07		19	92
Vanadium	0.5	19	0.22	44	20	103
Zinc	11	29	10	91	29	99

EPA SAMPLE NO.

PMW-2(20250911)S

FORM 5A - IN

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevil MA No. : SDG No.: Q3084

Matrix : Water Analytical Method: ICP-MS

% Solids:

Concentration Units (µg/L, mg/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Antimony	75 - 125	100		2.0	U	100	103	
Arsenic	75 - 125	39		1.7		40.0	93	
Beryllium	75 - 125	53		1.1		50.0	104	
Cadmium	75 - 125	53		1.0	U	50.0	105	
Chromium	75 - 125	200		0.91	J	200	101	
Lead	75 - 125	19		0.19	J	20.0	96	
Manganese	75 - 125	1900		1500		500	89	
Nickel	75 - 125	520		12		500	101	
Thallium	75 - 125	48		1.0	U	50.0	97	

EPA SAMPLE NO.

FORM 5B - IN

POST-DIGESTION/DISTILLATION SPIKE
SAMPLE RECOVERY

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ MA No. : _____ SDG No.: _____

Matrix : _____ Analytical Method: _____

% Solids: _____

Concentration Units (µg/L, mg/L or mg/kg dry weight): _____

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q

EPA SAMPLE NO.

PMW-2(20250911)D

FORM 6 - IN
DUPLICATES

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : SDG No.: Q3084

Matrix : Water Analytical Method: ICP-MS

% Solids:

Concentration Units (µg/L, mg/L or mg/kg dry weight): ug/L

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Aluminum		510		500		1	
Antimony	2.0	2.0	U	0.12	J		
Arsenic	1.0	1.7		1.8		4	
Beryllium	1.0	1.1		1.3		13	
Cadmium		1.0	U	1.0	U		
Chromium		0.91	J	1.0	J		
Iron		72000		73000		0	
Lead		0.19	J	0.56	J		
Manganese		1500		1400		1	
Nickel		12		12		2	
Thallium	1.0	1.0	U	0.23	J		

EPA SAMPLE NO.

LCS799

FORM 7-IN

LABORATORY CONTROL SAMPLE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No.: SDG No.: Q3084

Matrix : Water Preparation Method: 200.8

Analytical Method: ICP-MS Preparation Batch: PB169799

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): ug/L

Analyte	True	Found	%R
Aluminum	40	41	102
Antimony	4	4.1	103
Arsenic	2	2.0	99
Beryllium	2	2.2	111
Cadmium	2	1.7	86
Chromium	4	3.9	99
Iron	400	400	101
Lead	2	1.6	82
Manganese	2	2.1	103
Nickel	2	1.8	91
Thallium	2	1.9	96

EPA SAMPLE NO.

PMW-2(20250911)L

FORM 8-IN

ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevil MA No.: SDG No.: Q3084

Matrix : Water Analytical Method: ICP-MS

% Solids:

Concentration Units (µg/L, mg/L or mg/kg dry weight): ug/L

Analyte	Initial Sample Result (I)	Q	Serial Dilution Result(S)	Q	% Difference	Q
Aluminum	510		510		1	
Antimony	2.0	U	10.0	U		
Arsenic	1.7		1.7	J	5	
Beryllium	1.1		1.3	J	14	
Cadmium	1.0	U	5.0	U		
Chromium	0.91	J	1.8	J	92	
Iron	72000		72000		0	
Lead	0.19	J	5.0	U	100	
Manganese	1500		1400		4	
Nickel	12		13		9	
Thallium	1.0	U	5.0	U		

FORM 9-IN

METHOD DETECTION LIMIT

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Say MA No.: SDG No.: Q3084

Analytical Method: ICP-MS Instrument ID: P7

Preparation Method: 200.8

Concentration Units (µg/L, µg or mg/kg): ug/L

Analyte	Wavelength/Mass	MDL	Date Analyzed
Aluminum	27	3.6	12/11/2023
Antimony	121	0.12	12/11/2023
Arsenic	75	0.12	12/11/2023
Beryllium	9	0.21	12/11/2023
Cadmium	111	0.13	12/11/2023
Chromium	52	0.21	12/11/2023
Iron	57	7.3	12/11/2023
Lead	208	0.19	12/11/2023
Manganese	55	0.20	12/11/2023
Nickel	60	0.47	12/11/2023
Thallium	205	0.16	12/11/2023

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Date: 09/23/2025

Run Batch: LB137284

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	45Sc	
Antimony	159Tb	
Arsenic	89Y	
Barium	159Tb	
Beryllium	6Li	
Cadmium	159Tb	
Calcium	45Sc	
Chromium	45Sc	
Cobalt	45Sc	
Copper	45Sc	
Iron	45Sc	
Lead	209Bi	
Magnesium	45Sc	
Manganese	45Sc	
Nickel	45Sc	
Potassium	45Sc	
Selenium	89Y	
Silver	159Tb	
Sodium	45Sc	
Thallium	209Bi	
Vanadium	45Sc	
Zinc	45Sc	

FORM 12-IN

ANALYSIS LOG

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayre MA No.: SDG No.: Q3084

Instrument ID: P7 Analytical Method: ICP-MS

Start Date: 09/23/2025 End Date: 09/23/2025

Run Batch: LB137284

EPA Sample No.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
TUNE001	1.0	1417					X				X			X	X													
S0	1.0	1448	X	X	X		X	X		X			X	X		X		X					X					
S02	1.0	1452	X	X	X		X	X		X			X	X		X		X					X					
S03	1.0	1455	X	X	X		X	X		X			X	X		X		X					X					
S04	1.0	1458	X	X	X		X	X		X			X	X		X		X					X					
S05	1.0	1504	X	X	X		X	X		X			X	X		X		X					X					
S06	1.0	1507	X	X	X		X	X		X			X	X		X		X					X					
S07	1.0	1510	X	X	X		X	X		X			X	X		X		X					X					
S08	1.0	1512	X										X															
ICV001	1.0	1532	X	X	X		X	X		X			X	X		X		X					X					
ICB001	1.0	1535	X	X	X		X	X		X			X	X		X		X					X					
ICSA001	1.0	1538	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB001	1.0	1541	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV001	1.0	1545	X	X	X		X	X		X			X	X		X		X					X					
CCB001	1.0	1550	X	X	X		X	X		X			X	X		X		X					X					
PBW799	1.0	1554	X	X	X		X	X		X			X	X		X		X					X					
LCS799	1.0	1609	X	X	X		X	X		X			X	X		X		X					X					
PMW-9S(2021	1.0	1613	X	X	X		X	X		X			X	X		X		X					X					
PMW-9D(2021	1.0	1616	X	X	X		X	X		X			X	X		X		X					X					
PMW-8D(2021	1.0	1619	X	X	X		X	X		X			X	X		X		X					X					
PMW-8S(2021	1.0	1622	X	X	X		X	X		X			X	X		X		X					X					
FB(20250901	1.0	1625	X	X	X		X	X		X			X	X		X		X					X					
PMW-6(2025	1.0	1629	X	X	X		X	X		X				X		X		X					X					
PMW-3(2025	1.0	1632	X	X	X		X	X		X			X	X		X		X					X					
PMW-7S(2021	1.0	1635	X	X	X		X	X		X			X	X		X		X					X					
PMW-7D(2021	1.0	1638	X	X	X		X	X		X			X	X		X		X					X					
DUP(2025091	1.0	1641	X	X	X		X	X		X			X	X		X		X					X					
PMW-10(2025	5.0	1648																										
FB(20250911	1.0	1651	X	X	X		X	X		X			X	X		X		X					X					
PMW-4(2025	1.0	1654	X	X	X		X	X		X			X	X		X		X					X					
MW-1(MCUA)	1.0	1658	X	X	X		X	X		X			X	X		X		X					X					
MW-2(MCUA)	1.0	1701	X	X	X		X	X		X			X	X		X		X					X					
PMW-1(2025	1.0	1704	X	X	X		X	X		X			X	X		X		X					X					
PMW-5(2025	1.0	1707	X	X	X		X	X		X			X	X		X		X					X					
PMW-2(2025	1.0	1711	X	X	X		X	X		X			X	X		X		X					X					
CCV002	1.0	1714	X	X	X		X	X		X			X	X		X		X					X					
CCB002	1.0	1721	X	X	X		X	X		X			X	X		X		X					X					
PMW-10(202	1.0	1724	X	X	X		X	X		X				X		X		X					X					
PMW-10(2022	2.0	1727											X															
PMW-2(2025	1.0	1731	X	X	X		X	X		X			X	X		X		X					X					
PMW-2(2025	5.0	1737	X	X	X		X	X		X			X	X		X		X					X					

FORM 12-IN

ANALYSIS LOG

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayre MA No.: SDG No.: Q3084

Instrument ID: P7 Analytical Method: ICP-MS

Start Date: 09/23/2025 End Date: 09/23/2025

Run Batch: LB137284

EPA Sample No.	D/F	Time	Analytes																									
			AL	**SB**	**AS**	**BA**	**BE**	**CD**	**CA**	**CR**	**CO**	**CU**	**FE**	**PB**	**MG**	**MN**	**HG**	**NI**	**K**	**SE**	**AG**	**NA**	**TL**	**V**	**ZN**	**CN**		
FB(2025091	1.0	1740	X	X	X		X	X		X			X	X		X		X					X					
PMW-2(2025	1.0	1743		X	X		X	X		X				X		X		X					X					
EB(2025091	1.0	1746	X	X	X		X	X		X			X	X		X		X					X					
PMW-9S(202	10.0	1750																										
PMW-9D(2025	5.0	1753																										
PMW-6(2025	2.0	1756											X															
CCV003	1.0	1803	X	X	X		X	X		X			X	X		X		X					X					
CCB003	1.0	1818	X	X	X		X	X		X			X	X		X		X					X					

EPA SAMPLE NO.

TUNE

FORM 13-IN

ICP-MS TUNE

Lab Name: Alliance Technical Group, LI Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Date: 09/23/2025

Run Batch: LB137284

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	8.9	0.8	5	0.67
Co - 59	58.9	0.7	5	0.26
In - 113	113.0	0.7	5	0.14
In - 115	115.0	0.7	5	0.73
Mg - 24	23.9	0.8	5	0.30
Mg - 25	24.9	0.8	5	0.47
Mg - 26	25.9	0.8	5	0.33
Pb - 206	206.0	0.7	5	0.41
Pb - 207	207.0	0.7	5	0.33
Pb - 208	208.0	0.8	5	0.21

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Non-Collision Cell									
		Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	1448	100		100		100		100		100	
S02	1452	101		100		100		100		99	
S03	1455	102		99		99		99		99	
S04	1458	99		96		97		96		98	
S05	1504	97		94		95		94		97	
S06	1507	93		90		93		89		93	
S07	1510	85		83		86		83		87	
S08	1512	83		83		85		79		85	
ICV001	1532	99		105		105		106		103	
ICB001	1535	100		104		104		104		102	
ICSA001	1538	95		100		101		97		101	
ICSAB001	1541	93		103		105		101		101	
CCV001	1545	82		92		93		88		91	
CCB001	1550	94		107		109		107		104	
PBW799	1554	95		109		109		108		104	
LCS799	1609	94		107		108		107		103	
PMW-9S(2025	1613	79		96		96		86		90	
PMW-9D(2025	1616	86		97		97		91		91	
PMW-8D(2025	1619	87		95		98		95		94	
PMW-8S(2025	1622	85		94		95		93		91	
FB(20250909	1625	80		90		91		89		88	
PMW-6(20250	1629	84		95		111		95		93	
PMW-3(20250	1632	83		94		97		91		91	
PMW-7S(2025	1635	79		88		88		88		85	
PMW-7D(2025	1638	82		91		92		88		88	
DUP(2025091	1641	94		105		106		104		102	
PMW-10(2025	1648	91		99		102		98		97	
FB(20250910	1651	84		92		92		92		90	
PMW-4(20250	1654	85		92		96		90		91	
MW-1(MCUA)(	1658	83		89		89		87		87	
MW-2(MCUA)(	1701	88		94		97		93		93	
PMW-1(20250	1704	83		88		90		88		87	
PMW-5(20250	1707	84		91		92		93		93	
PMW-2(20250	1711	86		93		96		92		90	
CCV002	1714	85		94		93		89		91	
CCB002	1721	100		108		111		109		109	
PMW-10(2025	1724	84		94		102		91		93	
PMW-10(2025	1727	87		100		106		99		100	

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Non-Collision Cell									
		Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
PMW-2(20250	1731	82		94		97		92		91	
PMW-2(20250	1737	95		109		110		106		103	
FB(20250911	1740	78		88		90		88		86	
PMW-2(20250	1743	77		87		90		86		86	
EB(20250911	1746	78		87		90		88		87	
PMW-9S(2025	1750	93		105		105		101		102	
PMW-9D(2025	1753	108		116		117		113		111	
PMW-6(20250	1756	89		101		110		100		100	
CCV003	1803	81		92		93		87		91	
CCB003	1818	94		103		105		104		102	

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Collision Cell									
		Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	1448	100		100		100		100		100	
S02	1452	100		101		100		102		100	
S03	1455	100		99		99		100		99	
S04	1458	96		95		95		98		96	
S05	1504	95		95		95		99		97	
S06	1507	90		90		90		94		93	
S07	1510	84		84		83		88		87	
S08	1512	87		88		82		89		88	
ICV001	1532	102		103		101		104		102	
ICB001	1535	100		102		101		102		101	
ICSA001	1538	98		100		97		102		101	
ICSAB001	1541	99		102		98		102		103	
CCV001	1545	89		90		87		91		90	
CCB001	1550	103		106		105		105		103	
PBW799	1554	105		109		108		108		106	
LCS799	1609	103		106		105		104		104	
PMW-9S(2025	1613	93		95		87		93		92	
PMW-9D(2025	1616	91		93		89		94		93	
PMW-8D(2025	1619	92		94		94		96		95	
PMW-8S(2025	1622	92		95		92		94		93	
FB(20250909	1625	89		92		91		93		91	
PMW-6(20250	1629	96		114		97		100		98	
PMW-3(20250	1632	88		93		89		92		90	
PMW-7S(2025	1635	89		91		91		92		91	
PMW-7D(2025	1638	89		91		90		91		91	
DUP(2025091	1641	99		102		100		102		100	
PMW-10(2025	1648	96		101		98		102		100	
FB(20250910	1651	88		91		91		93		92	
PMW-4(20250	1654	89		95		90		93		93	
MW-1(MCUA)(	1658	85		88		84		87		86	
MW-2(MCUA)(	1701	91		92		91		93		92	
PMW-1(20250	1704	85		87		86		90		88	
PMW-5(20250	1707	91		94		92		94		93	
PMW-2(20250	1711	89		94		90		92		92	
CCV002	1714	89		91		86		92		90	
CCB002	1721	104		106		107		106		106	
PMW-10(2025	1724	88		97		88		94		94	
PMW-10(2025	1727	95		102		97		101		100	

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Collision Cell									
		Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
PMW-2(20250	1731	89		94		91		95		93	
PMW-2(20250	1737	101		106		105		106		105	
FB(20250911	1740	86		88		88		90		89	
PMW-2(20250	1743	84		89		86		89		88	
EB(20250911	1746	87		89		90		91		90	
PMW-9S(2025	1750	97		100		97		102		100	
PMW-9D(2025	1753	106		109		109		111		112	
PMW-6(20250	1756	95		105		98		101		101	
CCV003	1803	90		92		88		93		92	
CCB003	1818	96		100		99		102		100	

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Non-Collision Cell									
		Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	1448	100		100							
S02	1452	100		101							
S03	1455	100		101							
S04	1458	98		101							
S05	1504	98		99							
S06	1507	95		93							
S07	1510	87		87							
S08	1512	85		81							
ICV001	1532	104		103							
ICB001	1535	101		103							
ICSA001	1538	102		96							
ICSAB001	1541	103		98							
CCV001	1545	92		86							
CCB001	1550	106		103							
PBW799	1554	106		103							
LCS799	1609	104		101							
PMW-9S(2025	1613	89		78							
PMW-9D(2025	1616	92		84							
PMW-8D(2025	1619	93		91							
PMW-8S(2025	1622	92		89							
FB(20250909	1625	88		87							
PMW-6(20250	1629	95		89							
PMW-3(20250	1632	91		88							
PMW-7S(2025	1635	87		82							
PMW-7D(2025	1638	89		86							
DUP(2025091	1641	103		98							
PMW-10(2025	1648	98		95							
FB(20250910	1651	90		90							
PMW-4(20250	1654	92		88							
MW-1(MCUA)(	1658	88		84							
MW-2(MCUA)(	1701	94		90							
PMW-1(20250	1704	86		85							
PMW-5(20250	1707	90		89							
PMW-2(20250	1711	92		88							
CCV002	1714	93		87							
CCB002	1721	109		106							
PMW-10(2025	1724	93		88							

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Non-Collision Cell									
		Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
PMW-10(2025	1727	99		93							
PMW-2(20250	1731	93		89							
PMW-2(20250	1737	106		100							
FB(20250911	1740	87		85							
PMW-2(20250	1743	86		83							
EB(20250911	1746	86		84							
PMW-9S(2025	1750	103		96							
PMW-9D(2025	1753	115		107							
PMW-6(20250	1756	99		96							
CCV003	1803	90		84							
CCB003	1818	104		101							

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Collision Cell									
		Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	1448	100									
S02	1452	101									
S03	1455	99									
S04	1458	96									
S05	1504	97									
S06	1507	92									
S07	1510	85									
S08	1512	82									
ICV001	1532	102									
ICB001	1535	101									
ICSA001	1538	97									
ICSAB001	1541	98									
CCV001	1545	85									
CCB001	1550	103									
PBW799	1554	105									
LCS799	1609	104									
PMW-9S(2025	1613	82									
PMW-9D(2025	1616	86									
PMW-8D(2025	1619	92									
PMW-8S(2025	1622	92									
FB(20250909	1625	89									
PMW-6(20250	1629	95									
PMW-3(20250	1632	87									
PMW-7S(2025	1635	88									
PMW-7D(2025	1638	88									
DUP(2025091	1641	97									
PMW-10(2025	1648	99									
FB(20250910	1651	90									
PMW-4(20250	1654	90									
MW-1(MCUA)(	1658	84									
MW-2(MCUA)(	1701	89									
PMW-1(20250	1704	86									
PMW-5(20250	1707	92									
PMW-2(20250	1711	90									
CCV002	1714	84									
CCB002	1721	105									
PMW-10(2025	1724	87									

FORM 14-IN

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrev MA No.: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Run Batch: LB137284 End Date : 09/23/2025

EPA Sample No.	Time	Internal Standard %RI For: Collision Cell									
		Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
PMW-10(2025	1727	96									
PMW-2(20250	1731	92									
PMW-2(20250	1737	101									
FB(20250911	1740	87									
PMW-2(20250	1743	86									
EB(20250911	1746	87									
PMW-9S(2025	1750	95									
PMW-9D(2025	1753	105									
PMW-6(20250	1756	96									
CCV003	1803	86									
CCB003	1818	97									

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No.: _____ SDG No.: Q3084

Instrument ID: P7 Start Date: 09/23/2025

Analytical Method: ICP-MS Run Batch: LB137284

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	0	0.0	0	20	21	5	1000	1000	0
Antimony	0	0.0	0	2	2.1	5	50	51	2
Arsenic	0	0.0	0	1	1.1	10	50	51	2
Beryllium	0	0.0	0	1	1.2	20	50	52	4
Cadmium	0	0.0	0	1	1.1	10	50	52	4
Chromium	0	0.0	0	2	2.0	0	50	49	-2
Iron	0	0.0	0	50	59	18	2500	2700	8
Lead	0	0.0	0	1	0.85	-15	250	240	-4
Manganese	0	0.0	0	1	0.95	-5	500	500	0
Nickel	0	0.0	0	1	0.98	-2	50	50	0
Thallium	0	0.0	0	1	1.0	0	50	47	-6

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No.: _____ SDG No.: Q3084

Instrument ID: P7 Start Date: 09/23/2025

Analytical Method: ICP-MS Run Batch: LB137284

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	2500	2600	4	5000	5200	4	10000	11000	10
Antimony	125	130	4	250	250	0	500	500	0
Arsenic	125	130	4	250	250	0	500	500	0
Beryllium	125	130	4	250	250	0	500	500	0
Cadmium	125	130	4	250	260	4	500	510	2
Chromium	125	120	-4	250	250	0	500	500	0
Iron	6250	6800	9	12500	14000	12	25000	27000	8
Lead	625	610	-2	1250	1200	-4	2500	2500	0
Manganese	1250	1200	-4	2500	2500	0	5000	5000	0
Nickel	125	120	-4	250	250	0	500	500	0
Thallium	125	120	-4	250	250	0	500	500	0

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No.: _____ SDG No.: Q3084

Instrument ID: P7 Start Date: 09/23/2025

Analytical Method: ICP-MS Run Batch: LB137284

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	20000	21000	5	100000	100000	0			
Antimony	1000	1000	0						
Arsenic	1000	1000	0						
Beryllium	1000	1000	0						
Cadmium	1000	990	-1						
Chromium	1000	1000	0						
Iron	50000	54000	8	250000	250000	0			
Lead	5000	5000	0						
Manganese	10000	10000	0						
Nickel	1000	1000	0						
Thallium	1000	1000	0						

FORM 16-IN

INITIAL CALIBRATION SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No: SDG No.: Q3084

Instrument ID: P7 Start Date : 09/23/2025

Analytical Method: ICP-MS Run Batch : LB137284

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Aluminum	0.999918	0.000406	0.003639	Lin. Reg	NONE
Antimony	0.999988	0.000734	0.000005	Lin. Reg	NONE
Arsenic	0.999991	0.000118	0.000004	Lin. Reg	NONE
Barium	0.999990	0.000311	0.000005	Lin. Reg	NONE
Beryllium	0.999983	0.001291	0.000015	Lin. Reg	NONE
Cadmium	0.999942	0.000204	0.000377	Lin. Reg	NONE
Calcium	0.999983	0.000066	0.005453	Lin. Reg	NONE
Chromium	0.999994	0.007768	0.003690	Lin. Reg	NONE
Cobalt	0.999887	0.012011	0.000208	Lin. Reg	NONE
Copper	0.999990	0.009212	0.004097	Lin. Reg	NONE
Iron	0.999860	0.000172	0.003926	Lin. Reg	NONE
Lead	0.999970	0.003657	0.000289	Lin. Reg	NONE
Magnesium	0.999979	0.000732	0.001000	Lin. Reg	NONE
Manganese	0.999998	0.006382	0.001874	Lin. Reg	NONE
Molybdenum	0.999998	0.000436	0.000024	Lin. Reg	NONE
Nickel	0.999994	0.003101	0.000823	Lin. Reg	NONE
Potassium	0.999968	0.000790	0.170914	Lin. Reg	NONE
Selenium	0.999822	0.000011	0.000029	Lin. Reg	NONE
Silver	0.999957	0.000997	0.000011	Lin. Reg	NONE
Sodium	0.999944	0.001134	0.057197	Lin. Reg	NONE
Strontium	0.999970	0.001540	0.000009	Lin. Reg	NONE
Thallium	0.999948	0.002696	0.000091	Lin. Reg	NONE
Titanium	0.999997	0.000209	0.000028	Lin. Reg	NONE
Uranium	0.999943	0.003570	0.000008	Lin. Reg	NONE
Vanadium	0.999990	0.006508	0.000027	Lin. Reg	NONE
Zinc	0.999874	0.001675	0.007497	Lin. Reg	NONE

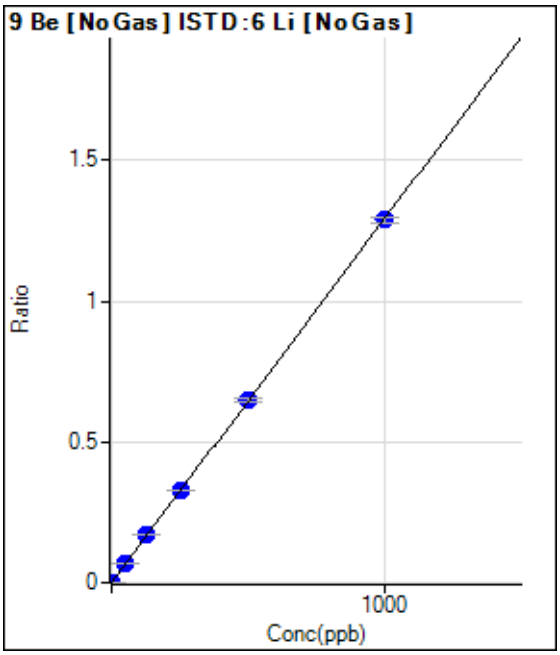
Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

Calibration for 011CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7092325-MS.b\
Analysis File: P7092325-MS.batch.bin
DA Date-Time: 2025-09-23 18:24:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-09-23 14:48:53
2	005CALS.d	S02	2025-09-23 14:52:08
3	006CALS.d	S03	2025-09-23 14:55:26
4	007CALS.d	S04	2025-09-23 14:58:35
5	009CALS.d	S05	2025-09-23 15:04:32
6	010CALS.d	S06	2025-09-23 15:07:27
7	011CALS.d	S07	2025-09-23 15:10:12
8	012CALS.d	S08	2025-09-23 15:12:59

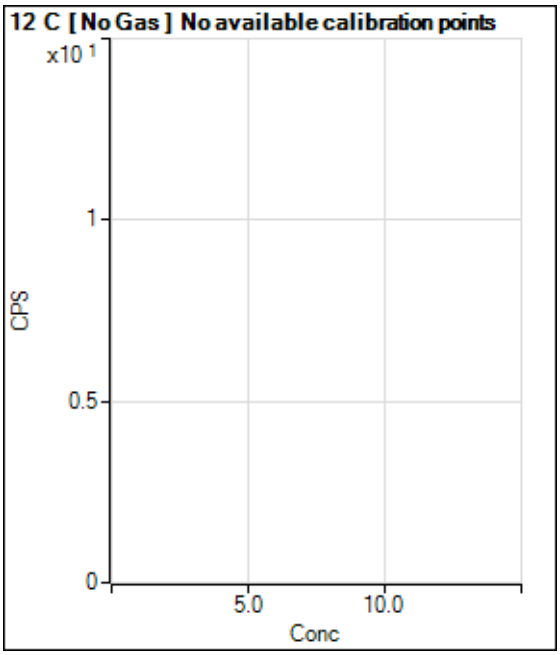
Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	66.4
2	☐	1.000	1.150	1025.60	0.0015	P	1.5
3	☐	50.000	51.882	46111.71	0.0670	P	1.6
4	☐	125.000	130.149	112414.15	0.1681	P	0.5
5	☐	250.000	252.108	213796.58	0.3256	P	0.5
6	☐	500.000	502.702	405666.02	0.6492	P	2.3
7	☐	1000.000	997.384	736447.11	1.2879	P	1.4
8	☐			128.89	0.0002	P	6.5

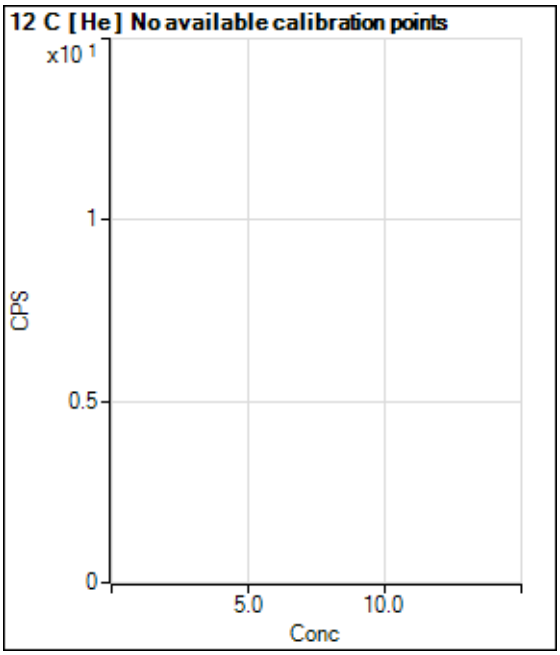
y = 0.0013 * x + 1.4772E-005
R = 1.0000
DL = 0.02279
BEC = 0.01144

Weight: <None>
Min Conc: <None>

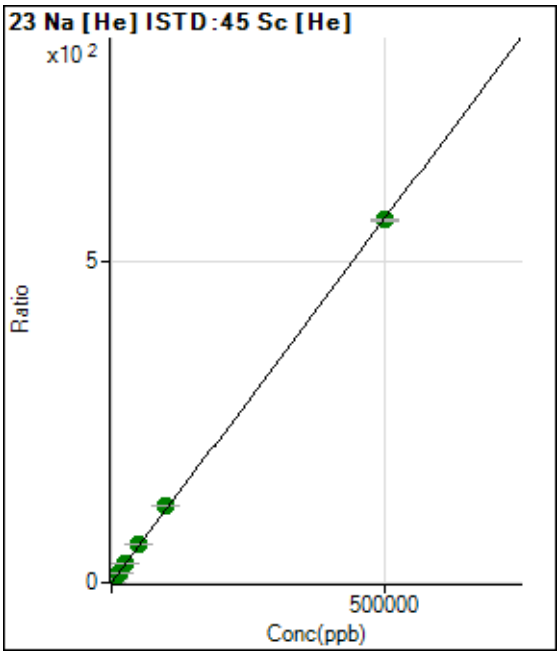


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7



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

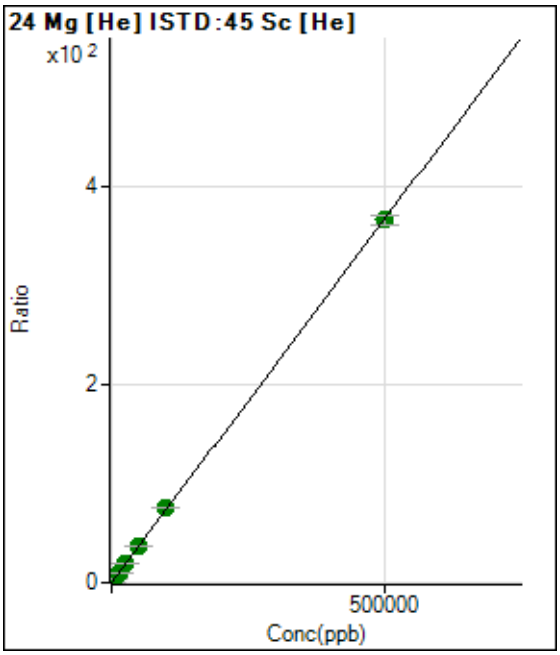


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18615.79	0.0572	P	1.0
2	☐	500.000	511.834	206910.29	0.6375	P	0.6
3	☐	5000.000	5239.323	1943054.61	5.9977	A	1.3
4	☐	12500.000	12922.823	4599913.93	14.7095	A	1.2
5	☐	25000.000	26269.598	9179213.34	29.8424	A	2.6
6	☐	50000.000	52681.203	17594809.18	59.7887	A	1.0
7	☐	100000.00	104757.23	32384622.85	118.8340	A	0.4
8	☐	500000.00	498703.97	160276488.7	565.5025	A	0.7

y = 0.0011 * x + 0.0572
R = 0.9999
DL = 1.509
BEC = 50.45

Weight: <None>
Min Conc: <None>

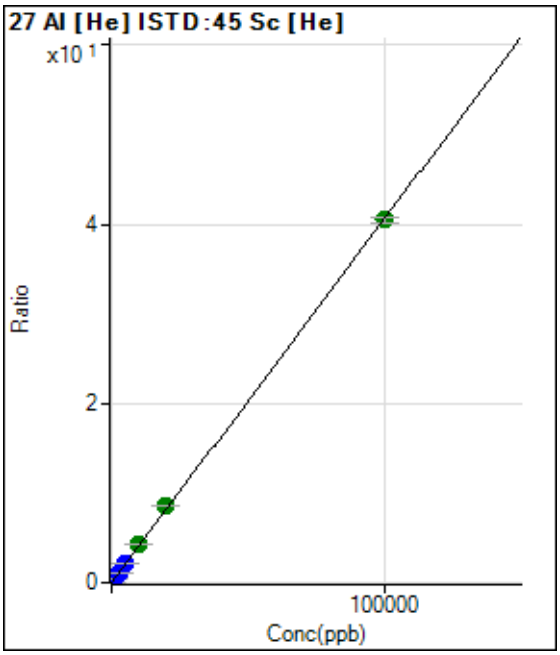
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On:9/24/2025 4:50:32 PM
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	325.56	0.0010	P	8.4
2	☐	500.000	514.004	122508.34	0.3775	P	1.2
3	☐	5000.000	5159.153	1224598.86	3.7799	A	2.3
4	☐	12500.000	12907.812	2956592.53	9.4554	A	3.2
5	☐	25000.000	25657.154	5781363.53	18.7938	A	2.0
6	☐	50000.000	51289.871	11056230.81	37.5686	A	1.0
7	☐	100000.00	103067.99	20574363.30	75.4939	A	1.4
8	☐	500000.00	499212.75	103629631.7	365.6529	A	2.4

y = 7.3246E-004 * x + 0.0010
R = 1.0000
DL = 0.3428
BEC = 1.366

Weight: <None>
Min Conc: <None>

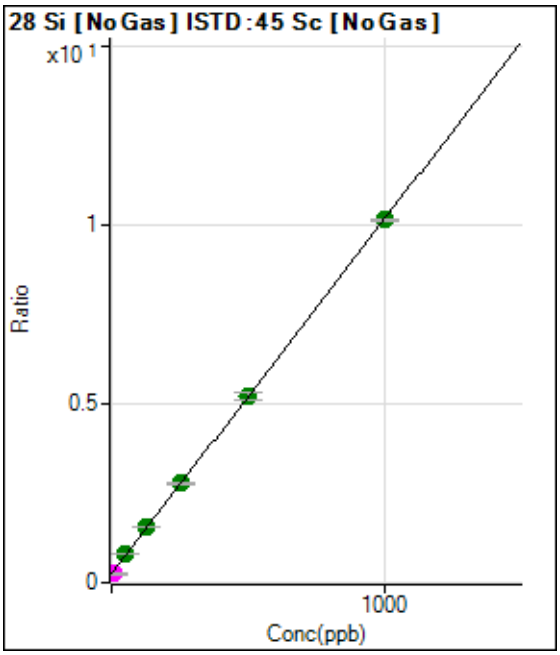


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1184.50	0.0036	P	3.5
2	☐	20.000	21.333	3991.67	0.0123	P	3.1
3	☐	1000.000	1028.919	136529.02	0.4215	P	0.9
4	☐	2500.000	2599.189	331179.19	1.0591	P	1.3
5	☐	5000.000	5225.851	653915.52	2.1257	P	1.2
6	☐	10000.000	10596.893	1267387.91	4.3068	A	0.5
7	☐	20000.000	21156.316	2342323.21	8.5947	A	1.7
8	☐	100000.00	99694.986	11474453.99	40.4871	A	1.5

y = 4.0607E-004 * x + 0.0036
R = 0.9999
DL = 0.9451
BEC = 8.962

Weight: <None>
Min Conc: <None>

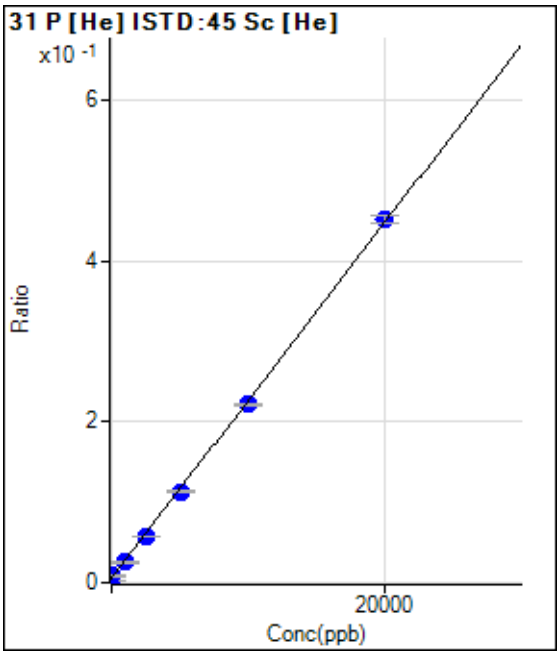
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On:9/24/2025 4:50:32 PM
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	952186.00	0.2505	M	19.0
2	☐	10.000	0.563	971350.28	0.2561	M	18.8
3	☐	50.000	55.112	3006445.93	0.7965	A	2.3
4	☐	125.000	130.838	5656420.89	1.5466	A	1.2
5	☐	250.000	256.097	9931126.66	2.7874	A	1.8
6	☐	500.000	499.632	17777985.98	5.1998	A	4.3
7	☐	1000.000	997.769	31928486.75	10.1343	A	0.6
8	☐			1251552.66	0.3940	A	1.0

y = 0.0099 * x + 0.2505
R = 0.9999
DL = 14.44
BEC = 25.29

Weight: <None>
Min Conc: <None>

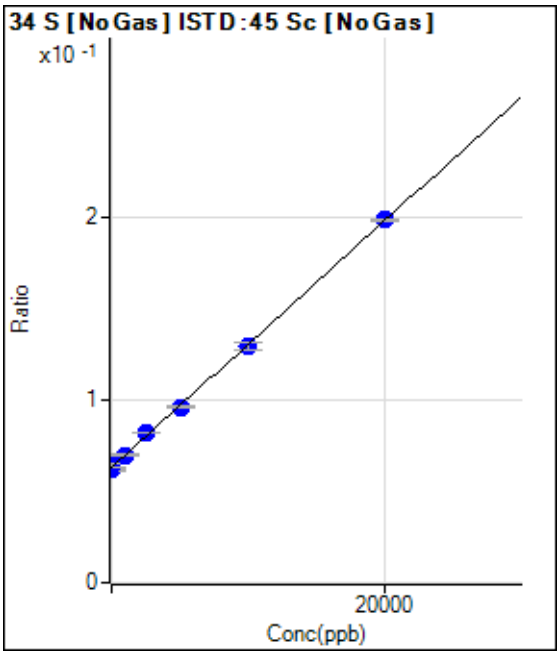


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-120.718	991.15	0.0030	P	7.5
2	☐	0.000	120.718	2720.27	0.0084	P	3.9
3	☐	1000.000	884.829	8183.35	0.0253	P	1.9
4	☐	2500.000	2340.955	17958.42	0.0574	P	2.4
5	☐	5000.000	4879.306	34914.43	0.1135	P	2.9
6	☐	10000.000	9782.181	65277.84	0.2218	P	0.8
7	☐	20000.000	20164.722	122952.38	0.4512	P	2.2
8	☐			916.71	0.0032	P	2.9

y = 2.2093E-005 * x + 0.0057
R = 0.9998
DL = 37.47
BEC = 258.6

Weight: <None>
Min Conc: <None>

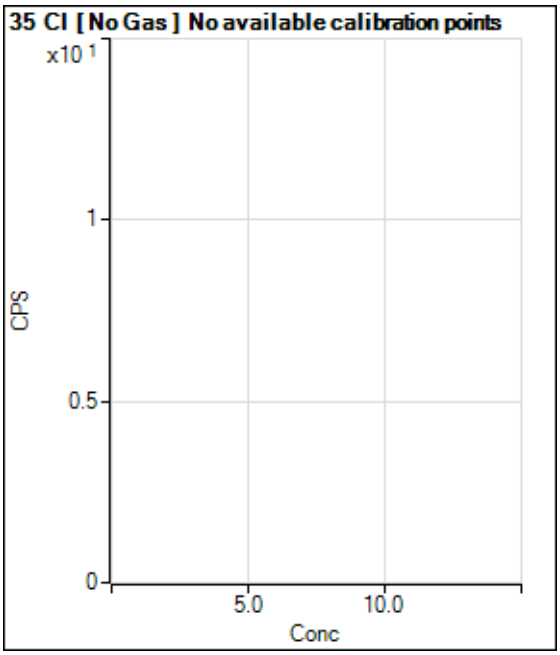
Reviewed By:JANVI
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Inst Id :P7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-214.372	235244.49	0.0618	P	2.5
2	☐	0.000	214.372	245586.78	0.0647	P	3.0
3	☐	1000.000	1015.410	264682.40	0.0701	P	2.0
4	☐	2500.000	2790.729	300413.94	0.0821	P	0.7
5	☐	5000.000	4873.976	342906.02	0.0962	P	1.3
6	☐	10000.000	9891.699	445323.43	0.1302	P	3.2
7	☐	20000.000	20048.545	626957.16	0.1990	P	0.6
8	☐			208921.29	0.0658	P	0.8

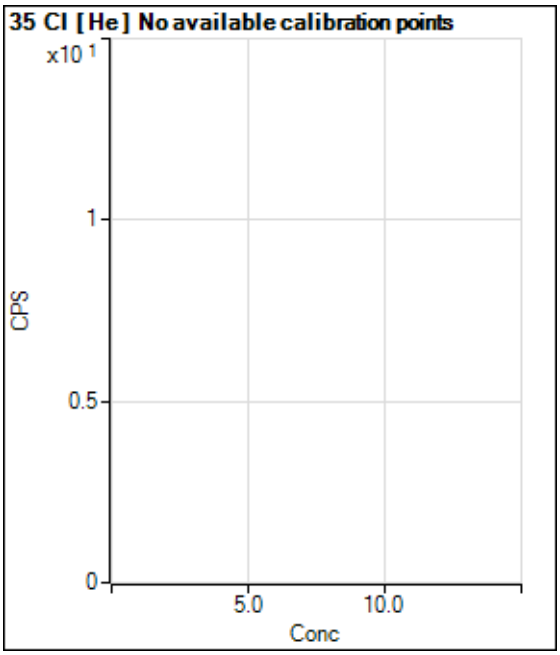
y = 6.7713E-006 * x + 0.0632
R = 0.9997
DL = 762.6
BEC = 9340

Weight: <None>
Min Conc: <None>

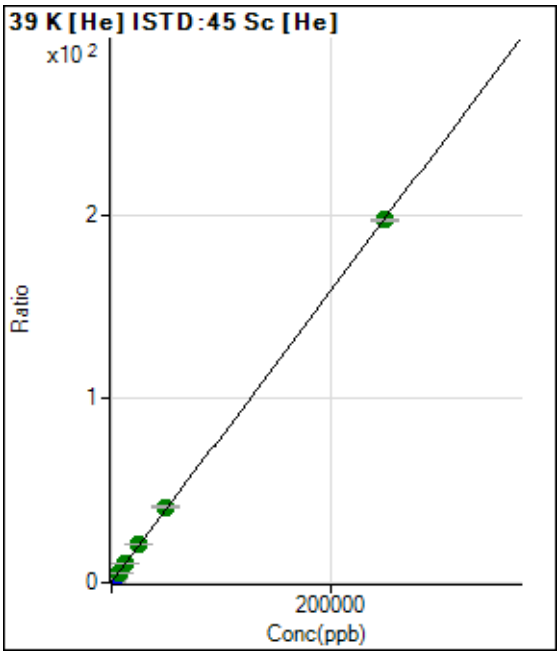


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

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

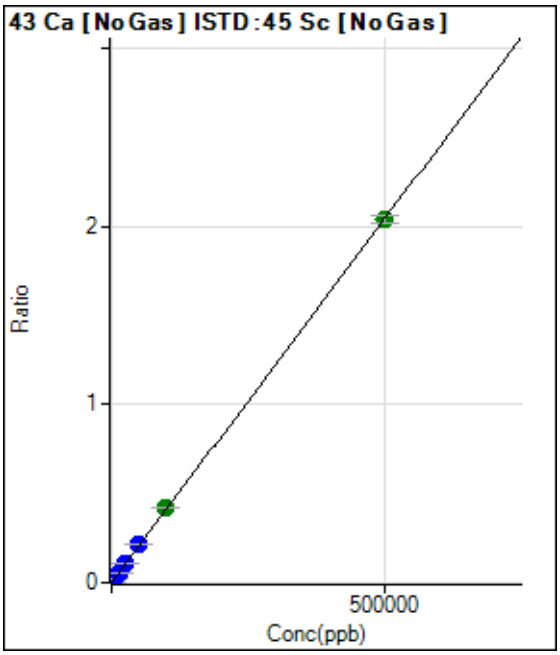


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55626.72	0.1709	P	0.6
2	☐	500.000	533.087	192169.40	0.5921	P	0.3
3	☐	2500.000	2648.856	733334.18	2.2637	P	0.2
4	☐	6250.000	6325.398	1616192.51	5.1684	A	0.4
5	☐	12500.000	12840.571	3173167.14	10.3159	A	2.0
6	☐	25000.000	25844.512	6058506.30	20.5899	A	1.2
7	☐	50000.000	51846.776	11208507.06	41.1335	A	2.3
8	☐	250000.00	249525.72	55922476.39	197.3139	A	0.8

y = 7.9007E-004 * x + 0.1709
R = 1.0000
DL = 3.649
BEC = 216.3

Weight: <None>
Min Conc: <None>

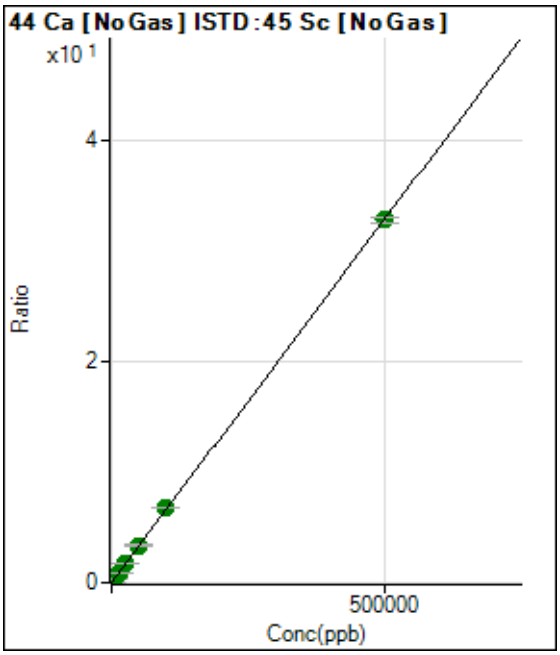
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On:9/24/2025 4:50:32 PM
Inst Id :P7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	303.34	0.0001	P	2.3
2	☐	500.000	527.186	8486.89	0.0022	P	1.4
3	☐	5000.000	5311.222	82256.57	0.0218	P	1.8
4	☐	12500.000	13287.979	198960.71	0.0544	P	1.5
5	☐	25000.000	26658.344	388521.88	0.1090	P	1.2
6	☐	50000.000	53035.079	741540.77	0.2169	P	3.9
7	☐	100000.00	103166.03	1328807.32	0.4218	A	2.0
8	☐	500000.00	498957.52	6479283.24	2.0396	A	2.1

y = 4.0876E-006 * x + 7.9637E-005
R = 1.0000
DL = 1.342
BEC = 19.48

Weight: <None>
Min Conc: <None>

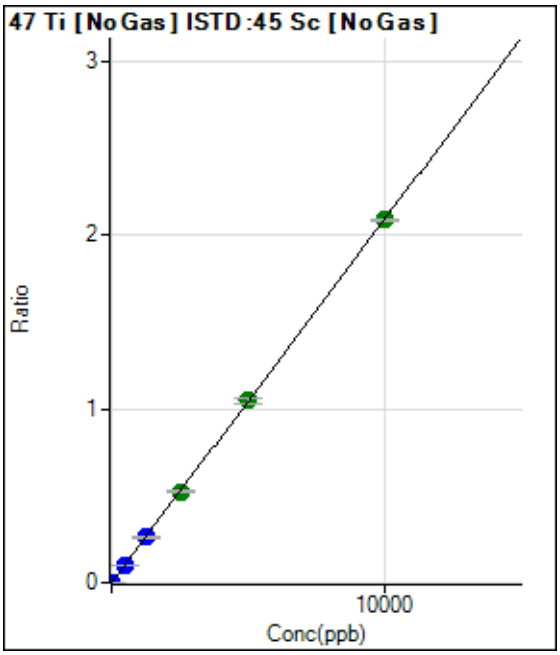


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20765.19	0.0055	P	1.5
2	☐	500.000	534.232	154211.43	0.0406	P	1.7
3	☐	5000.000	5120.295	1292883.97	0.3425	A	0.9
4	☐	12500.000	12689.893	3074817.00	0.8407	A	0.6
5	☐	25000.000	25459.391	5990190.05	1.6812	A	0.5
6	☐	50000.000	51035.893	11505051.50	3.3646	A	3.6
7	☐	100000.00	102713.86	21317487.18	6.7660	A	1.0
8	☐	500000.00	499324.68	104414736.2	32.8705	A	1.8

y = 6.5819E-005 * x + 0.0055
R = 1.0000
DL = 3.642
BEC = 82.85

Weight: <None>
Min Conc: <None>

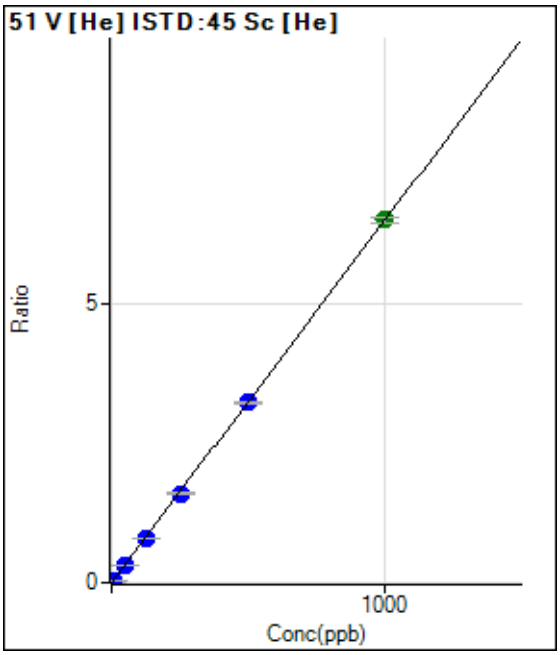
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On:9/24/2025 4:50:32 PM
Inst Id :P7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0000	P	22.0
2	☐	5.000	5.077	4137.27	0.0011	P	0.4
3	☐	500.000	493.416	389611.89	0.1032	P	1.7
4	☐	1250.000	1245.438	952683.43	0.2605	P	0.8
5	☐	2500.000	2505.666	1866931.06	0.5240	A	1.4
6	☐	5000.000	5017.859	3588362.34	1.0494	A	3.4
7	☐	10000.000	9990.554	6582391.36	2.0892	A	0.6
8	☐			553.35	0.0002	P	9.1

y = 2.0912E-004 * x + 2.7646E-005
R = 1.0000
DL = 0.08721
BEC = 0.1322

Weight: <None>
Min Conc: <None>

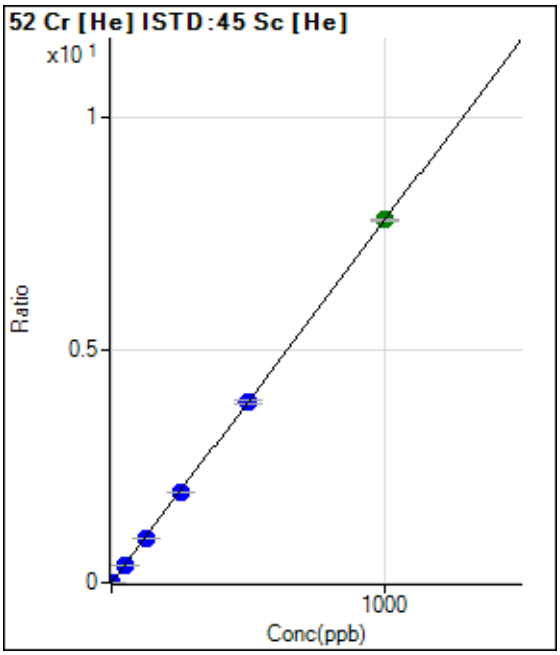


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.89	0.0000	P	78.0
2	☐	5.000	4.934	10430.36	0.0321	P	0.5
3	☐	50.000	48.643	102557.18	0.3166	P	1.2
4	☐	125.000	123.239	250790.26	0.8020	P	1.3
5	☐	250.000	246.717	493893.32	1.6055	P	1.4
6	☐	500.000	497.555	952752.91	3.2379	P	1.0
7	☐	1000.000	1002.332	1777412.77	6.5227	A	1.9
8	☐			893.37	0.0032	P	3.8

y = 0.0065 * x + 2.7301E-005
R = 1.0000
DL = 0.009814
BEC = 0.004195

Weight: <None>
Min Conc: <None>

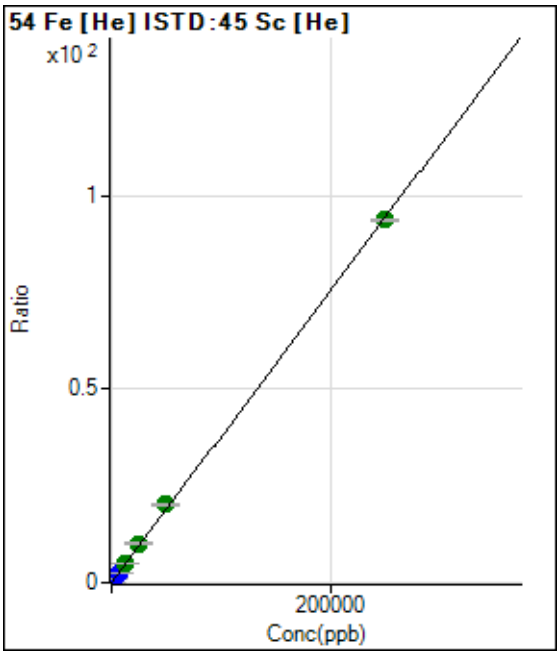
Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1201.17	0.0037	P	5.1
2	☐	2.000	2.012	6271.36	0.0193	P	3.8
3	☐	50.000	49.304	125270.45	0.3867	P	1.3
4	☐	125.000	122.755	299355.08	0.9573	P	0.2
5	☐	250.000	247.761	593219.37	1.9284	P	1.0
6	☐	500.000	498.537	1140635.95	3.8765	P	1.4
7	☐	1000.000	1001.607	2121386.04	7.7845	A	0.6
8	☐			19541.67	0.0690	P	1.0

y = 0.0078 * x + 0.0037
R = 1.0000
DL = 0.07272
BEC = 0.4751

Weight: <None>
Min Conc: <None>

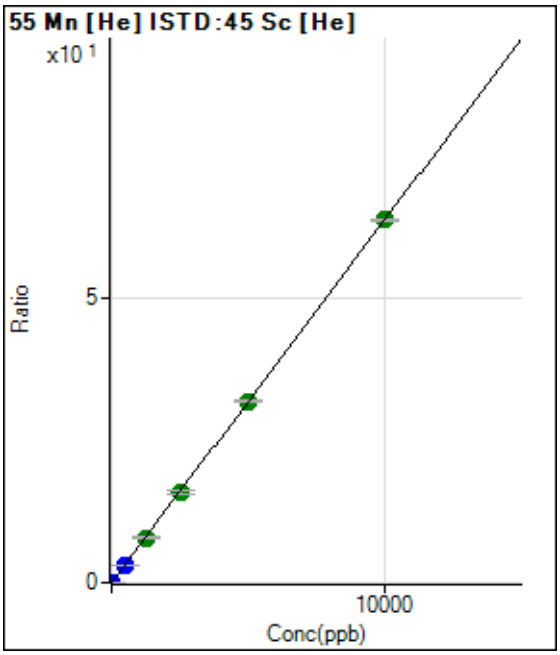


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1568.99	0.0048	P	7.4
2	☐	50.000	56.115	8419.10	0.0259	P	1.6
3	☐	2500.000	2742.264	335956.18	1.0370	P	0.6
4	☐	6250.000	6908.157	814634.75	2.6051	P	0.8
5	☐	12500.000	13190.443	1528819.66	4.9699	A	1.5
6	☐	25000.000	26972.962	2988908.22	10.1578	A	1.3
7	☐	50000.000	53784.965	5518323.01	20.2502	A	2.2
8	☐	250000.00	248992.31	26564302.10	93.7287	A	0.8

y = 3.7641E-004 * x + 0.0048
R = 0.9999
DL = 2.852
BEC = 12.81

Weight: <None>
Min Conc: <None>

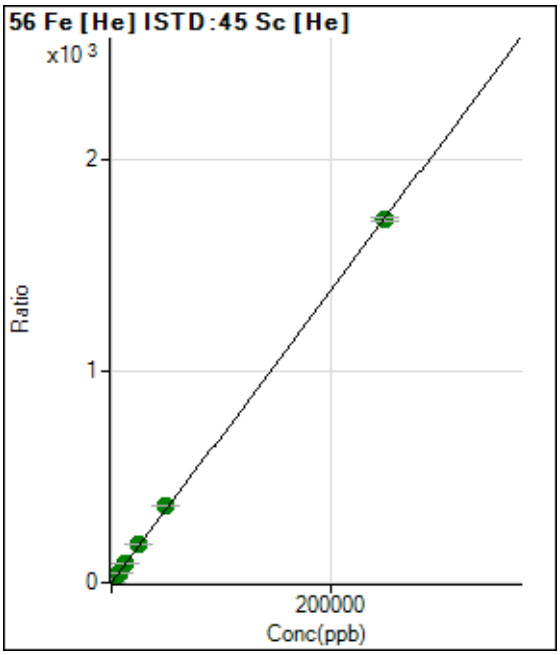
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	610.02	0.0019	P	3.1
2	☐	1.000	0.948	2571.36	0.0079	P	2.8
3	☐	500.000	495.911	1025909.66	3.1669	P	0.8
4	☐	1250.000	1237.067	2469314.06	7.8971	A	2.3
5	☐	2500.000	2489.794	4888173.05	15.8923	A	2.8
6	☐	5000.000	4990.933	9373438.54	31.8551	A	1.0
7	☐	10000.000	10008.906	17408297.24	63.8809	A	0.4
8	☐			10135.73	0.0358	P	2.2

y = 0.0064 * x + 0.0019
R = 1.0000
DL = 0.02749
BEC = 0.2937

Weight: <None>
Min Conc: <None>

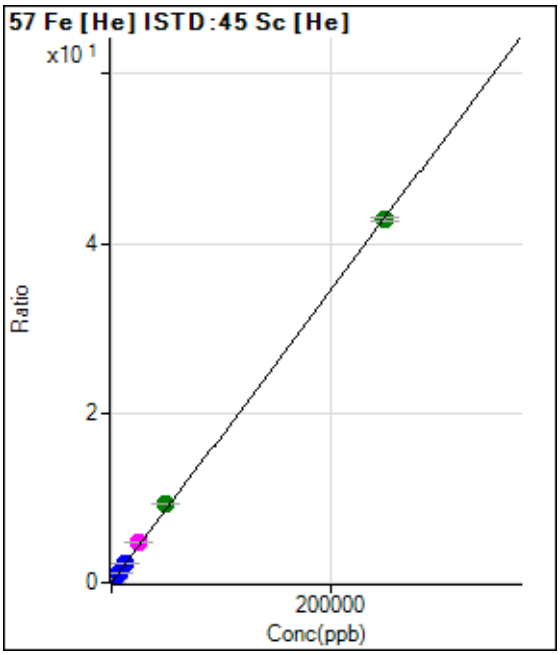


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12906.75	0.0397	P	0.9
2	☐	50.000	53.518	132449.38	0.4081	P	0.6
3	☐	2500.000	2570.238	5744739.92	17.7344	A	1.9
4	☐	6250.000	6534.228	14079560.90	45.0244	A	0.9
5	☐	12500.000	13191.628	27946925.14	90.8571	A	2.4
6	☐	25000.000	26226.192	53141304.21	180.5932	A	0.8
7	☐	50000.000	53091.972	99621009.62	365.5499	A	0.8
8	☐	250000.00	249216.59	486269157.2	1,715.764	A	1.2

y = 0.0069 * x + 0.0397
R = 0.9999
DL = 0.1488
BEC = 5.76

Weight: <None>
Min Conc: <None>

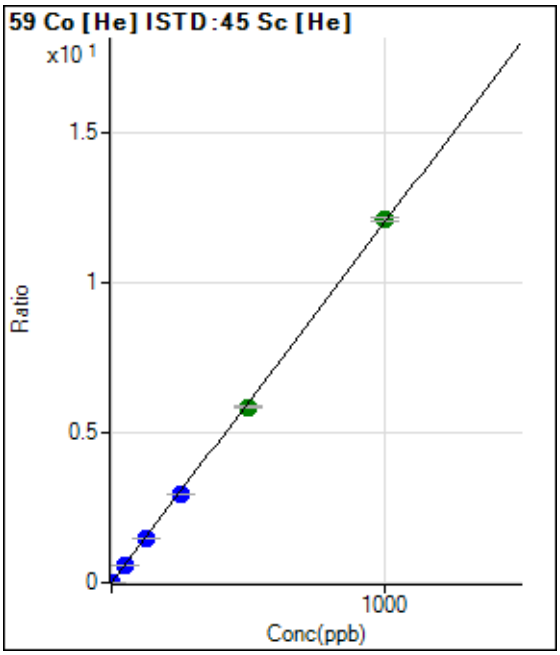
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1277.71	0.0039	P	2.3
2	☐	50.000	58.724	4550.20	0.0140	P	2.8
3	☐	2500.000	2698.975	151536.96	0.4678	P	1.0
4	☐	6250.000	6763.585	364713.22	1.1663	P	0.5
5	☐	12500.000	13655.721	723142.62	2.3508	P	1.2
6	☐	25000.000	27183.601	1375975.61	4.6756	M	0.7
7	☐	50000.000	53733.883	2517759.83	9.2385	A	1.1
8	☐	250000.00	248962.24	12127978.29	42.7899	A	0.9

y = 1.7186E-004 * x + 0.0039
R = 0.9999
DL = 1.587
BEC = 22.84

Weight: <None>
Min Conc: <None>

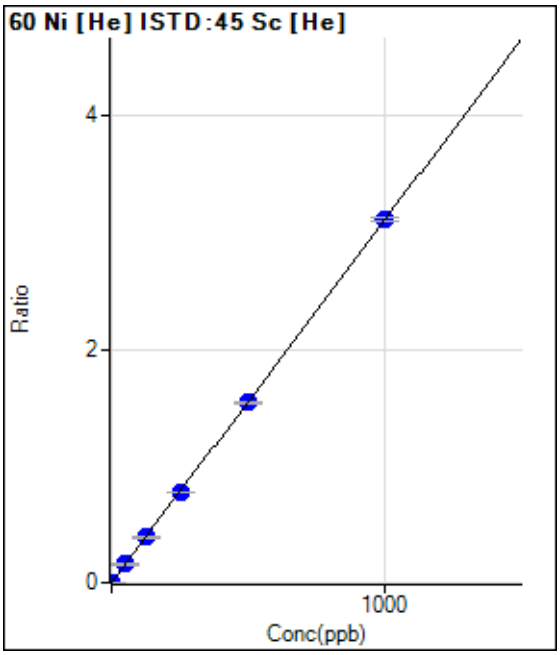


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67.78	0.0002	P	49.2
2	☐	1.000	1.048	4152.84	0.0128	P	3.2
3	☐	50.000	48.667	189421.14	0.5847	P	1.0
4	☐	125.000	122.121	458750.92	1.4670	P	1.2
5	☐	250.000	245.391	906709.28	2.9475	P	1.3
6	☐	500.000	488.290	1725854.73	5.8649	A	0.4
7	☐	1000.000	1007.434	3297376.41	12.1002	A	1.0
8	☐			7087.29	0.0250	P	1.0

y = 0.0120 * x + 2.0820E-004
R = 0.9999
DL = 0.02559
BEC = 0.01733

Weight: <None>
Min Conc: <None>

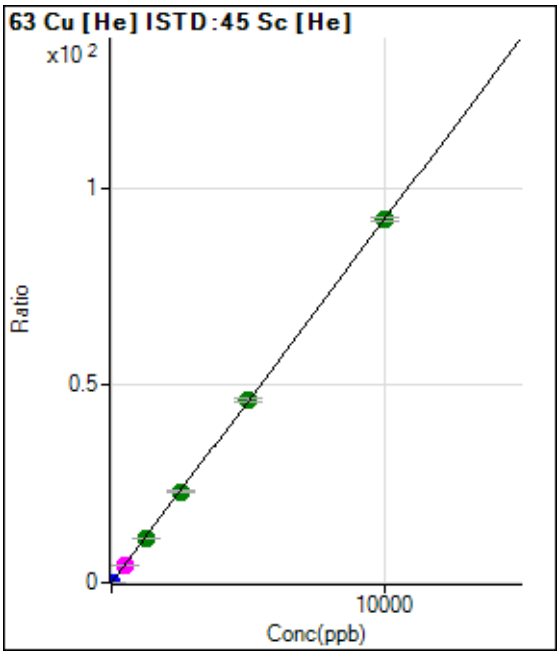
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	267.78	0.0008	P	5.7
2	☐	1.000	0.978	1251.18	0.0039	P	3.5
3	☐	50.000	50.315	50802.61	0.1568	P	1.2
4	☐	125.000	124.828	121292.33	0.3879	P	1.7
5	☐	250.000	248.940	237683.48	0.7727	P	1.7
6	☐	500.000	497.414	454047.02	1.5431	P	1.4
7	☐	1000.000	1001.564	846491.84	3.1062	P	1.1
8	☐			5423.26	0.0191	P	2.5

y = 0.0031 * x + 8.2280E-004
R = 1.0000
DL = 0.04534
BEC = 0.2654

Weight: <None>
Min Conc: <None>

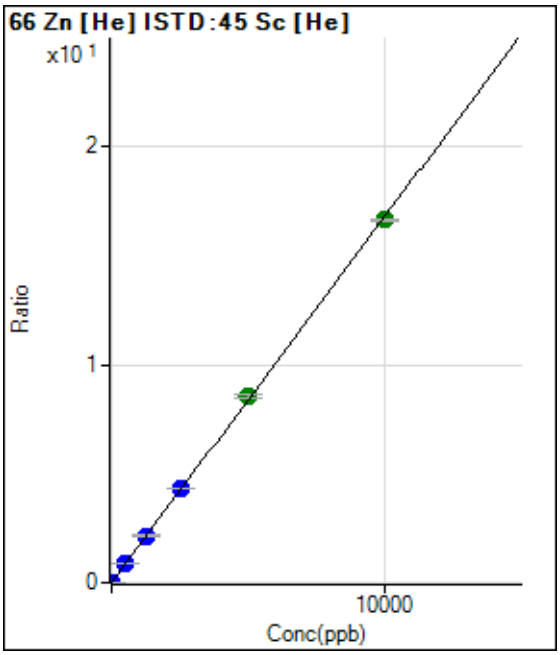


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1333.41	0.0041	P	0.3
2	☐	2.000	1.877	6940.56	0.0214	P	1.6
3	☐	500.000	497.272	1485236.04	4.5849	M	1.1
4	☐	1250.000	1230.391	3545534.18	11.3382	A	0.8
5	☐	2500.000	2491.915	7062202.60	22.9592	A	2.1
6	☐	5000.000	5032.440	13641377.16	46.3621	A	1.7
7	☐	10000.000	9988.389	25075296.02	92.0154	A	1.2
8	☐			4247.31	0.0150	P	5.0

y = 0.0092 * x + 0.0041
R = 1.0000
DL = 0.004564
BEC = 0.4447

Weight: <None>
Min Conc: <None>

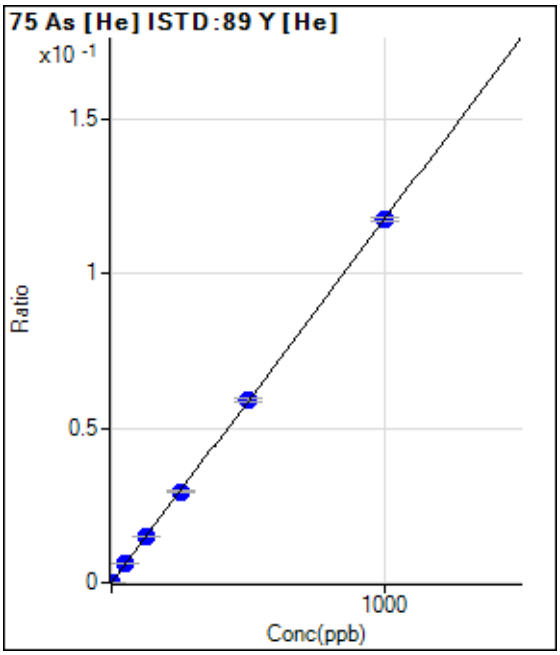
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2440.22	0.0075	P	8.4
2	☐	5.000	4.562	4914.19	0.0151	P	1.2
3	☐	500.000	515.529	282211.78	0.8712	P	1.2
4	☐	1250.000	1283.844	674938.27	2.1583	P	0.5
5	☐	2500.000	2580.128	1332007.87	4.3300	P	1.3
6	☐	5000.000	5108.865	2520529.32	8.5664	A	1.8
7	☐	10000.000	9920.529	4531206.67	16.6275	A	0.4
8	☐			6678.22	0.0236	P	2.2

y = 0.0017 * x + 0.0075
R = 0.9999
DL = 1.123
BEC = 4.475

Weight: <None>
Min Conc: <None>

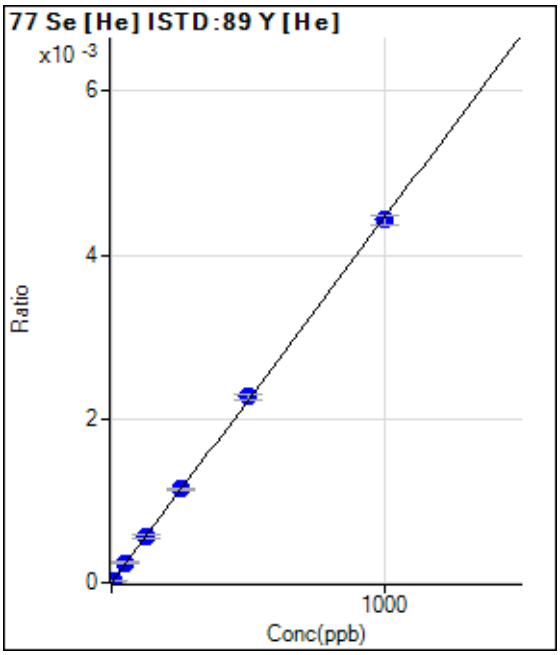


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	57.4
2	☐	1.000	1.076	354.45	0.0001	P	7.7
3	☐	50.000	50.737	15936.47	0.0060	P	1.2
4	☐	125.000	125.161	37863.92	0.0147	P	0.9
5	☐	250.000	250.071	75251.93	0.0294	P	1.3
6	☐	500.000	503.508	143822.24	0.0593	P	1.5
7	☐	1000.000	998.171	264859.77	0.1175	P	1.1
8	☐			335.56	0.0001	P	10.9

y = 1.1770E-004 * x + 3.6924E-006
R = 1.0000
DL = 0.05398
BEC = 0.03137

Weight: <None>
Min Conc: <None>

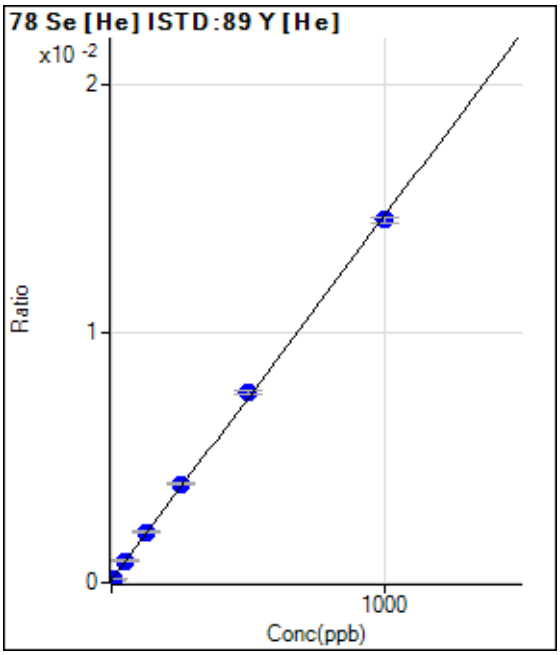
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.423	66.67	0.0000	P	32.2
3	☐	50.000	53.786	640.02	0.0002	P	8.0
4	☐	125.000	125.873	1441.20	0.0006	P	7.1
5	☐	250.000	256.295	2920.31	0.0011	P	0.9
6	☐	500.000	509.079	5504.41	0.0023	P	3.5
7	☐	1000.000	993.586	9979.02	0.0044	P	2.4
8	☐			14.44	0.0000	P	80.6

y = 4.4556E-006 * x + 4.1116E-007
R = 0.9999
DL = 0.4795
BEC = 0.09228

Weight: <None>
Min Conc: <None>

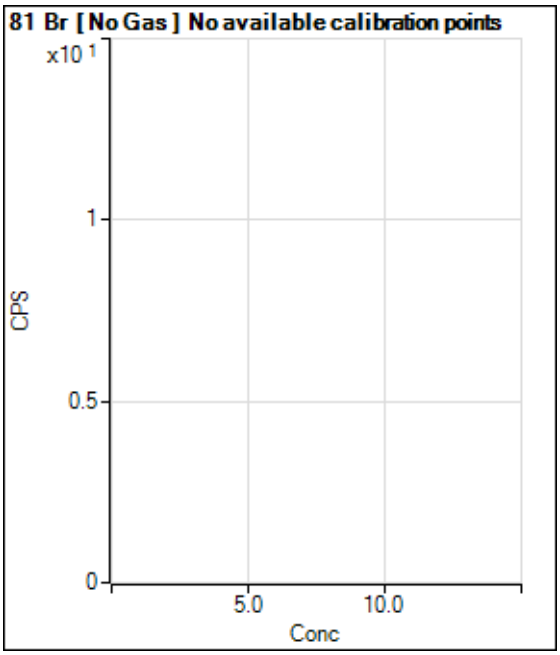


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	294.45	0.0001	P	5.4
2	☐	5.000	5.042	496.68	0.0002	P	9.8
3	☐	50.000	51.968	2314.65	0.0009	P	4.7
4	☐	125.000	131.679	5219.86	0.0020	P	3.8
5	☐	250.000	262.742	10086.85	0.0039	P	1.7
6	☐	500.000	514.671	18505.01	0.0076	P	1.3
7	☐	1000.000	988.545	32787.53	0.0145	P	1.5
8	☐			333.34	0.0001	P	10.0

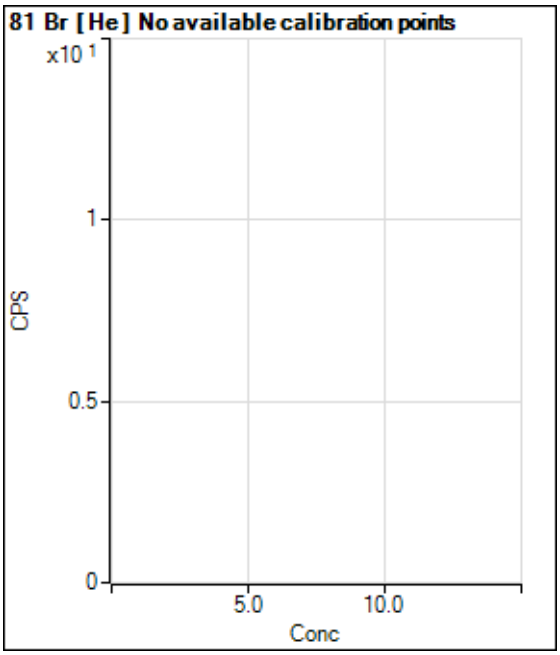
y = 1.4603E-005 * x + 1.0913E-004
R = 0.9997
DL = 1.213
BEC = 7.473

Weight: <None>
Min Conc: <None>

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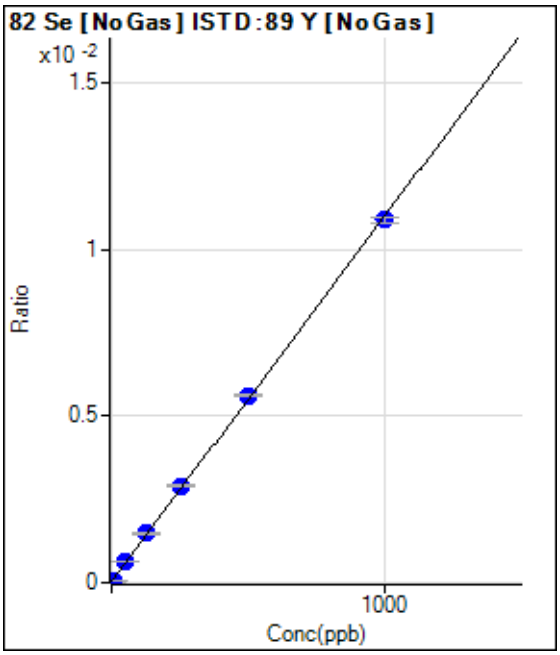


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			7553.12		P	3.0
2	☐			7509.78		P	3.0
3	☐			7450.83		P	1.5
4	☐			7269.65		P	1.2
5	☐			7390.81		P	0.2
6	☐			7429.72		P	4.6
7	☐			7478.63		P	3.8
8	☐			7886.64		P	5.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			126.67		P	16.0
2	☐			105.56		P	28.3
3	☐			105.56		P	11.1
4	☐			110.00		P	37.2
5	☐			117.78		P	13.4
6	☐			93.34		P	40.6
7	☐			93.34		P	32.7
8	☐			223.34		P	6.5

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	284.09	0.0000	P	18.3
2	☐	5.000	5.037	824.28	0.0001	P	4.5
3	☐	50.000	53.912	6047.32	0.0006	P	1.6
4	☐	125.000	132.331	14115.35	0.0015	P	1.2
5	☐	250.000	262.599	27236.01	0.0029	P	1.7
6	☐	500.000	510.452	51414.85	0.0056	P	1.0
7	☐	1000.000	990.512	91730.12	0.0109	P	1.7
8	☐			399.52	0.0000	P	8.9

y = 1.0963E-005 * x + 2.8883E-005

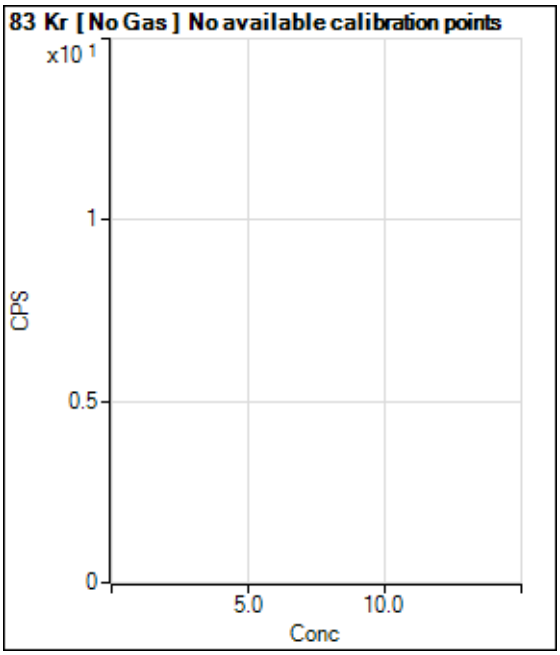
R = 0.9998

DL = 1.447

BEC = 2.635

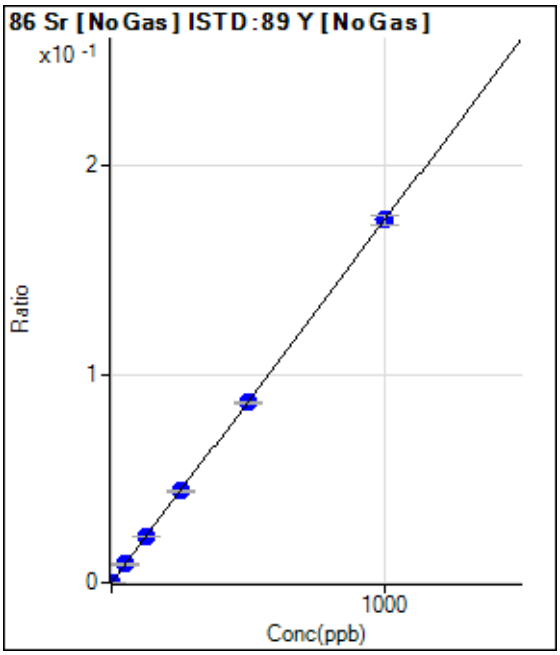
Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			423.34		P	11.7
2	☐			392.23		P	8.6
3	☐			450.01		P	9.7
4	☐			414.45		P	2.5
5	☐			406.67		P	3.8
6	☐			397.79		P	8.3
7	☐			398.90		P	5.7
8	☐			395.57		P	10.7

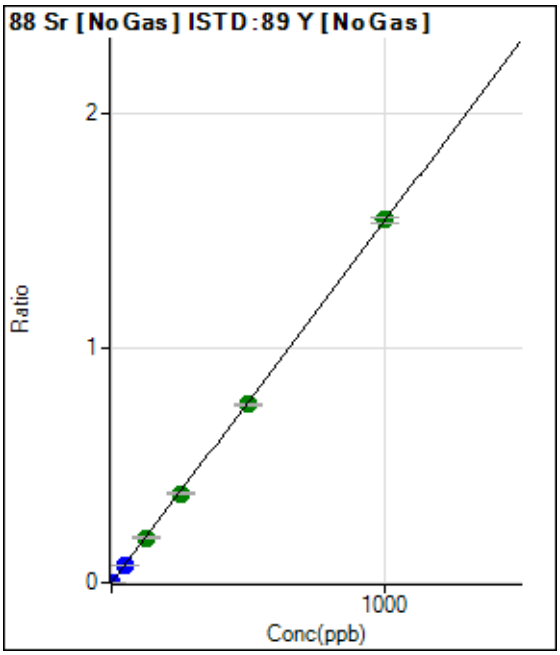
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	644.47	0.0001	P	4.7
2	☐	1.000	0.979	2313.54	0.0002	P	4.3
3	☐	50.000	50.318	86037.42	0.0088	P	1.2
4	☐	125.000	125.757	209338.76	0.0219	P	1.3
5	☐	250.000	251.876	411070.80	0.0439	P	0.9
6	☐	500.000	496.764	790543.67	0.0865	P	1.1
7	☐	1000.000	1001.039	1467717.79	0.1742	P	2.5
8	☐			19250.48	0.0023	P	2.5

y = 1.7397E-004 * x + 6.5643E-005
R = 1.0000
DL = 0.05292
BEC = 0.3773

Weight: <None>
Min Conc: <None>

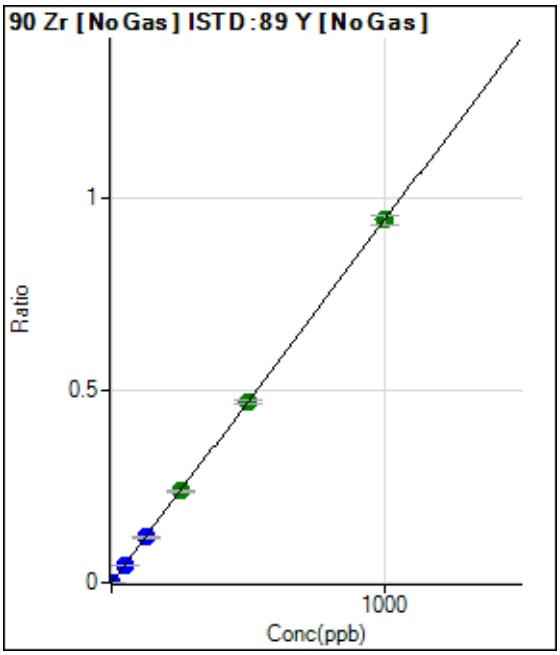


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0000	P	21.2
2	☐	1.000	0.985	14963.24	0.0015	P	0.6
3	☐	50.000	49.877	749255.14	0.0768	P	1.5
4	☐	125.000	124.488	1828569.85	0.1917	A	1.8
5	☐	250.000	246.865	3560622.27	0.3801	A	0.7
6	☐	500.000	494.328	6957134.89	0.7611	A	1.0
7	☐	1000.000	1003.690	13020162.31	1.5454	A	1.7
8	☐			161239.81	0.0194	P	0.8

y = 0.0015 * x + 9.4831E-006
R = 1.0000
DL = 0.003919
BEC = 0.006159

Weight: <None>
Min Conc: <None>

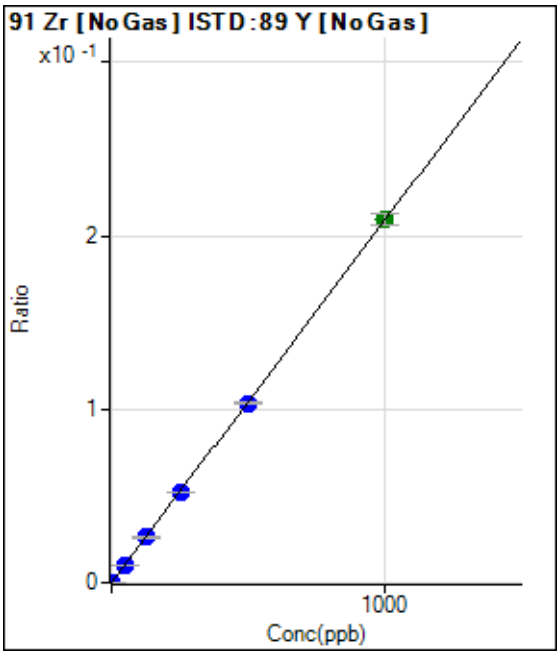
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	442.25	0.0000	P	17.1
2	☐	1.000	0.989	9606.55	0.0010	P	1.9
3	☐	50.000	49.649	458056.15	0.0470	P	1.9
4	☐	125.000	124.938	1126620.30	0.1181	P	1.2
5	☐	250.000	252.241	2232829.69	0.2384	A	1.6
6	☐	500.000	498.475	4305544.03	0.4710	A	1.2
7	☐	1000.000	1000.228	7962323.21	0.9451	A	2.9
8	☐			7302.99	0.0009	P	2.6

y = 9.4486E-004 * x + 4.5199E-005
R = 1.0000
DL = 0.0245
BEC = 0.04784

Weight: <None>
Min Conc: <None>

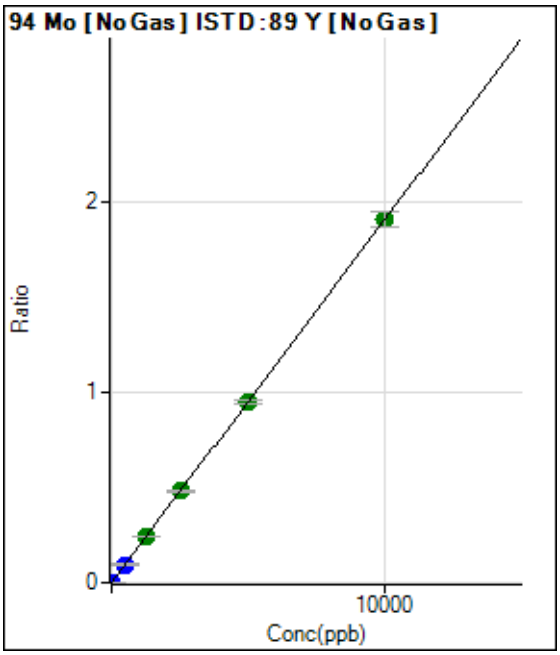


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.11	0.0000	P	28.6
2	☐	1.000	1.019	2155.74	0.0002	P	4.7
3	☐	50.000	49.534	100920.39	0.0103	P	2.1
4	☐	125.000	125.306	249551.66	0.0262	P	0.9
5	☐	250.000	250.339	489435.18	0.0522	P	1.3
6	☐	500.000	495.819	945853.27	0.1035	P	1.3
7	☐	1000.000	1001.991	1761675.23	0.2091	A	3.1
8	☐			1604.55	0.0002	P	12.0

y = 2.0869E-004 * x + 7.2790E-006
R = 1.0000
DL = 0.02996
BEC = 0.03488

Weight: <None>
Min Conc: <None>

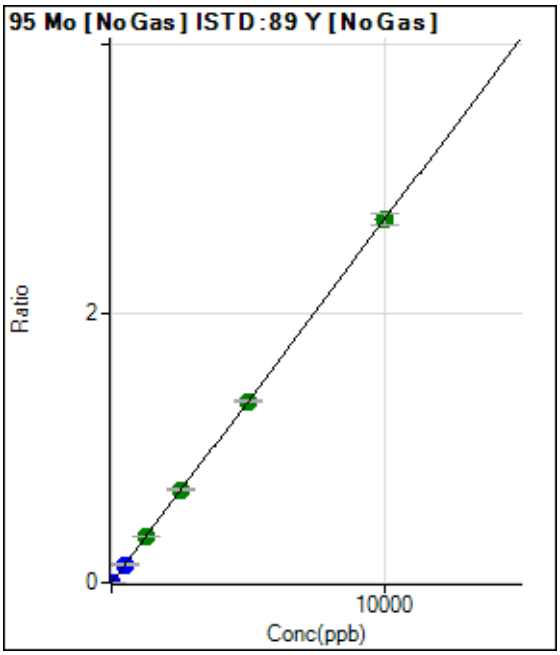
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.34	0.0000	P	21.2
2	☐	5.000	5.976	11378.96	0.0012	P	3.2
3	☐	500.000	500.204	931113.23	0.0955	P	2.2
4	☐	1250.000	1252.455	2280197.79	0.2390	A	0.8
5	☐	2500.000	2519.387	4502774.00	0.4807	A	1.1
6	☐	5000.000	4979.801	8684400.43	0.9501	A	1.8
7	☐	10000.000	10004.935	16080135.73	1.9088	A	4.2
8	☐			5657.82	0.0007	P	2.3

y = 1.9079E-004 * x + 2.0794E-005
R = 1.0000
DL = 0.0693
BEC = 0.109

Weight: <None>
Min Conc: <None>

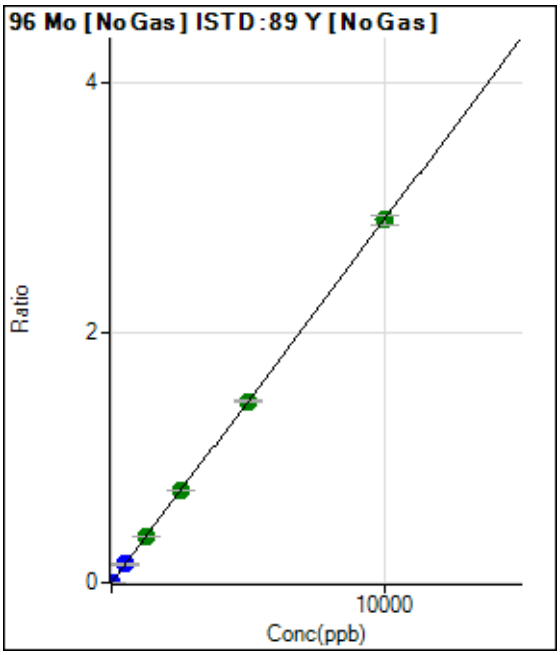


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	157.78	0.0000	P	8.3
2	☐	5.000	5.010	13405.13	0.0014	P	1.3
3	☐	500.000	501.157	1319081.94	0.1352	P	1.9
4	☐	1250.000	1269.076	3266368.53	0.3424	A	1.5
5	☐	2500.000	2561.571	6473634.62	0.6911	A	0.9
6	☐	5000.000	4984.909	12292986.07	1.3449	A	1.1
7	☐	10000.000	9989.711	22704733.00	2.6951	A	3.1
8	☐			4916.43	0.0006	P	2.4

y = 2.6978E-004 * x + 1.6073E-005
R = 1.0000
DL = 0.01487
BEC = 0.05958

Weight: <None>
Min Conc: <None>

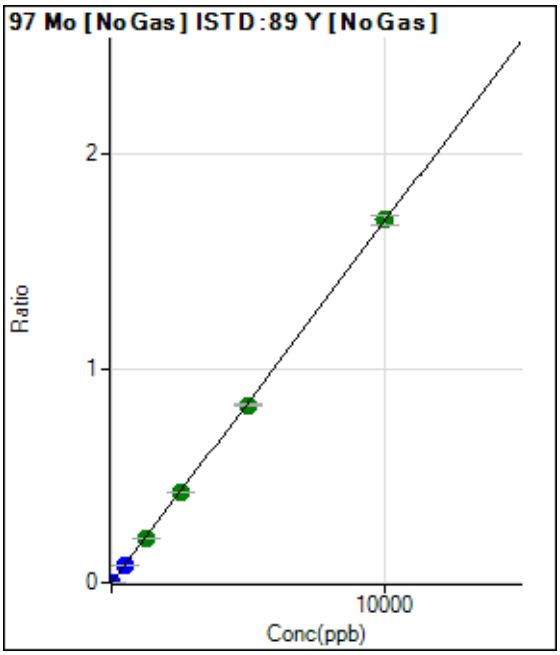
Reviewed By:JANVI
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	198.89	0.0000	P	21.8
2	☐	5.000	5.230	15114.57	0.0015	P	1.4
3	☐	500.000	505.421	1434595.76	0.1471	P	1.7
4	☐	1250.000	1262.254	3502982.73	0.3672	A	2.2
5	☐	2500.000	2525.051	6881507.74	0.7346	A	0.6
6	☐	5000.000	5001.527	13300224.53	1.4551	A	1.3
7	☐	10000.000	9991.171	24488268.52	2.9067	A	2.4
8	☐			7615.38	0.0009	P	2.8

y = 2.9092E-004 * x + 2.0241E-005
R = 1.0000
DL = 0.04552
BEC = 0.06958

Weight: <None>
Min Conc: <None>

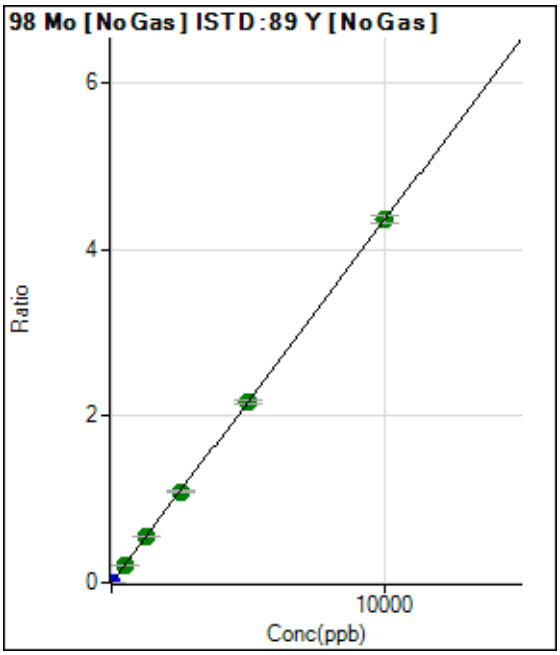


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0000	P	27.7
2	☐	5.000	5.029	8431.42	0.0009	P	1.0
3	☐	500.000	498.505	820726.74	0.0841	P	1.7
4	☐	1250.000	1241.958	1999483.04	0.2096	A	1.2
5	☐	2500.000	2501.643	3954509.63	0.4222	A	1.9
6	☐	5000.000	4914.082	7579942.25	0.8292	A	0.8
7	☐	10000.000	10043.628	14278959.65	1.6948	A	2.4
8	☐			3033.68	0.0004	P	5.2

y = 1.6875E-004 * x + 1.1505E-005
R = 0.9999
DL = 0.05662
BEC = 0.06818

Weight: <None>
Min Conc: <None>

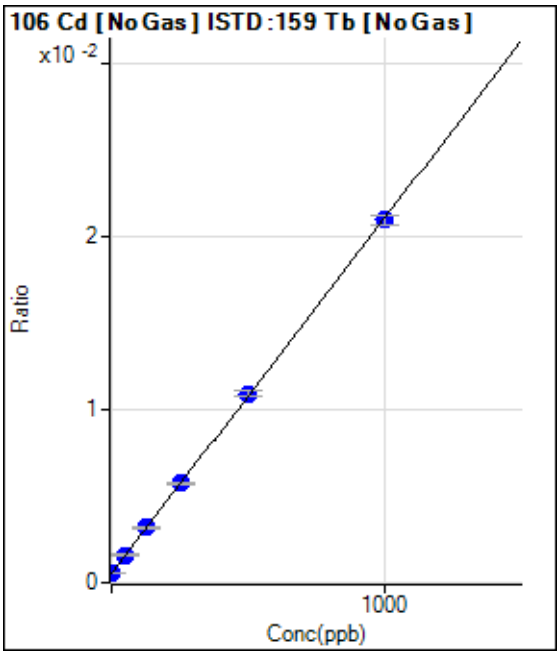
Reviewed By:JANVI
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	231.11	0.0000	P	5.0
2	☐	5.000	5.020	21666.16	0.0022	P	2.4
3	☐	500.000	492.646	2093699.54	0.2146	A	1.4
4	☐	1250.000	1255.733	5218649.50	0.5470	A	1.3
5	☐	2500.000	2503.034	10212827.00	1.0903	A	1.4
6	☐	5000.000	4986.441	19853334.43	2.1720	A	1.4
7	☐	10000.000	10005.672	36718354.73	4.3583	A	2.2
8	☐			7719.89	0.0009	P	2.8

y = 4.3558E-004 * x + 2.3553E-005
R = 1.0000
DL = 0.008083
BEC = 0.05407

Weight: <None>
Min Conc: <None>

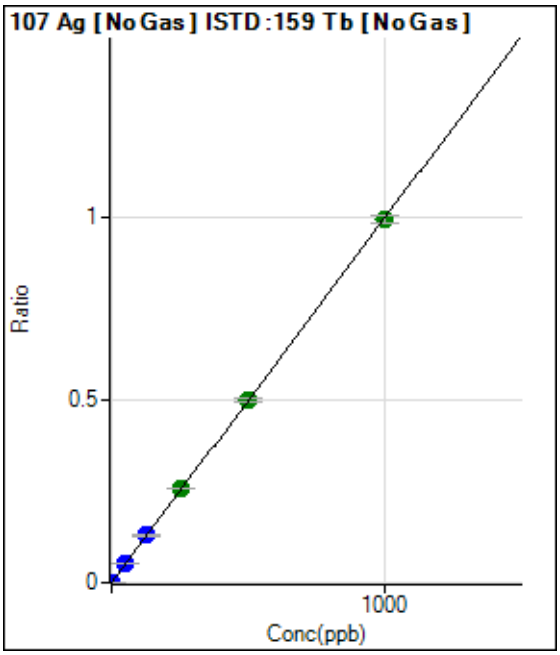


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3541.58	0.0005	P	3.0
2	☐	1.000	2.535	3841.66	0.0006	P	2.8
3	☐	50.000	52.129	10470.52	0.0016	P	4.0
4	☐	125.000	129.191	20501.28	0.0032	P	3.8
5	☐	250.000	253.377	36565.00	0.0057	P	0.9
6	☐	500.000	505.989	67164.60	0.0109	P	3.3
7	☐	1000.000	995.530	120094.85	0.0210	P	2.5
8	☐			3072.58	0.0006	P	2.3

y = 2.0541E-005 * x + 5.3816E-004
R = 1.0000
DL = 2.355
BEC = 26.2

Weight: <None>
Min Conc: <None>

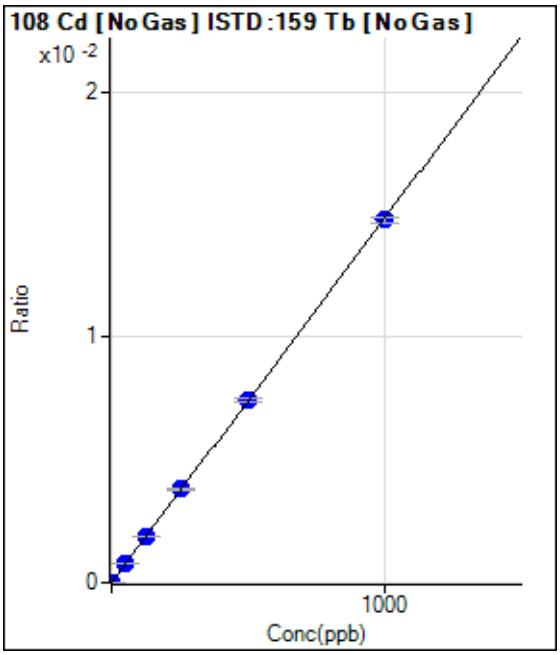
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.45	0.0000	P	22.1
2	☐	1.000	1.114	7297.46	0.0011	P	6.3
3	☐	50.000	51.967	337178.00	0.0518	P	2.2
4	☐	125.000	129.389	828607.96	0.1290	P	1.6
5	☐	250.000	257.523	1634596.21	0.2567	A	0.7
6	☐	500.000	503.409	3084080.89	0.5018	A	1.9
7	☐	1000.000	995.768	5680654.64	0.9927	A	2.0
8	☐			1016.71	0.0002	P	11.0

y = 9.9688E-004 * x + 1.1333E-005
R = 1.0000
DL = 0.007553
BEC = 0.01137

Weight: <None>
Min Conc: <None>

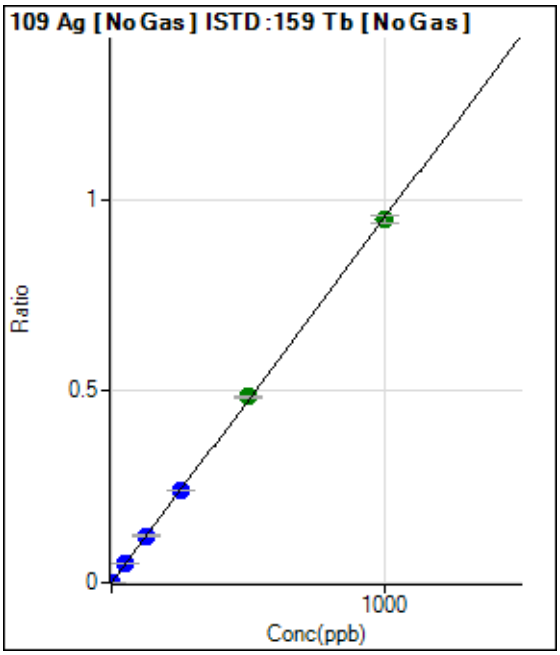


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.22	0.0000	P	42.5
2	☐	1.000	0.963	105.56	0.0000	P	46.5
3	☐	50.000	52.462	5082.05	0.0008	P	1.4
4	☐	125.000	128.006	12221.92	0.0019	P	1.4
5	☐	250.000	258.042	24405.06	0.0038	P	2.1
6	☐	500.000	502.856	45898.07	0.0075	P	2.1
7	☐	1000.000	996.063	84655.61	0.0148	P	1.3
8	☐			75.56	0.0000	P	6.8

y = 1.4849E-005 * x + 1.8636E-006
R = 1.0000
DL = 0.16
BEC = 0.1255

Weight: <None>
Min Conc: <None>

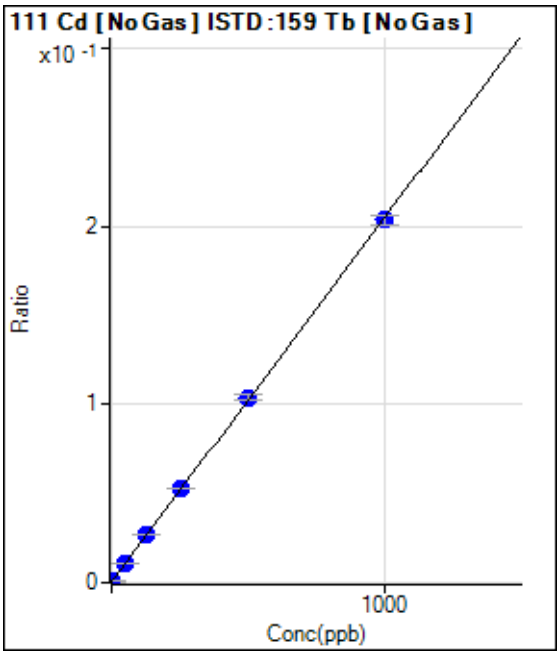
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.89	0.0000	P	27.9
2	☐	1.000	1.109	6928.39	0.0011	P	4.1
3	☐	50.000	51.541	319362.37	0.0491	P	1.9
4	☐	125.000	128.615	786567.29	0.1224	P	1.1
5	☐	250.000	253.823	1538527.69	0.2416	P	0.8
6	☐	500.000	508.593	2976376.41	0.4842	A	0.4
7	☐	1000.000	994.219	5416512.56	0.9465	A	2.0
8	☐			990.05	0.0002	P	5.5

y = 9.5200E-004 * x + 8.9485E-006
R = 0.9999
DL = 0.007873
BEC = 0.0094

Weight: <None>
Min Conc: <None>

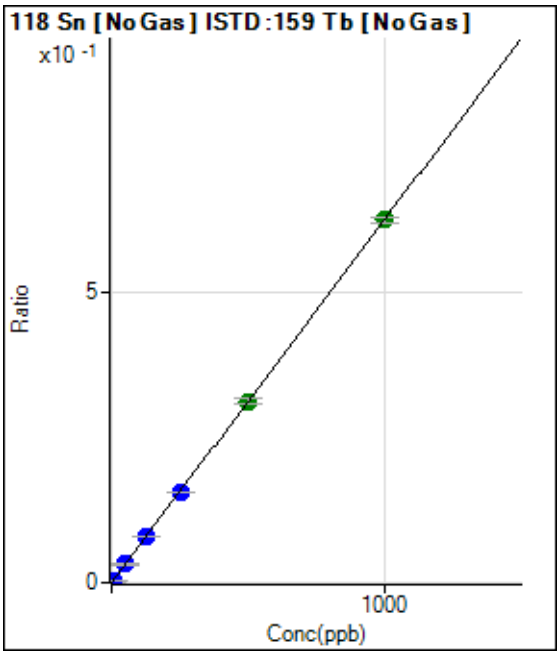


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2483.89	0.0004	P	3.0
2	☐	1.000	1.069	3876.45	0.0006	P	4.7
3	☐	50.000	52.090	71711.91	0.0110	P	1.9
4	☐	125.000	129.865	172860.53	0.0269	P	1.6
5	☐	250.000	256.802	336476.43	0.0528	P	0.2
6	☐	500.000	506.117	637681.53	0.1038	P	3.1
7	☐	1000.000	994.528	1164977.27	0.2036	P	2.4
8	☐			2735.71	0.0005	P	2.4

y = 2.0431E-004 * x + 3.7743E-004
R = 0.9999
DL = 0.1654
BEC = 1.847

Weight: <None>
Min Conc: <None>

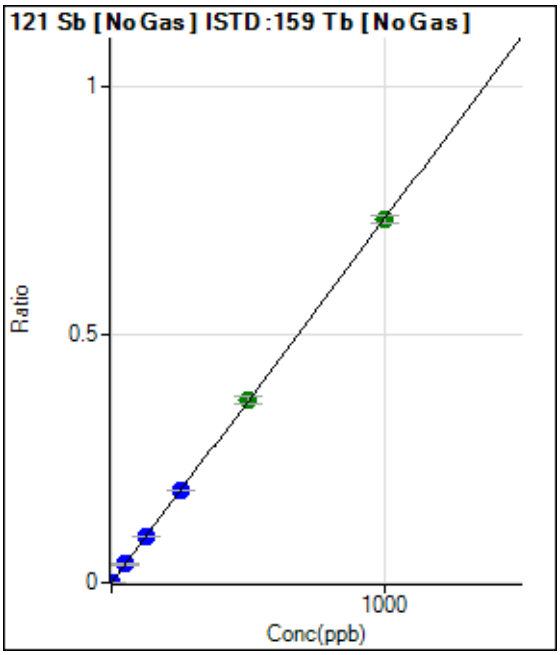
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	758.91	0.0001	P	3.9
2	☐	5.000	5.020	21094.44	0.0032	P	4.4
3	☐	50.000	50.329	204688.94	0.0315	P	2.4
4	☐	125.000	125.339	502131.28	0.0782	P	0.9
5	☐	250.000	249.520	990053.08	0.1555	P	0.8
6	☐	500.000	500.378	1915252.28	0.3117	A	3.6
7	☐	1000.000	999.872	3564145.02	0.6228	A	1.6
8	☐			6701.63	0.0012	P	2.0

y = 6.2274E-004 * x + 1.1536E-004
R = 1.0000
DL = 0.0214
BEC = 0.1852

Weight: <None>
Min Conc: <None>

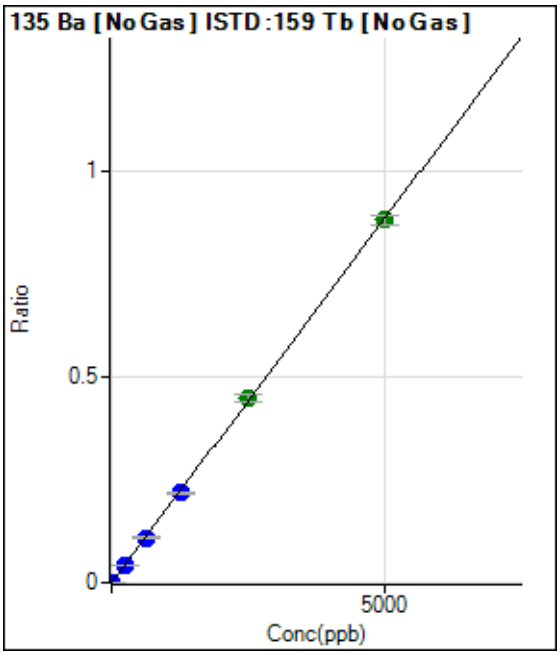


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.11	0.0000	P	13.3
2	☐	2.000	2.124	10175.92	0.0016	P	4.4
3	☐	50.000	50.531	241386.51	0.0371	P	1.9
4	☐	125.000	126.241	595231.93	0.0927	P	1.2
5	☐	250.000	252.479	1179911.73	0.1853	P	0.8
6	☐	500.000	503.315	2269440.16	0.3694	A	4.4
7	☐	1000.000	997.541	4189892.51	0.7322	A	2.1
8	☐			3787.21	0.0007	P	3.8

y = 7.3399E-004 * x + 4.7324E-006
R = 1.0000
DL = 0.002582
BEC = 0.006448

Weight: <None>
Min Conc: <None>

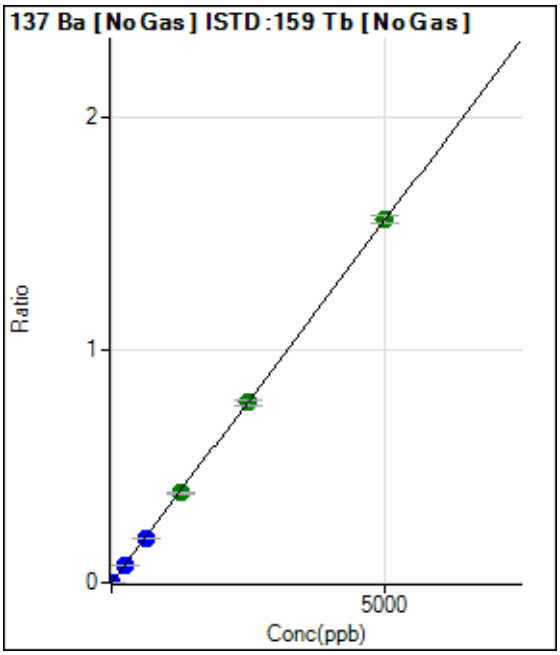
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	37.4
2	☐	10.000	10.017	11571.46	0.0018	P	2.7
3	☐	250.000	248.119	286012.10	0.0439	P	1.6
4	☐	625.000	619.133	704431.15	0.1097	P	1.2
5	☐	1250.000	1229.660	1386702.77	0.2178	P	0.6
6	☐	2500.000	2540.448	2764462.42	0.4500	A	3.6
7	☐	5000.000	4985.689	5053301.80	0.8831	A	2.8
8	☐			3218.18	0.0006	P	3.9

y = 1.7712E-004 * x + 3.5401E-006
R = 0.9999
DL = 0.02244
BEC = 0.01999

Weight: <None>
Min Conc: <None>

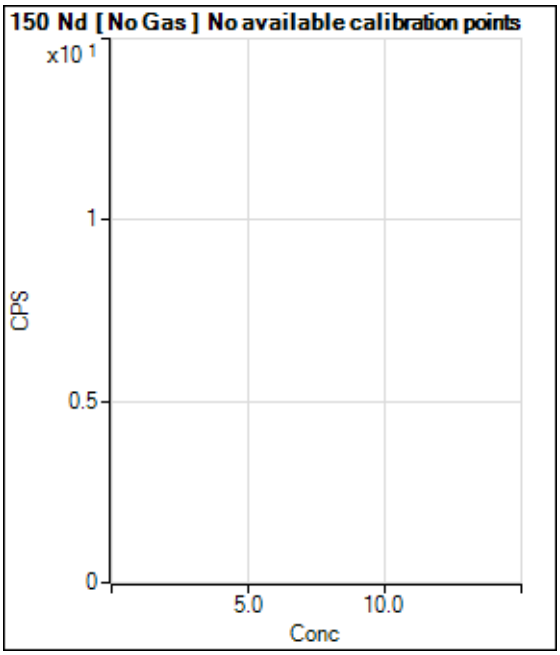


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	26.6
2	☐	10.000	9.782	19861.80	0.0031	P	2.6
3	☐	250.000	242.668	491744.72	0.0756	P	2.4
4	☐	625.000	610.637	1221530.25	0.1902	P	0.7
5	☐	1250.000	1237.551	2453657.22	0.3854	A	1.2
6	☐	2500.000	2487.570	4760117.08	0.7746	A	2.5
7	☐	5000.000	5011.490	8930953.69	1.5606	A	2.1
8	☐			5674.54	0.0010	P	3.6

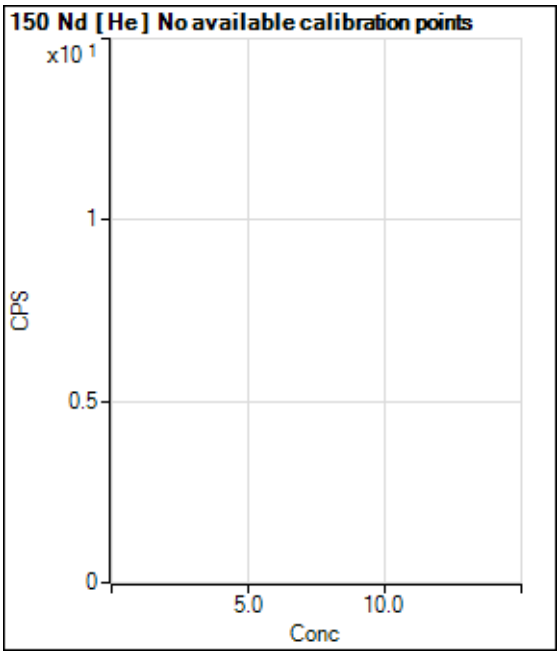
y = 3.1141E-004 * x + 5.0661E-006
R = 1.0000
DL = 0.01297
BEC = 0.01627

Weight: <None>
Min Conc: <None>

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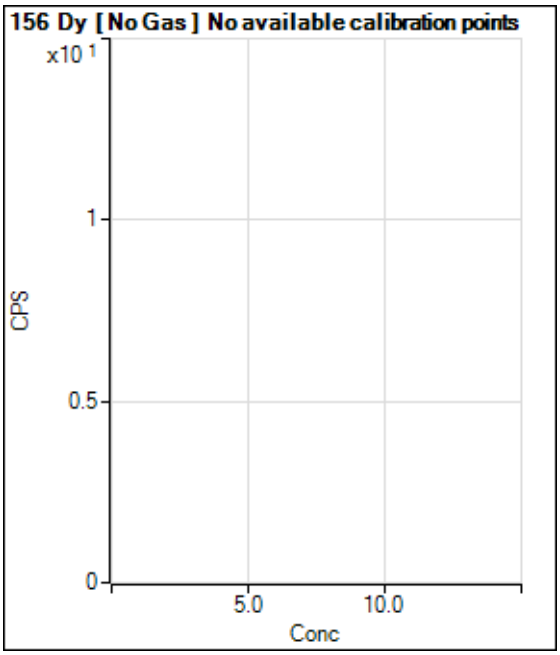


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4.44		P	43.4
2	☐			12.22		P	103.
3	☐			18.89		P	66.8
4	☐			36.67		P	15.7
5	☐			58.89		P	28.5
6	☐			117.78		P	8.2
7	☐			210.00		P	15.3
8	☐			110.00		P	12.1

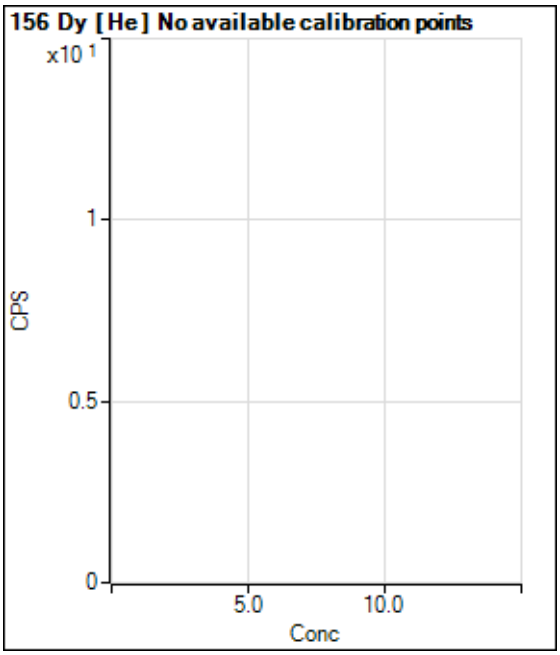


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1.11		P	173.
2	☐			6.67		P	50.0
3	☐			8.89		P	78.1
4	☐			14.44		P	35.3
5	☐			16.66		P	34.6
6	☐			38.89		P	13.1
7	☐			65.56		P	11.7
8	☐			62.22		P	36.5

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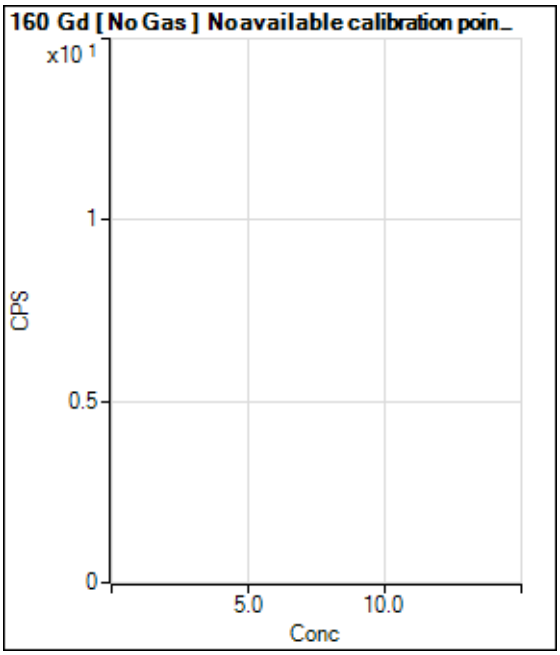


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.67		P	50.0
2	☐			7.78		P	49.5
3	☐			12.22		P	68.7
4	☐			22.22		P	43.3
5	☐			37.78		P	27.0
6	☐			58.89		P	18.2
7	☐			116.67		P	14.8
8	☐			223.34		P	3.0

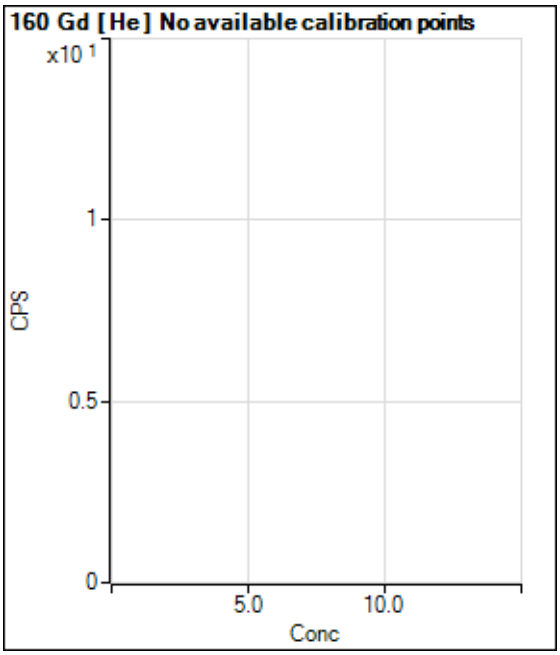


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1.11		P	173.
2	☐			0.00		P	
3	☐			15.56		P	12.4
4	☐			46.67		P	35.7
5	☐			101.11		P	22.0
6	☐			200.00		P	2.9
7	☐			444.46		P	12.2
8	☐			207.78		P	13.6

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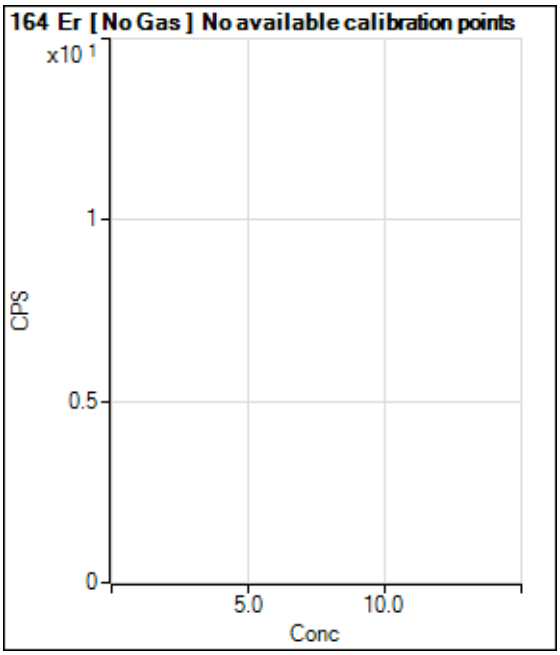


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			71.11		P	7.2
2	☐			72.23		P	37.3
3	☐			91.11		P	20.1
4	☐			118.89		P	4.3
5	☐			90.00		P	26.7
6	☐			110.00		P	10.9
7	☐			133.34		P	17.3
8	☐			303.34		P	16.9

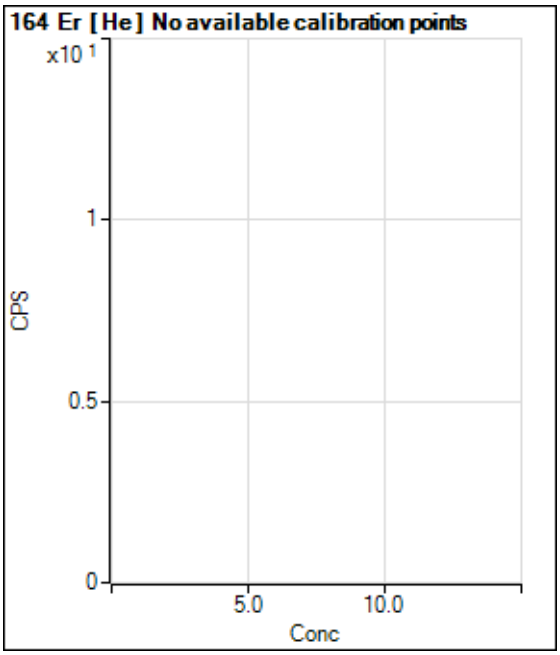


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			412.23		P	5.3
2	☐			376.68		P	8.1
3	☐			435.57		P	6.9
4	☐			426.68		P	5.4
5	☐			370.01		P	18.7
6	☐			396.68		P	3.0
7	☐			373.34		P	2.7
8	☐			541.13		P	14.3

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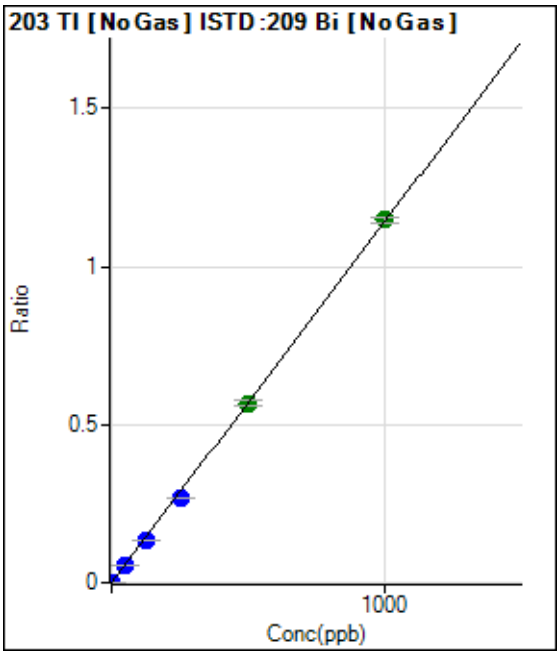


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			44.45		P	30.3
2	☐			46.67		P	50.0
3	☐			68.89		P	43.9
4	☐			64.44		P	33.3
5	☐			84.44		P	29.1
6	☐			108.89		P	20.8
7	☐			177.78		P	1.1
8	☐			472.23		P	6.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			31.11		P	12.4
2	☐			31.11		P	6.2
3	☐			40.00		P	50.7
4	☐			61.11		P	22.7
5	☐			47.78		P	17.6
6	☐			65.56		P	11.7
7	☐			110.00		P	16.9
8	☐			356.67		P	4.7

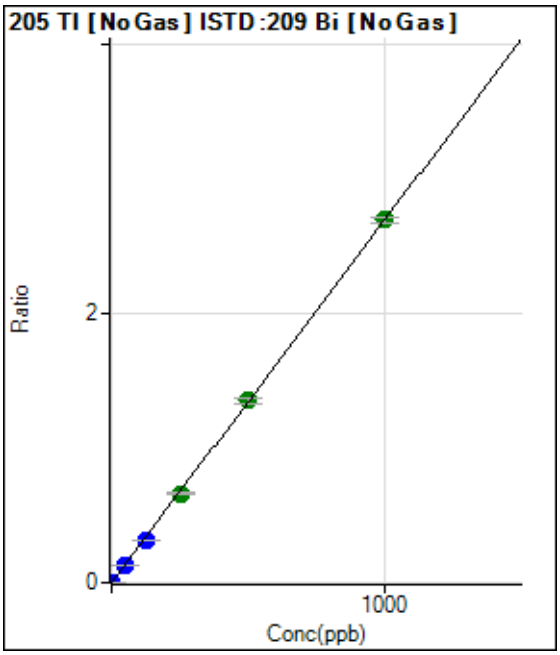
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	171.11	0.0000	P	15.5
2	☐	1.000	0.953	4624.16	0.0011	P	1.9
3	☐	50.000	46.373	216425.43	0.0529	P	1.3
4	☐	125.000	115.486	539910.95	0.1318	P	0.5
5	☐	250.000	233.406	1066955.89	0.2663	P	1.1
6	☐	500.000	498.477	2154620.56	0.5687	A	3.7
7	☐	1000.000	1006.281	4058166.57	1.1480	A	1.2
8	☐			5799.07	0.0018	P	1.8

y = 0.0011 * x + 4.2152E-005
R = 0.9998
DL = 0.01722
BEC = 0.03695

Weight: <None>
Min Conc: <None>

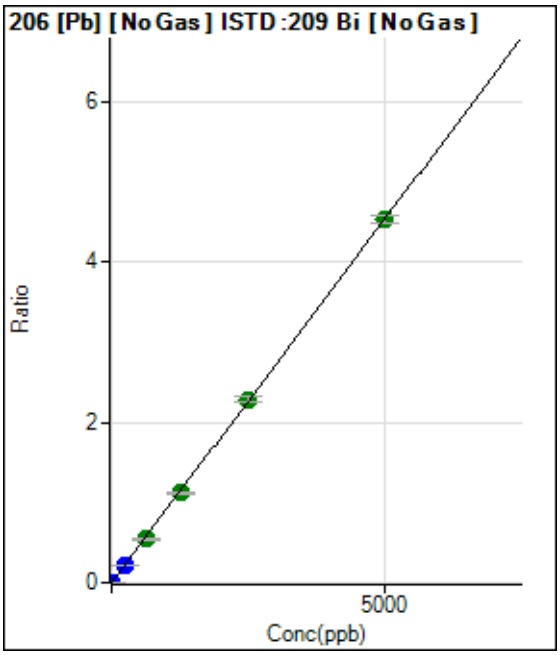


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	368.90	0.0001	P	12.9
2	☐	1.000	1.003	11439.36	0.0028	P	2.4
3	☐	50.000	46.853	516654.22	0.1264	P	1.1
4	☐	125.000	115.225	1272916.41	0.3107	P	0.8
5	☐	250.000	246.116	2658536.25	0.6635	A	0.8
6	☐	500.000	502.146	5129476.59	1.3537	A	2.6
7	☐	1000.000	1001.277	9541691.45	2.6992	A	1.7
8	☐			13681.41	0.0042	P	1.4

y = 0.0027 * x + 9.1041E-005
R = 0.9999
DL = 0.0131
BEC = 0.03377

Weight: <None>
Min Conc: <None>

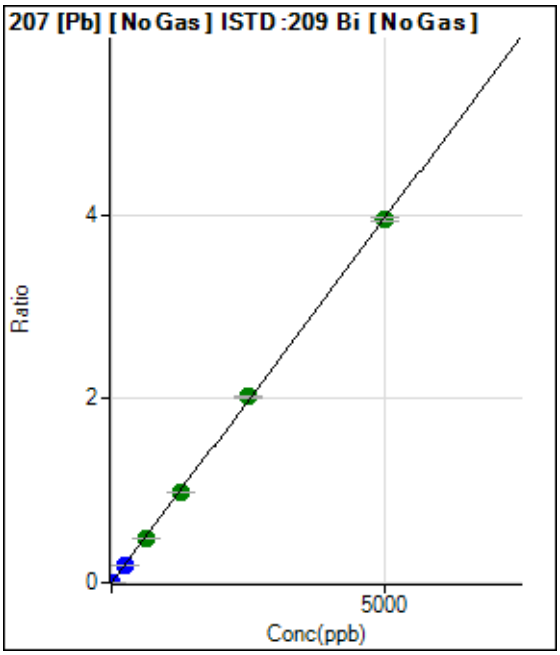
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	315.56	0.0001	P	3.9
2	☐	1.000	0.873	3554.94	0.0009	P	1.3
3	☐	250.000	238.631	884180.27	0.2163	P	0.8
4	☐	625.000	600.282	2228697.38	0.5440	A	1.6
5	☐	1250.000	1235.320	4484339.00	1.1193	A	1.7
6	☐	2500.000	2523.865	8664771.05	2.2868	A	2.5
7	☐	5000.000	4995.396	15998773.65	4.5261	A	2.0
8	☐			4478.55	0.0014	P	2.0

y = 9.0605E-004 * x + 7.7675E-005
R = 1.0000
DL = 0.01007
BEC = 0.08573

Weight: <None>
Min Conc: <None>

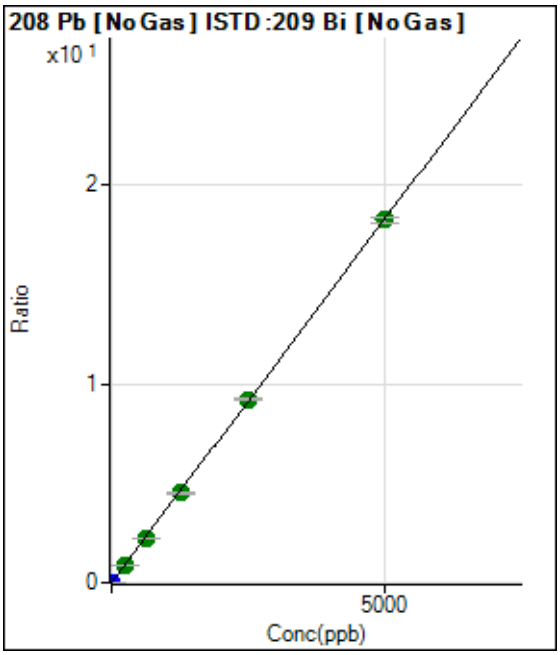


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	242.23	0.0001	P	8.4
2	☐	1.000	0.854	3017.04	0.0007	P	2.5
3	☐	250.000	234.087	759152.04	0.1857	P	1.0
4	☐	625.000	607.339	1973666.12	0.4817	A	1.2
5	☐	1250.000	1241.928	3946198.66	0.9850	A	1.6
6	☐	2500.000	2549.844	7663110.51	2.0223	A	1.8
7	☐	5000.000	4980.099	13961861.18	3.9497	A	1.2
8	☐			3932.84	0.0012	P	0.1

y = 7.9308E-004 * x + 5.9732E-005
R = 0.9999
DL = 0.01893
BEC = 0.07532

Weight: <None>
Min Conc: <None>

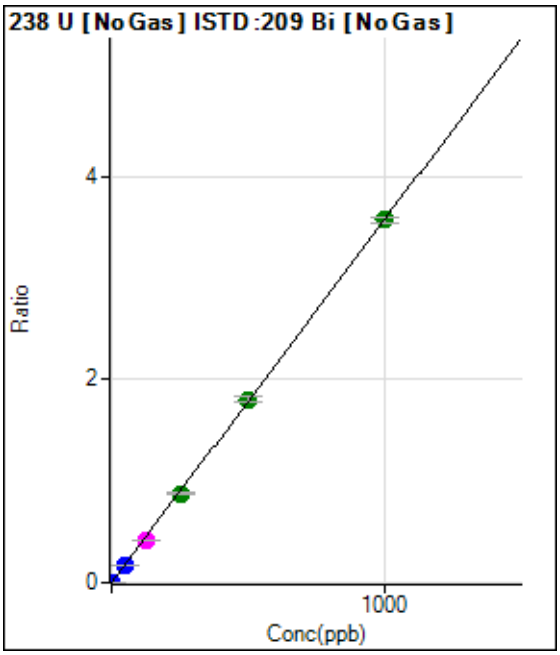
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1175.59	0.0003	P	6.7
2	☐	1.000	0.845	13837.35	0.0034	P	1.1
3	☐	250.000	240.074	3589737.87	0.8782	A	1.6
4	☐	625.000	608.228	9113771.17	2.2245	A	1.4
5	☐	1250.000	1234.644	18090105.57	4.5152	A	0.9
6	☐	2500.000	2525.644	34999722.95	9.2361	A	1.2
7	☐	5000.000	4993.610	64550764.31	18.2610	A	1.3
8	☐			18054.91	0.0055	P	0.8

y = 0.0037 * x + 2.8938E-004
R = 1.0000
DL = 0.01588
BEC = 0.07913

Weight: <None>
Min Conc: <None>

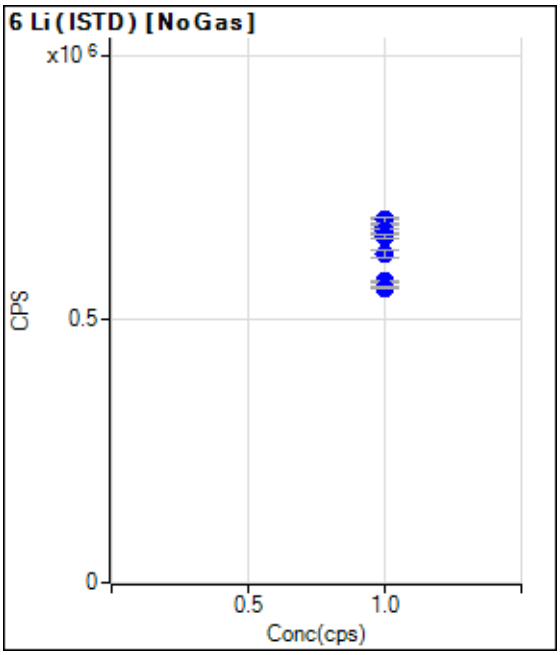


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.11	0.0000	P	34.6
2	☐	1.000	0.939	13750.59	0.0034	P	0.7
3	☐	50.000	45.695	666935.17	0.1632	P	1.6
4	☐	125.000	116.581	1705641.62	0.4163	M	3.4
5	☐	250.000	246.291	3523024.46	0.8794	A	1.7
6	☐	500.000	504.804	6829384.55	1.8024	A	2.6
7	☐	1000.000	999.793	12618483.42	3.5698	A	1.8
8	☐			508.90	0.0002	P	11.9

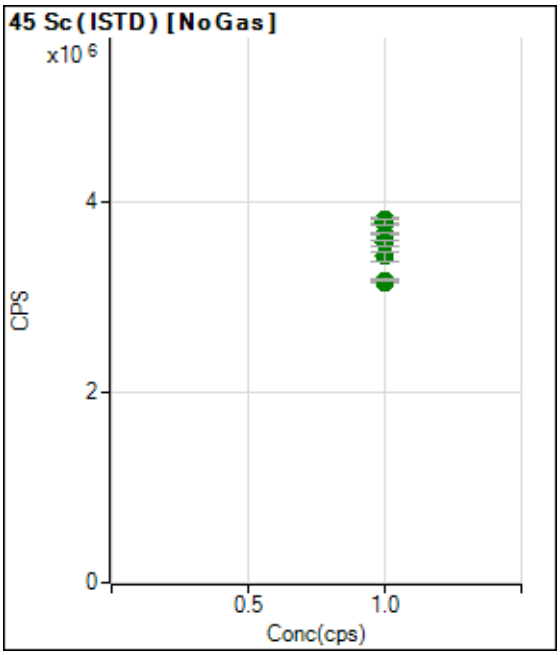
y = 0.0036 * x + 7.6967E-006
R = 0.9999
DL = 0.002236
BEC = 0.002156

Weight: <None>
Min Conc: <None>

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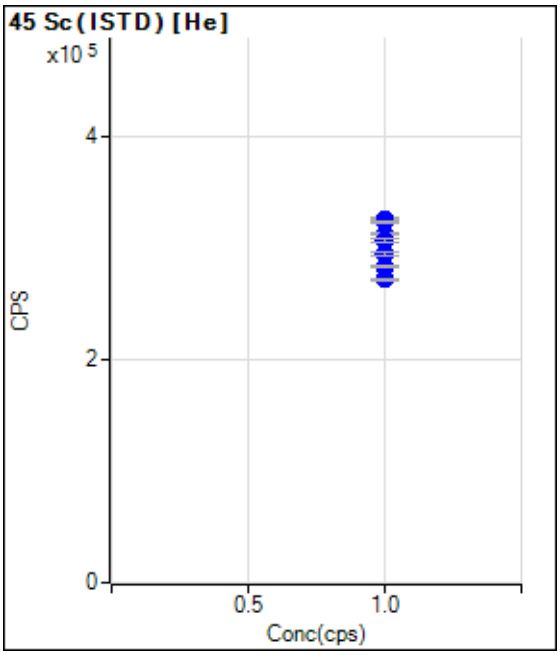


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		674561.72		P	1.1
2	☐	1.000		683509.85		P	1.8
3	☐	1.000		688263.13		P	1.8
4	☐	1.000		668806.77		P	1.1
5	☐	1.000		656715.59		P	0.8
6	☐	1.000		625152.37		P	2.5
7	☐	1.000		571829.05		P	0.6
8	☐	1.000		559626.15		P	1.2

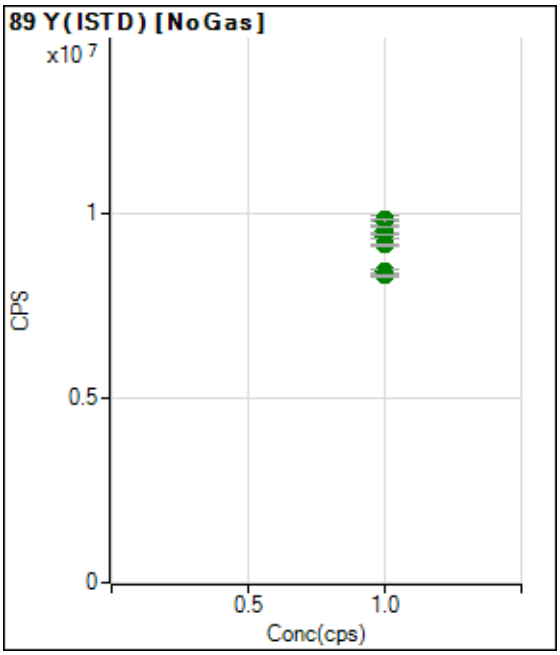


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3808126.89		A	1.8
2	☐	1.000		3797887.34		A	2.4
3	☐	1.000		3775581.75		A	1.6
4	☐	1.000		3657429.70		A	0.6
5	☐	1.000		3563171.58		A	1.3
6	☐	1.000		3421957.14		A	3.1
7	☐	1.000		3150599.43		A	0.5
8	☐	1.000		3176296.38		A	1.0

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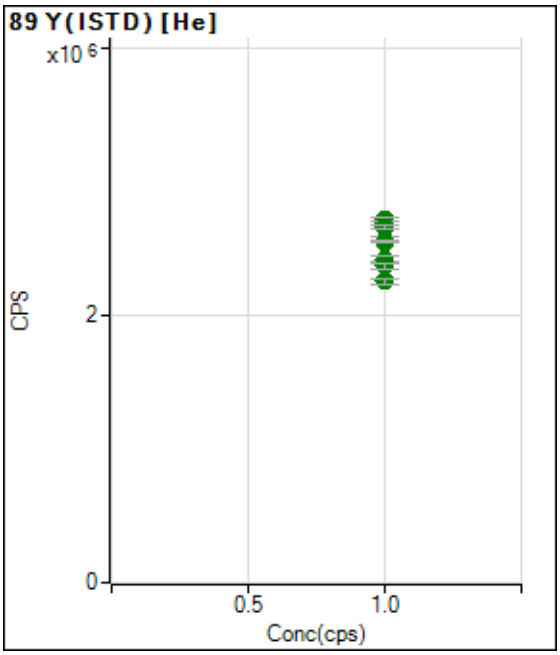


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1	☐	1.000		325465.83		P	0.1
2	☐	1.000		324568.78		P	1.5
3	☐	1.000		323954.28		P	0.6
4	☐	1.000		312708.78		P	0.6
5	☐	1.000		307649.45		P	1.2
6	☐	1.000		294276.58		P	1.3
7	☐	1.000		272516.30		P	0.7
8	☐	1.000		283424.49		P	0.6

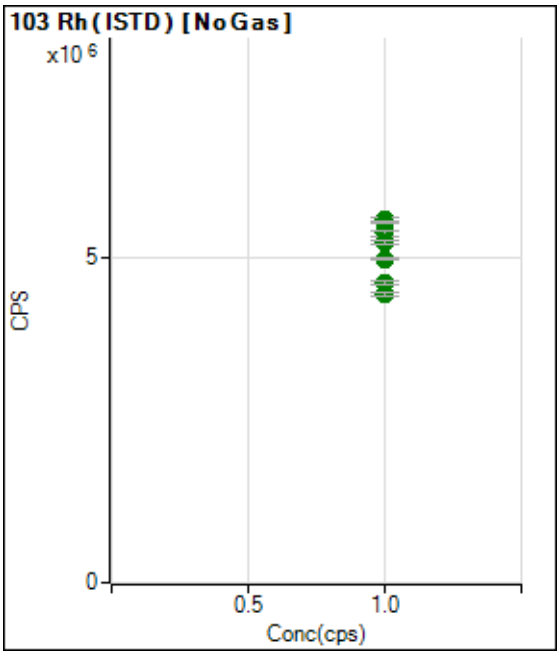


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9810907.49		A	2.4
2	☐	1.000		9802598.95		A	0.7
3	☐	1.000		9756909.86		A	1.8
4	☐	1.000		9541549.65		A	2.1
5	☐	1.000		9367982.29		A	1.2
6	☐	1.000		9140917.02		A	0.4
7	☐	1.000		8425965.64		A	0.8
8	☐	1.000		8297147.23		A	0.2

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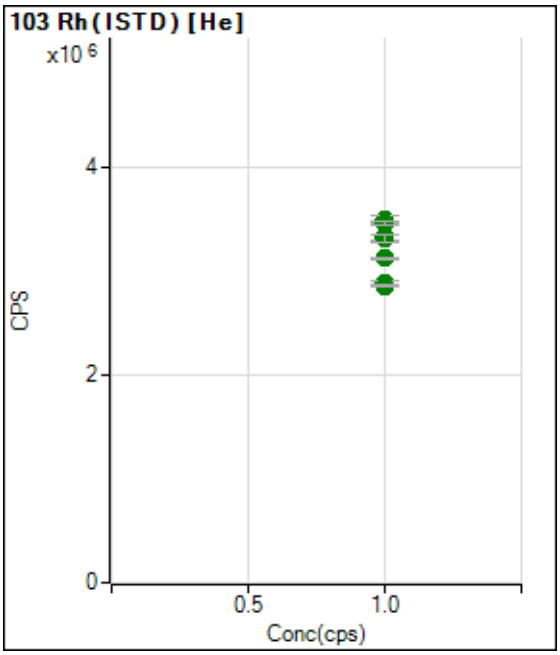


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2698067.88		A	1.0
2	☐	1.000		2717760.72		A	0.9
3	☐	1.000		2666958.26		A	1.2
4	☐	1.000		2569847.22		A	1.8
5	☐	1.000		2556501.35		A	0.9
6	☐	1.000		2426954.77		A	1.3
7	☐	1.000		2254566.60		A	2.0
8	☐	1.000		2370413.99		A	1.4

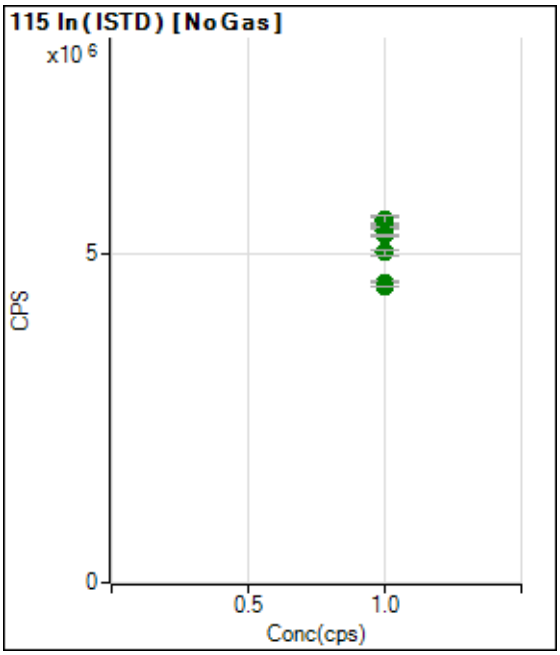


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5573186.62		A	1.6
2	☐	1.000		5571853.25		A	1.9
3	☐	1.000		5537020.54		A	0.6
4	☐	1.000		5372378.39		A	1.5
5	☐	1.000		5229819.37		A	1.3
6	☐	1.000		4973194.47		A	0.9
7	☐	1.000		4605071.18		A	1.0
8	☐	1.000		4426410.42		A	1.0

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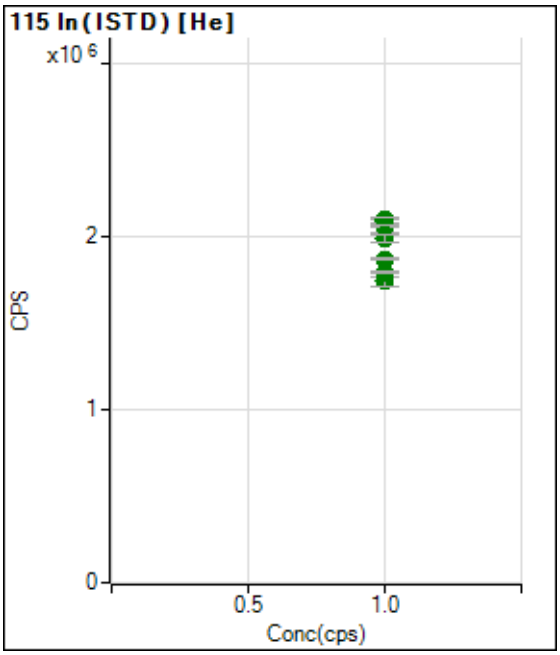


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3492501.82		A	2.6
2	☐	1.000		3495835.33		A	2.0
3	☐	1.000		3459786.20		A	1.2
4	☐	1.000		3329608.18		A	1.5
5	☐	1.000		3313665.61		A	1.9
6	☐	1.000		3129016.17		A	0.6
7	☐	1.000		2887409.85		A	1.7
8	☐	1.000		2861513.50		A	1.1

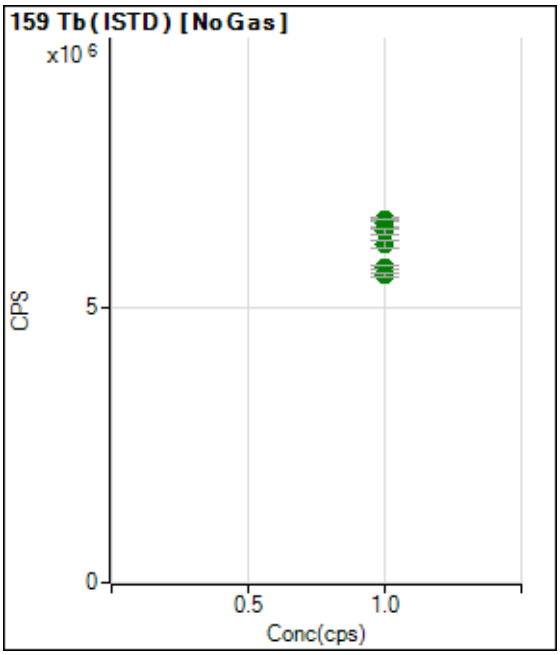


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5513616.67		A	1.7
2	☐	1.000		5483881.19		A	2.1
3	☐	1.000		5487926.28		A	3.5
4	☐	1.000		5350681.28		A	2.4
5	☐	1.000		5275231.78		A	0.9
6	☐	1.000		5015472.58		A	1.5
7	☐	1.000		4567453.43		A	0.4
8	☐	1.000		4497550.47		A	0.3

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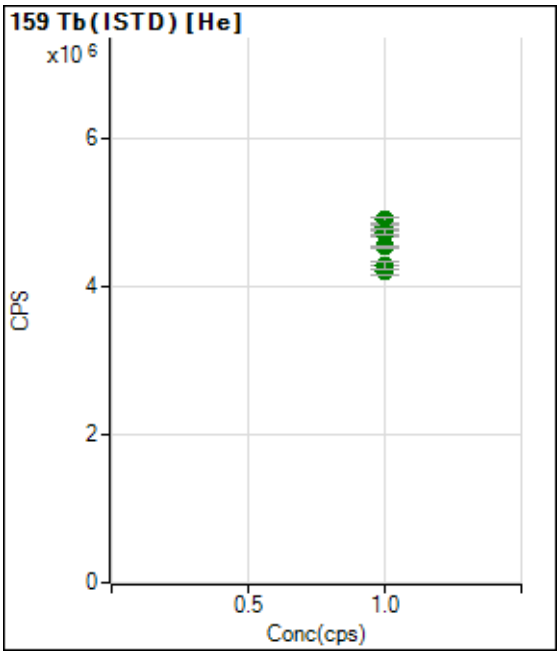


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2084662.84		A	1.1
2	☐	1.000		2095993.42		A	1.3
3	☐	1.000		2059141.71		A	0.7
4	☐	1.000		2011269.98		A	0.6
5	☐	1.000		1991166.17		A	1.9
6	☐	1.000		1869491.61		A	0.9
7	☐	1.000		1738906.52		A	2.7
8	☐	1.000		1789540.60		A	0.7

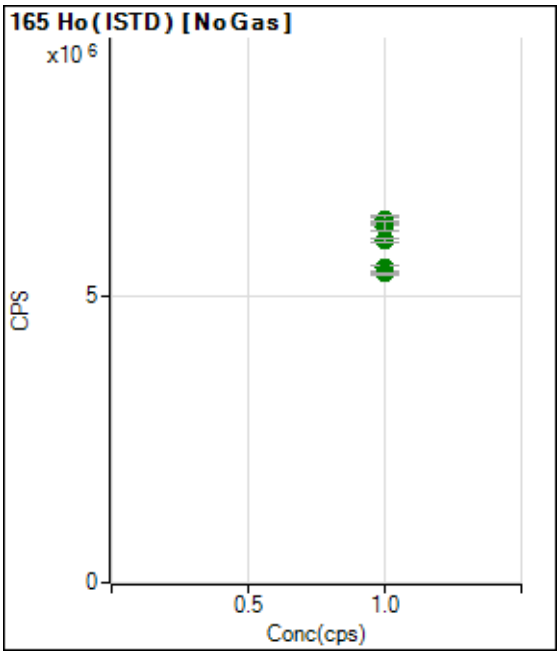


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6580168.10		A	1.1
2	☐	1.000		6511663.23		A	2.5
3	☐	1.000		6509222.12		A	2.3
4	☐	1.000		6423718.03		A	0.4
5	☐	1.000		6367268.17		A	1.4
6	☐	1.000		6147220.39		A	2.3
7	☐	1.000		5723298.32		A	1.2
8	☐	1.000		5576092.97		A	0.9

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

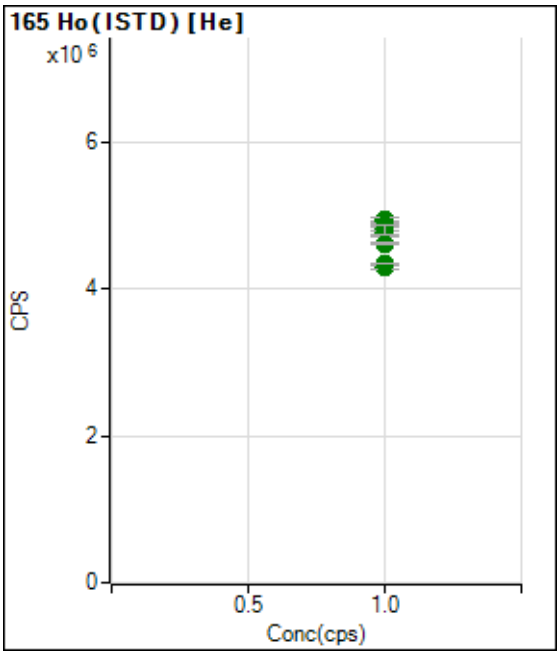


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4798086.77		A	1.1
2	☐	1.000		4891201.91		A	1.6
3	☐	1.000		4777807.53		A	1.4
4	☐	1.000		4714234.90		A	2.2
5	☐	1.000		4728568.02		A	1.5
6	☐	1.000		4524743.68		A	1.0
7	☐	1.000		4209427.79		A	2.7
8	☐	1.000		4278420.77		A	2.2

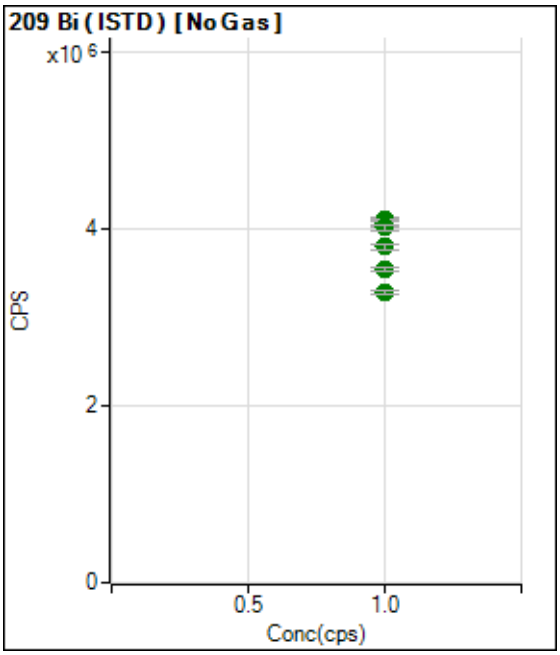


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6341256.08		A	2.0
2	☐	1.000		6352198.24		A	1.8
3	☐	1.000		6345507.20		A	2.3
4	☐	1.000		6233480.12		A	2.5
5	☐	1.000		6243780.53		A	2.3
6	☐	1.000		5994779.63		A	1.6
7	☐	1.000		5510395.16		A	1.6
8	☐	1.000		5405612.21		A	0.3

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

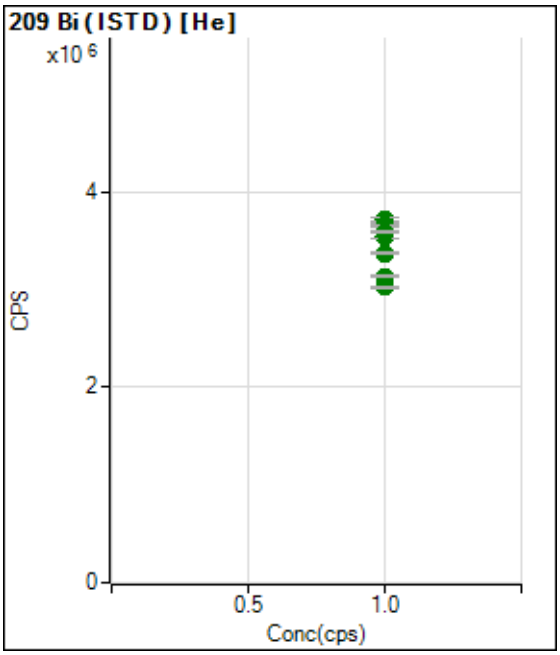


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4936827.67		A	1.1
2	☐	1.000		4926438.37		A	1.7
3	☐	1.000		4864083.23		A	0.6
4	☐	1.000		4753594.13		A	1.5
5	☐	1.000		4807796.53		A	2.8
6	☐	1.000		4611269.76		A	0.5
7	☐	1.000		4285394.17		A	1.2
8	☐	1.000		4343332.92		A	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4060171.36		A	2.3
2	☐	1.000		4093019.66		A	0.3
3	☐	1.000		4088378.58		A	2.0
4	☐	1.000		4096786.64		A	0.9
5	☐	1.000		4006746.99		A	1.2
6	☐	1.000		3789802.76		A	1.3
7	☐	1.000		3535188.73		A	1.0
8	☐	1.000		3280366.65		A	1.3

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On:9/24/2025 4:50:32 PM
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3685701.02		A	0.7
2	☐	1.000		3714893.41		A	1.2
3	☐	1.000		3657778.31		A	0.5
4	☐	1.000		3549472.65		A	1.4
5	☐	1.000		3587891.61		A	0.5
6	☐	1.000		3373965.05		A	0.4
7	☐	1.000		3136916.41		A	0.7
8	☐	1.000		3023639.43		A	1.0

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

US EPA Tune Check Report

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P7092325-MS.b
Acq. Date-Time	2025-09-23 14:17:34
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		6132	61319.33			0.669	5.000
24		53674	536744.95			0.297	5.000
25		7399	73987.38			0.471	5.000
26		8931	89311.71			0.327	5.000
59		78807	788071.01			0.263	5.000
113		8521	85206.41			0.135	5.000
115		98590	985904.38			0.727	5.000
206		18645	186453.71			0.412	5.000
207		16326	163259.40			0.325	5.000
208		39643	396428.60			0.209	5.000
220		0	3.20			17.815	

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	6153	6158	6139	6060	6149
24	53659	53496	53930	53611	53676
25	7353	7378	7444	7409	7411
26	8890	8958	8958	8914	8936
59	78702	78547	78896	79099	78791
113	8525	8514	8528	8504	8532
115	98862	98673	99529	97585	98303
206	18649	18592	18774	18583	18628
207	16324	16311	16417	16292	16286
208	39632	39523	39631	39749	39680

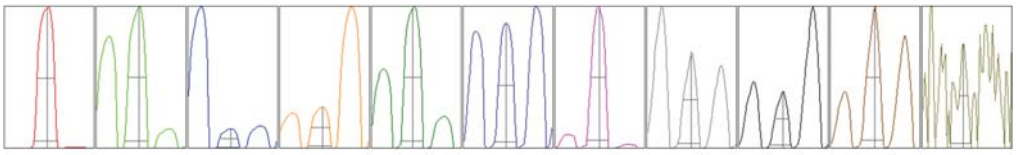
Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

US EPA Tune Check Report

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

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	10817.20	8.95	8.90 - 9.10	
24	93365.93	23.95	23.90 - 24.10	
25	12443.56	24.95	24.90 - 25.10	
26	14596.14	25.95	25.90 - 26.10	
59	138323.17	58.90	58.90 - 59.10	
113	16995.39	112.95	112.90 - 113.10	
115	197800.74	115.00	114.90 - 115.10	
206	41481.73	206.00	205.90 - 206.10	
207	35819.00	207.00	206.90 - 207.10	
208	88248.73	208.00	207.90 - 208.10	
220	0.55	219.90	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.776	0.900	
24	0.61	0.777	0.900	
25	0.63	0.754	0.900	
26	0.63	0.787	0.900	
59	0.60	0.741	0.900	
113	0.51	0.734	0.900	
115	0.50	0.726	0.900	
206	0.48	0.738	0.900	
207	0.47	0.717	0.900	
208	0.46	0.752	0.900	
220	0.28	0.687		

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	7.6 V	Deflect	14.2 V
Extract 2	-160.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-80 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	139	Axis Gain	0.9977	QP Bias	-3.0 V
Mass Offset	129	Axis Offset	0.08		

Hardware Settings

Torch

Torch H	-1.8 mm	Torch V	0.1 mm		

EM

Discriminator	4.8 mV	Analog HV	2293 V	Pulse HV	1208 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		25408	254081.63			0.814	
89		22290	222898.70			1.074	
205		23169	231692.61			1.312	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	25740	25444	25382	25227	25247
89	22573	22350	22438	22079	22008
205	23538	23179	23351	23038	22741

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	8.7 V	Deflect	3.2 V

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

US EPA Tune Check Report

Extract 2	-165.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-75 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	139	Axis Gain	0.9977	QP Bias	-13.0 V
Mass Offset	129	Axis Offset	0.08		

Hardware Settings

Torch

Torch H	-1.8 mm	Torch V	0.1 mm		

EM

Discriminator	4.8 mV	Analog HV	2293 V	Pulse HV	1208 V

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.36	-0.23	-0.13	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.01	0.01	-0.02	0.00	N/A	ppb
Barium	135-1	0.00	0.01	-0.01	0.00	N/A	ppb
Barium	137-1	0.00	0.00	0.00	0.00	N/A	ppb
Beryllium	9-1	0.01	0.00	-0.01	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.06	0.01	0.05	0.00	N/A	ppb
Cadmium	106-1	0.70	-0.85	0.15	0.00	N/A	ppb
Cadmium	111-1	0.05	-0.06	0.01	0.00	N/A	ppb
Calcium	43-1	0.29	-0.52	0.23	0.00	N/A	ppb
Calcium	44-1	0.12	1.15	-1.27	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.03	-0.01	-0.01	0.00	N/A	ppb
Cobalt	59-2	0.01	-0.01	0.00	0.00	N/A	ppb
Copper	63-2	0.00	0.00	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	-0.06	0.02	0.04	0.00	N/A	ppb
Iron	57-2	0.61	-0.24	-0.36	0.00	N/A	ppb
Iron	54-2	-0.71	-0.37	1.08	0.00	N/A	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.00	0.00	0.00	0.00	N/A	ppb
Lead	207-1	0.00	-0.01	0.01	0.00	N/A	ppb
Lead	208-1	0.01	0.00	0.00	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.12	0.10	0.02	0.00	N/A	ppb
Manganese	55-2	-0.01	0.01	0.00	0.00	N/A	ppb
Molybdenum	94-1	-0.02	0.00	0.02	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.01	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.02	-0.01	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.02	0.00	-0.02	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	-0.01	0.02	0.00	0.00	N/A	ppb
Phosphorus	31-2	-109.46	-129.61	-123.09	-120.72		ppb
Potassium	39-2	0.29	1.05	-1.33	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.18	0.37	-0.55	0.00	N/A	ppb
Selenium	77-2	-0.09	0.18	-0.09	0.00	N/A	ppb
Selenium	78-2	0.32	-0.45	0.14	0.00	N/A	ppb
Silicon	28-1	-2.90	5.56	-2.65	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	0.16	-0.56	0.40	0.00	N/A	ppb
Strontium	86-1	0.01	0.01	-0.02	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-472.18	-52.76	-118.18	-214.37		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.01	-0.01	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.01	0.00	N/A	ppb
Tin	118-1	-0.01	0.01	0.00	0.00	N/A	ppb
Titanium	47-1	0.03	-0.03	0.00	0.00	N/A	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	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	0.00	0.00	0.00	0.00	N/A	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	0.20	-0.43	0.23	0.00	N/A	ppb
Zirconium	90-1	-0.01	0.00	0.01	0.00	N/A	ppb
Zirconium	91-1	-0.01	0.00	0.01	0.00	N/A	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20.39	21.33	22.28	21.33	4.44	ppb
Antimony	121-1	2.12	2.22	2.03	2.12	4.43	ppb
Arsenic	75-2	1.11	1.14	0.98	1.08	7.95	ppb
Barium	135-1	10.05	10.27	9.73	10.02	2.71	ppb
Barium	137-1	9.88	9.97	9.50	9.78	2.56	ppb
Beryllium	9-1	1.16	1.13	1.16	1.15	1.48	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.55	0.65	0.69	0.96	52.59	ppb
Cadmium	106-1	2.39	3.42	1.80	2.54	32.26	ppb
Cadmium	111-1	1.05	1.21	0.94	1.07	12.72	ppb
Calcium	43-1	529.47	518.73	533.36	527.19	1.44	ppb
Calcium	44-1	522.03	539.26	541.40	534.23	1.99	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.12	1.95	1.97	2.01	4.66	ppb
Cobalt	59-2	1.07	1.01	1.06	1.05	3.25	ppb
Copper	63-2	1.87	1.84	1.92	1.88	2.02	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				99		%
Indium	115-2				101		%
Iron	56-2	53.20	53.46	53.89	53.52	0.65	ppb
Iron	57-2	61.13	56.62	58.42	58.72	3.86	ppb
Iron	54-2	55.03	56.06	57.25	56.11	1.97	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.87	0.89	0.86	0.87	1.42	ppb
Lead	207-1	0.86	0.87	0.83	0.85	2.74	ppb
Lead	208-1	0.84	0.86	0.84	0.85	1.24	ppb
Lithium	6-1				101		%
Magnesium	24-2	512.63	508.64	520.75	514.00	1.20	ppb
Manganese	55-2	0.91	0.98	0.95	0.95	3.67	ppb
Molybdenum	94-1	6.18	5.79	5.95	5.98	3.30	ppb
Molybdenum	95-1	5.03	4.94	5.06	5.01	1.30	ppb
Molybdenum	96-1	5.31	5.21	5.17	5.23	1.38	ppb
Molybdenum	97-1	4.97	5.05	5.07	5.03	1.04	ppb
Molybdenum	98-1	5.16	4.96	4.94	5.02	2.45	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.00	0.93	1.01	0.98	4.48	ppb
Phosphorus	31-2	137.53	110.29	114.33	120.72	12.18	ppb
Potassium	39-2	531.97	531.99	535.30	533.09	0.36	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	5.40	4.71	5.00	5.04	6.84	ppb
Selenium	77-2	4.83	4.02	7.42	5.42	32.70	ppb
Selenium	78-2	3.88	6.33	4.92	5.04	24.39	ppb
Silicon	28-1	-2.67	6.15	-1.79	0.56	863.22	ppb
Silver	107-1	1.13	1.18	1.04	1.11	6.37	ppb
Silver	109-1	1.10	1.16	1.07	1.11	4.13	ppb
Sodium	23-2	509.45	510.37	515.68	511.83	0.66	ppb
Strontium	86-1	1.05	0.94	0.96	0.98	6.01	ppb
Strontium	88-1	0.98	0.98	0.99	0.99	0.57	ppb
Sulfur	34-1	-95.44	279.98	458.58	214.37	131.91	ppb
Terbium	159-1				99		%
Terbium	159-2				102		%
Thallium	203-1	0.95	0.97	0.94	0.95	1.95	ppb
Thallium	205-1	1.02	0.98	1.01	1.00	2.47	ppb
Tin	118-1	5.03	5.24	4.79	5.02	4.57	ppb
Titanium	47-1	5.10	5.06	5.06	5.08	0.46	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.95	0.94	0.93	0.94	0.72	ppb
Vanadium	51-2	4.96	4.92	4.92	4.93	0.53	ppb
Yttrium	89-1				100		%
Yttrium	89-2				101		%
Zinc	66-2	4.46	4.67	4.55	4.56	2.32	ppb
Zirconium	90-1	0.97	1.01	0.99	0.99	1.99	ppb
Zirconium	91-1	1.01	1.07	0.98	1.02	4.85	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1019.99	1028.72	1038.04	1028.92	0.88	ppb
Antimony	121-1	49.47	50.77	51.36	50.53	1.91	ppb
Arsenic	75-2	50.34	51.43	50.44	50.74	1.19	ppb
Barium	135-1	243.85	248.91	251.60	248.12	1.59	ppb
Barium	137-1	236.81	242.73	248.46	242.67	2.40	ppb
Beryllium	9-1	50.91	52.25	52.49	51.88	1.64	ppb
Bismuth	209-1				101		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	51.61	52.83	52.95	52.46	1.40	ppb
Cadmium	106-1	49.31	55.54	51.54	52.13	6.06	ppb
Cadmium	111-1	51.12	51.94	53.21	52.09	2.01	ppb
Calcium	43-1	5205.82	5386.71	5341.14	5311.22	1.77	ppb
Calcium	44-1	5064.37	5147.69	5148.82	5120.29	0.95	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	49.20	50.00	48.71	49.30	1.32	ppb
Cobalt	59-2	48.24	49.20	48.56	48.67	1.01	ppb
Copper	63-2	492.37	502.82	496.62	497.27	1.06	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				99		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	56-2	2525.86	2624.56	2560.29	2570.24	1.95	ppb
Iron	57-2	2718.70	2709.98	2668.24	2698.97	1.00	ppb
Iron	54-2	2749.65	2754.19	2722.95	2742.26	0.62	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	236.56	239.11	240.22	238.63	0.79	ppb
Lead	207-1	231.50	234.52	236.24	234.09	1.03	ppb
Lead	208-1	235.60	242.04	242.58	240.07	1.62	ppb
Lithium	6-1				102		%
Magnesium	24-2	5291.35	5124.79	5061.31	5159.15	2.30	ppb
Manganese	55-2	494.54	500.20	492.99	495.91	0.77	ppb
Molybdenum	94-1	487.44	508.67	504.50	500.20	2.25	ppb
Molybdenum	95-1	490.56	509.21	503.70	501.16	1.91	ppb
Molybdenum	96-1	496.03	512.66	507.58	505.42	1.69	ppb
Molybdenum	97-1	488.94	503.55	503.03	498.51	1.66	ppb
Molybdenum	98-1	486.12	499.69	492.12	492.65	1.38	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	49.74	50.96	50.25	50.31	1.21	ppb
Phosphorus	31-2	876.66	868.46	909.37	884.83	2.45	ppb
Potassium	39-2	2650.04	2654.23	2642.29	2648.86	0.23	ppb
Rhodium	103-1				99		%
Rhodium	103-2				99		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	53.11	53.77	54.85	53.91	1.64	ppb
Selenium	77-2	49.27	57.90	54.19	53.79	8.05	ppb
Selenium	78-2	53.03	48.78	54.10	51.97	5.41	ppb
Silicon	28-1	52.98	56.19	56.17	55.11	3.35	ppb
Silver	107-1	50.62	52.57	52.71	51.97	2.24	ppb
Silver	109-1	50.42	51.98	52.23	51.54	1.90	ppb
Sodium	23-2	5309.33	5235.56	5173.08	5239.32	1.30	ppb
Strontium	86-1	49.63	50.67	50.65	50.32	1.18	ppb
Strontium	88-1	49.05	50.49	50.09	49.88	1.49	ppb
Sulfur	34-1	790.24	1070.04	1185.95	1015.41	20.03	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	45.70	46.69	46.73	46.37	1.26	ppb
Thallium	205-1	46.33	46.87	47.36	46.85	1.10	ppb
Tin	118-1	49.20	50.15	51.63	50.33	2.43	ppb
Titanium	47-1	483.76	498.42	498.07	493.42	1.70	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	44.85	46.05	46.19	45.69	1.61	ppb
Vanadium	51-2	48.96	48.99	47.98	48.64	1.18	ppb
Yttrium	89-1				99		%
Yttrium	89-2				99		%
Zinc	66-2	513.06	522.47	511.05	515.53	1.18	ppb
Zirconium	90-1	48.57	50.38	49.99	49.65	1.92	ppb
Zirconium	91-1	48.76	50.72	49.12	49.53	2.11	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2617.64	2559.82	2620.10	2599.19	1.31	ppb
Antimony	121-1	126.54	127.56	124.62	126.24	1.18	ppb
Arsenic	75-2	125.91	123.83	125.74	125.16	0.92	ppb
Barium	135-1	624.72	621.62	611.06	619.13	1.16	ppb
Barium	137-1	615.09	610.72	606.10	610.64	0.74	ppb
Beryllium	9-1	130.72	130.38	129.35	130.15	0.55	ppb
Bismuth	209-1				101		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	126.24	129.93	127.85	128.01	1.44	ppb
Cadmium	106-1	128.46	135.44	123.67	129.19	4.58	ppb
Cadmium	111-1	130.87	131.29	127.43	129.87	1.63	ppb
Calcium	43-1	13413.16	13395.66	13055.12	13287.98	1.52	ppb
Calcium	44-1	12771.51	12656.01	12642.15	12689.89	0.56	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	123.01	122.69	122.57	122.76	0.19	ppb
Cobalt	59-2	121.94	123.66	120.76	122.12	1.19	ppb
Copper	63-2	1239.01	1219.66	1232.50	1230.39	0.80	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				96		%
Indium	115-1				97		%
Indium	115-2				96		%
Iron	56-2	6598.37	6485.33	6518.98	6534.23	0.89	ppb
Iron	57-2	6799.68	6741.13	6749.95	6763.59	0.47	ppb
Iron	54-2	6942.70	6842.54	6939.23	6908.16	0.82	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	608.81	602.56	589.48	600.28	1.64	ppb
Lead	207-1	612.41	610.52	599.08	607.34	1.19	ppb
Lead	208-1	612.12	614.41	598.15	608.23	1.45	ppb
Lithium	6-1				99		%
Magnesium	24-2	13185.49	12428.14	13109.81	12907.81	3.23	ppb
Manganese	55-2	1244.91	1205.49	1260.80	1237.07	2.30	ppb
Molybdenum	94-1	1248.96	1264.19	1244.22	1252.45	0.83	ppb
Molybdenum	95-1	1256.02	1260.84	1290.37	1269.08	1.47	ppb
Molybdenum	96-1	1237.86	1256.90	1292.00	1262.25	2.18	ppb
Molybdenum	97-1	1228.18	1240.88	1256.82	1241.96	1.16	ppb
Molybdenum	98-1	1252.69	1241.02	1273.49	1255.73	1.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	127.12	124.30	123.06	124.83	1.67	ppb
Phosphorus	31-2	2380.41	2268.91	2373.54	2340.95	2.67	ppb
Potassium	39-2	6293.94	6330.30	6351.95	6325.40	0.46	ppb
Rhodium	103-1				96		%
Rhodium	103-2				95		%
Scandium	45-1				96		%
Scandium	45-2				96		%
Selenium	82-1	130.46	133.22	133.32	132.33	1.23	ppb
Selenium	77-2	130.71	115.62	131.29	125.87	7.06	ppb
Selenium	78-2	129.56	127.84	137.64	131.68	3.97	ppb
Silicon	28-1	128.72	132.11	131.68	130.84	1.41	ppb
Silver	107-1	130.25	130.90	127.02	129.39	1.61	ppb
Silver	109-1	129.70	129.16	126.98	128.61	1.12	ppb
Sodium	23-2	13091.15	12883.86	12793.46	12922.82	1.18	ppb
Strontium	86-1	123.90	126.82	126.55	125.76	1.29	ppb
Strontium	88-1	122.01	126.32	125.13	124.49	1.79	ppb
Sulfur	34-1	2756.36	2726.16	2889.67	2790.73	3.12	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	115.46	116.06	114.94	115.49	0.48	ppb
Thallium	205-1	115.83	115.64	114.21	115.23	0.77	ppb
Tin	118-1	126.32	125.53	124.17	125.34	0.87	ppb
Titanium	47-1	1248.69	1253.01	1234.61	1245.44	0.77	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	121.04	115.08	113.63	116.58	3.37	ppb
Vanadium	51-2	124.65	121.52	123.55	123.24	1.29	ppb
Yttrium	89-1				97		%
Yttrium	89-2				95		%
Zinc	66-2	1280.33	1290.79	1280.42	1283.84	0.47	ppb
Zirconium	90-1	123.17	125.97	125.67	124.94	1.23	ppb
Zirconium	91-1	124.06	126.08	125.78	125.31	0.87	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5267.68	5156.52	5253.35	5225.85	1.16	ppb
Antimony	121-1	252.13	250.54	254.77	252.48	0.85	ppb
Arsenic	75-2	247.45	249.06	253.71	250.07	1.30	ppb
Barium	135-1	1228.91	1222.19	1237.88	1229.66	0.64	ppb
Barium	137-1	1229.21	1229.19	1254.25	1237.55	1.17	ppb
Beryllium	9-1	252.43	250.62	253.28	252.11	0.54	ppb
Bismuth	209-1				99		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	260.37	251.82	261.94	258.04	2.11	ppb
Cadmium	106-1	256.31	252.22	251.61	253.38	1.01	ppb
Cadmium	111-1	257.03	256.20	257.17	256.80	0.20	ppb
Calcium	43-1	26322.00	26674.98	26978.06	26658.34	1.23	ppb
Calcium	44-1	25314.91	25582.59	25480.67	25459.39	0.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	250.50	245.67	247.10	247.76	1.00	ppb
Cobalt	59-2	248.90	242.35	244.93	245.39	1.34	ppb
Copper	63-2	2545.01	2440.72	2490.01	2491.91	2.09	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				97		%
Indium	115-1				96		%
Indium	115-2				96		%
Iron	56-2	13368.77	12821.06	13385.05	13191.63	2.43	ppb
Iron	57-2	13787.58	13480.54	13699.04	13655.72	1.16	ppb
Iron	54-2	13408.78	13043.24	13119.31	13190.44	1.46	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1212.30	1253.67	1239.99	1235.32	1.71	ppb
Lead	207-1	1219.11	1255.39	1251.28	1241.93	1.60	ppb
Lead	208-1	1224.30	1245.69	1233.95	1234.64	0.87	ppb
Lithium	6-1				97		%
Magnesium	24-2	25592.97	25188.03	26190.46	25657.15	1.97	ppb
Manganese	55-2	2565.03	2424.98	2479.37	2489.79	2.84	ppb
Molybdenum	94-1	2513.88	2494.14	2550.14	2519.39	1.13	ppb
Molybdenum	95-1	2537.54	2565.00	2582.16	2561.57	0.88	ppb
Molybdenum	96-1	2509.45	2527.47	2538.24	2525.05	0.58	ppb
Molybdenum	97-1	2451.39	2548.62	2504.92	2501.64	1.95	ppb
Molybdenum	98-1	2464.13	2517.69	2527.28	2503.03	1.36	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	253.48	245.10	248.23	248.94	1.70	ppb
Phosphorus	31-2	5041.39	4753.50	4843.03	4879.31	3.02	ppb
Potassium	39-2	13122.63	12593.08	12806.00	12840.57	2.08	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				94		%
Scandium	45-2				95		%
Selenium	82-1	257.56	264.31	265.93	262.60	1.69	ppb
Selenium	77-2	257.11	253.78	257.99	256.29	0.87	ppb
Selenium	78-2	258.10	263.05	267.08	262.74	1.71	ppb
Silicon	28-1	250.18	259.65	258.46	256.10	2.02	ppb
Silver	107-1	259.39	255.60	257.58	257.52	0.74	ppb
Silver	109-1	255.33	251.42	254.72	253.82	0.83	ppb
Sodium	23-2	26625.04	25484.32	26699.43	26269.60	2.59	ppb
Strontium	86-1	249.48	251.92	254.23	251.88	0.94	ppb
Strontium	88-1	246.02	245.70	248.88	246.87	0.71	ppb
Sulfur	34-1	4704.70	4856.67	5060.56	4873.98	3.66	ppb
Terbium	159-1				97		%
Terbium	159-2				99		%
Thallium	203-1	230.72	235.79	233.71	233.41	1.09	ppb
Thallium	205-1	244.91	248.34	245.10	246.12	0.78	ppb
Tin	118-1	250.53	247.27	250.76	249.52	0.78	ppb
Titanium	47-1	2469.39	2508.77	2538.84	2505.67	1.39	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	241.51	248.67	248.69	246.29	1.68	ppb
Vanadium	51-2	250.48	243.83	245.85	246.72	1.38	ppb
Yttrium	89-1				95		%
Yttrium	89-2				95		%
Zinc	66-2	2617.54	2555.45	2567.40	2580.13	1.28	ppb
Zirconium	90-1	249.34	250.38	257.00	252.24	1.65	ppb
Zirconium	91-1	246.71	251.86	252.44	250.34	1.26	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10622.78	10634.87	10533.03	10596.89	0.53	ppb
Antimony	121-1	484.43	497.92	527.59	503.31	4.39	ppb
Arsenic	75-2	510.49	504.66	495.37	503.51	1.51	ppb
Barium	135-1	2468.20	2508.78	2644.36	2540.45	3.63	ppb
Barium	137-1	2427.05	2484.74	2550.92	2487.57	2.49	ppb
Beryllium	9-1	489.82	506.46	511.83	502.70	2.28	ppb
Bismuth	209-1				93		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	494.02	499.65	514.90	502.86	2.15	ppb
Cadmium	106-1	494.19	497.53	526.24	505.99	3.48	ppb
Cadmium	111-1	490.92	505.10	522.33	506.12	3.11	ppb
Calcium	43-1	50893.25	53207.93	55004.05	53035.08	3.89	ppb
Calcium	44-1	49162.96	51065.33	52879.39	51035.89	3.64	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	506.22	492.83	496.56	498.54	1.39	ppb
Cobalt	59-2	489.45	486.15	489.27	488.29	0.38	ppb
Copper	63-2	5117.83	4950.42	5029.07	5032.44	1.66	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				95		%
Holmium	165-2				93		%
Indium	115-1				91		%
Indium	115-2				90		%
Iron	56-2	26479.98	26100.81	26097.79	26226.19	0.84	ppb
Iron	57-2	26985.46	27232.77	27332.58	27183.60	0.66	ppb
Iron	54-2	27377.83	26724.58	26816.48	26972.96	1.31	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2455.36	2536.93	2579.31	2523.87	2.50	ppb
Lead	207-1	2529.99	2516.93	2602.61	2549.84	1.81	ppb
Lead	208-1	2507.83	2508.31	2560.78	2525.64	1.20	ppb
Lithium	6-1				93		%
Magnesium	24-2	50709.46	51503.39	51656.76	51289.87	0.99	ppb
Manganese	55-2	5037.83	4941.14	4993.83	4990.93	0.97	ppb
Molybdenum	94-1	4875.90	5036.99	5026.51	4979.80	1.81	ppb
Molybdenum	95-1	4927.54	4988.96	5038.22	4984.91	1.11	ppb
Molybdenum	96-1	4950.87	5074.68	4979.03	5001.53	1.30	ppb
Molybdenum	97-1	4880.33	4959.66	4902.26	4914.08	0.83	ppb
Molybdenum	98-1	4906.21	5021.47	5031.65	4986.44	1.40	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	505.18	492.01	495.05	497.41	1.39	ppb
Phosphorus	31-2	9867.95	9770.07	9708.52	9782.18	0.82	ppb
Potassium	39-2	26154.52	25519.16	25859.86	25844.51	1.23	ppb
Rhodium	103-1				89		%
Rhodium	103-2				90		%
Scandium	45-1				90		%
Scandium	45-2				90		%
Selenium	82-1	506.33	516.55	508.48	510.45	1.06	ppb
Selenium	77-2	525.83	510.70	490.71	509.08	3.46	ppb
Selenium	78-2	507.65	521.54	514.82	514.67	1.35	ppb
Silicon	28-1	479.67	495.46	523.77	499.63	4.47	ppb
Silver	107-1	494.65	502.21	513.36	503.41	1.87	ppb
Silver	109-1	506.76	510.75	508.27	508.59	0.40	ppb
Sodium	23-2	52878.65	53070.40	52094.56	52681.20	0.98	ppb
Strontium	86-1	491.11	497.65	501.54	496.76	1.06	ppb
Strontium	88-1	488.85	497.72	496.41	494.33	0.97	ppb
Sulfur	34-1	9328.04	9798.36	10548.70	9891.70	6.22	ppb
Terbium	159-1				93		%
Terbium	159-2				94		%
Thallium	203-1	478.01	504.19	513.23	498.48	3.67	ppb
Thallium	205-1	487.54	512.20	506.70	502.15	2.58	ppb
Tin	118-1	492.78	487.13	521.22	500.38	3.65	ppb
Titanium	47-1	4881.19	4966.36	5206.02	5017.86	3.36	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	489.51	510.95	513.94	504.80	2.64	ppb
Vanadium	51-2	501.93	492.31	498.42	497.56	0.98	ppb
Yttrium	89-1				93		%
Yttrium	89-2				90		%
Zinc	66-2	5207.84	5024.27	5094.49	5108.86	1.81	ppb
Zirconium	90-1	491.57	500.54	503.31	498.47	1.23	ppb
Zirconium	91-1	488.48	500.08	498.89	495.82	1.29	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21273.16	21451.24	20744.55	21156.32	1.74	ppb
Antimony	121-1	983.57	987.08	1021.97	997.54	2.13	ppb
Arsenic	75-2	988.88	995.06	1010.57	998.17	1.12	ppb
Barium	135-1	4841.10	5000.33	5115.64	4985.69	2.76	ppb
Barium	137-1	4897.41	5030.02	5107.04	5011.49	2.12	ppb
Beryllium	9-1	982.35	999.84	1009.97	997.38	1.40	ppb
Bismuth	209-1				87		%
Bismuth	209-2				85		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	986.03	991.19	1010.97	996.06	1.32	ppb
Cadmium	106-1	973.69	988.89	1024.01	995.53	2.59	ppb
Cadmium	111-1	969.41	997.86	1016.31	994.53	2.38	ppb
Calcium	43-1	103370.26	105124.64	101003.21	103166.04	2.00	ppb
Calcium	44-1	101583.41	103195.67	103362.50	102713.86	0.96	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1008.97	998.59	997.26	1001.61	0.64	ppb
Cobalt	59-2	1005.50	998.64	1018.16	1007.43	0.98	ppb
Copper	63-2	10129.87	9927.07	9908.22	9988.39	1.23	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				87		%
Holmium	165-2				87		%
Indium	115-1				83		%
Indium	115-2				83		%
Iron	56-2	52693.72	53507.00	53075.20	53091.97	0.77	ppb
Iron	57-2	53543.70	54395.97	53261.98	53733.88	1.10	ppb
Iron	54-2	55168.51	53143.88	53042.51	53784.97	2.23	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4880.98	5060.41	5044.79	4995.40	1.99	ppb
Lead	207-1	4912.78	5012.98	5014.54	4980.10	1.17	ppb
Lead	208-1	4917.76	5033.67	5029.40	4993.61	1.32	ppb
Lithium	6-1				85		%
Magnesium	24-2	103337.23	104326.39	101540.37	103068.00	1.37	ppb
Manganese	55-2	10034.04	9965.90	10026.78	10008.91	0.37	ppb
Molybdenum	94-1	9551.14	10370.02	10093.64	10004.94	4.16	ppb
Molybdenum	95-1	9649.16	10253.43	10066.54	9989.71	3.10	ppb
Molybdenum	96-1	9723.92	10166.81	10082.78	9991.17	2.35	ppb
Molybdenum	97-1	9763.05	10168.26	10199.58	10043.63	2.42	ppb
Molybdenum	98-1	9748.39	10115.47	10153.15	10005.67	2.23	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1014.08	996.46	994.15	1001.56	1.09	ppb
Phosphorus	31-2	20415.33	19647.85	20430.98	20164.72	2.22	ppb
Potassium	39-2	52808.90	50495.89	52235.54	51846.78	2.32	ppb
Rhodium	103-1				83		%
Rhodium	103-2				83		%
Scandium	45-1				83		%
Scandium	45-2				84		%
Selenium	82-1	972.22	1005.31	994.00	990.51	1.70	ppb
Selenium	77-2	1002.31	966.09	1012.36	993.59	2.45	ppb
Selenium	78-2	973.62	988.47	1003.55	988.55	1.51	ppb
Silicon	28-1	1004.44	997.51	991.35	997.77	0.66	ppb
Silver	107-1	977.78	993.02	1016.50	995.77	1.96	ppb
Silver	109-1	973.65	994.76	1014.25	994.22	2.04	ppb
Sodium	23-2	104379.69	105142.98	104749.04	104757.23	0.36	ppb
Strontium	86-1	972.73	1018.87	1011.52	1001.04	2.48	ppb
Strontium	88-1	984.39	1012.45	1014.24	1003.69	1.67	ppb
Sulfur	34-1	20022.12	20225.96	19897.55	20048.54	0.83	ppb
Terbium	159-1				87		%
Terbium	159-2				88		%
Thallium	203-1	997.43	1000.78	1020.63	1006.28	1.25	ppb
Thallium	205-1	995.46	987.51	1020.86	1001.28	1.74	ppb
Tin	118-1	981.53	1005.98	1012.11	999.87	1.62	ppb
Titanium	47-1	9938.41	10055.18	9978.07	9990.55	0.59	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	980.16	1014.43	1004.79	999.79	1.77	ppb
Vanadium	51-2	1018.40	981.22	1007.37	1002.33	1.91	ppb
Yttrium	89-1				86		%
Yttrium	89-2				84		%
Zinc	66-2	9964.76	9885.08	9911.75	9920.53	0.41	ppb
Zirconium	90-1	966.22	1015.80	1018.67	1000.23	2.95	ppb
Zirconium	91-1	965.98	1017.20	1022.79	1001.99	3.13	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	101380.68	98473.46	99230.82	99694.99	1.51	ppb
Antimony	121-1	0.93	0.88	0.95	0.92	3.87	ppb
Arsenic	75-2	1.11	1.09	1.32	1.17	11.17	ppb
Barium	135-1	3.26	3.35	3.10	3.24	3.96	ppb
Barium	137-1	3.12	3.32	3.32	3.25	3.61	ppb
Beryllium	9-1	0.18	0.16	0.16	0.17	6.97	ppb
Bismuth	209-1				81		%
Bismuth	209-2				82		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.72	0.83	0.81	0.79	7.92	ppb
Cadmium	106-1	1.23	0.65	-0.01	0.62	99.17	ppb
Cadmium	111-1	0.60	0.58	0.49	0.55	10.29	ppb
Calcium	43-1	487622.68	500451.03	508798.88	498957.53	2.14	ppb
Calcium	44-1	491658.29	497022.96	509292.80	499324.68	1.81	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8.49	8.31	8.41	8.40	1.09	ppb
Cobalt	59-2	2.09	2.05	2.06	2.06	0.99	ppb
Copper	63-2	1.26	1.20	1.10	1.18	6.86	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				85		%
Holmium	165-2				88		%
Indium	115-1				82		%
Indium	115-2				86		%
Iron	56-2	252608.76	247251.98	247789.05	249216.60	1.18	ppb
Iron	57-2	246911.17	251501.01	248474.56	248962.25	0.94	ppb
Iron	54-2	250826.03	249232.13	246918.77	248992.31	0.79	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.42	1.39	1.45	1.42	2.07	ppb
Lead	207-1	1.44	1.44	1.44	1.44	0.11	ppb
Lead	208-1	1.43	1.41	1.44	1.43	0.88	ppb
Lithium	6-1				83		%
Magnesium	24-2	509214.75	486116.55	502306.96	499212.75	2.37	ppb
Manganese	55-2	5.42	5.33	5.17	5.31	2.36	ppb
Molybdenum	94-1	3.37	3.50	3.53	3.47	2.34	ppb
Molybdenum	95-1	2.08	2.18	2.16	2.14	2.44	ppb
Molybdenum	96-1	3.00	3.17	3.08	3.09	2.83	ppb
Molybdenum	97-1	2.09	2.21	1.99	2.10	5.32	ppb
Molybdenum	98-1	2.14	2.08	2.02	2.08	2.83	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.08	5.80	5.84	5.91	2.63	ppb
Phosphorus	31-2	-115.51	-113.52	-107.48	-112.17		ppb
Potassium	39-2	251375.67	247320.33	249881.17	249525.73	0.82	ppb
Rhodium	103-1				79		%
Rhodium	103-2				82		%
Scandium	45-1				83		%
Scandium	45-2				87		%
Selenium	82-1	2.00	1.97	1.31	1.76	22.29	ppb
Selenium	77-2	2.41	0.23	1.16	1.27	86.45	ppb
Selenium	78-2	1.21	2.12	3.14	2.16	44.80	ppb
Silicon	28-1	14.81	14.02	14.62	14.49	2.84	ppb
Silver	107-1	0.19	0.16	0.16	0.17	11.73	ppb
Silver	109-1	0.19	0.17	0.17	0.18	5.83	ppb
Sodium	23-2	500232.12	494556.20	501323.61	498703.98	0.73	ppb
Strontium	86-1	12.57	13.15	13.16	12.96	2.58	ppb
Strontium	88-1	12.53	12.72	12.60	12.62	0.76	ppb
Sulfur	34-1	454.84	377.34	290.91	374.37	21.91	ppb
Terbium	159-1				85		%
Terbium	159-2				89		%
Thallium	203-1	1.51	1.49	1.54	1.51	1.85	ppb
Thallium	205-1	1.49	1.52	1.53	1.51	1.38	ppb
Tin	118-1	1.73	1.71	1.79	1.74	2.25	ppb
Titanium	47-1	0.78	0.63	0.69	0.70	10.84	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.04	0.05	0.04	12.51	ppb
Vanadium	51-2	0.50	0.46	0.48	0.48	3.84	ppb
Yttrium	89-1				85		%
Yttrium	89-2				88		%
Zinc	66-2	9.23	9.71	9.82	9.59	3.26	ppb
Zirconium	90-1	0.86	0.91	0.89	0.88	2.70	ppb
Zirconium	91-1	0.77	0.98	0.93	0.89	12.48	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1538.40	1593.17	1592.17	1574.58	1.99	ppb
Antimony	121-1	407.60	423.91	426.23	419.25	2.42	ppb
Arsenic	75-2	400.12	404.75	412.85	405.91	1.59	ppb
Barium	135-1	1574.04	1635.31	1646.29	1618.55	2.41	ppb
Barium	137-1	1570.74	1605.41	1625.46	1600.54	1.73	ppb
Beryllium	9-1	40.61	43.27	44.17	42.68	4.35	ppb
Bismuth	209-1				103		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	184.09	189.63	196.39	190.03	3.24	ppb
Cadmium	106-1	177.67	186.03	191.74	185.15	3.82	ppb
Cadmium	111-1	200.67	210.56	212.35	207.86	3.03	ppb
Calcium	43-1	3916.96	4192.10	4155.60	4088.22	3.66	ppb
Calcium	44-1	3962.16	4234.23	4236.89	4144.43	3.81	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	158.81	162.41	160.20	160.47	1.13	ppb
Cobalt	59-2	400.07	407.13	406.46	404.55	0.96	ppb
Copper	63-2	184.52	188.97	187.79	187.09	1.23	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				103		%
Indium	115-2				104		%
Iron	56-2	819.43	856.09	842.02	839.18	2.20	ppb
Iron	57-2	815.91	844.74	828.19	829.61	1.74	ppb
Iron	54-2	961.68	979.94	975.18	972.27	0.97	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	370.50	390.40	386.47	382.46	2.76	ppb
Lead	207-1	362.21	380.23	375.55	372.67	2.51	ppb
Lead	208-1	378.00	394.42	392.49	388.31	2.31	ppb
Lithium	6-1				99		%
Magnesium	24-2	3706.97	3761.40	3777.53	3748.63	0.99	ppb
Manganese	55-2	356.47	367.73	362.49	362.23	1.56	ppb
Molybdenum	94-1	0.27	0.25	0.26	0.26	4.01	ppb
Molybdenum	95-1	0.23	0.23	0.27	0.24	9.63	ppb
Molybdenum	96-1	0.22	0.31	0.29	0.27	16.78	ppb
Molybdenum	97-1	0.21	0.32	0.24	0.26	21.64	ppb
Molybdenum	98-1	0.23	0.28	0.27	0.26	9.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	398.43	410.89	408.88	406.07	1.65	ppb
Phosphorus	31-2	-132.61	-116.20	-130.60	-126.47		ppb
Potassium	39-2	4246.77	4364.01	4317.05	4309.28	1.37	ppb
Rhodium	103-1				106		%
Rhodium	103-2				101		%
Scandium	45-1				105		%
Scandium	45-2				102		%
Selenium	82-1	407.14	424.75	438.43	423.44	3.70	ppb
Selenium	77-2	415.14	409.57	427.49	417.40	2.20	ppb
Selenium	78-2	408.72	425.44	439.07	424.41	3.58	ppb
Silicon	28-1	3.81	4.72	5.11	4.55	14.70	ppb
Silver	107-1	187.99	195.24	200.37	194.53	3.20	ppb
Silver	109-1	186.76	193.59	197.67	192.68	2.86	ppb
Sodium	23-2	4154.20	4209.30	4115.01	4159.50	1.14	ppb
Strontium	86-1	0.03	0.07	0.09	0.06	53.79	ppb
Strontium	88-1	0.05	0.06	0.06	0.06	5.29	ppb
Sulfur	34-1	-1978.49	-1568.83	-1391.69	-1646.34		ppb
Terbium	159-1				103		%
Terbium	159-2				104		%
Thallium	203-1	371.79	371.15	388.20	377.05	2.56	ppb
Thallium	205-1	373.70	385.58	389.40	382.89	2.14	ppb
Tin	118-1	0.22	0.18	0.22	0.21	10.68	ppb
Titanium	47-1	0.15	0.21	0.17	0.18	18.26	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	394.04	403.02	402.86	399.97	1.28	ppb
Yttrium	89-1				105		%
Yttrium	89-2				103		%
Zinc	66-2	382.82	388.17	388.08	386.35	0.79	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	572.38	ppb
Zirconium	91-1	0.08	0.09	0.10	0.09	12.55	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.15	-1.31	-0.78	-0.75		ppb
Antimony	121-1	0.10	0.08	0.08	0.09	10.11	ppb
Arsenic	75-2	-0.01	0.05	0.02	0.02	153.03	ppb
Barium	135-1	0.04	0.02	0.04	0.04	31.67	ppb
Barium	137-1	0.03	0.01	0.02	0.02	57.80	ppb
Beryllium	9-1	0.01	0.00	0.00	0.00	304.11	ppb
Bismuth	209-1				103		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.06	-0.09	-0.06		ppb
Cadmium	106-1	-1.09	0.10	-2.04	-1.01		ppb
Cadmium	111-1	-0.06	0.04	-0.11	-0.05		ppb
Calcium	43-1	-2.67	-0.26	-2.73	-1.88		ppb
Calcium	44-1	2.98	4.15	4.95	4.03	24.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.02	0.04	0.02	95.63	ppb
Cobalt	59-2	0.00	0.01	0.01	0.01	79.07	ppb
Copper	63-2	0.02	-0.04	0.00	-0.01		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				101		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	0.13	0.14	0.23	0.17	34.66	ppb
Iron	57-2	1.18	1.14	0.87	1.06	15.95	ppb
Iron	54-2	0.65	1.54	0.95	1.05	43.19	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.00	0.03	0.02	82.71	ppb
Lead	207-1	0.05	0.02	0.03	0.03	45.32	ppb
Lead	208-1	0.03	0.01	0.03	0.02	36.54	ppb
Lithium	6-1				100		%
Magnesium	24-2	0.21	0.00	0.41	0.21	98.55	ppb
Manganese	55-2	-0.02	0.00	-0.01	-0.01		ppb
Molybdenum	94-1	0.02	0.01	-0.01	0.01	226.89	ppb
Molybdenum	95-1	0.02	-0.01	0.02	0.01	134.67	ppb
Molybdenum	96-1	0.01	0.02	0.02	0.01	49.79	ppb
Molybdenum	97-1	0.02	0.01	0.01	0.01	36.66	ppb
Molybdenum	98-1	0.00	0.01	0.01	0.01	63.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	0.06	-0.01	0.02	216.27	ppb
Phosphorus	31-2	-119.23	-125.68	-120.33	-121.75		ppb
Potassium	39-2	1.96	5.23	7.24	4.81	55.37	ppb
Rhodium	103-1				104		%
Rhodium	103-2				101		%
Scandium	45-1				104		%
Scandium	45-2				100		%
Selenium	82-1	0.60	-0.26	-1.25	-0.30		ppb
Selenium	77-2	-0.09	0.45	0.46	0.27	116.07	ppb
Selenium	78-2	0.54	1.29	0.73	0.85	46.08	ppb
Silicon	28-1	-3.48	-3.09	-2.90	-3.16		ppb
Silver	107-1	0.03	0.03	0.03	0.03	8.56	ppb
Silver	109-1	0.03	0.02	0.03	0.03	7.16	ppb
Sodium	23-2	20.64	19.76	20.07	20.16	2.22	ppb
Strontium	86-1	0.04	-0.01	0.03	0.02	125.49	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	129.29	ppb
Sulfur	34-1	-1944.85	-1614.04	-1479.30	-1679.39		ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	0.04	0.04	0.01	0.03	49.58	ppb
Thallium	205-1	0.03	0.04	0.03	0.03	8.17	ppb
Tin	118-1	0.01	0.00	-0.03	-0.01		ppb
Titanium	47-1	-0.01	-0.02	-0.07	-0.03		ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	1.87	ppb
Yttrium	89-1				104		%
Yttrium	89-2				102		%
Zinc	66-2	-0.11	-0.24	0.00	-0.12		ppb
Zirconium	90-1	0.00	-0.01	-0.01	0.00		ppb
Zirconium	91-1	0.01	-0.01	0.00	0.00	893.72	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	92085.40	93416.99	93707.99	93070.12	0.93	ppb
Antimony	121-1	1.12	1.15	1.17	1.15	2.35	ppb
Arsenic	75-2	0.30	0.30	0.36	0.32	10.12	ppb
Barium	135-1	1.35	1.47	1.36	1.39	4.73	ppb
Barium	137-1	1.38	1.37	1.40	1.38	1.18	ppb
Beryllium	9-1	0.27	0.33	0.29	0.30	10.59	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	8.54	7.86	9.38	8.59	8.83	ppb
Cadmium	106-1	-0.07	0.06	-2.21	-0.74		ppb
Cadmium	111-1	0.43	0.44	0.19	0.35	39.36	ppb
Calcium	43-1	99923.67	99989.67	101436.78	100450.04	0.85	ppb
Calcium	44-1	101207.56	99027.19	102410.52	100881.76	1.70	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	19.68	19.48	19.80	19.65	0.82	ppb
Cobalt	59-2	1.27	1.30	1.23	1.27	2.56	ppb
Copper	63-2	7.25	7.06	7.33	7.21	1.87	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				101		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	56-2	99406.55	100188.65	101296.53	100297.24	0.95	ppb
Iron	57-2	100799.51	99322.81	101802.89	100641.74	1.24	ppb
Iron	54-2	98400.60	97799.62	100542.66	98914.29	1.46	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4.38	4.47	4.64	4.50	2.88	ppb
Lead	207-1	3.83	3.90	3.90	3.88	1.03	ppb
Lead	208-1	3.98	4.08	4.20	4.09	2.78	ppb
Lithium	6-1				95		%
Magnesium	24-2	91572.15	90955.49	91471.76	91333.13	0.36	ppb
Manganese	55-2	7.31	7.15	7.40	7.29	1.74	ppb
Molybdenum	94-1	1538.89	1561.02	1633.25	1577.72	3.13	ppb
Molybdenum	95-1	1909.83	1936.72	1954.11	1933.55	1.15	ppb
Molybdenum	96-1	1853.10	1905.44	1916.94	1891.83	1.80	ppb
Molybdenum	97-1	1887.90	1942.16	1969.65	1933.24	2.15	ppb
Molybdenum	98-1	1902.81	1934.05	1948.33	1928.40	1.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.62	5.44	5.75	5.60	2.81	ppb
Phosphorus	31-2	98130.48	97303.70	96535.05	97323.08	0.82	ppb
Potassium	39-2	100626.74	99714.54	99811.73	100051.01	0.50	ppb
Rhodium	103-1				97		%
Rhodium	103-2				97		%
Scandium	45-1				100		%
Scandium	45-2				98		%
Selenium	82-1	0.04	0.07	0.30	0.14	101.65	ppb
Selenium	77-2	0.46	0.46	-0.09	0.28	115.51	ppb
Selenium	78-2	0.10	1.24	-0.23	0.37	207.21	ppb
Silicon	28-1	6.75	7.33	8.35	7.48	10.80	ppb
Silver	107-1	0.09	0.06	0.04	0.06	41.33	ppb
Silver	109-1	0.09	0.06	0.05	0.07	30.41	ppb
Sodium	23-2	99454.00	100721.66	101118.01	100431.22	0.87	ppb
Strontium	86-1	31.31	32.91	33.28	32.50	3.23	ppb
Strontium	88-1	31.34	31.81	32.31	31.82	1.52	ppb
Sulfur	34-1	98680.14	95614.07	97295.03	97196.41	1.58	ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	0.06	0.05	0.08	0.07	21.48	ppb
Thallium	205-1	0.05	0.07	0.08	0.07	21.88	ppb
Tin	118-1	4.41	8.06	8.42	6.96	31.90	ppb
Titanium	47-1	1996.62	1995.93	2019.52	2004.02	0.67	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	2.52	ppb
Vanadium	51-2	0.23	0.20	0.21	0.22	7.03	ppb
Yttrium	89-1				101		%
Yttrium	89-2				100		%
Zinc	66-2	10.11	9.77	10.03	9.97	1.77	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	7.20	ppb
Zirconium	91-1	0.04	0.01	0.04	0.03	63.51	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	87662.85	91848.83	90863.52	90125.07	2.43	ppb
Antimony	121-1	20.39	21.54	21.34	21.09	2.92	ppb
Arsenic	75-2	19.71	19.39	18.48	19.19	3.32	ppb
Barium	135-1	20.98	21.94	21.64	21.52	2.29	ppb
Barium	137-1	20.67	21.49	21.27	21.14	2.02	ppb
Beryllium	9-1	21.18	21.88	21.19	21.42	1.86	ppb
Bismuth	209-1				98		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	27.59	25.55	26.33	26.49	3.88	ppb
Cadmium	106-1	14.06	16.06	16.18	15.44	7.72	ppb
Cadmium	111-1	20.01	20.45	20.27	20.25	1.10	ppb
Calcium	43-1	98046.33	98524.51	97976.95	98182.60	0.30	ppb
Calcium	44-1	97345.57	98518.93	97676.14	97846.88	0.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	38.46	39.51	39.08	39.02	1.35	ppb
Cobalt	59-2	20.63	21.12	20.81	20.85	1.19	ppb
Copper	63-2	24.90	25.46	25.19	25.18	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				103		%
Indium	115-1				102		%
Indium	115-2				101		%
Iron	56-2	96344.07	99801.58	100336.41	98827.35	2.19	ppb
Iron	57-2	97758.49	99337.53	100508.25	99201.42	1.39	ppb
Iron	54-2	98032.48	100940.13	99745.43	99572.68	1.47	ppb
Krypton	83-1						cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	23.66	23.98	23.33	23.66	1.37	ppb
Lead	207-1	22.10	22.62	22.00	22.24	1.50	ppb
Lead	208-1	22.56	22.98	22.46	22.67	1.21	ppb
Lithium	6-1				93		%
Magnesium	24-2	88632.33	90290.37	90038.15	89653.62	1.00	ppb
Manganese	55-2	24.99	25.46	24.96	25.14	1.11	ppb
Molybdenum	94-1	1564.07	1578.29	1560.48	1567.61	0.60	ppb
Molybdenum	95-1	1902.07	1928.02	1917.97	1916.02	0.68	ppb
Molybdenum	96-1	1873.48	1871.56	1895.20	1880.08	0.70	ppb
Molybdenum	97-1	1908.67	1882.97	1921.40	1904.35	1.03	ppb
Molybdenum	98-1	1917.53	1850.48	1879.82	1882.61	1.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	24.52	24.93	25.46	24.97	1.90	ppb
Phosphorus	31-2	95674.64	95880.12	95338.80	95631.19	0.29	ppb
Potassium	39-2	99364.05	100103.00	100876.05	100114.37	0.76	ppb
Rhodium	103-1				101		%
Rhodium	103-2				98		%
Scandium	45-1				103		%
Scandium	45-2				99		%
Selenium	82-1	19.58	20.76	19.90	20.08	3.05	ppb
Selenium	77-2	17.83	23.37	19.14	20.11	14.38	ppb
Selenium	78-2	19.87	19.10	20.36	19.78	3.22	ppb
Silicon	28-1	7.17	8.06	7.23	7.48	6.63	ppb
Silver	107-1	19.44	20.27	20.10	19.94	2.20	ppb
Silver	109-1	19.23	19.97	19.50	19.57	1.93	ppb
Sodium	23-2	95467.40	98488.99	99055.99	97670.79	1.98	ppb
Strontium	86-1	31.39	31.72	32.18	31.76	1.24	ppb
Strontium	88-1	31.05	31.56	31.75	31.45	1.14	ppb
Sulfur	34-1	93329.54	93165.95	92622.06	93039.19	0.40	ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	19.63	19.19	19.00	19.28	1.68	ppb
Thallium	205-1	19.43	19.22	19.14	19.26	0.79	ppb
Tin	118-1	3.07	4.01	4.07	3.72	15.10	ppb
Titanium	47-1	1896.65	1975.18	1951.24	1941.02	2.07	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.01	0.01	0.01	16.30	ppb
Vanadium	51-2	19.29	19.77	19.41	19.49	1.28	ppb
Yttrium	89-1				105		%
Yttrium	89-2				102		%
Zinc	66-2	28.56	29.20	28.55	28.77	1.29	ppb
Zirconium	90-1	0.00	0.01	0.01	0.01	60.62	ppb
Zirconium	91-1	0.02	0.03	0.02	0.02	28.94	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50791.67	51042.74	50236.45	50690.29	0.81	ppb
Antimony	121-1	471.28	520.49	518.84	503.54	5.55	ppb
Arsenic	75-2	484.90	495.76	490.66	490.44	1.11	ppb
Barium	135-1	2375.10	2582.68	2622.16	2526.65	5.25	ppb
Barium	137-1	2352.66	2545.45	2586.42	2494.85	5.00	ppb
Beryllium	9-1	466.29	515.71	522.70	501.57	6.13	ppb
Bismuth	209-1				86		%
Bismuth	209-2				85		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	467.97	500.19	498.12	488.76	3.69	ppb
Cadmium	106-1	459.48	497.03	508.57	488.36	5.26	ppb
Cadmium	111-1	457.70	501.26	507.89	488.95	5.58	ppb
Calcium	43-1	227605.10	249306.81	264043.03	246984.98	7.42	ppb
Calcium	44-1	230505.90	252952.30	263188.31	248882.17	6.72	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	495.82	503.27	499.72	499.60	0.75	ppb
Cobalt	59-2	495.92	492.77	497.31	495.33	0.47	ppb
Copper	63-2	4878.58	4985.82	4813.79	4892.73	1.78	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				92		%
Holmium	165-2				90		%
Indium	115-1				90		%
Indium	115-2				89		%
Iron	56-2	130189.67	131712.08	129184.83	130362.19	0.98	ppb
Iron	57-2	131220.44	131575.51	131834.65	131543.53	0.23	ppb
Iron	54-2	131000.06	132679.00	128686.67	130788.57	1.53	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2356.51	2570.44	2584.11	2503.69	5.10	ppb
Lead	207-1	2331.96	2538.44	2595.25	2488.55	5.57	ppb
Lead	208-1	2333.59	2556.59	2578.36	2489.51	5.44	ppb
Lithium	6-1				82		%
Magnesium	24-2	243806.68	249875.05	246629.02	246770.25	1.23	ppb
Manganese	55-2	4993.69	5005.96	5075.96	5025.20	0.88	ppb
Molybdenum	94-1	4639.89	5127.07	5116.39	4961.12	5.61	ppb
Molybdenum	95-1	4720.53	5021.90	5148.49	4963.64	4.43	ppb
Molybdenum	96-1	4776.13	5132.74	5137.75	5015.54	4.13	ppb
Molybdenum	97-1	4625.70	5065.84	5064.87	4918.80	5.16	ppb
Molybdenum	98-1	4611.73	5094.98	5075.71	4927.48	5.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	491.65	490.22	486.24	489.37	0.57	ppb
Phosphorus	31-2	9714.95	9565.61	9567.06	9615.87	0.89	ppb
Potassium	39-2	126201.92	128359.57	126715.16	127092.22	0.89	ppb
Rhodium	103-1				88		%
Rhodium	103-2				87		%
Scandium	45-1				92		%
Scandium	45-2				89		%
Selenium	82-1	442.52	485.95	484.30	470.92	5.23	ppb
Selenium	77-2	471.82	458.14	476.53	468.83	2.04	ppb
Selenium	78-2	462.72	476.99	465.99	468.56	1.60	ppb
Silicon	28-1	395.78	442.72	457.61	432.04	7.47	ppb
Silver	107-1	475.06	511.40	517.26	501.24	4.56	ppb
Silver	109-1	476.55	513.32	521.98	503.95	4.79	ppb
Sodium	23-2	252117.16	257185.38	253334.83	254212.46	1.04	ppb
Strontium	86-1	465.39	515.50	513.57	498.15	5.70	ppb
Strontium	88-1	465.08	516.51	512.98	498.19	5.77	ppb
Sulfur	34-1	7592.41	8953.98	9624.93	8723.77	11.87	ppb
Terbium	159-1				91		%
Terbium	159-2				91		%
Thallium	203-1	468.97	513.27	526.36	502.86	5.98	ppb
Thallium	205-1	470.77	508.79	523.65	501.07	5.44	ppb
Tin	118-1	473.53	529.06	511.37	504.66	5.62	ppb
Titanium	47-1	4508.83	4936.38	5150.31	4865.17	6.71	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	468.13	519.19	520.62	502.65	5.95	ppb
Vanadium	51-2	497.11	504.73	497.96	499.93	0.84	ppb
Yttrium	89-1				93		%
Yttrium	89-2				90		%
Zinc	66-2	4824.47	4804.80	4789.25	4806.17	0.37	ppb
Zirconium	90-1	467.52	506.32	509.70	494.51	4.74	ppb
Zirconium	91-1	461.00	509.34	511.12	493.82	5.76	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.16	1.03	-0.03	0.28	232.87	ppb
Antimony	121-1	0.07	0.06	0.06	0.06	7.06	ppb
Arsenic	75-2	0.01	0.03	0.01	0.01	73.84	ppb
Barium	135-1	0.00	0.01	0.04	0.02	106.53	ppb
Barium	137-1	0.01	0.03	0.02	0.02	38.99	ppb
Beryllium	9-1	0.01	0.00	-0.01	0.00		ppb
Bismuth	209-1				103		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	0.04	-0.09	-0.01		ppb
Cadmium	106-1	-2.44	-0.36	-2.56	-1.79		ppb
Cadmium	111-1	-0.15	-0.01	-0.15	-0.10		ppb
Calcium	43-1	-0.26	0.65	-0.30	0.03	1743.23	ppb
Calcium	44-1	7.71	7.56	8.97	8.08	9.59	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.07	0.06	0.02	0.05	59.49	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	181.82	ppb
Copper	63-2	0.10	0.13	0.05	0.09	44.42	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				107		%
Indium	115-2				107		%
Iron	56-2	1.14	1.36	1.16	1.22	10.12	ppb
Iron	57-2	5.92	3.94	5.30	5.05	20.11	ppb
Iron	54-2	2.41	1.79	1.76	1.99	18.48	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.04	0.02	0.03	28.55	ppb
Lead	207-1	0.02	0.03	0.03	0.03	22.94	ppb
Lead	208-1	0.03	0.03	0.03	0.03	11.21	ppb
Lithium	6-1				94		%
Magnesium	24-2	1.83	1.64	2.10	1.86	12.46	ppb
Manganese	55-2	0.02	0.04	0.07	0.04	63.97	ppb
Molybdenum	94-1	0.07	0.06	0.09	0.07	22.94	ppb
Molybdenum	95-1	0.06	0.05	0.04	0.05	21.53	ppb
Molybdenum	96-1	0.08	0.06	0.06	0.07	20.50	ppb
Molybdenum	97-1	0.11	0.07	0.08	0.08	24.86	ppb
Molybdenum	98-1	0.07	0.07	0.07	0.07	6.85	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	-0.01	0.00	0.01	248.35	ppb
Phosphorus	31-2	-149.81	-138.67	-137.67	-142.05		ppb
Potassium	39-2	15.74	16.49	20.96	17.73	15.91	ppb
Rhodium	103-1				107		%
Rhodium	103-2				105		%
Scandium	45-1				107		%
Scandium	45-2				103		%
Selenium	82-1	0.10	0.14	-0.25	0.00		ppb
Selenium	77-2	-0.09	-0.09	-0.09	-0.09		ppb
Selenium	78-2	0.49	0.37	1.23	0.70	66.79	ppb
Silicon	28-1	4.53	4.62	4.89	4.68	3.95	ppb
Silver	107-1	0.03	0.02	0.02	0.02	13.91	ppb
Silver	109-1	0.02	0.02	0.01	0.02	35.85	ppb
Sodium	23-2	47.90	48.00	49.27	48.39	1.57	ppb
Strontium	86-1	-0.05	0.01	0.06	0.01	745.52	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	73.21	ppb
Sulfur	34-1	-2036.86	-1908.03	-1711.64	-1885.51		ppb
Terbium	159-1				104		%
Terbium	159-2				105		%
Thallium	203-1	0.04	0.04	0.05	0.04	15.98	ppb
Thallium	205-1	0.04	0.04	0.05	0.04	8.34	ppb
Tin	118-1	0.07	0.09	0.08	0.08	10.00	ppb
Titanium	47-1	0.03	-0.02	0.03	0.01	200.95	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	104.24	ppb
Vanadium	51-2	0.01	0.00	0.01	0.01	97.12	ppb
Yttrium	89-1				109		%
Yttrium	89-2				106		%
Zinc	66-2	-0.04	-0.35	-0.03	-0.14		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	366.60	ppb
Zirconium	91-1	0.01	0.00	0.00	0.00	87.02	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.28	-0.45	-0.66	-0.47		ppb
Antimony	121-1	0.02	0.02	0.02	0.02	3.86	ppb
Arsenic	75-2	-0.01	0.04	0.01	0.01	232.76	ppb
Barium	135-1	0.05	0.01	0.00	0.02	132.60	ppb
Barium	137-1	0.02	0.00	0.03	0.02	78.73	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00	237.27	ppb
Bismuth	209-1				103		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.03	0.04	-0.01		ppb
Cadmium	106-1	-0.46	-1.48	-0.05	-0.67		ppb
Cadmium	111-1	-0.03	-0.08	0.00	-0.04		ppb
Calcium	43-1	1.53	-3.84	-4.78	-2.36		ppb
Calcium	44-1	12.72	19.59	19.77	17.36	23.14	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.04	0.06	0.06	0.05	27.58	ppb
Cobalt	59-2	0.01	0.00	0.00	0.01	81.13	ppb
Copper	63-2	-0.01	0.01	0.01	0.00	304.01	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				106		%
Indium	115-1				109		%
Indium	115-2				109		%
Iron	56-2	0.39	0.39	0.51	0.43	15.80	ppb
Iron	57-2	3.55	1.34	4.23	3.04	49.67	ppb
Iron	54-2	1.24	-0.14	1.19	0.77	101.97	ppb
Krypton	83-1						cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	0.02	0.01	0.01	56.06	ppb
Lead	207-1	0.02	0.04	0.04	0.03	22.38	ppb
Lead	208-1	0.02	0.03	0.02	0.02	30.49	ppb
Lithium	6-1				95		%
Magnesium	24-2	0.46	0.55	0.68	0.56	19.54	ppb
Manganese	55-2	-0.04	-0.01	0.00	-0.01		ppb
Molybdenum	94-1	0.01	0.10	0.00	0.04	146.81	ppb
Molybdenum	95-1	0.01	0.01	0.03	0.02	93.93	ppb
Molybdenum	96-1	0.05	0.03	0.03	0.03	31.78	ppb
Molybdenum	97-1	0.03	0.02	0.02	0.03	26.06	ppb
Molybdenum	98-1	0.05	0.03	0.03	0.04	19.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.09	-0.02	0.01	0.03	204.67	ppb
Phosphorus	31-2	-145.22	-144.44	-151.70	-147.12		ppb
Potassium	39-2	3.58	6.18	5.60	5.12	26.73	ppb
Rhodium	103-1				108		%
Rhodium	103-2				108		%
Scandium	45-1				109		%
Scandium	45-2				105		%
Selenium	82-1	-0.37	1.05	-0.90	-0.07		ppb
Selenium	77-2	-0.09	-0.09	-0.09	-0.09		ppb
Selenium	78-2	1.03	-0.46	0.54	0.37	206.02	ppb
Silicon	28-1	2.61	5.32	4.62	4.18	33.70	ppb
Silver	107-1	0.01	0.01	0.01	0.01	27.14	ppb
Silver	109-1	0.01	0.01	0.01	0.01	43.32	ppb
Sodium	23-2	34.43	35.08	34.16	34.55	1.37	ppb
Strontium	86-1	-0.01	0.01	0.02	0.00	352.22	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	51.79	ppb
Sulfur	34-1	-2345.12	-1735.12	-1723.19	-1934.48		ppb
Terbium	159-1				104		%
Terbium	159-2				108		%
Thallium	203-1	0.02	0.03	0.02	0.03	10.93	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	14.63	ppb
Tin	118-1	0.03	0.05	0.03	0.04	32.80	ppb
Titanium	47-1	-0.03	0.02	-0.03	-0.01		ppb

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.00	0.00	0.00	99.54	ppb
Yttrium	89-1				109		%
Yttrium	89-2				109		%
Zinc	66-2	0.12	0.02	-0.21	-0.02		ppb
Zirconium	90-1	0.00	0.00	-0.01	0.00		ppb
Zirconium	91-1	-0.01	0.00	0.01	0.00		ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	39.93	41.56	41.28	40.92	2.13	ppb
Antimony	121-1	4.06	4.14	4.18	4.13	1.53	ppb
Arsenic	75-2	1.85	2.12	1.95	1.98	6.82	ppb
Barium	135-1	19.44	19.78	19.72	19.65	0.94	ppb
Barium	137-1	19.03	20.21	19.82	19.68	3.06	ppb
Beryllium	9-1	2.22	2.27	2.13	2.21	3.20	ppb
Bismuth	209-1				101		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	2.03	1.86	2.12	2.00	6.61	ppb
Cadmium	106-1	-0.95	-1.18	-1.40	-1.18		ppb
Cadmium	111-1	1.62	1.75	1.76	1.71	4.66	ppb
Calcium	43-1	1031.39	1014.53	1063.48	1036.47	2.40	ppb
Calcium	44-1	1026.21	1060.39	1070.28	1052.30	2.20	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.96	3.92	3.94	3.94	0.55	ppb
Cobalt	59-2	2.04	2.10	2.03	2.06	1.99	ppb
Copper	63-2	3.73	3.67	3.78	3.73	1.42	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				104		%
Indium	115-1				107		%
Indium	115-2				107		%
Iron	56-2	393.61	399.08	391.05	394.58	1.04	ppb
Iron	57-2	399.78	405.05	402.26	402.36	0.65	ppb
Iron	54-2	403.00	402.79	396.69	400.82	0.89	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.66	1.67	1.61	1.65	2.15	ppb
Lead	207-1	1.69	1.74	1.62	1.68	3.76	ppb
Lead	208-1	1.62	1.67	1.61	1.63	2.10	ppb
Lithium	6-1				94		%
Magnesium	24-2	969.34	963.38	953.30	962.01	0.84	ppb
Manganese	55-2	1.95	2.06	2.14	2.05	4.60	ppb
Molybdenum	94-1	11.17	11.60	11.43	11.40	1.91	ppb
Molybdenum	95-1	9.60	9.79	9.92	9.77	1.67	ppb
Molybdenum	96-1	9.83	10.32	9.95	10.03	2.58	ppb
Molybdenum	97-1	9.38	9.91	9.74	9.68	2.79	ppb
Molybdenum	98-1	9.44	9.80	9.58	9.61	1.91	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.79	1.84	1.83	1.82	1.26	ppb
Phosphorus	31-2	308.64	331.52	332.70	324.28	4.18	ppb
Potassium	39-2	1042.46	1059.50	1059.39	1053.78	0.93	ppb
Rhodium	103-1				107		%
Rhodium	103-2				105		%
Scandium	45-1				107		%
Scandium	45-2				103		%
Selenium	82-1	9.41	9.40	10.15	9.66	4.48	ppb
Selenium	77-2	10.86	13.27	11.39	11.84	10.70	ppb
Selenium	78-2	10.82	9.63	10.68	10.38	6.27	ppb
Silicon	28-1	5.49	5.57	6.90	5.99	13.22	ppb
Silver	107-1	2.18	2.27	2.32	2.26	3.27	ppb
Silver	109-1	2.11	2.24	2.29	2.21	4.07	ppb
Sodium	23-2	982.00	986.54	982.35	983.63	0.26	ppb
Strontium	86-1	1.89	1.87	1.96	1.91	2.46	ppb
Strontium	88-1	1.86	1.92	1.90	1.90	1.67	ppb
Sulfur	34-1	-1235.18	-992.11	-862.77	-1030.02		ppb
Terbium	159-1				103		%
Terbium	159-2				104		%
Thallium	203-1	1.84	1.88	1.87	1.86	1.30	ppb
Thallium	205-1	1.85	1.94	1.94	1.91	2.65	ppb
Tin	118-1	9.92	10.22	10.41	10.18	2.42	ppb
Titanium	47-1	9.88	9.87	9.87	9.87	0.05	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1.75	1.80	1.75	1.77	1.62	ppb
Vanadium	51-2	9.94	9.99	9.71	9.88	1.51	ppb
Yttrium	89-1				108		%
Yttrium	89-2				106		%
Zinc	66-2	9.83	9.52	9.61	9.65	1.64	ppb
Zirconium	90-1	1.91	2.00	1.98	1.97	2.36	ppb
Zirconium	91-1	1.86	2.09	2.00	1.98	6.07	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	13.61	12.80	17.28	14.56	16.41	ppb
Antimony	121-1	0.35	0.44	0.48	0.42	15.17	ppb
Arsenic	75-2	4.20	4.30	3.72	4.07	7.60	ppb
Barium	135-1	86.28	90.30	89.41	88.66	2.39	ppb
Barium	137-1	86.80	89.40	88.49	88.23	1.49	ppb
Beryllium	9-1	0.01	0.04	0.00	0.02	115.61	ppb
Bismuth	209-1				78		%
Bismuth	209-2				82		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.33	0.29	0.14	0.25	40.60	ppb
Cadmium	106-1	-0.81	-1.24	-0.95	-1.00		ppb
Cadmium	111-1	0.03	0.00	0.01	0.01	103.63	ppb
Calcium	43-1	252576.17	260440.59	269623.84	260880.20	3.27	ppb
Calcium	44-1	256399.38	261983.81	267404.85	261929.35	2.10	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.97	3.09	3.07	3.05	2.05	ppb
Cobalt	59-2	3.27	3.23	3.33	3.27	1.53	ppb
Copper	63-2	1.77	1.96	2.09	1.94	8.20	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				89		%
Holmium	165-2				92		%
Indium	115-1				89		%
Indium	115-2				90		%
Iron	56-2	37364.92	37703.15	37087.84	37385.30	0.82	ppb
Iron	57-2	39533.54	40492.87	39148.68	39725.03	1.74	ppb
Iron	54-2	37517.25	37423.40	36880.82	37273.82	0.92	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.38	0.41	0.43	0.41	7.06	ppb
Lead	207-1	0.38	0.40	0.39	0.39	2.32	ppb
Lead	208-1	0.38	0.40	0.40	0.40	3.11	ppb
Lithium	6-1				79		%
Magnesium	24-2	336957.16	342779.81	340610.82	340115.93	0.87	ppb
Manganese	55-2	3190.12	3188.33	3228.78	3202.41	0.71	ppb
Molybdenum	94-1	3.19	3.03	3.05	3.09	2.86	ppb
Molybdenum	95-1	2.52	2.60	2.51	2.54	1.89	ppb
Molybdenum	96-1	2.71	2.89	2.75	2.79	3.29	ppb
Molybdenum	97-1	2.59	2.60	2.79	2.66	4.23	ppb
Molybdenum	98-1	2.64	2.67	2.59	2.63	1.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.98	5.67	6.20	5.95	4.48	ppb
Phosphorus	31-2	665.41	699.88	705.67	690.32	3.15	ppb
Potassium	39-2	103550.34	103663.39	102086.34	103100.03	0.85	ppb
Rhodium	103-1				86		%
Rhodium	103-2				87		%
Scandium	45-1				96		%
Scandium	45-2				93		%
Selenium	82-1	13.28	20.22	23.15	18.88	26.86	ppb
Selenium	77-2	0.48	1.08	0.20	0.59	76.59	ppb
Selenium	78-2	1.47	3.35	4.44	3.09	48.62	ppb
Silicon	28-1	1373.07	1389.90	1407.20	1390.06	1.23	ppb
Silver	107-1	0.18	0.10	0.11	0.13	34.02	ppb
Silver	109-1	0.18	0.09	0.11	0.13	36.83	ppb
Sodium	23-2	2575543.86	2637828.78	2559404.75	2590925.80	1.60	ppb
Strontium	86-1	2772.26	2738.67	2789.13	2766.69	0.93	ppb
Strontium	88-1	2655.19	2752.24	2747.74	2718.39	2.02	ppb
Sulfur	34-1	338645.51	349232.59	362759.76	350212.62	3.45	ppb
Terbium	159-1				90		%
Terbium	159-2				93		%
Thallium	203-1	0.08	0.09	0.10	0.09	11.48	ppb
Thallium	205-1	0.06	0.09	0.11	0.09	26.99	ppb
Tin	118-1	4.99	4.83	4.79	4.87	2.17	ppb
Titanium	47-1	1.27	1.41	1.58	1.42	11.15	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.09	0.09	0.08	0.09	3.29	ppb
Vanadium	51-2	1.30	1.29	1.22	1.27	3.67	ppb
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	3.87	3.84	3.80	3.84	0.80	ppb
Zirconium	90-1	0.56	0.54	0.53	0.54	2.67	ppb
Zirconium	91-1	0.52	0.49	0.49	0.50	3.67	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9.46	13.16	7.22	9.95	30.16	ppb
Antimony	121-1	0.09	0.10	0.09	0.10	6.40	ppb
Arsenic	75-2	0.33	0.52	0.50	0.45	24.19	ppb
Barium	135-1	24.64	25.80	24.87	25.11	2.44	ppb
Barium	137-1	24.55	25.27	24.76	24.86	1.49	ppb
Beryllium	9-1	0.01	-0.01	0.02	0.00	405.93	ppb
Bismuth	209-1				84		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	0.03	-0.05	-0.02		ppb
Cadmium	106-1	-2.16	0.11	-0.98	-1.01		ppb
Cadmium	111-1	-0.15	0.04	-0.05	-0.05		ppb
Calcium	43-1	65426.98	67031.44	67786.69	66748.37	1.81	ppb
Calcium	44-1	63337.39	66364.15	66167.36	65289.63	2.59	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.86	0.75	0.82	0.81	6.56	ppb
Cobalt	59-2	69.02	67.60	68.16	68.26	1.05	ppb
Copper	63-2	0.91	0.88	0.90	0.89	1.98	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				92		%
Holmium	165-2				93		%
Indium	115-1				93		%
Indium	115-2				92		%
Iron	56-2	82272.15	80939.96	81394.99	81535.70	0.83	ppb
Iron	57-2	81651.73	79910.75	81219.52	80927.33	1.12	ppb
Iron	54-2	82392.78	79092.68	82572.06	81352.51	2.41	ppb
Krypton	83-1						cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.09	0.07	0.07	0.08	13.74	ppb
Lead	207-1	0.10	0.11	0.07	0.09	23.45	ppb
Lead	208-1	0.10	0.09	0.08	0.09	14.97	ppb
Lithium	6-1				86		%
Magnesium	24-2	87600.12	86592.14	89172.59	87788.28	1.48	ppb
Manganese	55-2	8922.63	9058.98	8984.89	8988.84	0.76	ppb
Molybdenum	94-1	0.13	0.15	0.13	0.14	8.73	ppb
Molybdenum	95-1	0.16	0.21	0.20	0.19	13.23	ppb
Molybdenum	96-1	0.43	0.40	0.38	0.40	6.25	ppb
Molybdenum	97-1	0.11	0.12	0.12	0.12	7.94	ppb
Molybdenum	98-1	0.08	0.06	0.07	0.07	8.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	31.78	31.24	31.51	31.51	0.85	ppb
Phosphorus	31-2	-122.33	-147.74	-130.51	-133.53		ppb
Potassium	39-2	25416.15	24867.43	24897.91	25060.50	1.23	ppb
Rhodium	103-1				91		%
Rhodium	103-2				89		%
Scandium	45-1				97		%
Scandium	45-2				91		%
Selenium	82-1	8.32	10.96	10.45	9.91	14.11	ppb
Selenium	77-2	-0.09	0.52	0.20	0.21	146.20	ppb
Selenium	78-2	3.13	3.74	2.55	3.14	18.93	ppb
Silicon	28-1	518.87	531.44	546.63	532.32	2.61	ppb
Silver	107-1	0.06	0.07	0.06	0.06	15.29	ppb
Silver	109-1	0.07	0.06	0.06	0.06	8.17	ppb
Sodium	23-2	1000998.59	1010573.60	1002660.37	1004744.19	0.51	ppb
Strontium	86-1	578.24	595.30	592.89	588.81	1.57	ppb
Strontium	88-1	586.27	597.32	590.82	591.47	0.94	ppb
Sulfur	34-1	175902.48	172384.65	182295.35	176860.82	2.84	ppb
Terbium	159-1				91		%
Terbium	159-2				94		%
Thallium	203-1	0.08	0.07	0.08	0.07	10.74	ppb
Thallium	205-1	0.07	0.09	0.09	0.08	11.40	ppb
Tin	118-1	4.16	3.93	3.45	3.85	9.43	ppb
Titanium	47-1	0.30	0.33	1.92	0.85	108.69	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.05	0.06	0.05	0.05	13.81	ppb
Vanadium	51-2	0.13	0.15	0.15	0.14	7.91	ppb
Yttrium	89-1				97		%
Yttrium	89-2				93		%
Zinc	66-2	12.21	12.48	12.38	12.35	1.12	ppb
Zirconium	90-1	0.02	0.03	0.03	0.03	18.33	ppb
Zirconium	91-1	0.03	0.04	0.02	0.03	29.03	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8.89	8.10	7.25	8.08	10.16	ppb
Antimony	121-1	0.05	0.37	0.05	0.16	117.44	ppb
Arsenic	75-2	1.00	0.91	0.84	0.92	8.85	ppb
Barium	135-1	20.32	22.22	21.67	21.40	4.58	ppb
Barium	137-1	20.51	23.35	21.25	21.70	6.79	ppb
Beryllium	9-1	0.44	0.62	0.00	0.35	90.74	ppb
Bismuth	209-1				91		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	0.20	0.02	0.05	235.49	ppb
Cadmium	106-1	-1.80	-2.21	-2.70	-2.23		ppb
Cadmium	111-1	-0.11	0.57	-0.19	0.09	448.29	ppb
Calcium	43-1	51987.16	53772.96	53980.42	53246.84	2.06	ppb
Calcium	44-1	51676.22	52150.57	53217.81	52348.20	1.51	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.14	1.13	1.18	1.15	2.51	ppb
Cobalt	59-2	9.38	9.17	9.24	9.26	1.16	ppb
Copper	63-2	0.49	0.46	0.49	0.48	3.73	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				93		%
Holmium	165-2				95		%
Indium	115-1				96		%
Indium	115-2				97		%
Iron	56-2	98177.97	98560.98	99882.95	98873.97	0.90	ppb
Iron	57-2	98330.69	98789.40	96641.83	97920.64	1.15	ppb
Iron	54-2	100051.61	99487.94	99330.01	99623.19	0.38	ppb
Krypton	83-1						cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	6.44	1.10	0.10	2.55	133.75	ppb
Lead	207-1	2.52	1.67	0.07	1.42	87.47	ppb
Lead	208-1	2.65	1.57	0.08	1.43	89.80	ppb
Lithium	6-1				87		%
Magnesium	24-2	16248.70	16280.54	16096.07	16208.44	0.61	ppb
Manganese	55-2	2820.02	2748.12	2842.38	2803.51	1.76	ppb
Molybdenum	94-1	0.25	0.45	0.20	0.30	43.51	ppb
Molybdenum	95-1	0.36	0.37	0.20	0.31	30.22	ppb
Molybdenum	96-1	0.53	0.86	0.52	0.64	30.00	ppb
Molybdenum	97-1	0.22	0.57	0.13	0.31	75.79	ppb
Molybdenum	98-1	0.22	0.98	0.13	0.45	104.82	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.43	1.30	1.57	1.43	9.37	ppb
Phosphorus	31-2	71.56	83.88	43.47	66.30	31.24	ppb
Potassium	39-2	3960.78	3935.33	3897.15	3931.09	0.81	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				95		%
Scandium	45-2				92		%
Selenium	82-1	1.04	1.47	2.37	1.63	41.78	ppb
Selenium	77-2	-0.09	0.20	-0.09	0.00	4017.83	ppb
Selenium	78-2	-0.23	2.25	4.24	2.09	107.36	ppb
Silicon	28-1	484.50	508.17	528.97	507.21	4.39	ppb
Silver	107-1	0.04	0.04	0.04	0.04	7.79	ppb
Silver	109-1	0.04	0.03	0.04	0.04	13.32	ppb
Sodium	23-2	59796.80	60481.55	59661.87	59980.07	0.73	ppb
Strontium	86-1	263.13	280.92	276.12	273.39	3.37	ppb
Strontium	88-1	266.61	280.35	274.13	273.70	2.51	ppb
Sulfur	34-1	98918.99	102321.20	105202.89	102147.69	3.08	ppb
Terbium	159-1				94		%
Terbium	159-2				96		%
Thallium	203-1	0.93	0.46	0.03	0.48	94.72	ppb
Thallium	205-1	2.89	0.33	0.02	1.08	145.66	ppb
Tin	118-1	1.54	1.56	1.35	1.48	7.73	ppb
Titanium	47-1	0.94	0.52	0.32	0.60	53.12	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.31	0.13	0.01	0.15	100.09	ppb
Vanadium	51-2	0.36	0.37	0.38	0.37	3.41	ppb
Yttrium	89-1				98		%
Yttrium	89-2				94		%
Zinc	66-2	4.51	4.75	4.38	4.55	4.11	ppb
Zirconium	90-1	0.05	0.05	0.04	0.05	9.99	ppb
Zirconium	91-1	0.10	0.08	0.03	0.07	45.80	ppb

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	72.42	60.77	50.20	61.13	18.19	ppb
Antimony	121-1	0.04	0.05	0.06	0.05	14.38	ppb
Arsenic	75-2	1.15	1.20	1.09	1.15	4.70	ppb
Barium	135-1	23.46	23.59	23.65	23.56	0.41	ppb
Barium	137-1	22.82	23.07	22.96	22.95	0.55	ppb
Beryllium	9-1	0.03	0.03	0.02	0.03	17.97	ppb
Bismuth	209-1				89		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	0.02	0.10	0.05	84.64	ppb
Cadmium	106-1	0.49	-2.05	-2.04	-1.20		ppb
Cadmium	111-1	0.04	-0.13	-0.14	-0.08		ppb
Calcium	43-1	62782.22	65286.49	65447.40	64505.37	2.32	ppb
Calcium	44-1	61572.63	64989.38	64673.84	63745.28	2.96	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.86	2.84	2.71	2.80	3.07	ppb
Cobalt	59-2	13.80	13.99	13.81	13.87	0.78	ppb
Copper	63-2	0.29	0.39	0.28	0.32	20.34	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				92		%
Holmium	165-2				93		%
Indium	115-1				94		%
Indium	115-2				93		%
Iron	56-2	81098.97	81100.39	80221.02	80806.79	0.63	ppb
Iron	57-2	80615.70	80248.42	80754.51	80539.54	0.32	ppb
Iron	54-2	81260.25	81342.80	82540.60	81714.55	0.88	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.16	0.19	0.18	0.18	8.69	ppb
Lead	207-1	0.14	0.19	0.17	0.17	14.61	ppb
Lead	208-1	0.16	0.18	0.18	0.17	6.82	ppb
Lithium	6-1				85		%
Magnesium	24-2	16367.64	16909.55	16815.12	16697.43	1.73	ppb
Manganese	55-2	2824.69	2813.20	2780.64	2806.18	0.81	ppb
Molybdenum	94-1	0.33	0.35	0.35	0.35	3.20	ppb
Molybdenum	95-1	0.11	0.12	0.11	0.11	4.96	ppb
Molybdenum	96-1	0.38	0.39	0.39	0.39	1.72	ppb
Molybdenum	97-1	0.11	0.08	0.06	0.08	30.20	ppb
Molybdenum	98-1	0.06	0.07	0.06	0.07	3.92	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.42	2.66	2.41	2.50	5.76	ppb
Phosphorus	31-2	137.90	138.24	102.47	126.20	16.29	ppb
Potassium	39-2	4605.33	4851.91	4749.65	4735.63	2.62	ppb
Rhodium	103-1				93		%
Rhodium	103-2				92		%
Scandium	45-1				94		%
Scandium	45-2				92		%
Selenium	82-1	1.72	1.66	1.60	1.66	3.48	ppb
Selenium	77-2	0.20	-0.09	0.49	0.20	147.02	ppb
Selenium	78-2	1.52	2.34	0.14	1.33	83.65	ppb
Silicon	28-1	470.41	497.23	507.57	491.74	3.90	ppb
Silver	107-1	0.02	0.01	0.02	0.02	34.00	ppb
Silver	109-1	0.02	0.02	0.02	0.02	1.60	ppb
Sodium	23-2	67025.44	68253.06	68064.69	67781.06	0.98	ppb
Strontium	86-1	309.99	311.50	325.36	315.61	2.68	ppb
Strontium	88-1	315.35	314.51	329.24	319.70	2.59	ppb
Sulfur	34-1	85077.85	86189.24	89878.46	87048.52	2.89	ppb
Terbium	159-1				91		%
Terbium	159-2				94		%
Thallium	203-1	0.01	0.01	0.03	0.02	47.66	ppb
Thallium	205-1	0.01	0.01	0.02	0.01	26.53	ppb
Tin	118-1	0.88	0.87	0.82	0.86	3.71	ppb
Titanium	47-1	1.89	2.02	1.94	1.95	3.31	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.02	0.02	0.02	19.33	ppb
Vanadium	51-2	0.35	0.34	0.36	0.35	3.12	ppb
Yttrium	89-1				95		%
Yttrium	89-2				95		%
Zinc	66-2	2.62	2.45	2.90	2.66	8.66	ppb
Zirconium	90-1	0.12	0.13	0.14	0.13	8.70	ppb
Zirconium	91-1	0.13	0.10	0.16	0.13	22.05	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.50	1.26	0.25	0.67	78.60	ppb
Antimony	121-1	0.02	0.01	0.03	0.02	32.80	ppb
Arsenic	75-2	0.00	-0.02	0.03	0.00	791.14	ppb
Barium	135-1	0.19	0.18	0.17	0.18	5.42	ppb
Barium	137-1	0.17	0.15	0.15	0.16	8.74	ppb
Beryllium	9-1	0.02	0.01	0.00	0.01	109.17	ppb
Bismuth	209-1				87		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.09	-0.09	-0.13	-0.10		ppb
Cadmium	106-1	-2.08	-1.32	-1.05	-1.48		ppb
Cadmium	111-1	-0.15	-0.07	-0.07	-0.10		ppb
Calcium	43-1	53.99	56.58	55.16	55.24	2.35	ppb
Calcium	44-1	90.77	89.81	91.61	90.73	0.99	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.27	0.28	0.18	0.24	21.41	ppb
Cobalt	59-2	0.01	0.01	0.00	0.00	71.03	ppb
Copper	63-2	0.11	0.21	0.12	0.14	37.15	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				88		%
Holmium	165-2				91		%
Indium	115-1				90		%
Indium	115-2				91		%
Iron	56-2	5.47	5.87	5.45	5.60	4.25	ppb
Iron	57-2	15.56	8.77	11.61	11.98	28.47	ppb
Iron	54-2	8.39	8.83	9.08	8.77	3.96	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.04	0.02	0.03	39.29	ppb
Lead	207-1	0.05	0.05	0.03	0.04	30.09	ppb
Lead	208-1	0.04	0.04	0.03	0.04	21.03	ppb
Lithium	6-1				80		%
Magnesium	24-2	8.84	7.96	8.95	8.58	6.32	ppb
Manganese	55-2	0.13	0.22	0.20	0.18	25.79	ppb
Molybdenum	94-1	0.04	0.03	0.04	0.03	19.81	ppb
Molybdenum	95-1	0.03	0.04	0.02	0.03	19.58	ppb
Molybdenum	96-1	0.04	0.01	0.06	0.03	76.44	ppb
Molybdenum	97-1	0.54	0.04	0.05	0.21	136.28	ppb
Molybdenum	98-1	0.04	0.03	0.02	0.03	35.71	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.09	0.18	0.14	0.14	30.55	ppb
Phosphorus	31-2	-126.88	-136.89	-135.65	-133.14		ppb
Potassium	39-2	52.62	51.46	43.95	49.34	9.54	ppb
Rhodium	103-1				89		%
Rhodium	103-2				91		%
Scandium	45-1				90		%
Scandium	45-2				89		%
Selenium	82-1	1.13	-0.65	-0.53	-0.02		ppb
Selenium	77-2	-0.09	0.21	0.21	0.11	160.30	ppb
Selenium	78-2	1.36	1.70	1.75	1.60	13.25	ppb
Silicon	28-1	15.29	17.05	15.11	15.82	6.77	ppb
Silver	107-1	0.01	0.02	0.01	0.01	25.77	ppb
Silver	109-1	0.01	0.01	0.01	0.01	41.23	ppb
Sodium	23-2	445.15	442.54	434.32	440.67	1.28	ppb
Strontium	86-1	0.23	0.21	0.20	0.22	6.84	ppb
Strontium	88-1	0.09	0.11	0.10	0.10	10.21	ppb
Sulfur	34-1	-36.18	266.51	115.13	115.15	131.43	ppb
Terbium	159-1				88		%
Terbium	159-2				93		%
Thallium	203-1	0.01	0.00	0.01	0.01	86.42	ppb
Thallium	205-1	0.00	0.01	0.01	0.01	72.41	ppb
Tin	118-1	0.78	0.83	0.82	0.81	3.60	ppb
Titanium	47-1	0.05	-0.03	0.01	0.01	497.40	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.03	0.03	0.04	0.03	14.61	ppb
Yttrium	89-1				91		%
Yttrium	89-2				92		%
Zinc	66-2	0.29	0.47	0.05	0.27	79.47	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	1106.20	ppb
Zirconium	91-1	0.00	0.00	-0.01	0.00	5609.28	ppb

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	387.65	374.69	368.98	377.11	2.54	ppb
Antimony	121-1	0.06	0.07	0.06	0.06	10.79	ppb
Arsenic	75-2	2.28	1.90	2.12	2.10	9.05	ppb
Barium	135-1	15.88	15.53	16.33	15.91	2.52	ppb
Barium	137-1	15.74	15.62	15.76	15.70	0.49	ppb
Beryllium	9-1	0.77	0.81	0.75	0.78	3.91	ppb
Bismuth	209-1				89		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	-0.02	0.02	0.01	245.72	ppb
Cadmium	106-1	1.33	2.39	0.46	1.39	69.31	ppb
Cadmium	111-1	0.09	0.17	0.05	0.10	60.96	ppb
Calcium	43-1	31985.11	33284.09	33277.99	32849.06	2.28	ppb
Calcium	44-1	31258.90	32529.63	32114.08	31967.53	2.03	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.44	3.08	3.02	3.18	7.09	ppb
Cobalt	59-2	9.24	8.63	8.72	8.86	3.71	ppb
Copper	63-2	4.68	0.19	0.16	1.68	155.17	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				95		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				99		%
Iron	56-2	314640.82	314548.06	321655.34	316948.07	1.29	ppb
Iron	57-2	305967.87	308072.93	315791.23	309944.01	1.67	ppb
Iron	54-2	316674.89	315744.45	317854.40	316757.91	0.33	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.24	0.28	0.28	0.27	8.98	ppb
Lead	207-1	0.26	0.26	0.27	0.26	1.99	ppb
Lead	208-1	0.25	0.25	0.29	0.26	7.08	ppb
Lithium	6-1				84		%
Magnesium	24-2	23441.45	23993.91	24405.21	23946.86	2.02	ppb
Manganese	55-2	4128.98	4235.42	4217.63	4194.01	1.36	ppb
Molybdenum	94-1	1.59	1.70	1.69	1.66	3.80	ppb
Molybdenum	95-1	0.13	0.16	0.13	0.14	13.27	ppb
Molybdenum	96-1	1.32	1.42	1.37	1.37	3.66	ppb
Molybdenum	97-1	0.18	0.16	0.15	0.16	10.11	ppb
Molybdenum	98-1	0.08	0.10	0.11	0.09	17.50	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.07	3.04	3.30	3.80	29.02	ppb
Phosphorus	31-2	-90.81	-148.51	-130.72	-123.35		ppb
Potassium	39-2	3494.30	3319.53	3389.72	3401.19	2.59	ppb
Rhodium	103-1				95		%
Rhodium	103-2				97		%
Scandium	45-1				95		%
Scandium	45-2				96		%
Selenium	82-1	1.50	1.61	0.33	1.15	62.14	ppb
Selenium	77-2	24.59	19.63	24.05	22.76	11.97	ppb
Selenium	78-2	6.46	6.03	8.36	6.95	17.89	ppb
Silicon	28-1	416.47	430.39	432.98	426.62	2.08	ppb
Silver	107-1	0.01	0.01	0.01	0.01	7.58	ppb
Silver	109-1	0.01	0.01	0.01	0.01	20.27	ppb
Sodium	23-2	13386.17	13155.07	13209.56	13250.27	0.91	ppb
Strontium	86-1	149.00	155.96	153.25	152.74	2.30	ppb
Strontium	88-1	148.84	159.35	155.64	154.61	3.45	ppb
Sulfur	34-1	211785.39	219205.98	216513.69	215835.02	1.74	ppb
Terbium	159-1				93		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.01	0.00	0.01	134.14	ppb
Thallium	205-1	0.01	0.01	0.02	0.01	27.62	ppb
Tin	118-1	0.73	0.79	0.76	0.76	3.81	ppb
Titanium	47-1	1.26	1.50	1.27	1.34	10.06	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	6.25	ppb
Vanadium	51-2	4.30	3.56	3.72	3.86	10.06	ppb
Yttrium	89-1				111		%
Yttrium	89-2				114		%
Zinc	66-2	11.67	3.30	3.42	6.13	78.32	ppb
Zirconium	90-1	0.80	0.82	0.77	0.80	2.94	ppb
Zirconium	91-1	0.79	0.84	0.82	0.82	2.74	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	379.94	382.88	394.03	385.61	1.93	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	14.47	ppb
Arsenic	75-2	1.77	1.38	1.46	1.54	13.25	ppb
Barium	135-1	17.34	18.45	17.68	17.82	3.21	ppb
Barium	137-1	17.07	18.09	17.23	17.46	3.15	ppb
Beryllium	9-1	0.29	0.25	0.24	0.26	10.95	ppb
Bismuth	209-1				88		%
Bismuth	209-2				87		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.03	0.14	0.05	157.77	ppb
Cadmium	106-1	-0.74	-1.64	-0.62	-1.00		ppb
Cadmium	111-1	-0.05	-0.10	-0.04	-0.07		ppb
Calcium	43-1	120582.77	121372.62	122366.62	121440.67	0.74	ppb
Calcium	44-1	120544.00	123309.90	122617.33	122157.07	1.18	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.34	2.31	2.34	2.33	0.69	ppb
Cobalt	59-2	7.54	7.62	7.54	7.57	0.58	ppb
Copper	63-2	0.07	0.13	0.12	0.11	27.13	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				91		%
Holmium	165-2				90		%
Indium	115-1				91		%
Indium	115-2				90		%
Iron	56-2	185750.47	186152.45	188928.18	186943.70	0.93	ppb
Iron	57-2	183155.54	180003.20	185435.76	182864.83	1.49	ppb
Iron	54-2	185333.13	186024.51	182262.40	184540.01	1.09	ppb
Krypton	83-1						cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.13	0.16	0.16	0.15	10.49	ppb
Lead	207-1	0.18	0.16	0.12	0.15	20.89	ppb
Lead	208-1	0.15	0.16	0.13	0.15	10.23	ppb
Lithium	6-1				83		%
Magnesium	24-2	12966.62	13135.97	13045.47	13049.35	0.65	ppb
Manganese	55-2	2087.59	2084.40	2075.42	2082.47	0.30	ppb
Molybdenum	94-1	0.97	1.02	0.92	0.97	4.91	ppb
Molybdenum	95-1	0.10	0.09	0.09	0.09	8.61	ppb
Molybdenum	96-1	0.90	0.85	0.85	0.87	3.13	ppb
Molybdenum	97-1	0.15	0.11	0.13	0.13	16.97	ppb
Molybdenum	98-1	0.08	0.08	0.09	0.08	6.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	17.76	17.48	17.58	17.61	0.81	ppb
Phosphorus	31-2	-129.64	-133.76	-128.91	-130.77		ppb
Potassium	39-2	11333.73	11391.76	11385.75	11370.42	0.28	ppb
Rhodium	103-1				91		%
Rhodium	103-2				89		%
Scandium	45-1				94		%
Scandium	45-2				88		%
Selenium	82-1	1.53	2.87	2.87	2.42	32.04	ppb
Selenium	77-2	5.36	4.65	6.68	5.56	18.52	ppb
Selenium	78-2	2.50	2.74	4.47	3.24	33.15	ppb
Silicon	28-1	307.23	321.68	314.25	314.38	2.30	ppb
Silver	107-1	0.01	0.01	0.00	0.01	54.11	ppb
Silver	109-1	0.01	0.00	0.01	0.01	79.68	ppb
Sodium	23-2	136581.59	137247.59	140747.51	138192.23	1.62	ppb
Strontium	86-1	449.94	459.95	466.65	458.85	1.83	ppb
Strontium	88-1	455.30	467.21	473.04	465.18	1.94	ppb
Sulfur	34-1	205178.53	210857.15	208370.80	208135.50	1.37	ppb
Terbium	159-1				91		%
Terbium	159-2				92		%
Thallium	203-1	0.30	0.28	0.30	0.29	4.29	ppb
Thallium	205-1	0.30	0.29	0.31	0.30	2.75	ppb
Tin	118-1	0.27	0.31	0.32	0.30	9.38	ppb
Titanium	47-1	0.56	0.67	0.47	0.57	17.77	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.03	0.04	0.04	10.93	ppb
Vanadium	51-2	2.65	2.69	2.62	2.65	1.37	ppb
Yttrium	89-1				97		%
Yttrium	89-2				93		%
Zinc	66-2	18.73	19.14	18.71	18.86	1.29	ppb
Zirconium	90-1	0.44	0.51	0.48	0.48	8.08	ppb
Zirconium	91-1	0.42	0.41	0.45	0.43	4.69	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10.16	5.79	6.97	7.64	29.59	ppb
Antimony	121-1	0.05	0.05	0.05	0.05	6.59	ppb
Arsenic	75-2	9.98	10.14	9.63	9.91	2.61	ppb
Barium	135-1	15.09	15.05	15.33	15.15	0.99	ppb
Barium	137-1	15.14	15.25	15.11	15.17	0.46	ppb
Beryllium	9-1	0.01	0.01	0.00	0.01	60.98	ppb
Bismuth	209-1				82		%
Bismuth	209-2				88		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.09	-0.13	-0.09	-0.10		ppb
Cadmium	106-1	-0.96	-1.57	-2.57	-1.70		ppb
Cadmium	111-1	-0.06	-0.10	-0.17	-0.11		ppb
Calcium	43-1	119027.86	117790.09	120485.59	119101.18	1.13	ppb
Calcium	44-1	119798.06	119262.92	119400.21	119487.07	0.23	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.73	0.82	0.76	0.77	5.64	ppb
Cobalt	59-2	0.67	0.60	0.66	0.64	5.54	ppb
Copper	63-2	0.12	0.06	0.07	0.08	40.59	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				87		%
Holmium	165-2				91		%
Indium	115-1				87		%
Indium	115-2				91		%
Iron	56-2	35965.11	35385.15	35753.61	35701.29	0.82	ppb
Iron	57-2	37628.41	37081.01	36414.18	37041.20	1.64	ppb
Iron	54-2	36655.48	35700.99	36194.01	36183.49	1.32	ppb
Krypton	83-1						cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.08	0.05	0.04	0.05	37.64	ppb
Lead	207-1	0.06	0.05	0.05	0.05	13.25	ppb
Lead	208-1	0.06	0.06	0.05	0.05	10.66	ppb
Lithium	6-1				79		%
Magnesium	24-2	13135.99	13043.63	12978.20	13052.61	0.61	ppb
Manganese	55-2	879.46	867.59	861.79	869.61	1.04	ppb
Molybdenum	94-1	1.04	1.04	1.09	1.06	2.86	ppb
Molybdenum	95-1	0.91	0.92	0.96	0.93	3.10	ppb
Molybdenum	96-1	1.07	1.05	1.12	1.08	3.64	ppb
Molybdenum	97-1	0.93	0.97	0.95	0.95	2.32	ppb
Molybdenum	98-1	0.96	0.92	0.88	0.92	4.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.88	1.91	2.02	1.94	3.75	ppb
Phosphorus	31-2	-112.03	-108.25	-106.90	-109.06		ppb
Potassium	39-2	5823.87	5970.05	5962.32	5918.75	1.39	ppb
Rhodium	103-1				88		%
Rhodium	103-2				91		%
Scandium	45-1				88		%
Scandium	45-2				89		%
Selenium	82-1	-0.32	-0.09	0.58	0.06	829.64	ppb
Selenium	77-2	0.80	0.52	0.21	0.51	57.41	ppb
Selenium	78-2	2.07	3.02	3.02	2.70	20.45	ppb
Silicon	28-1	602.88	606.42	611.35	606.88	0.70	ppb
Silver	107-1	0.01	0.01	0.00	0.01	91.26	ppb
Silver	109-1	0.00	0.00	0.01	0.00	28.25	ppb
Sodium	23-2	53511.92	52542.91	53388.09	53147.64	0.99	ppb
Strontium	86-1	366.82	371.65	370.97	369.81	0.71	ppb
Strontium	88-1	361.26	373.50	375.72	370.16	2.10	ppb
Sulfur	34-1	65549.15	66947.36	66831.40	66442.64	1.17	ppb
Terbium	159-1				85		%
Terbium	159-2				92		%
Thallium	203-1	0.00	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.01	0.00	172.85	ppb
Tin	118-1	0.45	0.47	0.47	0.47	2.07	ppb
Titanium	47-1	0.28	0.33	0.22	0.27	21.17	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.15	0.15	0.15	0.15	1.68	ppb
Vanadium	51-2	0.65	0.65	0.65	0.65	0.26	ppb
Yttrium	89-1				88		%
Yttrium	89-2				91		%
Zinc	66-2	1.70	1.32	1.75	1.59	14.71	ppb
Zirconium	90-1	0.14	0.14	0.13	0.14	4.53	ppb
Zirconium	91-1	0.20	0.16	0.16	0.17	13.49	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.16	1.90	6.04	3.37	69.02	ppb
Antimony	121-1	0.03	0.04	0.04	0.04	17.12	ppb
Arsenic	75-2	9.20	9.56	9.58	9.45	2.29	ppb
Barium	135-1	29.87	30.09	30.50	30.15	1.05	ppb
Barium	137-1	28.55	30.14	30.14	29.61	3.09	ppb
Beryllium	9-1	0.02	0.02	0.04	0.03	32.51	ppb
Bismuth	209-1				86		%
Bismuth	209-2				88		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	0.03	-0.09	-0.01		ppb
Cadmium	106-1	-1.81	-0.64	-2.53	-1.66		ppb
Cadmium	111-1	-0.13	-0.04	-0.17	-0.11		ppb
Calcium	43-1	110645.35	109684.12	115070.69	111800.05	2.57	ppb
Calcium	44-1	111527.68	113553.93	115894.64	113658.75	1.92	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.64	0.49	0.51	0.55	14.38	ppb
Cobalt	59-2	0.68	0.63	0.62	0.64	4.72	ppb
Copper	63-2	0.05	0.08	0.01	0.05	77.24	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				89		%
Holmium	165-2				91		%
Indium	115-1				91		%
Indium	115-2				90		%
Iron	56-2	32633.74	33271.76	32948.04	32951.18	0.97	ppb
Iron	57-2	34333.97	33779.70	34370.40	34161.36	0.97	ppb
Iron	54-2	33237.82	33409.03	33258.94	33301.93	0.28	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.03	0.03	0.04	0.03	23.16	ppb
Lead	207-1	0.04	0.03	0.01	0.03	49.41	ppb
Lead	208-1	0.04	0.03	0.03	0.03	17.37	ppb
Lithium	6-1				82		%
Magnesium	24-2	12926.79	13278.20	13074.02	13093.01	1.35	ppb
Manganese	55-2	866.55	887.51	894.87	882.98	1.66	ppb
Molybdenum	94-1	0.21	0.27	0.27	0.25	13.17	ppb
Molybdenum	95-1	0.22	0.21	0.22	0.22	3.40	ppb
Molybdenum	96-1	0.34	0.36	0.34	0.35	3.45	ppb
Molybdenum	97-1	0.22	0.21	0.22	0.22	3.62	ppb
Molybdenum	98-1	0.23	0.21	0.22	0.22	6.17	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.91	0.84	0.86	0.87	4.11	ppb
Phosphorus	31-2	-36.82	-62.64	-39.32	-46.26		ppb
Potassium	39-2	5523.90	5670.75	5713.81	5636.16	1.77	ppb
Rhodium	103-1				88		%
Rhodium	103-2				90		%
Scandium	45-1				91		%
Scandium	45-2				89		%
Selenium	82-1	1.41	0.80	1.04	1.08	28.47	ppb
Selenium	77-2	0.22	-0.09	0.21	0.11	158.37	ppb
Selenium	78-2	1.64	1.77	1.15	1.52	21.54	ppb
Silicon	28-1	714.96	713.88	721.36	716.73	0.56	ppb
Silver	107-1	0.00	0.00	0.01	0.01	71.06	ppb
Silver	109-1	0.00	0.01	0.01	0.01	22.49	ppb
Sodium	23-2	50069.76	51216.59	50531.10	50605.82	1.14	ppb
Strontium	86-1	360.82	366.33	368.48	365.21	1.08	ppb
Strontium	88-1	360.02	374.40	375.19	369.87	2.31	ppb
Sulfur	34-1	62243.17	62197.72	63871.03	62770.64	1.52	ppb
Terbium	159-1				88		%
Terbium	159-2				91		%
Thallium	203-1	-0.01	-0.01	-0.01	-0.01		ppb
Thallium	205-1	0.00	0.00	0.01	0.00		ppb
Tin	118-1	0.42	0.48	0.43	0.44	7.74	ppb
Titanium	47-1	0.27	0.37	0.30	0.31	16.01	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.21	0.21	0.23	0.22	4.71	ppb
Yttrium	89-1				92		%
Yttrium	89-2				91		%
Zinc	66-2	0.72	0.66	0.37	0.58	32.04	ppb
Zirconium	90-1	0.17	0.03	0.02	0.07	112.17	ppb
Zirconium	91-1	0.03	0.03	0.02	0.03	13.53	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4.99	5.83	6.05	5.62	9.95	ppb
Antimony	121-1	0.04	0.05	0.05	0.05	2.84	ppb
Arsenic	75-2	9.08	9.65	9.63	9.46	3.44	ppb
Barium	135-1	14.68	14.45	14.08	14.40	2.08	ppb
Barium	137-1	14.07	14.22	14.40	14.23	1.17	ppb
Beryllium	9-1	0.03	0.00	0.00	0.01	249.72	ppb
Bismuth	209-1				98		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	0.01	0.04	0.03	68.47	ppb
Cadmium	106-1	-1.55	-2.97	-2.55	-2.36		ppb
Cadmium	111-1	-0.11	-0.21	-0.18	-0.17		ppb
Calcium	43-1	111048.77	112722.88	113127.65	112299.76	0.98	ppb
Calcium	44-1	115422.85	113451.02	113466.52	114113.47	0.99	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.37	0.45	0.42	0.41	8.79	ppb
Cobalt	59-2	0.62	0.59	0.64	0.62	3.82	ppb
Copper	63-2	0.01	0.02	-0.01	0.01	185.13	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				103		%
Holmium	165-2				100		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	34255.74	34796.89	34420.68	34491.10	0.80	ppb
Iron	57-2	34588.06	35340.36	35314.74	35081.05	1.22	ppb
Iron	54-2	34504.18	34344.82	33620.11	34156.37	1.38	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.08	0.02	0.02	0.04	88.63	ppb
Lead	207-1	0.05	0.03	0.03	0.04	36.59	ppb
Lead	208-1	0.06	0.02	0.02	0.04	54.79	ppb
Lithium	6-1				94		%
Magnesium	24-2	12780.39	12528.76	12345.40	12551.52	1.74	ppb
Manganese	55-2	833.54	836.41	804.22	824.72	2.16	ppb
Molybdenum	94-1	0.91	0.92	0.90	0.91	0.62	ppb
Molybdenum	95-1	0.83	0.84	0.78	0.81	3.67	ppb
Molybdenum	96-1	0.84	0.99	0.98	0.94	8.73	ppb
Molybdenum	97-1	0.86	0.81	0.83	0.83	3.21	ppb
Molybdenum	98-1	0.77	0.80	0.78	0.78	2.28	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.68	1.69	1.68	1.68	0.30	ppb
Phosphorus	31-2	-134.53	-133.45	-105.12	-124.36		ppb
Potassium	39-2	5571.13	5658.54	5549.85	5593.17	1.03	ppb
Rhodium	103-1				104		%
Rhodium	103-2				100		%
Scandium	45-1				105		%
Scandium	45-2				99		%
Selenium	82-1	0.77	1.10	-0.27	0.53	133.78	ppb
Selenium	77-2	0.18	0.18	-0.09	0.09	176.14	ppb
Selenium	78-2	2.18	0.24	0.68	1.03	98.27	ppb
Silicon	28-1	565.65	580.01	580.88	575.51	1.49	ppb
Silver	107-1	0.00	0.00	0.00	0.00	65.61	ppb
Silver	109-1	0.00	0.00	0.00	0.00	52.12	ppb
Sodium	23-2	50713.80	51750.22	50896.16	51120.06	1.08	ppb
Strontium	86-1	336.47	348.07	346.96	343.83	1.86	ppb
Strontium	88-1	340.85	354.00	352.78	349.21	2.08	ppb
Sulfur	34-1	60925.97	62057.48	61253.81	61412.42	0.95	ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	0.00	0.00	-0.01	0.00		ppb
Thallium	205-1	0.00	-0.01	-0.01	-0.01		ppb
Tin	118-1	0.39	0.37	0.45	0.40	9.94	ppb
Titanium	47-1	0.50	0.21	0.24	0.32	50.61	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.25	0.14	0.13	0.17	39.94	ppb
Vanadium	51-2	0.59	0.57	0.55	0.57	3.09	ppb
Yttrium	89-1				106		%
Yttrium	89-2				102		%
Zinc	66-2	1.15	1.27	1.26	1.23	5.63	ppb
Zirconium	90-1	0.11	0.13	0.12	0.12	9.38	ppb
Zirconium	91-1	0.13	0.15	0.13	0.14	7.36	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	483.66	488.41	489.91	487.33	0.67	ppb
Antimony	121-1	0.00	0.00	0.01	0.00	169.52	ppb
Arsenic	75-2	0.31	0.25	0.28	0.28	10.80	ppb
Barium	135-1	2.81	2.44	2.26	2.50	11.25	ppb
Barium	137-1	2.29	2.34	2.29	2.31	1.20	ppb
Beryllium	9-1	0.50	0.48	0.60	0.53	12.09	ppb
Bismuth	209-1				95		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.02	0.09	0.03	198.51	ppb
Cadmium	106-1	-1.03	-2.11	-1.32	-1.49		ppb
Cadmium	111-1	-0.08	-0.15	-0.10	-0.11		ppb
Calcium	43-1	5025.07	5242.95	5330.54	5199.52	3.03	ppb
Calcium	44-1	4949.28	5244.44	5266.16	5153.29	3.44	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.27	0.33	0.26	0.29	14.27	ppb
Cobalt	59-2	15.96	15.87	15.61	15.81	1.14	ppb
Copper	63-2	0.04	0.05	0.09	0.06	39.70	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				98		%
Holmium	165-2				100		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	56-2	58372.11	58428.35	57584.62	58128.36	0.81	ppb
Iron	57-2	57954.27	57917.66	56124.49	57332.14	1.82	ppb
Iron	54-2	57136.55	57555.27	57260.77	57317.53	0.38	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.03	0.05	0.04	22.70	ppb
Lead	207-1	0.03	0.03	0.05	0.04	20.54	ppb
Lead	208-1	0.05	0.04	0.05	0.04	10.62	ppb
Lithium	6-1				91		%
Magnesium	24-2	1783.66	1777.04	1743.27	1767.99	1.23	ppb
Manganese	55-2	1151.33	1150.68	1150.12	1150.71	0.05	ppb
Molybdenum	94-1	0.15	0.09	0.10	0.11	29.59	ppb
Molybdenum	95-1	0.07	0.04	0.02	0.04	60.73	ppb
Molybdenum	96-1	0.26	0.25	0.26	0.26	1.62	ppb
Molybdenum	97-1	0.04	0.03	0.06	0.04	39.14	ppb
Molybdenum	98-1	0.03	0.04	0.04	0.04	7.93	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	30.27	30.08	30.01	30.12	0.45	ppb
Phosphorus	31-2	-130.77	-125.62	-142.59	-132.99		ppb
Potassium	39-2	4931.96	4811.45	4871.95	4871.79	1.24	ppb
Rhodium	103-1				98		%
Rhodium	103-2				98		%
Scandium	45-1				99		%
Scandium	45-2				96		%
Selenium	82-1	-0.61	0.63	-0.86	-0.28		ppb
Selenium	77-2	1.00	2.11	0.73	1.28	57.14	ppb
Selenium	78-2	1.71	1.43	2.21	1.78	22.29	ppb
Silicon	28-1	48.83	50.98	54.27	51.36	5.33	ppb
Silver	107-1	0.00	0.00	0.00	0.00	134.44	ppb
Silver	109-1	0.00	0.00	0.00	0.00	371.16	ppb
Sodium	23-2	90094.31	88454.15	85880.09	88142.85	2.41	ppb
Strontium	86-1	36.93	37.07	36.43	36.81	0.91	ppb
Strontium	88-1	36.74	36.72	36.17	36.55	0.88	ppb
Sulfur	34-1	106003.19	106708.33	114389.86	109033.79	4.27	ppb
Terbium	159-1				97		%
Terbium	159-2				102		%
Thallium	203-1	-0.01	0.00	-0.01	-0.01		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	0.09	0.08	0.10	0.09	12.61	ppb
Titanium	47-1	0.18	0.19	0.17	0.18	8.03	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.65	0.65	0.61	0.64	3.18	ppb
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	33.74	34.49	32.75	33.66	2.60	ppb
Zirconium	90-1	0.04	0.04	0.04	0.04	4.90	ppb
Zirconium	91-1	0.07	0.03	0.04	0.05	44.06	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.43	0.71	-0.07	0.36	111.43	ppb
Antimony	121-1	0.01	0.01	0.02	0.01	52.94	ppb
Arsenic	75-2	0.01	0.04	-0.03	0.01	490.72	ppb
Barium	135-1	0.13	0.15	0.14	0.14	5.39	ppb
Barium	137-1	0.14	0.14	0.14	0.14	2.43	ppb
Beryllium	9-1	0.00	0.02	-0.01	0.00	433.71	ppb
Bismuth	209-1				90		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.01	-0.05	-0.01	-0.02		ppb
Cadmium	106-1	-2.77	-3.64	-2.59	-3.00		ppb
Cadmium	111-1	-0.20	-0.26	-0.18	-0.21		ppb
Calcium	43-1	57.96	57.12	54.65	56.58	3.04	ppb
Calcium	44-1	79.60	85.16	85.42	83.39	3.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.30	0.27	0.35	0.30	12.88	ppb
Cobalt	59-2	0.03	0.02	0.02	0.02	27.26	ppb
Copper	63-2	0.00	0.01	-0.06	-0.02		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				90		%
Holmium	165-2				92		%
Indium	115-1				90		%
Indium	115-2				91		%
Iron	56-2	94.72	95.96	93.21	94.63	1.45	ppb
Iron	57-2	97.18	97.89	91.17	95.42	3.87	ppb
Iron	54-2	100.01	97.19	96.76	97.98	1.81	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	0.00	0.02	0.01	100.84	ppb
Lead	207-1	0.03	0.01	0.03	0.03	42.98	ppb
Lead	208-1	0.02	0.01	0.02	0.02	30.50	ppb
Lithium	6-1				84		%
Magnesium	24-2	9.75	10.49	10.36	10.20	3.91	ppb
Manganese	55-2	2.10	2.02	2.07	2.06	2.13	ppb
Molybdenum	94-1	0.03	0.06	0.03	0.04	44.02	ppb
Molybdenum	95-1	0.05	0.02	0.02	0.03	57.40	ppb
Molybdenum	96-1	0.03	0.05	0.02	0.03	43.25	ppb
Molybdenum	97-1	0.01	0.05	0.04	0.03	60.50	ppb
Molybdenum	98-1	0.04	0.00	0.04	0.03	75.33	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.16	0.20	0.24	0.20	19.99	ppb
Phosphorus	31-2	-135.06	-123.27	-151.03	-136.45		ppb
Potassium	39-2	49.37	50.87	49.29	49.85	1.79	ppb
Rhodium	103-1				92		%
Rhodium	103-2				91		%
Scandium	45-1				92		%
Scandium	45-2				88		%
Selenium	82-1	-0.49	-0.68	0.85	-0.10		ppb
Selenium	77-2	0.21	0.21	-0.09	0.11	158.36	ppb
Selenium	78-2	1.40	0.63	2.23	1.42	56.18	ppb
Silicon	28-1	10.92	11.95	12.69	11.85	7.49	ppb
Silver	107-1	0.00	0.00	0.01	0.00	87.04	ppb
Silver	109-1	0.00	0.00	0.00	0.00	5338.50	ppb
Sodium	23-2	504.24	508.81	496.69	503.25	1.22	ppb
Strontium	86-1	0.17	0.24	0.26	0.22	20.63	ppb
Strontium	88-1	0.16	0.15	0.16	0.16	5.34	ppb
Sulfur	34-1	-119.83	99.94	202.22	60.78	270.76	ppb
Terbium	159-1				90		%
Terbium	159-2				93		%
Thallium	203-1	0.00	-0.01	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	0.59	0.56	0.60	0.58	3.24	ppb
Titanium	47-1	-0.02	0.00	-0.02	-0.01		ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.04	0.02	0.02	0.03	33.53	ppb
Yttrium	89-1				92		%
Yttrium	89-2				91		%
Zinc	66-2	-0.06	0.02	-0.22	-0.09		ppb
Zirconium	90-1	-0.01	0.00	0.00	0.00		ppb
Zirconium	91-1	-0.02	0.00	-0.01	-0.01		ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	895.91	903.58	899.51	899.66	0.43	ppb
Antimony	121-1	0.03	0.05	0.04	0.04	24.13	ppb
Arsenic	75-2	3.38	3.14	3.28	3.27	3.77	ppb
Barium	135-1	25.11	25.01	23.88	24.66	2.77	ppb
Barium	137-1	23.96	24.56	24.03	24.18	1.35	ppb
Beryllium	9-1	0.06	0.05	0.04	0.05	18.51	ppb
Bismuth	209-1				88		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.11	-0.01	0.09	0.06	103.91	ppb
Cadmium	106-1	-1.19	-2.39	-1.27	-1.62		ppb
Cadmium	111-1	-0.07	-0.14	-0.07	-0.09		ppb
Calcium	43-1	27478.58	26591.55	27661.30	27243.81	2.10	ppb
Calcium	44-1	26904.40	26538.77	26771.43	26738.20	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6.62	6.80	6.54	6.65	2.06	ppb
Cobalt	59-2	7.23	7.21	7.19	7.21	0.33	ppb
Copper	63-2	0.39	0.35	0.39	0.38	6.53	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				92		%
Holmium	165-2				93		%
Indium	115-1				90		%
Indium	115-2				92		%
Iron	56-2	78949.83	79449.18	77860.73	78753.24	1.03	ppb
Iron	57-2	80472.28	78529.72	76745.24	78582.41	2.37	ppb
Iron	54-2	79585.65	80240.28	77427.58	79084.50	1.86	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.24	0.22	0.25	0.24	8.39	ppb
Lead	207-1	0.20	0.23	0.24	0.22	8.58	ppb
Lead	208-1	0.23	0.22	0.24	0.23	5.01	ppb
Lithium	6-1				85		%
Magnesium	24-2	7200.32	7185.13	7276.15	7220.53	0.68	ppb
Manganese	55-2	295.43	295.15	291.89	294.15	0.67	ppb
Molybdenum	94-1	0.67	0.70	0.62	0.66	5.90	ppb
Molybdenum	95-1	0.33	0.31	0.30	0.31	3.94	ppb
Molybdenum	96-1	0.63	0.68	0.65	0.65	3.78	ppb
Molybdenum	97-1	0.34	0.38	0.36	0.36	5.00	ppb
Molybdenum	98-1	0.31	0.32	0.34	0.32	5.69	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	13.07	13.03	13.09	13.07	0.23	ppb
Phosphorus	31-2	-103.78	-91.25	-106.83	-100.62		ppb
Potassium	39-2	8205.01	8388.54	8390.04	8327.86	1.28	ppb
Rhodium	103-1				90		%
Rhodium	103-2				90		%
Scandium	45-1				92		%
Scandium	45-2				89		%
Selenium	82-1	0.58	0.38	1.02	0.66	50.53	ppb
Selenium	77-2	8.37	10.66	6.96	8.66	21.57	ppb
Selenium	78-2	4.81	2.54	2.29	3.21	43.10	ppb
Silicon	28-1	116.44	119.81	119.46	118.57	1.56	ppb
Silver	107-1	0.02	0.01	0.01	0.01	54.60	ppb
Silver	109-1	0.01	0.00	0.00	0.01	31.84	ppb
Sodium	23-2	70026.88	69891.30	69133.80	69683.99	0.69	ppb
Strontium	86-1	50.25	53.08	51.77	51.70	2.74	ppb
Strontium	88-1	49.69	51.49	51.63	50.94	2.12	ppb
Sulfur	34-1	28896.45	28933.86	30976.20	29602.17	4.02	ppb
Terbium	159-1				91		%
Terbium	159-2				93		%
Thallium	203-1	0.00	0.00	0.00	0.00	183.31	ppb
Thallium	205-1	0.00	0.01	0.00	0.00	115.60	ppb
Tin	118-1	0.77	0.86	0.88	0.84	7.36	ppb
Titanium	47-1	0.28	0.22	0.28	0.26	12.97	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.03	0.04	0.05	0.04	17.91	ppb
Vanadium	51-2	2.27	2.25	2.18	2.23	1.99	ppb
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	18.36	19.01	17.30	18.22	4.75	ppb
Zirconium	90-1	0.20	0.21	0.19	0.20	4.41	ppb
Zirconium	91-1	0.22	0.22	0.26	0.23	9.54	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	402.58	415.95	425.70	414.74	2.80	ppb
Antimony	121-1	0.06	0.06	0.07	0.07	10.30	ppb
Arsenic	75-2	0.31	0.19	0.20	0.23	29.70	ppb
Barium	135-1	74.69	74.62	77.12	75.48	1.89	ppb
Barium	137-1	72.15	73.39	75.28	73.60	2.14	ppb
Beryllium	9-1	0.03	0.02	0.02	0.02	39.99	ppb
Bismuth	209-1				84		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	0.10	-0.04	0.03	244.58	ppb
Cadmium	106-1	-2.05	-4.74	-3.35	-3.38		ppb
Cadmium	111-1	-0.11	-0.31	-0.19	-0.20		ppb
Calcium	43-1	170077.81	171501.73	164464.49	168681.35	2.21	ppb
Calcium	44-1	168449.03	169848.99	170560.83	169619.62	0.63	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.31	1.38	1.24	1.31	5.40	ppb
Cobalt	59-2	1.88	1.93	1.91	1.91	1.26	ppb
Copper	63-2	0.57	0.55	0.55	0.56	2.39	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				88		%
Holmium	165-2				86		%
Indium	115-1				89		%
Indium	115-2				86		%
Iron	56-2	2004.41	2002.79	1983.80	1997.00	0.57	ppb
Iron	57-2	3485.70	3556.78	3520.58	3521.02	1.01	ppb
Iron	54-2	2076.72	2076.48	2054.83	2069.34	0.61	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.20	0.28	0.22	0.23	17.24	ppb
Lead	207-1	0.20	0.21	0.22	0.21	2.84	ppb
Lead	208-1	0.21	0.24	0.23	0.23	6.80	ppb
Lithium	6-1				83		%
Magnesium	24-2	25694.34	25898.33	25800.39	25797.68	0.40	ppb
Manganese	55-2	252.35	251.29	248.17	250.60	0.87	ppb
Molybdenum	94-1	1.63	0.97	1.02	1.21	30.61	ppb
Molybdenum	95-1	0.44	0.46	0.49	0.47	5.41	ppb
Molybdenum	96-1	0.53	0.51	0.52	0.52	2.62	ppb
Molybdenum	97-1	0.52	0.56	0.50	0.53	5.74	ppb
Molybdenum	98-1	0.52	0.48	0.48	0.49	4.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.81	2.92	2.80	2.84	2.31	ppb
Phosphorus	31-2	-118.21	-121.64	-130.19	-123.35		ppb
Potassium	39-2	2173.21	2163.49	2153.93	2163.54	0.45	ppb
Rhodium	103-1				87		%
Rhodium	103-2				84		%
Scandium	45-1				89		%
Scandium	45-2				85		%
Selenium	82-1	0.99	0.41	1.04	0.81	42.80	ppb
Selenium	77-2	0.23	0.52	0.54	0.43	40.19	ppb
Selenium	78-2	1.44	1.13	1.24	1.27	12.20	ppb
Silicon	28-1	925.38	915.80	944.11	928.43	1.55	ppb
Silver	107-1	0.00	0.01	0.01	0.01	38.81	ppb
Silver	109-1	0.00	0.01	0.01	0.01	31.23	ppb
Sodium	23-2	18248.46	18425.83	18488.31	18387.54	0.68	ppb
Strontium	86-1	664.70	667.33	668.47	666.83	0.29	ppb
Strontium	88-1	674.49	661.80	680.73	672.34	1.43	ppb
Sulfur	34-1	116549.40	115971.39	117365.16	116628.65	0.60	ppb
Terbium	159-1				87		%
Terbium	159-2				87		%
Thallium	203-1	0.01	-0.01	0.00	0.00	406.69	ppb
Thallium	205-1	0.00	0.01	0.00	0.00	28.02	ppb
Tin	118-1	0.58	0.55	0.59	0.57	3.91	ppb
Titanium	47-1	18.82	9.31	12.81	13.65	35.25	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.71	0.74	0.75	0.73	3.33	ppb
Vanadium	51-2	0.74	0.76	0.78	0.76	2.97	ppb
Yttrium	89-1				89		%
Yttrium	89-2				88		%
Zinc	66-2	2.94	2.83	3.11	2.96	4.77	ppb
Zirconium	90-1	0.23	0.24	0.25	0.24	3.36	ppb
Zirconium	91-1	0.29	0.30	0.37	0.32	13.75	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12.84	13.72	6.70	11.09	34.50	ppb
Antimony	121-1	0.02	0.02	0.03	0.02	23.12	ppb
Arsenic	75-2	-0.03	0.04	0.04	0.02	263.16	ppb
Barium	135-1	98.84	105.08	100.86	101.60	3.13	ppb
Barium	137-1	97.22	105.15	99.75	100.70	4.02	ppb
Beryllium	9-1	-0.01	0.00	-0.01	-0.01		ppb
Bismuth	209-1				90		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	0.03	-0.05	-0.03		ppb
Cadmium	106-1	-2.90	-1.02	-2.75	-2.22		ppb
Cadmium	111-1	-0.19	-0.06	-0.19	-0.15		ppb
Calcium	43-1	92261.45	102120.99	94395.95	96259.46	5.39	ppb
Calcium	44-1	93499.85	98514.75	92845.59	94953.40	3.27	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.56	0.64	0.55	0.58	7.79	ppb
Cobalt	59-2	0.23	0.22	0.23	0.23	3.90	ppb
Copper	63-2	0.04	0.03	0.05	0.04	23.04	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				94		%
Holmium	165-2				92		%
Indium	115-1				94		%
Indium	115-2				93		%
Iron	56-2	3154.08	3261.66	3240.45	3218.73	1.77	ppb
Iron	57-2	4016.73	4185.18	4181.37	4127.76	2.33	ppb
Iron	54-2	3226.58	3370.15	3392.68	3329.80	2.71	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.06	0.04	0.06	0.05	16.88	ppb
Lead	207-1	0.06	0.08	0.07	0.07	12.51	ppb
Lead	208-1	0.05	0.06	0.05	0.06	7.35	ppb
Lithium	6-1				88		%
Magnesium	24-2	5785.81	5922.40	5981.76	5896.65	1.70	ppb
Manganese	55-2	87.95	90.51	91.31	89.92	1.95	ppb
Molybdenum	94-1	0.06	0.06	0.09	0.07	28.50	ppb
Molybdenum	95-1	0.07	0.07	0.05	0.06	21.07	ppb
Molybdenum	96-1	0.10	0.08	0.08	0.08	13.30	ppb
Molybdenum	97-1	0.04	0.08	0.05	0.05	40.40	ppb
Molybdenum	98-1	0.06	0.08	0.07	0.07	18.57	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.47	0.46	0.44	0.46	3.22	ppb
Phosphorus	31-2	-126.67	-99.12	-122.01	-115.94		ppb
Potassium	39-2	3555.31	3702.32	3687.21	3648.28	2.22	ppb
Rhodium	103-1				93		%
Rhodium	103-2				91		%
Scandium	45-1				94		%
Scandium	45-2				91		%
Selenium	82-1	0.37	-0.23	0.10	0.08	376.02	ppb
Selenium	77-2	-0.09	0.21	0.54	0.22	144.28	ppb
Selenium	78-2	0.83	0.37	1.77	0.99	71.94	ppb
Silicon	28-1	325.27	357.61	337.78	340.22	4.79	ppb
Silver	107-1	0.00	0.00	0.01	0.00	88.59	ppb
Silver	109-1	0.00	0.00	0.00	0.00	95.46	ppb
Sodium	23-2	8354.06	8698.59	8781.06	8611.24	2.63	ppb
Strontium	86-1	2042.93	2201.60	2095.70	2113.41	3.82	ppb
Strontium	88-1	2012.08	2215.00	2031.49	2086.19	5.37	ppb
Sulfur	34-1	11925.08	13550.12	12282.82	12586.01	6.78	ppb
Terbium	159-1				93		%
Terbium	159-2				93		%
Thallium	203-1	-0.02	-0.01	-0.01	-0.01		ppb
Thallium	205-1	-0.01	-0.01	-0.01	-0.01		ppb
Tin	118-1	0.16	0.19	0.19	0.18	9.82	ppb
Titanium	47-1	0.23	0.37	0.28	0.29	23.42	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.03	0.03	0.03	3.47	ppb
Vanadium	51-2	0.05	0.04	0.05	0.05	12.88	ppb
Yttrium	89-1				97		%
Yttrium	89-2				92		%
Zinc	66-2	0.85	0.60	1.02	0.82	25.27	ppb
Zirconium	90-1	0.00	0.01	0.00	0.00	103.94	ppb
Zirconium	91-1	0.02	0.01	0.01	0.01	49.26	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	538.06	478.50	655.67	557.41	16.17	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	17.99	ppb
Arsenic	75-2	1.94	1.62	1.72	1.76	9.13	ppb
Barium	135-1	44.76	43.20	43.36	43.77	1.96	ppb
Barium	137-1	43.99	44.52	43.97	44.16	0.71	ppb
Beryllium	9-1	0.12	0.18	0.13	0.14	22.70	ppb
Bismuth	209-1				85		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.07	-0.05	0.03	0.02	322.60	ppb
Cadmium	106-1	-2.99	-1.66	-5.89	-3.51		ppb
Cadmium	111-1	-0.21	-0.11	-0.42	-0.25		ppb
Calcium	43-1	6670.94	6771.09	6755.79	6732.61	0.80	ppb
Calcium	44-1	6714.08	6697.68	6506.66	6639.47	1.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.79	1.85	1.80	1.81	1.63	ppb
Cobalt	59-2	40.52	41.47	41.51	41.17	1.36	ppb
Copper	63-2	0.40	0.40	0.40	0.40	0.50	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				86		%
Holmium	165-2				88		%
Indium	115-1				88		%
Indium	115-2				89		%
Iron	56-2	72695.68	72715.06	74112.14	73174.30	1.11	ppb
Iron	57-2	72398.75	72749.81	72164.14	72437.57	0.41	ppb
Iron	54-2	72705.86	73853.54	75416.84	73992.08	1.84	ppb
Krypton	83-1						cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.27	0.32	0.35	0.31	12.41	ppb
Lead	207-1	0.23	0.29	0.31	0.28	16.42	ppb
Lead	208-1	0.25	0.33	0.32	0.30	15.49	ppb
Lithium	6-1				83		%
Magnesium	24-2	10391.10	10574.40	10859.42	10608.31	2.22	ppb
Manganese	55-2	2791.12	2808.05	2848.51	2815.89	1.05	ppb
Molybdenum	94-1	1.36	1.49	1.91	1.59	18.00	ppb
Molybdenum	95-1	0.21	0.21	0.20	0.21	1.42	ppb
Molybdenum	96-1	0.57	0.59	0.61	0.59	3.01	ppb
Molybdenum	97-1	0.17	0.18	0.15	0.17	6.93	ppb
Molybdenum	98-1	0.14	0.16	0.16	0.15	9.64	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	37.30	37.34	37.62	37.42	0.47	ppb
Phosphorus	31-2	-49.22	-35.20	-25.62	-36.68		ppb
Potassium	39-2	1807.62	1825.70	1877.15	1836.82	1.96	ppb
Rhodium	103-1				88		%
Rhodium	103-2				86		%
Scandium	45-1				88		%
Scandium	45-2				85		%
Selenium	82-1	0.63	1.28	0.62	0.84	44.78	ppb
Selenium	77-2	0.86	0.54	1.51	0.97	50.58	ppb
Selenium	78-2	3.06	1.85	1.99	2.30	28.73	ppb
Silicon	28-1	732.26	686.28	669.49	696.01	4.67	ppb
Silver	107-1	0.00	0.00	0.00	0.00	238.84	ppb
Silver	109-1	0.00	0.00	0.00	0.00	330.39	ppb
Sodium	23-2	13070.44	12651.05	12968.49	12896.66	1.70	ppb
Strontium	86-1	55.91	59.52	59.74	58.39	3.68	ppb
Strontium	88-1	55.39	59.04	57.64	57.36	3.20	ppb
Sulfur	34-1	29499.72	31730.37	31851.35	31027.15	4.27	ppb
Terbium	159-1				87		%
Terbium	159-2				90		%
Thallium	203-1	0.00	-0.01	-0.01	-0.01		ppb
Thallium	205-1	0.00	-0.01	0.00	0.00		ppb
Tin	118-1	0.35	0.37	0.39	0.37	4.87	ppb
Titanium	47-1	15.15	23.06	40.68	26.30	49.70	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.05	0.07	0.06	0.06	13.91	ppb
Vanadium	51-2	2.21	2.19	2.33	2.24	3.32	ppb
Yttrium	89-1				90		%
Yttrium	89-2				87		%
Zinc	66-2	93.73	93.99	94.38	94.03	0.35	ppb
Zirconium	90-1	0.66	0.76	0.75	0.72	7.66	ppb
Zirconium	91-1	0.67	0.71	0.85	0.74	13.10	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	74.88	85.80	81.22	80.63	6.80	ppb
Antimony	121-1	0.07	0.07	0.09	0.08	11.18	ppb
Arsenic	75-2	8.52	8.62	7.68	8.27	6.24	ppb
Barium	135-1	24.47	24.79	25.02	24.76	1.12	ppb
Barium	137-1	25.48	25.14	25.61	25.41	0.96	ppb
Beryllium	9-1	0.04	0.05	0.02	0.04	37.41	ppb
Bismuth	209-1				89		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.17	-0.05	0.17	0.10	134.13	ppb
Cadmium	106-1	-1.58	-4.01	-3.33	-2.97		ppb
Cadmium	111-1	-0.08	-0.23	-0.16	-0.16		ppb
Calcium	43-1	13605.93	14262.75	14388.29	14085.66	2.98	ppb
Calcium	44-1	13441.85	13879.36	13949.37	13756.86	2.00	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	17.15	17.24	17.03	17.14	0.62	ppb
Cobalt	59-2	2.29	2.16	2.28	2.24	3.15	ppb
Copper	63-2	2.56	2.50	2.60	2.55	2.10	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				90		%
Holmium	165-2				93		%
Indium	115-1				91		%
Indium	115-2				94		%
Iron	56-2	67292.69	67701.56	68522.87	67839.04	0.92	ppb
Iron	57-2	65591.26	67485.94	67711.41	66929.54	1.74	ppb
Iron	54-2	67959.93	68361.16	66937.05	67752.71	1.08	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.51	0.56	0.55	0.54	5.15	ppb
Lead	207-1	0.48	0.50	0.52	0.50	3.66	ppb
Lead	208-1	0.51	0.52	0.53	0.52	1.87	ppb
Lithium	6-1				84		%
Magnesium	24-2	4493.83	4521.09	4543.62	4519.51	0.55	ppb
Manganese	55-2	287.22	288.44	290.52	288.73	0.58	ppb
Molybdenum	94-1	1.30	1.41	1.38	1.36	4.15	ppb
Molybdenum	95-1	1.10	1.16	1.10	1.12	2.93	ppb
Molybdenum	96-1	1.33	1.43	1.46	1.41	4.91	ppb
Molybdenum	97-1	1.04	1.04	1.17	1.08	6.84	ppb
Molybdenum	98-1	1.09	1.09	1.08	1.09	0.20	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	27.85	28.19	27.60	27.88	1.06	ppb
Phosphorus	31-2	-128.14	-134.47	-141.98	-134.86		ppb
Potassium	39-2	4647.20	4712.96	4707.46	4689.20	0.78	ppb
Rhodium	103-1				93		%
Rhodium	103-2				92		%
Scandium	45-1				91		%
Scandium	45-2				91		%
Selenium	82-1	0.39	1.20	0.06	0.55	106.16	ppb
Selenium	77-2	0.21	1.08	0.20	0.50	102.19	ppb
Selenium	78-2	1.34	1.60	2.45	1.79	32.41	ppb
Silicon	28-1	222.48	237.72	233.08	231.09	3.38	ppb
Silver	107-1	0.00	0.00	0.00	0.00	1389.62	ppb
Silver	109-1	0.00	0.00	0.00	0.00	431.59	ppb
Sodium	23-2	11774.47	11956.56	11742.26	11824.43	0.98	ppb
Strontium	86-1	68.93	73.02	72.66	71.54	3.17	ppb
Strontium	88-1	69.81	70.33	72.22	70.79	1.79	ppb
Sulfur	34-1	7252.95	7800.29	7419.97	7491.07	3.74	ppb
Terbium	159-1				93		%
Terbium	159-2				94		%
Thallium	203-1	-0.01	-0.01	-0.01	-0.01		ppb
Thallium	205-1	0.00	0.00	-0.01	-0.01		ppb
Tin	118-1	1.73	1.91	1.81	1.82	4.95	ppb
Titanium	47-1	1.56	1.41	1.42	1.46	5.80	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.04	0.03	0.04	6.78	ppb
Vanadium	51-2	0.94	0.88	0.88	0.90	3.47	ppb
Yttrium	89-1				92		%
Yttrium	89-2				94		%
Zinc	66-2	179.89	180.03	180.81	180.24	0.27	ppb
Zirconium	90-1	0.18	0.23	0.20	0.21	13.79	ppb
Zirconium	91-1	0.19	0.19	0.20	0.20	1.87	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	506.48	508.30	500.42	505.06	0.82	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	10.62	ppb
Arsenic	75-2	1.78	1.96	1.46	1.73	14.77	ppb
Barium	135-1	16.29	16.27	16.67	16.41	1.37	ppb
Barium	137-1	16.51	16.44	16.43	16.46	0.27	ppb
Beryllium	9-1	1.09	1.16	1.16	1.14	3.71	ppb
Bismuth	209-1				88		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.09	-0.09	-0.08		ppb
Cadmium	106-1	-2.39	-2.65	-1.34	-2.13		ppb
Cadmium	111-1	-0.16	-0.17	-0.08	-0.14		ppb
Calcium	43-1	76644.28	75857.58	76808.01	76436.62	0.66	ppb
Calcium	44-1	74926.49	73691.55	74520.03	74379.36	0.85	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.94	0.86	0.91	0.91	4.46	ppb
Cobalt	59-2	10.37	10.39	10.25	10.34	0.78	ppb
Copper	63-2	0.01	0.01	0.01	0.01	57.90	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				92		%
Holmium	165-2				92		%
Indium	115-1				93		%
Indium	115-2				92		%
Iron	56-2	72249.55	72619.51	72866.60	72578.55	0.43	ppb
Iron	57-2	72119.27	72957.10	71849.35	72308.57	0.80	ppb
Iron	54-2	71165.29	72168.39	72048.77	71794.15	0.76	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.18	0.18	0.18	0.18	2.05	ppb
Lead	207-1	0.17	0.22	0.21	0.20	13.78	ppb
Lead	208-1	0.18	0.19	0.19	0.19	4.49	ppb
Lithium	6-1				86		%
Magnesium	24-2	8908.61	9066.33	8967.52	8980.82	0.89	ppb
Manganese	55-2	1440.86	1471.00	1462.02	1457.96	1.06	ppb
Molybdenum	94-1	0.31	0.32	0.34	0.32	4.59	ppb
Molybdenum	95-1	0.10	0.07	0.10	0.09	19.35	ppb
Molybdenum	96-1	0.32	0.37	0.35	0.35	6.88	ppb
Molybdenum	97-1	0.06	0.06	0.07	0.07	13.52	ppb
Molybdenum	98-1	0.09	0.06	0.06	0.07	20.72	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	12.08	12.17	12.26	12.17	0.71	ppb
Phosphorus	31-2	-83.89	-97.60	-80.25	-87.25		ppb
Potassium	39-2	16224.66	16125.54	16081.27	16143.82	0.45	ppb
Rhodium	103-1				92		%
Rhodium	103-2				90		%
Scandium	45-1				93		%
Scandium	45-2				89		%
Selenium	82-1	1.19	1.01	0.89	1.03	14.62	ppb
Selenium	77-2	3.76	1.68	3.18	2.87	37.34	ppb
Selenium	78-2	2.66	4.34	1.06	2.69	61.07	ppb
Silicon	28-1	230.85	233.29	233.97	232.70	0.71	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	-0.01	0.00	0.00	0.00		ppb
Sodium	23-2	51890.08	51467.63	51044.58	51467.43	0.82	ppb
Strontium	86-1	148.06	151.72	149.89	149.89	1.22	ppb
Strontium	88-1	151.11	150.20	152.31	151.21	0.70	ppb
Sulfur	34-1	103587.86	103366.60	105396.06	104116.84	1.07	ppb
Terbium	159-1				90		%
Terbium	159-2				92		%
Thallium	203-1	0.10	0.09	0.10	0.10	8.84	ppb
Thallium	205-1	0.09	0.08	0.10	0.09	10.10	ppb
Tin	118-1	0.89	0.87	0.94	0.90	4.32	ppb
Titanium	47-1	0.20	0.16	0.18	0.18	11.15	ppb

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.07	0.06	0.06	0.07	11.56	ppb
Vanadium	51-2	2.63	2.80	2.64	2.69	3.49	ppb
Yttrium	89-1				96		%
Yttrium	89-2				94		%
Zinc	66-2	16.06	16.41	15.30	15.92	3.57	ppb
Zirconium	90-1	0.10	0.11	0.13	0.12	12.12	ppb
Zirconium	91-1	0.11	0.11	0.14	0.12	12.14	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50814.57	51893.86	52286.37	51664.93	1.48	ppb
Antimony	121-1	515.53	529.51	526.19	523.74	1.39	ppb
Arsenic	75-2	487.58	487.75	489.26	488.20	0.19	ppb
Barium	135-1	2558.21	2623.02	2618.33	2599.85	1.39	ppb
Barium	137-1	2496.33	2575.70	2617.59	2563.21	2.40	ppb
Beryllium	9-1	495.10	520.33	511.01	508.81	2.51	ppb
Bismuth	209-1				87		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	487.06	503.34	514.43	501.61	2.74	ppb
Cadmium	106-1	487.92	501.13	504.26	497.77	1.74	ppb
Cadmium	111-1	485.40	506.54	503.98	498.64	2.31	ppb
Calcium	43-1	245386.24	245639.43	255859.35	248961.67	2.40	ppb
Calcium	44-1	250627.04	252579.03	258874.46	254026.84	1.70	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	502.07	498.16	503.86	501.36	0.58	ppb
Cobalt	59-2	493.11	509.05	503.15	501.77	1.61	ppb
Copper	63-2	4924.99	4885.84	4944.25	4918.36	0.61	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				93		%
Holmium	165-2				90		%
Indium	115-1				89		%
Indium	115-2				88		%
Iron	56-2	132268.68	131331.84	133413.46	132338.00	0.79	ppb
Iron	57-2	129444.95	130965.16	133484.85	131298.32	1.55	ppb
Iron	54-2	129439.14	131246.15	134592.27	131759.19	1.98	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2519.85	2548.52	2584.14	2550.84	1.26	ppb
Lead	207-1	2518.39	2500.58	2558.79	2525.92	1.18	ppb
Lead	208-1	2476.72	2496.85	2544.39	2505.98	1.39	ppb
Lithium	6-1				85		%
Magnesium	24-2	245814.25	248623.25	253859.93	249432.48	1.64	ppb
Manganese	55-2	4981.61	4985.17	5173.65	5046.81	2.18	ppb
Molybdenum	94-1	4926.99	5143.11	5217.61	5095.90	2.96	ppb
Molybdenum	95-1	5071.84	5246.68	5117.49	5145.34	1.76	ppb
Molybdenum	96-1	5016.44	5209.24	5170.72	5132.13	1.99	ppb
Molybdenum	97-1	4839.63	5073.73	5176.84	5030.07	3.44	ppb
Molybdenum	98-1	4877.12	5080.43	5173.92	5043.82	3.01	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	489.53	480.43	488.79	486.25	1.04	ppb
Phosphorus	31-2	9664.44	9808.93	9611.35	9694.91	1.05	ppb
Potassium	39-2	129925.54	126937.65	134500.86	130454.68	2.92	ppb
Rhodium	103-1				89		%
Rhodium	103-2				86		%
Scandium	45-1				94		%
Scandium	45-2				89		%
Selenium	82-1	470.10	488.24	487.37	481.91	2.12	ppb
Selenium	77-2	467.89	459.03	453.89	460.27	1.54	ppb
Selenium	78-2	474.52	465.27	482.34	474.04	1.80	ppb
Silicon	28-1	432.10	443.66	449.48	441.75	2.00	ppb
Silver	107-1	506.91	522.79	518.61	516.10	1.59	ppb
Silver	109-1	507.20	525.34	522.61	518.38	1.89	ppb
Sodium	23-2	256957.76	259243.19	261646.92	259282.62	0.90	ppb
Strontium	86-1	497.16	512.79	515.33	508.42	1.94	ppb
Strontium	88-1	488.67	513.65	515.25	505.85	2.95	ppb
Sulfur	34-1	8851.69	9061.40	9459.44	9124.18	3.38	ppb
Terbium	159-1				91		%
Terbium	159-2				92		%
Thallium	203-1	505.19	506.45	516.50	509.38	1.22	ppb
Thallium	205-1	509.40	511.29	521.62	514.10	1.28	ppb
Tin	118-1	500.87	521.48	527.38	516.58	2.69	ppb
Titanium	47-1	4867.41	4955.38	5030.32	4951.04	1.65	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	500.13	494.62	514.09	502.95	2.00	ppb
Vanadium	51-2	495.90	503.82	507.88	502.53	1.21	ppb
Yttrium	89-1				93		%
Yttrium	89-2				91		%
Zinc	66-2	4876.45	4768.73	4881.33	4842.17	1.31	ppb
Zirconium	90-1	490.55	516.11	515.70	507.45	2.88	ppb
Zirconium	91-1	489.66	510.18	508.26	502.70	2.25	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.25	4.87	4.24	5.12	20.03	ppb
Antimony	121-1	0.08	0.11	0.11	0.10	17.85	ppb
Arsenic	75-2	0.04	0.04	0.01	0.03	62.38	ppb
Barium	135-1	0.28	0.32	0.33	0.31	8.48	ppb
Barium	137-1	0.22	0.33	0.32	0.29	20.85	ppb
Beryllium	9-1	0.03	0.04	0.06	0.04	28.44	ppb
Bismuth	209-1				106		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.06	0.00	0.16	0.07	111.18	ppb
Cadmium	106-1	-5.06	-6.67	-4.63	-5.45		ppb
Cadmium	111-1	-0.33	-0.42	-0.29	-0.35		ppb
Calcium	43-1	15.54	33.39	27.96	25.63	35.70	ppb
Calcium	44-1	32.43	43.55	40.58	38.85	14.82	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.14	0.10	0.11	0.12	16.77	ppb
Cobalt	59-2	0.04	0.04	0.03	0.04	18.06	ppb
Copper	63-2	0.51	0.40	0.41	0.44	13.49	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				109		%
Holmium	165-2				106		%
Indium	115-1				109		%
Indium	115-2				107		%
Iron	56-2	17.34	15.34	14.24	15.64	10.05	ppb
Iron	57-2	16.16	16.24	17.06	16.49	3.01	ppb
Iron	54-2	18.20	16.26	14.66	16.37	10.82	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.28	0.32	0.28	0.29	7.74	ppb
Lead	207-1	0.24	0.29	0.31	0.28	12.70	ppb
Lead	208-1	0.23	0.30	0.29	0.27	12.45	ppb
Lithium	6-1				100		%
Magnesium	24-2	25.32	24.19	22.49	24.00	5.93	ppb
Manganese	55-2	0.57	0.44	0.46	0.49	14.56	ppb
Molybdenum	94-1	0.48	0.67	0.62	0.59	16.64	ppb
Molybdenum	95-1	0.57	0.73	0.72	0.67	13.17	ppb
Molybdenum	96-1	0.54	0.69	0.62	0.62	12.55	ppb
Molybdenum	97-1	0.54	0.70	0.68	0.64	14.00	ppb
Molybdenum	98-1	0.50	0.75	0.65	0.63	19.61	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	0.08	0.07	0.07	29.80	ppb
Phosphorus	31-2	-148.85	-151.94	-155.68	-152.16		ppb
Potassium	39-2	15.17	15.33	16.58	15.70	4.93	ppb
Rhodium	103-1				109		%
Rhodium	103-2				107		%
Scandium	45-1				108		%
Scandium	45-2				104		%
Selenium	82-1	0.15	-0.23	-0.24	-0.11		ppb
Selenium	77-2	-0.09	-0.09	-0.09	-0.09		ppb
Selenium	78-2	-0.93	0.18	2.18	0.47	332.26	ppb
Silicon	28-1	-5.30	-4.66	-4.27	-4.75		ppb
Silver	107-1	0.06	0.06	0.06	0.06	7.65	ppb
Silver	109-1	0.04	0.06	0.05	0.05	19.09	ppb
Sodium	23-2	93.92	91.11	92.54	92.52	1.52	ppb
Strontium	86-1	0.02	0.15	0.05	0.08	84.81	ppb
Strontium	88-1	0.06	0.08	0.06	0.07	14.25	ppb
Sulfur	34-1	-1931.22	-1548.96	-1466.55	-1648.91		ppb
Terbium	159-1				109		%
Terbium	159-2				106		%
Thallium	203-1	0.03	0.06	0.05	0.05	29.80	ppb
Thallium	205-1	0.04	0.06	0.05	0.05	19.44	ppb
Tin	118-1	0.01	0.04	0.03	0.03	60.00	ppb
Titanium	47-1	0.48	0.75	0.66	0.63	22.29	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.07	0.06	0.06	22.46	ppb
Vanadium	51-2	0.05	0.06	0.07	0.06	16.10	ppb
Yttrium	89-1				111		%
Yttrium	89-2				106		%
Zinc	66-2	0.45	0.37	0.52	0.45	17.67	ppb
Zirconium	90-1	0.02	0.03	0.02	0.02	23.15	ppb
Zirconium	91-1	0.03	0.03	0.05	0.04	36.20	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2339.35	2391.47	2343.60	2358.14	1.23	ppb
Antimony	121-1	0.04	0.04	0.04	0.04	4.76	ppb
Arsenic	75-2	1.56	1.29	1.14	1.33	16.27	ppb
Barium	135-1	11.32	11.23	11.05	11.20	1.25	ppb
Barium	137-1	11.54	10.95	11.02	11.17	2.88	ppb
Beryllium	9-1	2.66	2.71	2.55	2.64	3.28	ppb
Bismuth	209-1				88		%
Bismuth	209-2				87		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.02	-0.02	-0.03		ppb
Cadmium	106-1	-2.37	-4.13	-2.97	-3.16		ppb
Cadmium	111-1	-0.17	-0.26	-0.20	-0.21		ppb
Calcium	43-1	25412.82	25473.30	25823.90	25570.00	0.87	ppb
Calcium	44-1	25342.01	24851.88	25102.55	25098.81	0.98	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.23	1.26	1.14	1.21	5.27	ppb
Cobalt	59-2	76.54	79.17	77.70	77.81	1.69	ppb
Copper	63-2	0.08	0.13	0.10	0.10	25.02	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				93		%
Holmium	165-2				94		%
Indium	115-1				93		%
Indium	115-2				90		%
Iron	56-2	284440.48	289378.11	286556.57	286791.72	0.86	ppb
Iron	57-2	280064.26	281970.51	285795.41	282610.06	1.03	ppb
Iron	54-2	284415.38	289277.12	285866.92	286519.81	0.87	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.17	0.17	0.19	0.18	4.64	ppb
Lead	207-1	0.18	0.16	0.20	0.18	10.44	ppb
Lead	208-1	0.16	0.18	0.18	0.17	5.35	ppb
Lithium	6-1				84		%
Magnesium	24-2	9100.55	8896.38	8908.37	8968.43	1.28	ppb
Manganese	55-2	5643.38	5805.90	5683.53	5710.94	1.48	ppb
Molybdenum	94-1	0.71	0.74	0.63	0.69	8.06	ppb
Molybdenum	95-1	0.23	0.22	0.27	0.24	10.07	ppb
Molybdenum	96-1	1.22	1.23	1.23	1.23	0.32	ppb
Molybdenum	97-1	0.24	0.28	0.24	0.25	8.89	ppb
Molybdenum	98-1	0.18	0.18	0.16	0.17	6.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	145.92	147.52	145.20	146.22	0.81	ppb
Phosphorus	31-2	-117.22	-117.11	-103.33	-112.55		ppb
Potassium	39-2	23643.99	23867.21	23833.78	23781.66	0.51	ppb
Rhodium	103-1				91		%
Rhodium	103-2				88		%
Scandium	45-1				94		%
Scandium	45-2				88		%
Selenium	82-1	0.75	0.25	0.00	0.33	115.51	ppb
Selenium	77-2	8.16	4.70	5.96	6.27	27.94	ppb
Selenium	78-2	6.42	6.11	4.74	5.76	15.48	ppb
Silicon	28-1	237.45	243.48	243.76	241.56	1.48	ppb
Silver	107-1	0.01	0.01	0.01	0.01	15.65	ppb
Silver	109-1	0.01	0.01	0.01	0.01	43.06	ppb
Sodium	23-2	428261.03	442599.35	419035.48	429965.29	2.76	ppb
Strontium	86-1	171.09	174.95	173.42	173.16	1.12	ppb
Strontium	88-1	175.73	174.07	175.56	175.12	0.52	ppb
Sulfur	34-1	522660.70	522566.30	536448.19	527225.06	1.52	ppb
Terbium	159-1				93		%
Terbium	159-2				94		%
Thallium	203-1	0.00	0.01	0.01	0.01	57.45	ppb
Thallium	205-1	0.01	0.01	0.00	0.01	57.34	ppb
Tin	118-1	0.24	0.22	0.23	0.23	3.90	ppb
Titanium	47-1	0.95	1.03	0.85	0.94	9.64	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	11.49	ppb
Vanadium	51-2	3.08	3.03	3.17	3.09	2.21	ppb
Yttrium	89-1				102		%
Yttrium	89-2				97		%
Zinc	66-2	149.10	153.05	150.22	150.79	1.35	ppb
Zirconium	90-1	0.27	0.25	0.25	0.25	4.06	ppb
Zirconium	91-1	0.27	0.21	0.25	0.25	13.14	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1173.93	1205.74	1174.13	1184.60	1.55	ppb
Antimony	121-1	0.01	0.02	0.01	0.01	34.50	ppb
Arsenic	75-2	0.47	0.67	0.76	0.63	23.69	ppb
Barium	135-1	5.49	5.39	5.72	5.53	3.06	ppb
Barium	137-1	5.59	5.39	5.58	5.52	2.04	ppb
Beryllium	9-1	1.29	1.21	1.24	1.25	3.44	ppb
Bismuth	209-1				93		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	0.01	0.01	0.02	86.83	ppb
Cadmium	106-1	-1.95	-2.94	-2.17	-2.35		ppb
Cadmium	111-1	-0.13	-0.20	-0.15	-0.16		ppb
Calcium	43-1	12649.95	12670.89	12980.85	12767.23	1.45	ppb
Calcium	44-1	12607.41	12578.08	12766.65	12650.71	0.80	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.65	0.67	0.67	0.67	1.52	ppb
Cobalt	59-2	38.38	39.02	38.75	38.72	0.83	ppb
Copper	63-2	0.02	0.02	-0.01	0.01	203.13	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				99		%
Holmium	165-2				100		%
Indium	115-1				99		%
Indium	115-2				97		%
Iron	56-2	141652.85	141998.48	140950.67	141534.00	0.38	ppb
Iron	57-2	141456.02	139758.91	139929.69	140381.54	0.67	ppb
Iron	54-2	142047.30	144040.89	141211.08	142433.09	1.02	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.12	0.10	0.07	0.10	21.90	ppb
Lead	207-1	0.10	0.08	0.13	0.10	23.77	ppb
Lead	208-1	0.11	0.08	0.10	0.10	15.35	ppb
Lithium	6-1				87		%
Magnesium	24-2	4238.37	4290.98	4255.90	4261.75	0.63	ppb
Manganese	55-2	2867.02	2819.22	2831.10	2839.11	0.88	ppb
Molybdenum	94-1	0.32	0.37	0.35	0.35	7.47	ppb
Molybdenum	95-1	0.13	0.14	0.13	0.13	4.29	ppb
Molybdenum	96-1	0.64	0.63	0.64	0.64	1.01	ppb
Molybdenum	97-1	0.09	0.11	0.13	0.11	18.13	ppb
Molybdenum	98-1	0.09	0.09	0.09	0.09	1.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	72.30	72.47	72.00	72.26	0.33	ppb
Phosphorus	31-2	-151.77	-133.40	-141.62	-142.26		ppb
Potassium	39-2	12020.07	12255.25	11879.81	12051.71	1.57	ppb
Rhodium	103-1				99		%
Rhodium	103-2				97		%
Scandium	45-1				100		%
Scandium	45-2				95		%
Selenium	82-1	1.02	-0.21	0.80	0.54	121.64	ppb
Selenium	77-2	3.68	3.15	5.14	3.99	25.83	ppb
Selenium	78-2	4.03	3.73	1.43	3.06	46.46	ppb
Silicon	28-1	117.90	118.49	121.80	119.40	1.76	ppb
Silver	107-1	0.00	0.00	0.00	0.00	118.65	ppb
Silver	109-1	0.00	0.00	0.00	0.00	2044.14	ppb
Sodium	23-2	209932.62	212907.02	209284.48	210708.04	0.92	ppb
Strontium	86-1	86.23	91.33	89.84	89.13	2.94	ppb
Strontium	88-1	86.58	89.51	90.87	88.99	2.46	ppb
Sulfur	34-1	256810.37	261577.04	267251.42	261879.61	2.00	ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	0.00	-0.01	0.00	0.00		ppb
Thallium	205-1	-0.01	0.00	0.00	0.00		ppb
Tin	118-1	0.14	0.12	0.14	0.13	9.43	ppb
Titanium	47-1	0.76	0.36	0.54	0.55	36.46	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	49.78	ppb
Vanadium	51-2	1.55	1.53	1.54	1.54	0.67	ppb
Yttrium	89-1				106		%
Yttrium	89-2				102		%
Zinc	66-2	77.19	77.04	76.41	76.88	0.54	ppb
Zirconium	90-1	0.10	0.10	0.12	0.11	9.05	ppb
Zirconium	91-1	0.10	0.11	0.10	0.10	5.72	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	508.61	494.55	494.51	499.22	1.63	ppb
Antimony	121-1	0.19	0.11	0.05	0.12	61.76	ppb
Arsenic	75-2	1.77	2.01	1.62	1.80	10.77	ppb
Barium	135-1	17.48	16.55	17.79	17.27	3.72	ppb
Barium	137-1	17.61	17.12	17.13	17.29	1.62	ppb
Beryllium	9-1	1.52	1.19	1.19	1.30	14.74	ppb
Bismuth	209-1				89		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.24	0.13	-0.09	0.10	175.40	ppb
Cadmium	106-1	0.22	-0.36	-4.01	-1.38		ppb
Cadmium	111-1	0.20	0.08	-0.26	0.01	2997.44	ppb
Calcium	43-1	75738.15	77563.89	79640.47	77647.50	2.51	ppb
Calcium	44-1	74688.23	76136.53	78813.95	76546.24	2.73	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.01	1.02	1.07	1.03	3.22	ppb
Cobalt	59-2	10.59	10.51	10.01	10.37	3.03	ppb
Copper	63-2	0.00	0.04	0.08	0.04	101.96	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				93		%
Holmium	165-2				93		%
Indium	115-1				95		%
Indium	115-2				93		%
Iron	56-2	73128.83	72722.08	72365.16	72738.69	0.53	ppb
Iron	57-2	73690.84	73224.87	70759.44	72558.38	2.17	ppb
Iron	54-2	72499.87	72090.55	70314.38	71634.93	1.62	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.83	0.54	0.31	0.56	46.10	ppb
Lead	207-1	0.83	0.58	0.29	0.57	47.98	ppb
Lead	208-1	0.82	0.56	0.30	0.56	46.16	ppb
Lithium	6-1				82		%
Magnesium	24-2	9020.18	8856.85	8672.83	8849.95	1.96	ppb
Manganese	55-2	1449.92	1436.43	1430.28	1438.88	0.70	ppb
Molybdenum	94-1	2.16	2.72	0.48	1.78	65.38	ppb
Molybdenum	95-1	1.61	0.94	0.29	0.95	69.48	ppb
Molybdenum	96-1	1.79	1.32	0.64	1.25	46.00	ppb
Molybdenum	97-1	1.60	1.13	0.26	1.00	68.23	ppb
Molybdenum	98-1	1.45	1.04	0.31	0.93	62.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	12.47	12.45	12.17	12.36	1.34	ppb
Phosphorus	31-2	-96.36	-111.95	-108.76	-105.69		ppb
Potassium	39-2	16017.70	15892.23	15662.91	15857.61	1.13	ppb
Rhodium	103-1				92		%
Rhodium	103-2				91		%
Scandium	45-1				94		%
Scandium	45-2				89		%
Selenium	82-1	0.21	-0.11	0.79	0.30	154.34	ppb
Selenium	77-2	3.98	2.25	2.60	2.94	31.03	ppb
Selenium	78-2	1.49	3.60	1.66	2.25	52.27	ppb
Silicon	28-1	242.76	226.64	238.93	236.11	3.57	ppb
Silver	107-1	0.01	0.00	0.00	0.00	143.80	ppb
Silver	109-1	0.00	0.00	0.00	0.00	34.39	ppb
Sodium	23-2	52268.10	50312.55	49419.75	50666.80	2.88	ppb
Strontium	86-1	153.61	151.13	158.84	154.53	2.55	ppb
Strontium	88-1	152.39	152.23	161.93	155.52	3.57	ppb
Sulfur	34-1	102081.38	102354.88	106038.35	103491.54	2.14	ppb
Terbium	159-1				91		%
Terbium	159-2				95		%
Thallium	203-1	0.27	0.23	0.11	0.20	42.38	ppb
Thallium	205-1	0.27	0.28	0.13	0.23	38.95	ppb
Tin	118-1	0.82	0.78	0.72	0.77	5.99	ppb
Titanium	47-1	8.94	1.25	0.81	3.67	124.67	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.29	0.18	0.09	0.19	55.70	ppb
Vanadium	51-2	2.70	2.66	2.70	2.69	1.03	ppb
Yttrium	89-1				97		%
Yttrium	89-2				94		%
Zinc	66-2	16.30	15.37	16.26	15.97	3.30	ppb
Zirconium	90-1	0.25	0.22	0.16	0.21	23.90	ppb
Zirconium	91-1	0.25	0.20	0.16	0.20	24.12	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100.70	104.55	100.25	101.83	2.32	ppb
Antimony	121-1	0.03	0.05	0.03	0.03	29.20	ppb
Arsenic	75-2	0.24	0.43	0.31	0.33	29.26	ppb
Barium	135-1	3.98	3.88	3.54	3.80	6.07	ppb
Barium	137-1	3.69	3.86	3.70	3.75	2.48	ppb
Beryllium	9-1	0.23	0.28	0.28	0.26	12.69	ppb
Bismuth	209-1				100		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.14	0.01	0.20	0.12	83.61	ppb
Cadmium	106-1	-4.25	-2.60	-2.58	-3.14		ppb
Cadmium	111-1	-0.29	-0.16	-0.18	-0.21		ppb
Calcium	43-1	14309.29	14492.98	15272.09	14691.46	3.48	ppb
Calcium	44-1	14444.56	14868.06	14919.28	14743.97	1.77	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.33	0.32	0.41	0.35	15.28	ppb
Cobalt	59-2	2.14	2.39	2.36	2.30	5.81	ppb
Copper	63-2	0.18	0.23	0.30	0.24	24.76	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				105		%
Indium	115-1				107		%
Indium	115-2				105		%
Iron	56-2	14143.45	14121.69	14040.59	14101.91	0.38	ppb
Iron	57-2	14507.64	14477.95	14412.40	14466.00	0.34	ppb
Iron	54-2	14396.08	14167.94	14496.28	14353.43	1.17	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.06	0.05	0.05	15.86	ppb
Lead	207-1	0.05	0.06	0.07	0.06	19.74	ppb
Lead	208-1	0.04	0.05	0.05	0.05	14.01	ppb
Lithium	6-1				95		%
Magnesium	24-2	1668.46	1689.18	1665.75	1674.46	0.77	ppb
Manganese	55-2	279.43	283.17	280.92	281.17	0.67	ppb
Molybdenum	94-1	0.07	0.07	0.05	0.06	23.50	ppb
Molybdenum	95-1	0.03	0.01	0.03	0.02	37.37	ppb
Molybdenum	96-1	0.07	0.08	0.09	0.08	17.05	ppb
Molybdenum	97-1	0.04	0.01	0.03	0.03	43.49	ppb
Molybdenum	98-1	0.02	0.01	0.02	0.02	23.51	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.59	2.75	2.64	2.66	3.21	ppb
Phosphorus	31-2	-146.22	-142.67	-148.57	-145.82		ppb
Potassium	39-2	3220.94	3244.71	3203.55	3223.07	0.64	ppb
Rhodium	103-1				106		%
Rhodium	103-2				105		%
Scandium	45-1				109		%
Scandium	45-2				101		%
Selenium	82-1	0.24	-0.19	0.06	0.04	579.35	ppb
Selenium	77-2	0.17	0.43	0.97	0.52	78.65	ppb
Selenium	78-2	1.73	-0.49	1.75	1.00	129.27	ppb
Silicon	28-1	42.84	46.01	46.67	45.17	4.53	ppb
Silver	107-1	0.04	0.04	0.02	0.03	29.21	ppb
Silver	109-1	0.03	0.03	0.03	0.03	14.34	ppb
Sodium	23-2	9898.27	10005.93	10206.84	10037.01	1.56	ppb
Strontium	86-1	28.49	29.85	30.32	29.55	3.22	ppb
Strontium	88-1	28.37	29.15	29.92	29.15	2.65	ppb
Sulfur	34-1	15927.41	16901.82	18505.49	17111.58	7.61	ppb
Terbium	159-1				103		%
Terbium	159-2				106		%
Thallium	203-1	0.03	0.02	0.03	0.03	21.25	ppb
Thallium	205-1	0.03	0.03	0.04	0.03	18.45	ppb
Tin	118-1	0.16	0.17	0.12	0.15	16.72	ppb
Titanium	47-1	0.02	0.03	0.00	0.02	68.15	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.02	0.01	0.01	26.51	ppb
Vanadium	51-2	0.67	0.80	0.91	0.79	15.18	ppb
Yttrium	89-1				110		%
Yttrium	89-2				106		%
Zinc	66-2	3.58	3.34	3.72	3.54	5.45	ppb
Zirconium	90-1	0.01	0.01	0.02	0.01	24.40	ppb
Zirconium	91-1	0.02	0.00	0.03	0.02	77.84	ppb

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.39	0.58	0.82	0.34	188.76	ppb
Antimony	121-1	0.01	0.01	0.02	0.01	55.24	ppb
Arsenic	75-2	-0.01	0.00	0.03	0.01	217.00	ppb
Barium	135-1	0.12	0.16	0.14	0.14	13.31	ppb
Barium	137-1	0.13	0.17	0.19	0.16	18.14	ppb
Beryllium	9-1	-0.01	-0.01	-0.01	-0.01		ppb
Bismuth	209-1				85		%
Bismuth	209-2				87		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	-0.05	-0.09	-0.03		ppb
Cadmium	106-1	-3.29	-3.53	-3.85	-3.56		ppb
Cadmium	111-1	-0.22	-0.25	-0.26	-0.25		ppb
Calcium	43-1	47.78	49.33	51.49	49.54	3.76	ppb
Calcium	44-1	72.83	73.64	68.66	71.71	3.73	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.25	0.34	0.29	0.29	15.73	ppb
Cobalt	59-2	0.00	0.01	0.01	0.01	52.46	ppb
Copper	63-2	0.00	0.02	0.00	0.00	323.10	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				87		%
Holmium	165-2				89		%
Indium	115-1				88		%
Indium	115-2				88		%
Iron	56-2	15.33	19.60	26.10	20.34	26.66	ppb
Iron	57-2	23.08	26.12	31.74	26.98	16.28	ppb
Iron	54-2	18.20	21.65	28.56	22.80	23.14	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.06	0.04	0.04	46.56	ppb
Lead	207-1	0.04	0.03	0.04	0.04	18.57	ppb
Lead	208-1	0.02	0.04	0.04	0.03	26.10	ppb
Lithium	6-1				78		%
Magnesium	24-2	9.91	9.47	10.50	9.96	5.22	ppb
Manganese	55-2	0.45	0.48	0.60	0.51	15.63	ppb
Molybdenum	94-1	0.06	0.03	0.05	0.05	23.52	ppb
Molybdenum	95-1	0.02	0.04	0.03	0.03	34.82	ppb
Molybdenum	96-1	0.04	0.02	0.03	0.03	24.20	ppb
Molybdenum	97-1	0.03	0.03	0.03	0.03	4.37	ppb
Molybdenum	98-1	0.04	0.04	0.02	0.03	36.07	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.18	0.15	0.20	0.18	14.15	ppb
Phosphorus	31-2	-134.83	-126.84	-142.08	-134.58		ppb
Potassium	39-2	56.34	56.86	57.59	56.93	1.11	ppb
Rhodium	103-1				88		%
Rhodium	103-2				88		%
Scandium	45-1				88		%
Scandium	45-2				86		%
Selenium	82-1	-0.10	-0.54	0.00	-0.21		ppb
Selenium	77-2	0.23	0.22	-0.09	0.12	154.31	ppb
Selenium	78-2	0.38	-0.10	2.51	0.93	149.21	ppb
Silicon	28-1	15.62	15.48	14.40	15.17	4.40	ppb
Silver	107-1	0.01	0.01	0.01	0.01	13.01	ppb
Silver	109-1	0.01	0.01	0.02	0.01	46.24	ppb
Sodium	23-2	353.55	358.26	351.20	354.34	1.01	ppb
Strontium	86-1	0.12	0.21	0.17	0.17	26.83	ppb
Strontium	88-1	0.09	0.09	0.09	0.09	2.36	ppb
Sulfur	34-1	-149.91	86.21	-47.95	-37.21		ppb
Terbium	159-1				86		%
Terbium	159-2				90		%
Thallium	203-1	0.00	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.01	0.00	87.37	ppb
Tin	118-1	0.79	0.82	0.85	0.82	3.90	ppb
Titanium	47-1	-0.02	0.06	0.00	0.01	273.86	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.03	0.04	0.03	0.03	27.28	ppb
Yttrium	89-1				90		%
Yttrium	89-2				88		%
Zinc	66-2	-0.31	-0.06	-0.02	-0.13		ppb
Zirconium	90-1	-0.01	0.00	-0.01	-0.01		ppb
Zirconium	91-1	0.01	0.01	-0.01	0.00	360.21	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2307.53	2311.24	2331.71	2316.83	0.56	ppb
Antimony	121-1	103.71	103.40	101.15	102.75	1.36	ppb
Arsenic	75-2	38.08	40.09	38.68	38.95	2.64	ppb
Barium	135-1	2083.29	2054.31	2001.02	2046.21	2.04	ppb
Barium	137-1	2043.83	2035.00	1987.16	2021.99	1.51	ppb
Beryllium	9-1	52.33	52.30	54.37	53.00	2.25	ppb
Bismuth	209-1				83		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	47.10	49.37	44.93	47.13	4.71	ppb
Cadmium	106-1	46.20	47.35	41.46	45.00	6.93	ppb
Cadmium	111-1	53.71	52.68	51.66	52.68	1.94	ppb
Calcium	43-1	75696.55	76249.82	76991.08	76312.48	0.85	ppb
Calcium	44-1	73950.43	74734.27	76102.94	74929.21	1.45	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	203.38	202.93	202.44	202.91	0.23	ppb
Cobalt	59-2	525.21	507.46	520.20	517.62	1.77	ppb
Copper	63-2	235.02	232.02	229.96	232.33	1.09	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				86		%
Holmium	165-2				88		%
Indium	115-1				87		%
Indium	115-2				87		%
Iron	56-2	73009.74	72102.57	70689.44	71933.92	1.63	ppb
Iron	57-2	72934.28	70340.12	70696.05	71323.48	1.97	ppb
Iron	54-2	72861.03	73002.67	72265.10	72709.60	0.54	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	19.80	19.83	19.65	19.76	0.48	ppb
Lead	207-1	19.34	19.42	19.40	19.38	0.23	ppb
Lead	208-1	19.36	19.52	19.34	19.41	0.49	ppb
Lithium	6-1				77		%
Magnesium	24-2	8831.50	8790.85	8602.06	8741.47	1.40	ppb
Manganese	55-2	1926.86	1879.60	1899.88	1902.11	1.25	ppb
Molybdenum	94-1	0.32	0.35	0.33	0.33	4.73	ppb
Molybdenum	95-1	0.11	0.10	0.09	0.10	10.86	ppb
Molybdenum	96-1	0.39	0.38	0.37	0.38	1.55	ppb
Molybdenum	97-1	0.12	0.12	0.10	0.11	11.32	ppb
Molybdenum	98-1	0.12	0.13	0.10	0.12	10.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	523.62	507.28	513.16	514.68	1.61	ppb
Phosphorus	31-2	-110.46	-103.09	-112.33	-108.63		ppb
Potassium	39-2	15825.20	16092.38	15832.15	15916.57	0.96	ppb
Rhodium	103-1				86		%
Rhodium	103-2				86		%
Scandium	45-1				87		%
Scandium	45-2				84		%
Selenium	82-1	113.16	112.66	111.57	112.46	0.72	ppb
Selenium	77-2	107.12	92.46	115.24	104.94	11.00	ppb
Selenium	78-2	110.70	112.53	114.65	112.63	1.76	ppb
Silicon	28-1	227.92	228.61	228.46	228.33	0.16	ppb
Silver	107-1	49.82	50.60	49.58	50.00	1.06	ppb
Silver	109-1	49.64	49.92	48.47	49.34	1.56	ppb
Sodium	23-2	50147.95	50756.24	49899.50	50267.90	0.88	ppb
Strontium	86-1	149.30	151.46	149.88	150.21	0.75	ppb
Strontium	88-1	152.45	149.99	152.25	151.56	0.90	ppb
Sulfur	34-1	101950.76	103568.73	101748.27	102422.58	0.97	ppb
Terbium	159-1				86		%
Terbium	159-2				89		%
Thallium	203-1	48.18	47.94	48.14	48.09	0.26	ppb
Thallium	205-1	48.15	48.40	48.55	48.37	0.42	ppb
Tin	118-1	0.64	0.66	0.61	0.64	3.87	ppb
Titanium	47-1	0.17	0.21	0.22	0.20	11.87	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.06	0.06	0.06	0.06	2.98	ppb
Vanadium	51-2	508.99	500.31	497.60	502.30	1.18	ppb
Yttrium	89-1				90		%
Yttrium	89-2				89		%
Zinc	66-2	496.50	492.88	489.63	493.00	0.70	ppb
Zirconium	90-1	0.15	0.14	0.13	0.14	7.39	ppb
Zirconium	91-1	0.14	0.17	0.16	0.16	12.15	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.62	1.53	0.39	0.85	71.48	ppb
Antimony	121-1	0.02	0.04	0.02	0.02	45.34	ppb
Arsenic	75-2	-0.01	0.06	-0.02	0.01	378.99	ppb
Barium	135-1	0.22	0.21	0.21	0.21	1.55	ppb
Barium	137-1	0.23	0.22	0.19	0.22	10.10	ppb
Beryllium	9-1	0.00	-0.01	0.01	0.00		ppb
Bismuth	209-1				84		%
Bismuth	209-2				87		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	0.07	0.03	0.02	333.09	ppb
Cadmium	106-1	-3.80	-3.83	-4.09	-3.91		ppb
Cadmium	111-1	-0.27	-0.27	-0.29	-0.28		ppb
Calcium	43-1	66.54	59.20	62.93	62.89	5.84	ppb
Calcium	44-1	89.52	88.93	93.24	90.56	2.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.38	0.28	0.27	0.31	19.52	ppb
Cobalt	59-2	0.00	0.01	0.01	0.01	95.29	ppb
Copper	63-2	0.00	0.10	0.13	0.08	85.97	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				86		%
Holmium	165-2				90		%
Indium	115-1				87		%
Indium	115-2				89		%
Iron	56-2	3.68	3.13	3.63	3.48	8.64	ppb
Iron	57-2	9.59	10.06	13.07	10.91	17.31	ppb
Iron	54-2	8.28	7.68	8.13	8.03	3.90	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.03	0.02	0.02	21.67	ppb
Lead	207-1	0.02	0.02	0.02	0.02	16.39	ppb
Lead	208-1	0.02	0.02	0.01	0.02	23.12	ppb
Lithium	6-1				78		%
Magnesium	24-2	8.41	8.98	8.41	8.60	3.83	ppb
Manganese	55-2	0.03	0.05	0.09	0.06	53.25	ppb
Molybdenum	94-1	0.03	0.05	0.04	0.04	14.30	ppb
Molybdenum	95-1	0.04	0.03	0.02	0.03	34.44	ppb
Molybdenum	96-1	0.02	0.02	0.03	0.02	27.29	ppb
Molybdenum	97-1	0.04	0.04	0.02	0.03	21.34	ppb
Molybdenum	98-1	0.03	0.02	0.04	0.03	38.33	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.13	0.17	0.21	0.17	23.48	ppb
Phosphorus	31-2	-136.68	-143.12	-156.42	-145.41		ppb
Potassium	39-2	58.04	59.19	58.70	58.64	0.99	ppb
Rhodium	103-1				88		%
Rhodium	103-2				90		%
Scandium	45-1				87		%
Scandium	45-2				87		%
Selenium	82-1	-0.67	1.05	-0.86	-0.16		ppb
Selenium	77-2	0.21	0.22	-0.09	0.11	157.09	ppb
Selenium	78-2	0.46	2.89	2.93	2.09	67.40	ppb
Silicon	28-1	19.63	18.58	18.36	18.86	3.60	ppb
Silver	107-1	0.03	0.03	0.01	0.02	33.12	ppb
Silver	109-1	0.03	0.02	0.01	0.02	30.83	ppb
Sodium	23-2	341.99	346.45	344.65	344.36	0.65	ppb
Strontium	86-1	0.23	0.22	0.21	0.22	4.99	ppb
Strontium	88-1	0.11	0.13	0.12	0.12	6.00	ppb
Sulfur	34-1	-50.95	-63.66	79.20	-11.81		ppb
Terbium	159-1				87		%
Terbium	159-2				91		%
Thallium	203-1	0.00	0.00	-0.01	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	1.35	1.37	1.45	1.39	3.94	ppb
Titanium	47-1	-0.04	0.01	-0.02	-0.02		ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.04	0.03	0.04	0.04	10.85	ppb
Yttrium	89-1				90		%
Yttrium	89-2				89		%
Zinc	66-2	-0.12	-0.43	0.48	-0.03		ppb
Zirconium	90-1	-0.01	-0.01	0.00	0.00		ppb
Zirconium	91-1	-0.01	-0.01	-0.01	-0.01		ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12.51	-0.02	0.70	4.40	159.99	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	3.92	ppb
Arsenic	75-2	0.42	0.35	0.41	0.39	9.89	ppb
Barium	135-1	9.02	9.16	9.23	9.14	1.19	ppb
Barium	137-1	8.90	9.25	9.03	9.06	1.99	ppb
Beryllium	9-1	-0.01	0.00	-0.01	-0.01		ppb
Bismuth	209-1				96		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.06	-0.06	-0.04		ppb
Cadmium	106-1	-4.75	-4.10	-2.52	-3.79		ppb
Cadmium	111-1	-0.33	-0.29	-0.17	-0.26		ppb
Calcium	43-1	26876.29	27862.16	27678.09	27472.18	1.91	ppb
Calcium	44-1	26724.00	27309.36	27694.97	27242.78	1.79	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.44	0.42	0.42	0.43	2.68	ppb
Cobalt	59-2	0.34	0.34	0.37	0.35	4.97	ppb
Copper	63-2	0.12	0.11	0.18	0.14	26.25	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				100		%
Indium	115-1				102		%
Indium	115-2				99		%
Iron	56-2	4021.89	3959.72	4053.93	4011.85	1.19	ppb
Iron	57-2	4277.20	4276.65	4326.12	4293.32	0.66	ppb
Iron	54-2	4126.27	4079.53	4135.18	4113.66	0.73	ppb
Krypton	83-1						cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.05	0.08	0.06	0.06	29.83	ppb
Lead	207-1	0.05	0.07	0.08	0.07	18.03	ppb
Lead	208-1	0.05	0.08	0.07	0.07	17.36	ppb
Lithium	6-1				93		%
Magnesium	24-2	37478.10	36919.45	36977.20	37124.92	0.83	ppb
Manganese	55-2	334.34	334.66	338.35	335.78	0.66	ppb
Molybdenum	94-1	0.26	0.28	0.31	0.28	10.25	ppb
Molybdenum	95-1	0.27	0.28	0.25	0.26	5.25	ppb
Molybdenum	96-1	0.34	0.29	0.30	0.31	8.29	ppb
Molybdenum	97-1	0.28	0.31	0.28	0.29	6.50	ppb
Molybdenum	98-1	0.28	0.28	0.27	0.28	2.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.71	0.63	0.69	0.68	6.02	ppb
Phosphorus	31-2	-54.19	-68.65	-88.33	-70.39		ppb
Potassium	39-2	10794.81	10953.38	11031.41	10926.53	1.10	ppb
Rhodium	103-1				101		%
Rhodium	103-2				97		%
Scandium	45-1				105		%
Scandium	45-2				97		%
Selenium	82-1	1.67	1.51	0.98	1.39	26.24	ppb
Selenium	77-2	-0.09	-0.09	-0.09	-0.09		ppb
Selenium	78-2	1.63	2.07	0.03	1.24	86.68	ppb
Silicon	28-1	141.06	150.54	149.20	146.93	3.49	ppb
Silver	107-1	0.03	0.03	0.02	0.03	13.32	ppb
Silver	109-1	0.03	0.01	0.01	0.02	47.70	ppb
Sodium	23-2	287047.98	276717.35	282389.21	282051.52	1.83	ppb
Strontium	86-1	278.32	278.79	277.21	278.11	0.29	ppb
Strontium	88-1	282.85	281.32	277.43	280.53	1.00	ppb
Sulfur	34-1	37700.88	40582.54	40938.79	39740.74	4.47	ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	-0.01	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00	381.55	ppb
Tin	118-1	0.16	0.19	0.20	0.18	12.14	ppb
Titanium	47-1	0.08	0.09	0.17	0.11	44.81	ppb

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.00	0.01	0.01	18.94	ppb
Vanadium	51-2	0.11	0.13	0.16	0.13	19.17	ppb
Yttrium	89-1				105		%
Yttrium	89-2				100		%
Zinc	66-2	0.71	0.78	1.23	0.90	31.19	ppb
Zirconium	90-1	0.04	0.04	0.03	0.04	8.66	ppb
Zirconium	91-1	0.04	0.05	0.03	0.04	23.26	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.29	2.08	-0.66	0.57	244.57	ppb
Antimony	121-1	0.00	0.01	0.02	0.01	80.14	ppb
Arsenic	75-2	0.11	0.08	0.02	0.07	62.28	ppb
Barium	135-1	0.44	4.58	4.91	3.31	75.16	ppb
Barium	137-1	0.50	4.57	4.57	3.21	73.17	ppb
Beryllium	9-1	0.00	-0.01	-0.01	-0.01		ppb
Bismuth	209-1				107		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.01	0.08	0.02	235.54	ppb
Cadmium	106-1	-5.06	-3.04	-4.79	-4.30		ppb
Cadmium	111-1	-0.36	-0.21	-0.33	-0.30		ppb
Calcium	43-1	1010.21	12665.52	12982.02	8885.92	76.78	ppb
Calcium	44-1	1021.10	12323.27	12888.27	8744.21	76.56	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.18	0.12	0.06	0.12	49.50	ppb
Cobalt	59-2	13.37	11.17	8.98	11.18	19.64	ppb
Copper	63-2	0.11	0.03	0.05	0.06	73.55	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				115		%
Holmium	165-2				112		%
Indium	115-1				116		%
Indium	115-2				111		%
Iron	56-2	15430.14	13432.16	10716.26	13192.86	17.93	ppb
Iron	57-2	15885.00	13659.48	10851.76	13465.42	18.73	ppb
Iron	54-2	16088.04	13390.42	10767.96	13415.47	19.83	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	0.01	0.02	0.01	251.15	ppb
Lead	207-1	-0.01	0.04	0.05	0.03	107.89	ppb
Lead	208-1	-0.01	0.03	0.03	0.02	144.58	ppb
Lithium	6-1				108		%
Magnesium	24-2	16935.93	14341.73	11212.35	14163.33	20.24	ppb
Manganese	55-2	1737.16	1465.67	1175.10	1459.31	19.26	ppb
Molybdenum	94-1	-0.03	0.05	0.02	0.01	333.26	ppb
Molybdenum	95-1	-0.04	0.04	0.05	0.02	267.04	ppb
Molybdenum	96-1	-0.03	0.05	0.06	0.02	190.92	ppb
Molybdenum	97-1	-0.03	0.02	0.03	0.00	715.76	ppb
Molybdenum	98-1	-0.04	0.01	0.02	0.00		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.15	5.27	3.97	5.13	21.39	ppb
Phosphorus	31-2	-158.42	-168.51	-170.85	-165.92		ppb
Potassium	39-2	4816.71	4174.67	3487.50	4159.62	15.98	ppb
Rhodium	103-1				113		%
Rhodium	103-2				109		%
Scandium	45-1				116		%
Scandium	45-2				106		%
Selenium	82-1	-0.46	-0.03	0.21	-0.09		ppb
Selenium	77-2	0.17	-0.09	-0.09	0.00		ppb
Selenium	78-2	0.43	0.27	0.60	0.43	38.27	ppb
Silicon	28-1	2.39	104.48	105.99	70.95	83.69	ppb
Silver	107-1	0.01	0.01	0.01	0.01	42.82	ppb
Silver	109-1	0.01	0.01	0.01	0.01	28.45	ppb
Sodium	23-2	188989.90	163095.88	133566.45	161884.07	17.13	ppb
Strontium	86-1	9.63	107.02	114.43	77.03	75.92	ppb
Strontium	88-1	9.60	109.78	116.43	78.61	76.14	ppb
Sulfur	34-1	-2387.50	31158.96	36920.70	21897.39	96.94	ppb
Terbium	159-1				111		%
Terbium	159-2				111		%
Thallium	203-1	-0.01	0.00	0.00	-0.01		ppb
Thallium	205-1	-0.01	0.01	0.01	0.00	857.33	ppb
Tin	118-1	-0.03	0.15	0.17	0.10	114.30	ppb
Titanium	47-1	-0.05	0.03	0.03	0.00	961.23	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.01	0.01	0.01	87.74	ppb
Vanadium	51-2	0.04	0.02	0.02	0.03	40.72	ppb
Yttrium	89-1				117		%
Yttrium	89-2				109		%
Zinc	66-2	2.71	2.01	1.85	2.19	20.75	ppb
Zirconium	90-1	-0.01	0.00	-0.01	-0.01		ppb
Zirconium	91-1	-0.01	0.01	0.02	0.00	402.98	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	182.92	183.31	185.18	183.80	0.66	ppb
Antimony	121-1	0.03	0.02	0.02	0.03	6.73	ppb
Arsenic	75-2	1.06	0.90	1.24	1.07	15.81	ppb
Barium	135-1	7.73	7.85	7.83	7.81	0.84	ppb
Barium	137-1	7.64	7.82	7.79	7.75	1.28	ppb
Beryllium	9-1	0.35	0.32	0.40	0.35	11.37	ppb
Bismuth	209-1				96		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.09	0.01	-0.02		ppb
Cadmium	106-1	-1.03	-3.46	-2.36	-2.28		ppb
Cadmium	111-1	-0.07	-0.23	-0.17	-0.16		ppb
Calcium	43-1	16188.77	16777.44	16084.22	16350.14	2.29	ppb
Calcium	44-1	15961.13	16358.85	15442.94	15920.97	2.88	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.63	1.54	2.10	1.76	17.26	ppb
Cobalt	59-2	4.41	4.44	4.41	4.42	0.38	ppb
Copper	63-2	0.16	0.20	0.16	0.17	14.98	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				101		%
Indium	115-1				102		%
Indium	115-2				98		%
Iron	56-2	162263.62	158469.92	162070.31	160934.62	1.33	ppb
Iron	57-2	160837.48	160512.50	158182.93	159844.30	0.91	ppb
Iron	54-2	161520.45	160116.64	160383.23	160673.44	0.46	ppb
Krypton	83-1						cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.12	0.14	0.11	0.12	12.82	ppb
Lead	207-1	0.12	0.11	0.11	0.11	2.18	ppb
Lead	208-1	0.12	0.13	0.13	0.13	4.62	ppb
Lithium	6-1				89		%
Magnesium	24-2	11988.28	12170.05	12036.88	12065.07	0.78	ppb
Manganese	55-2	2101.71	2094.53	2139.24	2111.83	1.14	ppb
Molybdenum	94-1	0.86	0.83	0.87	0.85	2.92	ppb
Molybdenum	95-1	0.08	0.08	0.10	0.09	12.06	ppb
Molybdenum	96-1	0.67	0.70	0.71	0.70	3.07	ppb
Molybdenum	97-1	0.09	0.05	0.08	0.07	28.27	ppb
Molybdenum	98-1	0.05	0.05	0.05	0.05	7.99	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.49	1.68	1.66	1.61	6.53	ppb
Phosphorus	31-2	-156.26	-164.61	-165.73	-162.20		ppb
Potassium	39-2	1723.76	1689.67	1699.88	1704.44	1.03	ppb
Rhodium	103-1				100		%
Rhodium	103-2				98		%
Scandium	45-1				101		%
Scandium	45-2				95		%
Selenium	82-1	0.69	0.27	0.36	0.44	50.21	ppb
Selenium	77-2	13.75	10.00	12.50	12.08	15.80	ppb
Selenium	78-2	5.19	4.03	4.22	4.48	13.92	ppb
Silicon	28-1	215.18	222.15	213.58	216.97	2.10	ppb
Silver	107-1	0.01	0.01	0.01	0.01	17.56	ppb
Silver	109-1	0.01	0.01	0.01	0.01	20.31	ppb
Sodium	23-2	6766.73	6648.00	6697.18	6703.97	0.89	ppb
Strontium	86-1	80.41	82.35	82.66	81.81	1.49	ppb
Strontium	88-1	80.85	80.74	82.03	81.21	0.88	ppb
Sulfur	34-1	107341.84	111234.71	107830.99	108802.51	1.95	ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	-0.01	0.00	-0.01	-0.01		ppb
Thallium	205-1	0.00	0.00	-0.01	0.00		ppb
Tin	118-1	0.38	0.34	0.34	0.35	6.60	ppb
Titanium	47-1	0.54	0.61	0.56	0.57	6.48	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	15.24	ppb
Vanadium	51-2	1.91	1.83	1.84	1.86	2.46	ppb
Yttrium	89-1				110		%
Yttrium	89-2				105		%
Zinc	66-2	1.89	2.01	2.00	1.97	3.55	ppb
Zirconium	90-1	0.43	0.40	0.43	0.42	3.55	ppb
Zirconium	91-1	0.43	0.42	0.44	0.43	2.14	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50882.14	50184.41	52104.94	51057.16	1.90	ppb
Antimony	121-1	519.05	520.52	508.26	515.94	1.30	ppb
Arsenic	75-2	472.49	477.43	479.97	476.63	0.80	ppb
Barium	135-1	2623.48	2559.55	2513.73	2565.59	2.15	ppb
Barium	137-1	2577.68	2517.42	2498.15	2531.08	1.64	ppb
Beryllium	9-1	521.35	515.37	520.30	519.01	0.62	ppb
Bismuth	209-1				84		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	496.75	493.91	493.67	494.78	0.35	ppb
Cadmium	106-1	499.42	495.25	488.43	494.37	1.12	ppb
Cadmium	111-1	499.40	493.88	490.29	494.53	0.93	ppb
Calcium	43-1	251737.10	252739.79	251824.98	252100.62	0.22	ppb
Calcium	44-1	252357.11	258005.32	250342.25	253568.22	1.57	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	500.61	488.96	501.77	497.12	1.43	ppb
Cobalt	59-2	491.76	473.23	486.78	483.92	1.98	ppb
Copper	63-2	4930.12	4861.34	4950.37	4913.94	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				90		%
Holmium	165-2				92		%
Indium	115-1				88		%
Indium	115-2				90		%
Iron	56-2	130787.46	128985.18	133708.40	131160.35	1.82	ppb
Iron	57-2	132067.71	130641.84	135672.37	132793.97	1.95	ppb
Iron	54-2	135373.40	129930.44	133577.68	132960.51	2.09	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2558.88	2651.57	2599.33	2603.26	1.79	ppb
Lead	207-1	2481.60	2656.50	2559.14	2565.75	3.42	ppb
Lead	208-1	2490.79	2592.69	2553.81	2545.76	2.02	ppb
Lithium	6-1				81		%
Magnesium	24-2	246856.37	247404.00	254482.28	249580.88	1.70	ppb
Manganese	55-2	5133.44	4937.74	5043.73	5038.30	1.94	ppb
Molybdenum	94-1	5043.57	5143.35	5063.71	5083.54	1.04	ppb
Molybdenum	95-1	5003.59	5149.98	5172.59	5108.72	1.80	ppb
Molybdenum	96-1	4950.00	5119.80	5216.79	5095.53	2.65	ppb
Molybdenum	97-1	4896.67	5070.71	5122.34	5029.91	2.35	ppb
Molybdenum	98-1	4960.88	5070.85	5112.09	5047.94	1.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	484.38	472.71	491.84	482.98	2.00	ppb
Phosphorus	31-2	9664.02	9259.48	9687.39	9536.96	2.52	ppb
Potassium	39-2	131830.38	127000.11	130479.91	129770.13	1.92	ppb
Rhodium	103-1				87		%
Rhodium	103-2				88		%
Scandium	45-1				92		%
Scandium	45-2				90		%
Selenium	82-1	469.71	478.99	481.36	476.69	1.29	ppb
Selenium	77-2	437.69	460.07	468.92	455.56	3.53	ppb
Selenium	78-2	460.33	470.97	470.83	467.37	1.31	ppb
Silicon	28-1	442.70	440.34	448.78	443.94	0.98	ppb
Silver	107-1	516.08	514.92	509.48	513.49	0.69	ppb
Silver	109-1	519.17	508.33	508.53	512.01	1.21	ppb
Sodium	23-2	256281.30	251786.14	259687.19	255918.21	1.55	ppb
Strontium	86-1	490.42	510.41	513.53	504.79	2.48	ppb
Strontium	88-1	501.66	514.98	512.77	509.80	1.40	ppb
Sulfur	34-1	9301.94	9499.51	9181.24	9327.56	1.72	ppb
Terbium	159-1				91		%
Terbium	159-2				93		%
Thallium	203-1	502.36	522.18	514.08	512.87	1.94	ppb
Thallium	205-1	515.36	528.89	516.90	520.39	1.42	ppb
Tin	118-1	515.19	508.72	497.46	507.12	1.77	ppb
Titanium	47-1	4956.78	5148.95	4960.72	5022.15	2.19	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	492.05	519.16	507.30	506.17	2.68	ppb
Vanadium	51-2	495.28	491.44	506.04	497.58	1.52	ppb
Yttrium	89-1				93		%
Yttrium	89-2				92		%
Zinc	66-2	4841.39	4864.76	4970.25	4892.13	1.40	ppb
Zirconium	90-1	498.06	512.81	517.68	509.52	2.01	ppb
Zirconium	91-1	488.34	500.83	511.75	500.30	2.34	ppb

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.64	0.44	0.80	0.63	28.45	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	13.92	ppb
Arsenic	75-2	-0.02	0.00	0.01	0.00		ppb
Barium	135-1	0.03	0.02	0.02	0.02	21.20	ppb
Barium	137-1	0.02	0.03	0.03	0.03	36.74	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00		ppb
Bismuth	209-1				101		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.06	0.04	-0.02	-0.01		ppb
Cadmium	106-1	-3.42	-5.12	-4.23	-4.26		ppb
Cadmium	111-1	-0.23	-0.35	-0.29	-0.29		ppb
Calcium	43-1	-5.19	-5.00	-3.86	-4.68		ppb
Calcium	44-1	0.35	2.37	6.96	3.23	104.91	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.28	0.08	0.09	0.15	79.11	ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	50.86	ppb
Copper	63-2	0.00	-0.05	0.04	0.00		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				100		%
Indium	115-1				104		%
Indium	115-2				101		%
Iron	56-2	2.68	2.61	2.68	2.66	1.43	ppb
Iron	57-2	6.61	5.85	2.95	5.14	37.55	ppb
Iron	54-2	5.21	3.37	5.94	4.84	27.40	ppb
Krypton	83-1						cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.03	0.04	0.03	30.60	ppb
Lead	207-1	0.03	0.05	0.05	0.04	19.13	ppb
Lead	208-1	0.02	0.03	0.04	0.03	30.70	ppb
Lithium	6-1				94		%
Magnesium	24-2	2.45	2.71	2.61	2.59	5.07	ppb
Manganese	55-2	0.12	0.11	0.07	0.10	29.98	ppb
Molybdenum	94-1	0.02	0.07	0.06	0.05	48.51	ppb
Molybdenum	95-1	0.04	0.07	0.05	0.05	30.93	ppb
Molybdenum	96-1	0.04	0.06	0.06	0.05	18.85	ppb
Molybdenum	97-1	0.06	0.06	0.08	0.07	20.47	ppb
Molybdenum	98-1	0.04	0.05	0.07	0.05	29.42	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.06	0.06	0.00	0.04	95.40	ppb
Phosphorus	31-2	-158.83	-168.96	-159.66	-162.49		ppb
Potassium	39-2	17.75	16.76	17.07	17.19	2.93	ppb
Rhodium	103-1				104		%
Rhodium	103-2				99		%
Scandium	45-1				103		%
Scandium	45-2				96		%
Selenium	82-1	-0.81	-1.24	-0.79	-0.95		ppb
Selenium	77-2	-0.09	0.18	-0.09	0.00		ppb
Selenium	78-2	0.49	0.26	-1.22	-0.16		ppb
Silicon	28-1	-5.50	-4.60	-3.81	-4.64		ppb
Silver	107-1	0.01	0.02	0.01	0.01	36.93	ppb
Silver	109-1	0.01	0.02	0.01	0.01	27.69	ppb
Sodium	23-2	83.11	84.40	83.13	83.55	0.89	ppb
Strontium	86-1	0.02	0.05	0.06	0.04	45.74	ppb
Strontium	88-1	0.01	0.01	0.01	0.01	18.05	ppb
Sulfur	34-1	-1552.75	-1156.17	-806.97	-1171.96		ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	-0.01	0.01	0.00	0.00	258.52	ppb
Thallium	205-1	0.00	0.01	0.01	0.01	61.05	ppb
Tin	118-1	-0.02	-0.01	0.03	0.00	861.27	ppb
Titanium	47-1	0.03	-0.01	0.00	0.01	311.80	ppb

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	31.29	ppb
Vanadium	51-2	0.00	0.00	0.01	0.01	121.03	ppb
Yttrium	89-1				105		%
Yttrium	89-2				100		%
Zinc	66-2	0.28	0.24	0.30	0.27	11.96	ppb
Zirconium	90-1	0.00	0.00	0.01	0.00	428.95	ppb
Zirconium	91-1	0.01	0.00	0.02	0.01	74.07	ppb

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1233	1153	1167	1185	3.62	cps
Antimony	121-1	27	33	33	31	12.36	cps
Arsenic	75-2	13	13	3	10	57.75	cps
Barium	135-1	27	30	13	23	37.81	cps
Barium	137-1	37	23	40	33	26.47	cps
Beryllium	9-1	17	10	3	10	66.70	cps
Bismuth	209-1	4108414	4121483	3950617	4060171	2.34	cps
Bismuth	209-2	3686429	3711175	3659499	3685701	0.70	cps
Bromine	81-1	7292	7672	7695	7553	3.00	cps
Bromine	81-2	117	150	113	127	16.00	cps
Cadmium	108-1	7	13	17	12	41.65	cps
Cadmium	106-1	3681	3417	3527	3542	3.74	cps
Cadmium	111-1	2585	2399	2467	2484	3.78	cps
Calcium	43-1	313	290	307	303	3.96	cps
Calcium	44-1	21176	20682	20438	20765	1.81	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1273	1167	1163	1201	5.21	cps
Cobalt	59-2	93	30	80	68	49.26	cps
Copper	63-2	1330	1337	1333	1333	0.25	cps
Dysprosium	156-1	7	10	3	7	50.03	cps
Dysprosium	156-2	0	0	3	1	173.21	cps
Erbium	164-1	47	30	57	44	30.31	cps
Erbium	164-2	33	33	27	31	12.36	cps
Gadolinium	160-1	67	70	77	71	7.16	cps
Gadolinium	160-2	390	433	413	412	5.26	cps
Holmium	165-1	6486986	6268124	6268658	6341256	1.99	cps
Holmium	165-2	4937317	4882930	4990236	4936828	1.09	cps
Indium	115-1	5621579	5476698	5442572	5513617	1.72	cps
Indium	115-2	2101007	2093342	2059639	2084663	1.06	cps
Iron	56-2	12796	12946	12979	12907	0.76	cps
Iron	57-2	1313	1263	1257	1278	2.42	cps
Iron	54-2	1483	1523	1700	1569	7.35	cps
Krypton	83-1	400	390	480	423	11.65	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	323	330	293	316	6.19	cps
Lead	207-1	243	227	257	242	6.21	cps
Lead	208-1	1280	1157	1090	1176	8.20	cps
Lithium	6-1	677303	680044	666338	674562	1.08	cps
Magnesium	24-2	297	350	330	326	8.28	cps
Manganese	55-2	593	630	607	610	3.04	cps
Molybdenum	94-1	163	207	240	203	18.90	cps
Molybdenum	95-1	157	173	143	158	9.53	cps
Molybdenum	96-1	250	160	187	199	23.25	cps
Molybdenum	97-1	150	107	83	113	29.85	cps
Molybdenum	98-1	247	220	227	231	6.01	cps
Neodymium	150-1	7	3	3	4	43.40	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	253	283	267	268	5.61	cps
Phosphorus	31-2	1073	927	973	991	7.56	cps
Potassium	39-2	55768	55865	55246	55627	0.60	cps
Rhodium	103-1	5673842	5545764	5499954	5573187	1.62	cps
Rhodium	103-2	3584882	3491034	3401590	3492502	2.62	cps
Scandium	45-1	3877534	3740645	3806202	3808127	1.80	cps
Scandium	45-2	325858	325291	325249	325466	0.10	cps
Selenium	82-1	309	325	219	284	20.11	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	310	277	297	294	5.70	cps
Silicon	28-1	859905	1143100	853553	952186	17.37	cps
Silver	107-1	57	80	87	74	21.16	cps
Silver	109-1	67	40	70	59	27.92	cps
Sodium	23-2	18698	18398	18752	18616	1.02	cps
Strontium	86-1	673	667	593	644	6.89	cps
Strontium	88-1	117	90	73	93	23.42	cps
Sulfur	34-1	232830	235234	237670	235244	1.03	cps
Terbium	159-1	6662004	6562656	6515844	6580168	1.13	cps
Terbium	159-2	4807982	4739446	4846832	4798087	1.13	cps
Thallium	203-1	200	147	167	171	15.74	cps
Thallium	205-1	347	347	413	369	10.44	cps
Tin	118-1	737	783	757	759	3.09	cps
Titanium	47-1	130	80	107	106	23.70	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:48:53	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	33	20	40	31	32.73	cps
Vanadium	51-2	17	3	7	9	78.08	cps
Yttrium	89-1	10014644	9864177	9553901	9810907	2.39	cps
Yttrium	89-2	2724618	2699660	2669925	2698068	1.01	cps
Zinc	66-2	2554	2204	2564	2440	8.40	cps
Zirconium	90-1	377	443	507	442	14.70	cps
Zirconium	91-1	50	77	87	71	26.66	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3914	4011	4051	3992	1.76	cps
Antimony	121-1	10247	10350	9930	10176	2.15	cps
Arsenic	75-2	367	377	320	354	8.53	cps
Barium	135-1	11728	11535	11451	11571	1.23	cps
Barium	137-1	20261	19680	19644	19862	1.74	cps
Beryllium	9-1	1057	1000	1020	1026	2.80	cps
Bismuth	209-1	4079818	4096551	4102690	4093020	0.29	cps
Bismuth	209-2	3762435	3708282	3673963	3714893	1.20	cps
Bromine	81-1	7652	7249	7629	7510	3.02	cps
Bromine	81-2	90	140	87	106	28.30	cps
Cadmium	108-1	163	73	80	106	47.51	cps
Cadmium	106-1	3861	3851	3814	3842	0.64	cps
Cadmium	111-1	3891	3957	3780	3876	2.31	cps
Calcium	43-1	8759	8269	8432	8487	2.94	cps
Calcium	44-1	155412	153903	153319	154211	0.70	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6618	6138	6058	6271	4.83	cps
Cobalt	59-2	4304	4021	4134	4153	3.44	cps
Copper	63-2	7012	6865	6945	6941	1.06	cps
Dysprosium	156-1	10	3	10	8	49.52	cps
Dysprosium	156-2	0	0	0	0	0.00	cps
Erbium	164-1	57	63	20	47	50.00	cps
Erbium	164-2	33	30	30	31	6.18	cps
Gadolinium	160-1	57	57	103	72	37.31	cps
Gadolinium	160-2	410	350	370	377	8.11	cps
Holmium	165-1	6452673	6379681	6224241	6352198	1.84	cps
Holmium	165-2	5012425	4918178	4848712	4926438	1.67	cps
Indium	115-1	5589104	5499034	5363505	5483881	2.07	cps
Indium	115-2	2114371	2109400	2064209	2095993	1.32	cps
Iron	56-2	133303	132926	131120	132449	0.88	cps
Iron	57-2	4739	4453	4459	4550	3.59	cps
Iron	54-2	8386	8452	8419	8419	0.40	cps
Krypton	83-1	397	423	357	392	8.56	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3544	3604	3517	3555	1.25	cps
Lead	207-1	3040	3074	2937	3017	2.36	cps
Lead	208-1	13786	14010	13716	13837	1.11	cps
Lithium	6-1	697625	677929	674976	683510	1.80	cps
Magnesium	24-2	123631	121796	122099	122508	0.80	cps
Manganese	55-2	2530	2657	2527	2571	2.88	cps
Molybdenum	94-1	11748	11121	11268	11379	2.88	cps
Molybdenum	95-1	13440	13313	13463	13405	0.60	cps
Molybdenum	96-1	15318	15158	14868	15115	1.51	cps
Molybdenum	97-1	8319	8523	8453	8431	1.23	cps
Molybdenum	98-1	22230	21563	21205	21666	2.40	cps
Neodymium	150-1	3	7	27	12	103.26	cps
Neodymium	150-2	7	3	10	7	50.03	cps
Nickel	60-2	1283	1207	1263	1251	3.18	cps
Phosphorus	31-2	2874	2657	2630	2720	4.91	cps
Potassium	39-2	194146	192765	189597	192169	1.21	cps
Rhodium	103-1	5690773	5506902	5517885	5571853	1.85	cps
Rhodium	103-2	3556547	3510105	3420854	3495835	1.97	cps
Scandium	45-1	3903558	3758611	3731494	3797887	2.44	cps
Scandium	45-2	328389	326045	319273	324569	1.46	cps
Selenium	82-1	861	795	816	824	4.10	cps
Selenium	77-2	60	50	90	67	31.22	cps
Selenium	78-2	453	550	487	497	9.89	cps
Silicon	28-1	874811	1170689	868551	971350	17.78	cps
Silver	107-1	7469	7495	6928	7297	4.38	cps
Silver	109-1	6952	7035	6798	6928	1.73	cps
Sodium	23-2	208471	207323	204937	206910	0.87	cps
Strontium	86-1	2424	2257	2260	2314	4.12	cps
Strontium	88-1	14914	15004	14971	14963	0.30	cps
Sulfur	34-1	244350	244832	247578	245587	0.71	cps
Terbium	159-1	6574391	6329520	6631079	6511663	2.46	cps
Terbium	159-2	4962442	4903876	4807288	4891202	1.60	cps
Thallium	203-1	4604	4718	4551	4624	1.84	cps
Thallium	205-1	11625	11145	11548	11439	2.26	cps
Tin	118-1	21353	21403	20528	21094	2.33	cps
Titanium	47-1	4274	4084	4054	4137	2.88	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P7
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:52:08	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	13804	13764	13684	13751	0.44	cps
Vanadium	51-2	10617	10447	10227	10430	1.88	cps
Yttrium	89-1	9784330	9877023	9746444	9802599	0.69	cps
Yttrium	89-2	2734318	2728775	2690189	2717761	0.88	cps
Zinc	66-2	4918	4998	4827	4914	1.73	cps
Zirconium	90-1	9403	9860	9557	9607	2.42	cps
Zirconium	91-1	2127	2284	2057	2156	5.38	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	136257	135873	137457	136529	0.61	cps
Antimony	121-1	241729	242552	239878	241387	0.57	cps
Arsenic	75-2	15995	16176	15638	15936	1.72	cps
Barium	135-1	287521	286959	283557	286012	0.75	cps
Barium	137-1	490905	492007	492322	491745	0.15	cps
Beryllium	9-1	46132	46272	45931	46112	0.37	cps
Bismuth	209-1	4164939	4099485	4000712	4088379	2.02	cps
Bismuth	209-2	3660415	3673693	3639228	3657778	0.48	cps
Bromine	81-1	7459	7559	7335	7451	1.50	cps
Bromine	81-2	93	117	107	106	11.09	cps
Cadmium	108-1	5114	5118	5014	5082	1.16	cps
Cadmium	106-1	10324	10928	10160	10471	3.86	cps
Cadmium	111-1	72041	71527	71568	71712	0.40	cps
Calcium	43-1	82075	83167	81528	82257	1.01	cps
Calcium	44-1	1301818	1295648	1281186	1292884	0.82	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	125841	126442	123528	125270	1.23	cps
Cobalt	59-2	188996	190623	188645	189421	0.56	cps
Copper	63-2	1480444	1494882	1480382	1485236	0.56	cps
Dysprosium	156-1	3	13	20	12	68.66	cps
Dysprosium	156-2	17	13	17	16	12.40	cps
Erbium	164-1	103	47	57	69	43.90	cps
Erbium	164-2	30	63	27	40	50.68	cps
Gadolinium	160-1	100	70	103	91	20.15	cps
Gadolinium	160-2	433	467	407	436	6.90	cps
Holmium	165-1	6472384	6381701	6182436	6345507	2.34	cps
Holmium	165-2	4899134	4844594	4848521	4864083	0.63	cps
Indium	115-1	5703472	5433454	5326854	5487926	3.54	cps
Indium	115-2	2073547	2060904	2042974	2059142	0.75	cps
Iron	56-2	5683654	5839065	5711501	5744740	1.44	cps
Iron	57-2	153646	151441	149524	151537	1.36	cps
Iron	54-2	339093	335843	332932	335956	0.92	cps
Krypton	83-1	430	500	420	450	9.69	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	893021	888465	871055	884180	1.31	cps
Lead	207-1	764918	762722	749817	759152	1.07	cps
Lead	208-1	3589541	3629646	3550027	3589738	1.11	cps
Lithium	6-1	701550	685693	677546	688263	1.77	cps
Magnesium	24-2	1264212	1210704	1198881	1224599	2.84	cps
Manganese	55-2	1029889	1030002	1017839	1025910	0.68	cps
Molybdenum	94-1	925123	942814	925403	931113	1.09	cps
Molybdenum	95-1	1316397	1334476	1306373	1319082	1.08	cps
Molybdenum	96-1	1435393	1448793	1419601	1434596	1.02	cps
Molybdenum	97-1	820692	825444	816044	820727	0.57	cps
Molybdenum	98-1	2106156	2114267	2060676	2093700	1.38	cps
Neodymium	150-1	13	10	33	19	66.81	cps
Neodymium	150-2	17	3	7	9	78.08	cps
Nickel	60-2	50562	51211	50635	50803	0.70	cps
Phosphorus	31-2	8179	8029	8342	8183	1.92	cps
Potassium	39-2	738511	731301	730190	733334	0.62	cps
Rhodium	103-1	5561888	5547062	5502112	5537021	0.56	cps
Rhodium	103-2	3495087	3412994	3471278	3459786	1.22	cps
Scandium	45-1	3842611	3763474	3720661	3775582	1.64	cps
Scandium	45-2	326106	322451	323306	323954	0.59	cps
Selenium	82-1	6078	6006	6058	6047	0.61	cps
Selenium	77-2	593	690	637	640	7.57	cps
Selenium	78-2	2384	2194	2367	2315	4.55	cps
Silicon	28-1	2979315	3037643	3002380	3006446	0.98	cps
Silver	107-1	335990	341171	334373	337178	1.05	cps
Silver	109-1	319551	322141	316395	319362	0.90	cps
Sodium	23-2	1981768	1932587	1914809	1943055	1.79	cps
Strontium	86-1	86523	86261	85329	86037	0.73	cps
Strontium	88-1	751147	755135	741484	749255	0.94	cps
Sulfur	34-1	263580	265282	265185	264682	0.36	cps
Terbium	159-1	6656503	6508559	6362605	6509222	2.26	cps
Terbium	159-2	4849385	4762148	4721890	4777808	1.36	cps
Thallium	203-1	217310	218513	213453	216425	1.22	cps
Thallium	205-1	520538	518338	511087	516654	0.96	cps
Tin	118-1	204734	204037	205296	204689	0.31	cps
Titanium	47-1	388836	392365	387635	389612	0.63	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P7
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:55:26	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	666978	674064	659764	666935	1.07	cps
Vanadium	51-2	103912	102804	100955	102557	1.46	cps
Yttrium	89-1	9945605	9712862	9612262	9756910	1.75	cps
Yttrium	89-2	2698014	2670349	2632512	2666958	1.23	cps
Zinc	66-2	282746	284660	279229	282212	0.98	cps
Zirconium	90-1	456901	462778	454490	458056	0.93	cps
Zirconium	91-1	101281	102885	98596	100920	2.15	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	334369	327534	331635	331179	1.04	cps
Antimony	121-1	597082	598880	589734	595232	0.81	cps
Arsenic	75-2	37985	38176	37431	37864	1.02	cps
Barium	135-1	711290	704225	697779	704431	0.96	cps
Barium	137-1	1231290	1216431	1216870	1221530	0.69	cps
Beryllium	9-1	114029	112796	110417	112414	1.63	cps
Bismuth	209-1	4132909	4095822	4061628	4096787	0.87	cps
Bismuth	209-2	3543992	3602412	3502014	3549473	1.42	cps
Bromine	81-1	7249	7369	7192	7270	1.24	cps
Bromine	81-2	157	93	80	110	37.24	cps
Cadmium	108-1	12062	12352	12252	12222	1.21	cps
Cadmium	106-1	20421	21236	19847	20501	3.40	cps
Cadmium	111-1	174308	173982	170292	172861	1.29	cps
Calcium	43-1	201870	200798	194213	198961	2.08	cps
Calcium	44-1	3110582	3070260	3043609	3074817	1.10	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	300724	300419	296922	299355	0.71	cps
Cobalt	59-2	459199	466424	450630	458751	1.72	cps
Copper	63-2	3579343	3529127	3528133	3545534	0.83	cps
Dysprosium	156-1	33	17	17	22	43.28	cps
Dysprosium	156-2	30	63	47	47	35.71	cps
Erbium	164-1	40	73	80	64	33.25	cps
Erbium	164-2	77	57	50	61	22.71	cps
Gadolinium	160-1	123	120	113	119	4.28	cps
Gadolinium	160-2	440	440	400	427	5.41	cps
Holmium	165-1	6412431	6166022	6121987	6233480	2.51	cps
Holmium	165-2	4756905	4821700	4682178	4753594	1.47	cps
Indium	115-1	5490405	5240293	5321346	5350681	2.38	cps
Indium	115-2	2013749	2020982	1999078	2011270	0.55	cps
Iron	56-2	14253214	14031775	13953694	14079561	1.10	cps
Iron	57-2	367570	365001	361569	364713	0.83	cps
Iron	54-2	820766	810247	812891	814635	0.67	cps
Krypton	83-1	417	423	403	414	2.46	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2280059	2236418	2169615	2228697	2.50	cps
Lead	207-1	2007564	1983420	1930014	1973666	2.01	cps
Lead	208-1	9252353	9203619	8885341	9113771	2.19	cps
Lithium	6-1	675501	669892	661027	668807	1.09	cps
Magnesium	24-2	3027956	2858644	2983178	2956593	2.97	cps
Manganese	55-2	2491364	2416378	2500201	2469314	1.87	cps
Molybdenum	94-1	2325223	2293200	2222170	2280198	2.31	cps
Molybdenum	95-1	3306437	3233977	3258692	3266369	1.13	cps
Molybdenum	96-1	3513990	3476488	3518470	3502983	0.66	cps
Molybdenum	97-1	2022333	1990822	1985294	1999483	1.00	cps
Molybdenum	98-1	5324205	5139306	5192437	5218650	1.82	cps
Neodymium	150-1	40	30	40	37	15.75	cps
Neodymium	150-2	20	10	13	14	35.26	cps
Nickel	60-2	123821	121276	118780	121292	2.08	cps
Phosphorus	31-2	18278	17534	18064	17958	2.13	cps
Potassium	39-2	1612467	1624081	1612030	1616193	0.42	cps
Rhodium	103-1	5342242	5308433	5466461	5372378	1.55	cps
Rhodium	103-2	3318514	3385220	3285091	3329608	1.53	cps
Scandium	45-1	3676545	3661788	3633956	3657430	0.59	cps
Scandium	45-2	313492	313996	310639	312709	0.58	cps
Selenium	82-1	14236	14159	13951	14115	1.05	cps
Selenium	77-2	1493	1350	1480	1441	5.49	cps
Selenium	78-2	5128	5174	5358	5220	2.33	cps
Silicon	28-1	5609092	5709442	5650728	5656421	0.89	cps
Silver	107-1	834688	834708	816428	828608	1.27	cps
Silver	109-1	793777	786539	779386	786567	0.91	cps
Sodium	23-2	4671131	4604843	4523768	4599914	1.60	cps
Strontium	86-1	210947	210377	206692	209339	1.10	cps
Strontium	88-1	1833135	1849081	1803493	1828570	1.27	cps
Sulfur	34-1	301136	299178	300928	300414	0.36	cps
Terbium	159-1	6428081	6396028	6447045	6423718	0.40	cps
Terbium	159-2	4690964	4826759	4624982	4714235	2.18	cps
Thallium	203-1	544528	542455	532751	539911	1.16	cps
Thallium	205-1	1290822	1277153	1250774	1272916	1.60	cps
Tin	118-1	506417	500721	499256	502131	0.75	cps
Titanium	47-1	960139	959595	938316	952683	1.31	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 14:58:35	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1786106	1682907	1647912	1705642	4.21	cps
Vanadium	51-2	254300	248317	249753	250790	1.25	cps
Yttrium	89-1	9757301	9506984	9360364	9541550	2.10	cps
Yttrium	89-2	2562446	2618639	2528456	2569847	1.77	cps
Zinc	66-2	674775	681360	668679	674938	0.94	cps
Zirconium	90-1	1135967	1132004	1111890	1126620	1.15	cps
Zirconium	91-1	252689	250201	245764	249552	1.41	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	652150	653947	655650	653916	0.27	cps
Antimony	121-1	1174282	1188724	1176729	1179912	0.66	cps
Arsenic	75-2	74737	75431	75588	75252	0.60	cps
Barium	135-1	1381124	1399305	1379679	1386703	0.79	cps
Barium	137-1	2428839	2474330	2457803	2453657	0.94	cps
Beryllium	9-1	215168	213403	212819	213797	0.57	cps
Bismuth	209-1	4061274	3983271	3975695	4006747	1.18	cps
Bismuth	209-2	3596189	3599498	3567988	3587892	0.48	cps
Bromine	81-1	7379	7382	7412	7391	0.25	cps
Bromine	81-2	130	100	123	118	13.37	cps
Cadmium	108-1	24544	24184	24487	24405	0.79	cps
Cadmium	106-1	36820	36967	35908	36565	1.57	cps
Cadmium	111-1	335614	340808	333008	336476	1.18	cps
Calcium	43-1	387426	390722	387418	388522	0.49	cps
Calcium	44-1	6014842	6048882	5906846	5990190	1.24	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	593402	596148	590108	593219	0.51	cps
Cobalt	59-2	909914	907546	902667	906709	0.41	cps
Copper	63-2	7136696	7010843	7039069	7062203	0.94	cps
Dysprosium	156-1	40	27	47	38	26.95	cps
Dysprosium	156-2	90	127	87	101	21.95	cps
Erbium	164-1	103	93	57	84	29.09	cps
Erbium	164-2	47	40	57	48	17.56	cps
Gadolinium	160-1	83	70	117	90	26.71	cps
Gadolinium	160-2	327	333	450	370	18.75	cps
Holmium	165-1	6408981	6180720	6141641	6243781	2.31	cps
Holmium	165-2	4797909	4945457	4680024	4807797	2.77	cps
Indium	115-1	5317023	5282455	5226217	5275232	0.87	cps
Indium	115-2	1999925	2024655	1948918	1991166	1.94	cps
Iron	56-2	28024296	27530694	28285785	27946925	1.37	cps
Iron	57-2	722372	723499	723557	723143	0.09	cps
Iron	54-2	1537637	1532157	1516665	1528820	0.71	cps
Krypton	83-1	403	423	393	407	3.76	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4461201	4524850	4466966	4484339	0.78	cps
Lead	207-1	3926918	3966081	3945597	3946199	0.50	cps
Lead	208-1	18183618	18145952	17940746	18090106	0.72	cps
Lithium	6-1	660079	659380	650688	656716	0.80	cps
Magnesium	24-2	5705732	5752110	5886248	5781364	1.62	cps
Manganese	55-2	4983099	4825682	4855738	4888173	1.71	cps
Molybdenum	94-1	4541092	4467863	4499368	4502774	0.82	cps
Molybdenum	95-1	6481655	6497160	6442089	6473635	0.44	cps
Molybdenum	96-1	6912127	6903708	6828688	6881508	0.67	cps
Molybdenum	97-1	3916592	4037976	3908961	3954510	1.83	cps
Molybdenum	98-1	10162112	10296427	10179943	10212827	0.71	cps
Neodymium	150-1	57	77	43	59	28.49	cps
Neodymium	150-2	13	13	23	17	34.65	cps
Nickel	60-2	239457	237187	236406	237683	0.67	cps
Phosphorus	31-2	35638	34523	34582	34914	1.80	cps
Potassium	39-2	3207548	3155167	3156786	3173167	0.94	cps
Rhodium	103-1	5303450	5209514	5176494	5229819	1.26	cps
Rhodium	103-2	3339042	3360060	3241895	3313666	1.90	cps
Scandium	45-1	3598137	3580759	3510619	3563172	1.30	cps
Scandium	45-2	304358	311765	306825	307649	1.23	cps
Selenium	82-1	27006	27476	27226	27236	0.86	cps
Selenium	77-2	2940	2910	2910	2920	0.59	cps
Selenium	78-2	9950	10164	10147	10087	1.18	cps
Silicon	28-1	9818445	10107162	9867773	9931127	1.56	cps
Silver	107-1	1640815	1647114	1615860	1634596	1.01	cps
Silver	109-1	1542371	1547228	1525984	1538528	0.72	cps
Sodium	23-2	9205461	9026242	9305937	9179213	1.54	cps
Strontium	86-1	411537	412087	409589	411071	0.32	cps
Strontium	88-1	3586378	3551838	3543652	3560622	0.64	cps
Sulfur	34-1	342183	344215	342320	342906	0.33	cps
Terbium	159-1	6345143	6464057	6292604	6367268	1.38	cps
Terbium	159-2	4744929	4788304	4652471	4728568	1.47	cps
Thallium	203-1	1069108	1071633	1060127	1066956	0.57	cps
Thallium	205-1	2681632	2666901	2627076	2658536	1.06	cps
Tin	118-1	990662	996111	983386	990053	0.64	cps
Titanium	47-1	1858162	1878678	1863954	1866931	0.57	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P7
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:04:32	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	3502123	3536662	3530289	3523024	0.52	cps
Vanadium	51-2	496105	494690	490884	493893	0.55	cps
Yttrium	89-1	9467761	9388811	9247375	9367982	1.19	cps
Yttrium	89-2	2565755	2572830	2530918	2556501	0.88	cps
Zinc	66-2	1336953	1337057	1322013	1332008	0.65	cps
Zirconium	90-1	2230928	2221607	2245954	2232830	0.55	cps
Zirconium	91-1	487523	493549	487234	489435	0.73	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1255362	1288704	1258099	1267388	1.46	cps
Antimony	121-1	2229195	2259719	2319407	2269440	2.02	cps
Arsenic	75-2	144571	143325	143571	143822	0.46	cps
Barium	135-1	2740756	2747407	2805225	2764462	1.28	cps
Barium	137-1	4738394	4784143	4757814	4760117	0.48	cps
Beryllium	9-1	406036	406903	404059	405666	0.36	cps
Bismuth	209-1	3836880	3793695	3738834	3789803	1.30	cps
Bismuth	209-2	3360701	3383532	3377663	3373965	0.35	cps
Bromine	81-1	7345	7135	7809	7430	4.64	cps
Bromine	81-2	137	77	67	93	40.56	cps
Cadmium	108-1	46003	45886	45806	45898	0.22	cps
Cadmium	106-1	67014	66515	67965	67165	1.10	cps
Cadmium	111-1	631190	640410	641445	637682	0.89	cps
Calcium	43-1	730804	750558	743260	741541	1.35	cps
Calcium	44-1	11382138	11613395	11519622	11505051	1.01	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1144543	1142608	1134757	1140636	0.45	cps
Cobalt	59-2	1709430	1741017	1727117	1725855	0.92	cps
Copper	63-2	13709761	13598073	13616298	13641377	0.44	cps
Dysprosium	156-1	47	67	63	59	18.19	cps
Dysprosium	156-2	197	207	197	200	2.89	cps
Erbium	164-1	127	83	117	109	20.84	cps
Erbium	164-2	70	70	57	66	11.74	cps
Gadolinium	160-1	113	120	97	110	10.92	cps
Gadolinium	160-2	410	387	393	397	3.03	cps
Holmium	165-1	6102924	5925886	5955529	5994780	1.58	cps
Holmium	165-2	4623273	4584213	4626323	4611270	0.51	cps
Indium	115-1	5054570	5061975	4929873	5015473	1.48	cps
Indium	115-2	1870955	1885162	1852357	1869492	0.88	cps
Iron	56-2	53020386	53588464	52815063	53141304	0.75	cps
Iron	57-2	1349664	1396609	1381654	1375976	1.74	cps
Iron	54-2	2997965	3000779	2967980	2988908	0.61	cps
Krypton	83-1	420	360	413	398	8.27	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8536081	8720385	8737848	8664771	1.29	cps
Lead	207-1	7698881	7572953	7717497	7663111	1.03	cps
Lead	208-1	35187928	34798548	35012693	34999723	0.56	cps
Lithium	6-1	641944	622174	611339	625152	2.48	cps
Magnesium	24-2	10800477	11248125	11120090	11056231	2.09	cps
Manganese	55-2	9349748	9403190	9367377	9373439	0.29	cps
Molybdenum	94-1	8542610	8752455	8758136	8684400	1.41	cps
Molybdenum	95-1	12207485	12258278	12413196	12292986	0.87	cps
Molybdenum	96-1	13226299	13445859	13228515	13300225	0.95	cps
Molybdenum	97-1	7562551	7622438	7554837	7579942	0.49	cps
Molybdenum	98-1	19624135	19920440	20015428	19853334	1.03	cps
Neodymium	150-1	123	123	107	118	8.17	cps
Neodymium	150-2	40	43	33	39	13.09	cps
Nickel	60-2	455700	455092	451349	454047	0.52	cps
Phosphorus	31-2	65055	66062	64717	65278	1.07	cps
Potassium	39-2	6058290	6062461	6054768	6058506	0.06	cps
Rhodium	103-1	5023028	4932356	4964200	4973194	0.92	cps
Rhodium	103-2	3124835	3148485	3113729	3129016	0.57	cps
Scandium	45-1	3511586	3449672	3304613	3421957	3.10	cps
Scandium	45-2	290777	298161	293892	294277	1.26	cps
Selenium	82-1	51237	51837	51171	51415	0.71	cps
Selenium	77-2	5638	5491	5384	5504	2.31	cps
Selenium	78-2	18098	18638	18779	18505	1.94	cps
Silicon	28-1	17565163	17795273	17973522	17777986	1.15	cps
Silver	107-1	3091549	3095511	3065183	3084081	0.53	cps
Silver	109-1	3024585	3006419	2898126	2976376	2.30	cps
Sodium	23-2	17450275	17958223	17375929	17594809	1.80	cps
Strontium	86-1	785151	789069	797411	790544	0.79	cps
Strontium	88-1	6911787	6979490	6980128	6957135	0.56	cps
Sulfur	34-1	443886	447046	445038	445323	0.36	cps
Terbium	159-1	6269358	6182928	5989375	6147220	2.33	cps
Terbium	159-2	4492660	4505766	4575805	4524744	0.99	cps
Thallium	203-1	2092441	2182213	2189208	2154621	2.50	cps
Thallium	205-1	5042905	5238310	5107215	5129477	1.94	cps
Tin	118-1	1924649	1876362	1944746	1915252	1.84	cps
Titanium	47-1	3584547	3582790	3597751	3588362	0.23	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:07:27	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6706161	6921064	6860929	6829385	1.62	cps
Vanadium	51-2	949775	955237	953246	952753	0.29	cps
Yttrium	89-1	9182819	9107503	9132429	9140917	0.42	cps
Yttrium	89-2	2405931	2412745	2462189	2426955	1.27	cps
Zinc	66-2	2539138	2511922	2510528	2520529	0.64	cps
Zirconium	90-1	4265533	4307735	4343364	4305544	0.90	cps
Zirconium	91-1	936167	950529	950864	945853	0.89	cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2348492	2392587	2285890	2342323	2.29	cps
Antimony	121-1	4146927	4185764	4236987	4189893	1.08	cps
Arsenic	75-2	263224	268808	262547	264860	1.30	cps
Barium	135-1	4925316	5116715	5117875	5053302	2.19	cps
Barium	137-1	8760314	9049531	8983017	8930954	1.70	cps
Beryllium	9-1	727222	741793	740326	736447	1.09	cps
Bismuth	209-1	3573774	3520600	3511193	3535189	0.95	cps
Bismuth	209-2	3155682	3143985	3111082	3136916	0.74	cps
Bromine	81-1	7249	7792	7395	7479	3.76	cps
Bromine	81-2	127	87	67	93	32.73	cps
Cadmium	108-1	84116	85045	84806	84656	0.57	cps
Cadmium	106-1	117975	120462	121847	120095	1.63	cps
Cadmium	111-1	1139883	1180044	1175005	1164977	1.88	cps
Calcium	43-1	1325029	1352892	1308501	1328807	1.69	cps
Calcium	44-1	20979963	21397738	21574761	21317487	1.43	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2130982	2130846	2102330	2121386	0.78	cps
Cobalt	59-2	3281919	3293158	3317052	3297376	0.54	cps
Copper	63-2	25359377	25108227	24758284	25075296	1.20	cps
Dysprosium	156-1	107	107	137	117	14.85	cps
Dysprosium	156-2	487	383	463	444	12.19	cps
Erbium	164-1	180	177	177	178	1.08	cps
Erbium	164-2	90	127	113	110	16.87	cps
Gadolinium	160-1	147	107	147	133	17.32	cps
Gadolinium	160-2	373	363	383	373	2.68	cps
Holmium	165-1	5556769	5410861	5563556	5510395	1.57	cps
Holmium	165-2	4294436	4333554	4228192	4285394	1.24	cps
Indium	115-1	4586765	4550507	4565088	4567453	0.40	cps
Indium	115-2	1747458	1780325	1688937	1738907	2.66	cps
Iron	56-2	98593172	101148108	99121749	99621010	1.35	cps
Iron	57-2	2501680	2567716	2483883	2517760	1.75	cps
Iron	54-2	5644510	5493536	5416923	5518323	2.10	cps
Krypton	83-1	373	407	417	399	5.69	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	15804931	16142100	16049290	15998774	1.09	cps
Lead	207-1	13924489	13997086	13964009	13961861	0.26	cps
Lead	208-1	64269465	64805378	64577450	64550764	0.42	cps
Lithium	6-1	573285	574544	567658	571829	0.64	cps
Magnesium	24-2	20569063	20980299	20173728	20574363	1.96	cps
Manganese	55-2	17403221	17463457	17358214	17408297	0.30	cps
Molybdenum	94-1	15492684	16554005	16193718	16080136	3.36	cps
Molybdenum	95-1	22132154	23144908	22837137	22704733	2.29	cps
Molybdenum	96-1	24051145	24747490	24666170	24488269	1.55	cps
Molybdenum	97-1	14006903	14356725	14473251	14278960	1.70	cps
Molybdenum	98-1	36100749	36865604	37188710	36718355	1.52	cps
Neodymium	150-1	197	247	187	210	15.31	cps
Neodymium	150-2	70	70	57	66	11.74	cps
Nickel	60-2	854669	848492	836314	846492	1.10	cps
Phosphorus	31-2	124123	120749	123985	122952	1.55	cps
Potassium	39-2	11384612	11000392	11240517	11208507	1.73	cps
Rhodium	103-1	4655022	4598720	4561472	4605071	1.02	cps
Rhodium	103-2	2877099	2940226	2844904	2887410	1.68	cps
Scandium	45-1	3135282	3147797	3168720	3150599	0.54	cps
Scandium	45-2	271750	274555	271244	272516	0.65	cps
Selenium	82-1	90861	92454	91875	91730	0.88	cps
Selenium	77-2	10100	9880	9957	9979	1.12	cps
Selenium	78-2	32399	33378	32586	32788	1.59	cps
Silicon	28-1	31981161	31892811	31911488	31928487	0.15	cps
Silver	107-1	5599026	5719175	5723763	5680655	1.25	cps
Silver	109-1	5324347	5471263	5453928	5416513	1.48	cps
Sodium	23-2	32176840	32746585	32230445	32384623	0.97	cps
Strontium	86-1	1439278	1483592	1480283	1467718	1.68	cps
Strontium	88-1	12885951	13042932	13131604	13020162	0.96	cps
Sulfur	34-1	623354	630187	627330	626957	0.55	cps
Terbium	159-1	5744147	5777345	5648403	5723298	1.17	cps
Terbium	159-2	4196265	4329901	4102117	4209428	2.72	cps
Thallium	203-1	4066628	4019547	4088325	4058167	0.87	cps
Thallium	205-1	9590286	9372061	9662728	9541691	1.59	cps
Tin	118-1	3511708	3619972	3560755	3564145	1.52	cps
Titanium	47-1	6516175	6619049	6611951	6582391	0.87	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:10:12	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	12507026	12751658	12596766	12618483	0.98	cps
Vanadium	51-2	1800972	1753125	1778141	1777413	1.35	cps
Yttrium	89-1	8501917	8366985	8408995	8425966	0.82	cps
Yttrium	89-2	2261446	2295061	2207193	2254567	1.97	cps
Zinc	66-2	4538656	4548858	4506106	4531207	0.49	cps
Zirconium	90-1	7762100	8030855	8094014	7962323	2.21	cps
Zirconium	91-1	1713937	1776182	1794907	1761675	2.41	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11595059	11357916	11470387	11474454	1.03	cps
Antimony	121-1	3861	3644	3857	3787	3.28	cps
Arsenic	75-2	320	307	380	336	11.64	cps
Barium	135-1	3254	3350	3050	3218	4.76	cps
Barium	137-1	5461	5825	5738	5675	3.35	cps
Beryllium	9-1	140	123	123	129	7.46	cps
Bismuth	209-1	3316247	3291980	3232874	3280367	1.31	cps
Bismuth	209-2	3018094	3057041	2995783	3023639	1.03	cps
Bromine	81-1	7419	8239	8002	7887	5.35	cps
Bromine	81-2	240	217	213	223	6.50	cps
Cadmium	108-1	70	80	77	76	6.74	cps
Cadmium	106-1	3154	3094	2970	3073	3.04	cps
Cadmium	111-1	2795	2776	2636	2736	3.19	cps
Calcium	43-1	6258608	6542113	6637129	6479283	3.04	cps
Calcium	44-1	101623202	104632902	106988105	104414736	2.58	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	19610	19373	19643	19542	0.75	cps
Cobalt	59-2	7122	7055	7085	7087	0.47	cps
Copper	63-2	4411	4294	4037	4247	4.50	cps
Dysprosium	156-1	223	217	230	223	2.98	cps
Dysprosium	156-2	240	187	197	208	13.65	cps
Erbium	164-1	507	450	460	472	6.41	cps
Erbium	164-2	340	373	357	357	4.67	cps
Gadolinium	160-1	260	290	360	303	16.92	cps
Gadolinium	160-2	487	507	630	541	14.35	cps
Holmium	165-1	5413434	5419268	5384135	5405612	0.35	cps
Holmium	165-2	4348842	4325013	4356143	4343333	0.37	cps
Indium	115-1	4482880	4513415	4496356	4497550	0.34	cps
Indium	115-2	1789402	1777291	1801928	1789541	0.69	cps
Iron	56-2	489783433	483455139	485568899	486269157	0.66	cps
Iron	57-2	11951550	12276739	12155646	12127978	1.36	cps
Iron	54-2	26590970	26645647	26456289	26564302	0.37	cps
Krypton	83-1	380	363	443	396	10.67	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4534	4404	4497	4479	1.50	cps
Lead	207-1	3974	3944	3881	3933	1.21	cps
Lead	208-1	18295	17952	17918	18055	1.16	cps
Lithium	6-1	565687	560481	552710	559626	1.17	cps
Magnesium	24-2	105041112	101125182	104722602	103629632	2.10	cps
Manganese	55-2	10274	10200	9933	10136	1.77	cps
Molybdenum	94-1	5511	5698	5765	5658	2.32	cps
Molybdenum	95-1	4784	4998	4968	4916	2.35	cps
Molybdenum	96-1	7405	7812	7629	7615	2.68	cps
Molybdenum	97-1	3020	3190	2890	3034	4.96	cps
Molybdenum	98-1	7929	7712	7519	7720	2.66	cps
Neodymium	150-1	123	97	110	110	12.12	cps
Neodymium	150-2	70	80	37	62	36.46	cps
Nickel	60-2	5544	5338	5388	5423	1.99	cps
Phosphorus	31-2	890	910	950	917	3.33	cps
Potassium	39-2	55980628	55544489	56242313	55922476	0.63	cps
Rhodium	103-1	4377969	4465817	4435446	4426410	1.01	cps
Rhodium	103-2	2851431	2837167	2895943	2861514	1.07	cps
Scandium	45-1	3139823	3197925	3191142	3176296	1.00	cps
Scandium	45-2	281627	284011	284635	283424	0.56	cps
Selenium	82-1	421	418	359	400	8.76	cps
Selenium	77-2	27	3	13	14	81.07	cps
Selenium	78-2	303	327	370	333	10.15	cps
Silicon	28-1	1247422	1245481	1261754	1251553	0.71	cps
Silver	107-1	1147	933	970	1017	11.22	cps
Silver	109-1	1057	957	957	990	5.83	cps
Sodium	23-2	159748998	159273394	161807074	160276489	0.84	cps
Strontium	86-1	18692	19483	19576	19250	2.52	cps
Strontium	88-1	160115	162252	161352	161240	0.67	cps
Sulfur	34-1	208242	210418	208104	208921	0.62	cps
Terbium	159-1	5597818	5609272	5521189	5576093	0.86	cps
Terbium	159-2	4327141	4171048	4337074	4278421	2.18	cps
Thallium	203-1	5858	5718	5821	5799	1.25	cps
Thallium	205-1	13624	13787	13634	13681	0.67	cps
Tin	118-1	6682	6635	6788	6702	1.17	cps
Titanium	47-1	600	510	550	553	8.15	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:12:59	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	490	467	570	509	10.65	cps
Vanadium	51-2	923	863	893	893	3.36	cps
Yttrium	89-1	8296495	8281237	8313710	8297147	0.20	cps
Yttrium	89-2	2391829	2332735	2386678	2370414	1.38	cps
Zinc	66-2	6468	6748	6818	6678	2.77	cps
Zirconium	90-1	7108	7469	7332	7303	2.49	cps
Zirconium	91-1	1387	1750	1677	1605	11.98	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	212284	214450	213908	213547	0.53	cps
Antimony	121-1	2080832	2099146	2065606	2081861	0.81	cps
Arsenic	75-2	133165	131665	132840	132557	0.60	cps
Barium	135-1	1939058	1954061	1925205	1939441	0.74	cps
Barium	137-1	3402066	3372770	3342037	3372291	0.89	cps
Beryllium	9-1	36122	37395	37308	36942	1.92	cps
Bismuth	209-1	4267896	4108185	4137072	4171051	2.04	cps
Bismuth	209-2	3809366	3801832	3719396	3776865	1.32	cps
Bromine	81-1	7959	7959	7812	7910	1.07	cps
Bromine	81-2	110	117	87	104	15.08	cps
Cadmium	108-1	19026	19009	19266	19100	0.75	cps
Cadmium	106-1	29126	29410	29557	29364	0.75	cps
Cadmium	111-1	287791	292780	288951	289840	0.90	cps
Calcium	43-1	67035	68079	66609	67241	1.12	cps
Calcium	44-1	1109159	1123664	1109705	1114176	0.74	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	418035	417101	410659	415265	0.97	cps
Cobalt	59-2	1623475	1611907	1606205	1613862	0.55	cps
Copper	63-2	575644	575141	570478	573755	0.50	cps
Dysprosium	156-1	17	40	3	20	92.80	cps
Dysprosium	156-2	120	133	80	111	24.98	cps
Erbium	164-1	60	43	43	49	19.69	cps
Erbium	164-2	27	47	47	40	28.87	cps
Gadolinium	160-1	83	67	90	80	15.02	cps
Gadolinium	160-2	420	417	457	431	5.15	cps
Holmium	165-1	6841825	6509995	6500082	6617301	2.94	cps
Holmium	165-2	5108617	5080461	4941015	5043364	1.78	cps
Indium	115-1	5835298	5698451	5578501	5704083	2.25	cps
Indium	115-2	2192552	2155563	2130798	2159638	1.44	cps
Iron	56-2	1919311	1955795	1920231	1931779	1.08	cps
Iron	57-2	48699	49147	48118	48655	1.06	cps
Iron	54-2	123925	123176	122352	123151	0.64	cps
Krypton	83-1	383	387	433	401	6.97	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1433016	1453468	1448946	1445143	0.74	cps
Lead	207-1	1226272	1239096	1232439	1232602	0.52	cps
Lead	208-1	5900717	5926494	5939045	5922085	0.33	cps
Lithium	6-1	688725	669038	653900	670554	2.60	cps
Magnesium	24-2	917657	908471	910635	912255	0.53	cps
Manganese	55-2	769247	774236	761759	768414	0.82	cps
Molybdenum	94-1	783	713	703	733	5.94	cps
Molybdenum	95-1	847	803	887	846	4.93	cps
Molybdenum	96-1	910	1133	1053	1032	10.96	cps
Molybdenum	97-1	510	677	513	567	16.81	cps
Molybdenum	98-1	1347	1497	1423	1422	5.27	cps
Neodymium	150-1	53	80	77	70	20.76	cps
Neodymium	150-2	7	17	3	9	78.08	cps
Nickel	60-2	417638	420216	417367	418407	0.38	cps
Phosphorus	31-2	940	1037	930	969	6.08	cps
Potassium	39-2	1191302	1192847	1178378	1187509	0.67	cps
Rhodium	103-1	6071798	5811237	5763445	5882160	2.82	cps
Rhodium	103-2	3565811	3508509	3559424	3544581	0.89	cps
Scandium	45-1	4166040	3954527	3902997	4007854	3.48	cps
Scandium	45-2	337847	329626	329001	332158	1.49	cps
Selenium	82-1	48254	48494	48096	48281	0.41	cps
Selenium	77-2	5231	5044	5208	5161	1.97	cps
Selenium	78-2	17183	17470	17824	17493	1.83	cps
Silicon	28-1	1201020	1175797	1175569	1184129	1.24	cps
Silver	107-1	1303504	1313135	1318847	1311829	0.59	cps
Silver	109-1	1236679	1243405	1242531	1240872	0.29	cps
Sodium	23-2	1610633	1592037	1553845	1585505	1.83	cps
Strontium	86-1	757	797	817	790	3.87	cps
Strontium	88-1	977	1033	967	992	3.62	cps
Sulfur	34-1	207661	208087	210057	208602	0.61	cps
Terbium	159-1	6955170	6746351	6602425	6767982	2.62	cps
Terbium	159-2	5047802	4913509	4961146	4974152	1.37	cps
Thallium	203-1	1810367	1739613	1832308	1794096	2.70	cps
Thallium	205-1	4299694	4270398	4343049	4304380	0.85	cps
Tin	118-1	1757	1547	1677	1660	6.38	cps
Titanium	47-1	247	287	247	260	8.88	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P7
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:32:04	DataFile Name :	015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	23	30	30	28	13.86	cps
Vanadium	51-2	866330	864514	862520	864455	0.22	cps
Yttrium	89-1	10741664	10350221	9947089	10346325	3.84	cps
Yttrium	89-2	2827370	2763564	2733487	2774807	1.73	cps
Zinc	66-2	219206	216830	216366	217467	0.70	cps
Zirconium	90-1	453	473	493	473	4.23	cps
Zirconium	91-1	247	263	273	261	5.16	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1170	1013	1073	1086	7.28	cps
Antimony	121-1	517	423	430	457	11.40	cps
Arsenic	75-2	7	27	17	17	59.99	cps
Barium	135-1	73	50	73	66	20.55	cps
Barium	137-1	103	50	83	79	34.15	cps
Beryllium	9-1	20	10	7	12	56.76	cps
Bismuth	209-1	4226626	4162483	4119985	4169698	1.29	cps
Bismuth	209-2	3694588	3802311	3680332	3725743	1.79	cps
Bromine	81-1	7916	8099	8352	8122	2.70	cps
Bromine	81-2	127	97	103	109	14.47	cps
Cadmium	108-1	10	7	3	7	50.03	cps
Cadmium	106-1	3527	3590	3264	3460	5.01	cps
Cadmium	111-1	2495	2559	2332	2462	4.74	cps
Calcium	43-1	280	310	267	286	7.77	cps
Calcium	44-1	23015	22588	22508	22703	1.20	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1207	1260	1290	1252	3.37	cps
Cobalt	59-2	70	100	97	89	18.50	cps
Copper	63-2	1393	1223	1333	1317	6.55	cps
Dysprosium	156-1	7	3	7	6	34.70	cps
Dysprosium	156-2	3	0	0	1	173.21	cps
Erbium	164-1	60	47	47	51	15.06	cps
Erbium	164-2	70	30	47	49	41.10	cps
Gadolinium	160-1	60	60	63	61	3.15	cps
Gadolinium	160-2	410	430	430	423	2.73	cps
Holmium	165-1	6501493	6352287	6407284	6420355	1.18	cps
Holmium	165-2	5008327	4960440	4961908	4976892	0.55	cps
Indium	115-1	5828015	5621360	5612371	5687249	2.14	cps
Indium	115-2	2141600	2066471	2089879	2099317	1.83	cps
Iron	56-2	13259	13239	13336	13278	0.38	cps
Iron	57-2	1350	1343	1317	1337	1.32	cps
Iron	54-2	1657	1760	1673	1697	3.27	cps
Krypton	83-1	360	423	497	427	16.03	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	393	337	443	391	13.65	cps
Lead	207-1	410	307	353	357	14.51	cps
Lead	208-1	1693	1420	1623	1579	8.99	cps
Lithium	6-1	683284	674570	661680	673178	1.61	cps
Magnesium	24-2	377	327	420	374	12.47	cps
Manganese	55-2	563	613	590	589	4.25	cps
Molybdenum	94-1	270	223	190	228	17.64	cps
Molybdenum	95-1	237	147	203	196	23.27	cps
Molybdenum	96-1	233	253	250	246	4.36	cps
Molybdenum	97-1	153	130	133	139	9.09	cps
Molybdenum	98-1	263	283	260	269	4.69	cps
Neodymium	150-1	3	13	7	8	65.47	cps
Neodymium	150-2	3	10	0	4	114.60	cps
Nickel	60-2	273	333	253	287	14.52	cps
Phosphorus	31-2	1007	957	987	983	2.56	cps
Potassium	39-2	56404	57050	57073	56842	0.67	cps
Rhodium	103-1	5867978	5693791	5772638	5778136	1.51	cps
Rhodium	103-2	3551389	3494016	3526370	3523925	0.82	cps
Scandium	45-1	4073702	3944450	3894505	3970886	2.33	cps
Scandium	45-2	327048	325913	323120	325360	0.62	cps
Selenium	82-1	378	263	151	264	42.91	cps
Selenium	77-2	0	7	7	4	86.60	cps
Selenium	78-2	323	353	327	334	4.92	cps
Silicon	28-1	880120	867374	863698	870397	0.99	cps
Silver	107-1	313	297	267	292	8.09	cps
Silver	109-1	240	210	220	223	6.84	cps
Sodium	23-2	26359	25942	25835	26045	1.06	cps
Strontium	86-1	780	647	707	711	9.39	cps
Strontium	88-1	127	93	103	108	15.87	cps
Sulfur	34-1	203986	206350	207290	205875	0.83	cps
Terbium	159-1	6839691	6647302	6577902	6688298	2.03	cps
Terbium	159-2	4943871	4865759	4911181	4906937	0.80	cps
Thallium	203-1	383	377	240	333	24.27	cps
Thallium	205-1	733	783	747	754	3.43	cps
Tin	118-1	823	753	637	738	12.78	cps
Titanium	47-1	107	93	50	83	35.55	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P7
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:35:12	DataFile Name :	016CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10	3	7	7	50.03	cps
Vanadium	51-2	13	13	13	13	0.00	cps
Yttrium	89-1	10680907	10086080	9964989	10243992	3.74	cps
Yttrium	89-2	2764884	2761689	2728482	2751685	0.73	cps
Zinc	66-2	2390	2310	2424	2375	2.45	cps
Zirconium	90-1	483	377	393	418	13.74	cps
Zirconium	91-1	97	60	73	77	24.21	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11950830	12114423	12104577	12056610	0.76	cps
Antimony	121-1	5391	5658	5765	5604	3.43	cps
Arsenic	75-2	107	107	123	112	8.58	cps
Barium	135-1	1580	1753	1627	1653	5.42	cps
Barium	137-1	2837	2874	2940	2884	1.82	cps
Beryllium	9-1	237	287	247	257	10.31	cps
Bismuth	209-1	3938983	3981752	3817441	3912725	2.18	cps
Bismuth	209-2	3625013	3573608	3532691	3577104	1.29	cps
Bromine	81-1	8639	8776	9353	8923	4.25	cps
Bromine	81-2	297	340	310	316	7.03	cps
Cadmium	108-1	840	790	940	857	8.92	cps
Cadmium	106-1	3504	3594	3284	3460	4.61	cps
Cadmium	111-1	3038	3109	2777	2975	5.88	cps
Calcium	43-1	1549236	1570608	1563944	1561263	0.70	cps
Calcium	44-1	25282071	25062568	25440048	25261562	0.75	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	50023	49505	50100	49876	0.65	cps
Cobalt	59-2	4948	5051	4784	4928	2.73	cps
Copper	63-2	22641	22086	22771	22499	1.62	cps
Dysprosium	156-1	17	23	23	21	18.21	cps
Dysprosium	156-2	33	20	27	27	24.99	cps
Erbium	164-1	63	50	50	54	14.14	cps
Erbium	164-2	40	73	47	53	33.07	cps
Gadolinium	160-1	67	87	73	76	13.48	cps
Gadolinium	160-2	443	393	377	404	8.58	cps
Holmium	165-1	6464911	6468762	6465521	6466398	0.03	cps
Holmium	165-2	5082825	4905539	4918425	4968930	1.99	cps
Indium	115-1	5466788	5448129	5508233	5474383	0.56	cps
Indium	115-2	2061274	2025067	2029741	2038694	0.97	cps
Iron	56-2	218711483	220264790	221828390	220268221	0.71	cps
Iron	57-2	5537143	5451902	5566125	5518390	1.08	cps
Iron	54-2	11838026	11756804	12039188	11878006	1.22	cps
Krypton	83-1	440	450	470	453	3.37	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	15949	16450	16340	16247	1.62	cps
Lead	207-1	12199	12556	12025	12260	2.21	cps
Lead	208-1	58416	60503	59775	59564	1.78	cps
Lithium	6-1	653541	647792	629607	643647	1.94	cps
Magnesium	24-2	21434466	21273966	21310947	21339793	0.39	cps
Manganese	55-2	15515	15174	15622	15437	1.51	cps
Molybdenum	94-1	2969254	2943886	3049813	2987651	1.85	cps
Molybdenum	95-1	5210528	5164505	5159637	5178224	0.54	cps
Molybdenum	96-1	5451902	5479228	5458106	5463079	0.26	cps
Molybdenum	97-1	3221741	3239450	3252990	3238060	0.48	cps
Molybdenum	98-1	8381702	8326763	8305776	8338080	0.47	cps
Neodymium	150-1	13	23	30	22	37.76	cps
Neodymium	150-2	27	17	10	18	47.19	cps
Nickel	60-2	5831	5644	5931	5802	2.51	cps
Phosphorus	31-2	694653	688292	680196	687714	1.05	cps
Potassium	39-2	25460834	25211370	25137082	25269762	0.67	cps
Rhodium	103-1	5476321	5381350	5324802	5394158	1.42	cps
Rhodium	103-2	3406502	3354657	3422363	3394507	1.04	cps
Scandium	45-1	3792216	3841994	3771125	3801779	0.96	cps
Scandium	45-2	319566	319323	318073	318988	0.25	cps
Selenium	82-1	297	293	315	302	3.89	cps
Selenium	77-2	7	7	0	4	86.60	cps
Selenium	78-2	300	343	283	309	10.03	cps
Silicon	28-1	1203796	1241544	1256685	1234008	2.21	cps
Silver	107-1	677	447	353	492	33.81	cps
Silver	109-1	620	433	390	481	25.40	cps
Sodium	23-2	36053787	36485385	36485471	36341548	0.69	cps
Strontium	86-1	55738	57234	57301	56758	1.56	cps
Strontium	88-1	488044	484243	486948	486412	0.40	cps
Sulfur	34-1	2773770	2730415	2722974	2742386	1.00	cps
Terbium	159-1	6528650	6662530	6663131	6618104	1.17	cps
Terbium	159-2	4919630	4863449	4912082	4898387	0.62	cps
Thallium	203-1	447	407	510	454	11.46	cps
Thallium	205-1	897	1077	1163	1046	13.01	cps
Tin	118-1	18668	34224	35708	29533	31.96	cps
Titanium	47-1	1583472	1603704	1592724	1593300	0.64	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P7
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:38:28	DataFile Name :	017ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	233	233	233	233	0.00	cps
Vanadium	51-2	490	427	453	457	6.96	cps
Yttrium	89-1	10112522	9884017	9786840	9927793	1.68	cps
Yttrium	89-2	2712669	2699758	2677310	2696579	0.66	cps
Zinc	66-2	7809	7622	7729	7720	1.21	cps
Zirconium	90-1	520	500	500	507	2.28	cps
Zirconium	91-1	150	87	147	128	27.89	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11661624	11985120	11885654	11844133	1.40	cps
Antimony	121-1	102240	103987	103460	103229	0.87	cps
Arsenic	75-2	6401	6341	5931	6225	4.11	cps
Barium	135-1	25396	25573	25326	25432	0.50	cps
Barium	137-1	43985	44038	43767	43930	0.33	cps
Beryllium	9-1	17223	17597	17120	17313	1.45	cps
Bismuth	209-1	3965768	4012637	4003937	3994114	0.62	cps
Bismuth	209-2	3646554	3575876	3643869	3622100	1.11	cps
Bromine	81-1	9406	9997	10204	9869	4.19	cps
Bromine	81-2	300	307	350	319	8.51	cps
Cadmium	108-1	2810	2507	2594	2637	5.93	cps
Cadmium	106-1	5648	5708	5748	5701	0.88	cps
Cadmium	111-1	30501	29957	29835	30098	1.18	cps
Calcium	43-1	1572878	1590709	1574365	1579317	0.63	cps
Calcium	44-1	25161877	25628618	25289001	25359832	0.95	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	99083	99811	98979	99291	0.46	cps
Cobalt	59-2	81215	81567	80572	81118	0.62	cps
Copper	63-2	76488	76682	76056	76408	0.42	cps
Dysprosium	156-1	17	23	27	22	22.91	cps
Dysprosium	156-2	17	17	23	19	20.36	cps
Erbium	164-1	67	53	60	60	11.12	cps
Erbium	164-2	37	33	40	37	9.10	cps
Gadolinium	160-1	100	83	53	79	29.98	cps
Gadolinium	160-2	443	333	430	402	14.93	cps
Holmium	165-1	6581806	6518383	6429531	6509906	1.17	cps
Holmium	165-2	5076687	5078002	5064982	5073223	0.14	cps
Indium	115-1	5681581	5630067	5542797	5618148	1.25	cps
Indium	115-2	2137911	2090875	2070731	2099839	1.64	cps
Iron	56-2	217278310	220777737	222505410	220187152	1.21	cps
Iron	57-2	5504514	5486603	5564870	5518662	0.74	cps
Iron	54-2	12088873	12209710	12094822	12131135	0.56	cps
Krypton	83-1	490	403	500	464	11.45	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	85340	87493	84958	85930	1.59	cps
Lead	207-1	69748	72231	70104	70694	1.90	cps
Lead	208-1	328291	338327	330021	332213	1.61	cps
Lithium	6-1	629339	622631	625324	625765	0.54	cps
Magnesium	24-2	21265506	21249670	21242304	21252493	0.06	cps
Manganese	55-2	52859	52809	51923	52530	1.00	cps
Molybdenum	94-1	3089774	3083522	3065370	3079555	0.41	cps
Molybdenum	95-1	5313064	5326225	5327406	5322232	0.15	cps
Molybdenum	96-1	5643233	5575386	5676632	5631750	0.92	cps
Molybdenum	97-1	3334820	3253695	3338217	3308911	1.45	cps
Molybdenum	98-1	8647834	8253582	8430182	8443866	2.34	cps
Neodymium	150-1	13	30	33	26	41.94	cps
Neodymium	150-2	13	10	0	8	89.21	cps
Nickel	60-2	25168	25101	25695	25321	1.29	cps
Phosphorus	31-2	694263	682465	680287	685672	1.10	cps
Potassium	39-2	25771184	25466693	25725903	25654593	0.64	cps
Rhodium	103-1	5715038	5483409	5620962	5606470	2.08	cps
Rhodium	103-2	3402081	3425889	3393221	3407064	0.50	cps
Scandium	45-1	3923794	3949019	3930282	3934365	0.33	cps
Scandium	45-2	327563	321308	322097	323656	1.05	cps
Selenium	82-1	2521	2627	2544	2564	2.16	cps
Selenium	77-2	220	290	233	248	15.00	cps
Selenium	78-2	1100	1077	1107	1094	1.44	cps
Silicon	28-1	1261659	1304499	1266055	1277405	1.84	cps
Silver	107-1	132412	132903	132392	132569	0.22	cps
Silver	109-1	125068	125079	122592	124246	1.15	cps
Sodium	23-2	35475372	35898794	36193944	35856036	1.01	cps
Strontium	86-1	57227	57178	58308	57571	1.11	cps
Strontium	88-1	495130	497682	503366	498726	0.85	cps
Sulfur	34-1	2727849	2741012	2713532	2727464	0.50	cps
Terbium	159-1	6829364	6574823	6602256	6668814	2.10	cps
Terbium	159-2	4901492	4907369	4897511	4902124	0.10	cps
Thallium	203-1	88996	88027	86966	87996	1.15	cps
Thallium	205-1	208111	208254	206934	207767	0.35	cps
Tin	118-1	13843	17177	17501	16174	12.52	cps
Titanium	47-1	1556382	1631245	1603823	1597150	2.37	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P7
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:41:33	DataFile Name :	018ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	270	230	207	236	13.60	cps
Vanadium	51-2	41133	41350	40698	41060	0.81	cps
Yttrium	89-1	10353547	10239547	10295446	10296180	0.55	cps
Yttrium	89-2	2755348	2774763	2722532	2750881	0.96	cps
Zinc	66-2	18131	18128	17821	18027	0.99	cps
Zirconium	90-1	493	573	543	537	7.53	cps
Zirconium	91-1	110	137	123	123	10.81	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6012034	5965446	5945210	5974230	0.57	cps
Antimony	121-1	2123344	2251935	2229892	2201724	3.12	cps
Arsenic	75-2	140821	138742	140088	139884	0.75	cps
Barium	135-1	2582208	2696388	2719419	2666005	2.76	cps
Barium	137-1	4497082	4672396	4716063	4628514	2.50	cps
Beryllium	9-1	348912	361879	367441	359411	2.65	cps
Bismuth	209-1	3609633	3458455	3433897	3500662	2.72	cps
Bismuth	209-2	3136826	3107731	3101154	3115237	0.61	cps
Bromine	81-1	8689	8446	8656	8597	1.54	cps
Bromine	81-2	157	130	153	147	9.91	cps
Cadmium	108-1	42666	43792	43321	43260	1.31	cps
Cadmium	106-1	61236	63351	64319	62968	2.50	cps
Cadmium	111-1	576336	605900	609813	597350	3.06	cps
Calcium	43-1	3397937	3537353	3649011	3528100	3.57	cps
Calcium	44-1	55426083	57805756	58580289	57270709	2.87	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1123615	1126067	1132233	1127305	0.39	cps
Cobalt	59-2	1735973	1703159	1740513	1726548	1.18	cps
Copper	63-2	13098666	13217515	12922300	13079494	1.14	cps
Dysprosium	156-1	150	167	150	156	6.19	cps
Dysprosium	156-2	320	313	323	319	1.60	cps
Erbium	164-1	263	287	283	278	4.54	cps
Erbium	164-2	270	273	237	260	7.80	cps
Gadolinium	160-1	233	237	210	227	6.41	cps
Gadolinium	160-2	483	453	500	479	4.94	cps
Holmium	165-1	6090323	5775612	5677896	5847944	3.69	cps
Holmium	165-2	4385272	4444615	4499993	4443293	1.29	cps
Indium	115-1	5139590	4909403	4868716	4972570	2.94	cps
Indium	115-2	1853127	1863389	1830597	1849037	0.91	cps
Iron	56-2	261224796	260941816	259160076	260442229	0.43	cps
Iron	57-2	6573449	6507993	6602973	6561472	0.74	cps
Iron	54-2	14372299	14372649	14115869	14286939	1.04	cps
Krypton	83-1	500	450	457	469	5.79	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7707226	8054798	8040134	7934053	2.48	cps
Lead	207-1	6675989	6962727	7068024	6902246	2.94	cps
Lead	208-1	30803891	32333984	32377763	31838546	2.82	cps
Lithium	6-1	579454	543402	544377	555744	3.70	cps
Magnesium	24-2	52044889	52666656	52637491	52449679	0.67	cps
Manganese	55-2	9288939	9194174	9440196	9307770	1.33	cps
Molybdenum	94-1	8284920	8758120	8778998	8607346	3.25	cps
Molybdenum	95-1	11918775	12130272	12491720	12180256	2.38	cps
Molybdenum	96-1	13004015	13369396	13442364	13271925	1.77	cps
Molybdenum	97-1	7305358	7653785	7686593	7548579	2.80	cps
Molybdenum	98-1	18799838	19869807	19883283	19517643	3.19	cps
Neodymium	150-1	187	127	160	158	19.05	cps
Neodymium	150-2	67	70	63	67	5.00	cps
Nickel	60-2	444513	437619	439539	440557	0.81	cps
Phosphorus	31-2	64218	62457	63254	63310	1.39	cps
Potassium	39-2	29108752	29231681	29221449	29187294	0.23	cps
Rhodium	103-1	5115368	4834683	4821278	4923776	3.37	cps
Rhodium	103-2	3090043	3009424	3007230	3035566	1.55	cps
Scandium	45-1	3651950	3470875	3380625	3501150	3.95	cps
Scandium	45-2	291439	287759	291385	290194	0.73	cps
Selenium	82-1	45672	47956	48008	47212	2.83	cps
Selenium	77-2	5188	4854	5151	5064	3.61	cps
Selenium	78-2	16940	16820	16770	16843	0.52	cps
Silicon	28-1	15232690	16091257	16171396	15831781	3.29	cps
Silver	107-1	2906986	3005081	3019342	2977136	2.05	cps
Silver	109-1	2784788	2880551	2909676	2858338	2.29	cps
Sodium	23-2	83326847	83928125	83713514	83656162	0.36	cps
Strontium	86-1	758328	803514	804092	788645	3.33	cps
Strontium	88-1	6701747	7120249	7103323	6975106	3.40	cps
Sulfur	34-1	418710	429949	434128	427596	1.86	cps
Terbium	159-1	6138220	5894476	5855326	5962674	2.57	cps
Terbium	159-2	4403075	4299914	4373520	4358836	1.22	cps
Thallium	203-1	1931283	2025181	2062081	2006182	3.36	cps
Thallium	205-1	4581035	4743667	4847520	4724074	2.84	cps
Tin	118-1	1810798	1942733	1865319	1872950	3.54	cps
Titanium	47-1	3443462	3583045	3641119	3555875	2.86	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:45:47	DataFile Name :	019CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6033326	6411221	6383199	6275916	3.35	cps
Vanadium	51-2	942794	945157	944227	944059	0.13	cps
Yttrium	89-1	9358815	8953287	8993373	9101825	2.46	cps
Yttrium	89-2	2467194	2377533	2425542	2423423	1.85	cps
Zinc	66-2	2357739	2318480	2340105	2338775	0.84	cps
Zirconium	90-1	4134538	4283693	4331568	4249933	2.42	cps
Zirconium	91-1	900438	951732	959341	937170	3.42	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1200	1363	1200	1255	7.52	cps
Antimony	121-1	380	330	333	348	8.04	cps
Arsenic	75-2	13	20	13	16	24.76	cps
Barium	135-1	30	33	67	43	46.80	cps
Barium	137-1	60	87	70	72	18.66	cps
Beryllium	9-1	17	7	3	9	78.08	cps
Bismuth	209-1	4363694	4105250	4089849	4186264	3.68	cps
Bismuth	209-2	3786931	3827160	3760853	3791648	0.88	cps
Bromine	81-1	8743	8829	8496	8689	1.99	cps
Bromine	81-2	123	123	143	130	8.88	cps
Cadmium	108-1	17	17	3	12	63.01	cps
Cadmium	106-1	3400	3574	3317	3430	3.82	cps
Cadmium	111-1	2422	2527	2363	2437	3.40	cps
Calcium	43-1	323	333	317	324	2.59	cps
Calcium	44-1	24524	24107	24410	24347	0.89	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1417	1400	1260	1359	6.33	cps
Cobalt	59-2	77	90	63	77	17.39	cps
Copper	63-2	1670	1777	1503	1650	8.35	cps
Dysprosium	156-1	7	3	3	4	43.40	cps
Dysprosium	156-2	3	0	3	2	86.60	cps
Erbium	164-1	43	40	43	42	4.55	cps
Erbium	164-2	23	33	20	26	27.15	cps
Gadolinium	160-1	83	70	97	83	16.00	cps
Gadolinium	160-2	380	413	410	401	4.58	cps
Holmium	165-1	6845752	6705982	6600449	6717394	1.83	cps
Holmium	165-2	5136449	5065001	5115785	5105745	0.72	cps
Indium	115-1	6007777	5920644	5765643	5898021	2.08	cps
Indium	115-2	2233001	2247733	2191144	2223959	1.32	cps
Iron	56-2	15952	16479	15755	16062	2.33	cps
Iron	57-2	1660	1547	1600	1602	3.54	cps
Iron	54-2	1923	1847	1813	1861	3.03	cps
Krypton	83-1	447	413	473	444	6.76	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	490	450	397	446	10.51	cps
Lead	207-1	333	337	353	341	3.14	cps
Lead	208-1	1757	1703	1593	1685	4.94	cps
Lithium	6-1	655867	635740	620547	637385	2.78	cps
Magnesium	24-2	787	740	840	789	6.34	cps
Manganese	55-2	667	720	777	721	7.63	cps
Molybdenum	94-1	373	333	390	366	7.97	cps
Molybdenum	95-1	367	320	280	322	13.46	cps
Molybdenum	96-1	487	397	380	421	13.63	cps
Molybdenum	97-1	330	240	260	277	17.08	cps
Molybdenum	98-1	623	557	543	574	7.46	cps
Neodymium	150-1	7	10	3	7	50.03	cps
Neodymium	150-2	7	10	10	9	21.63	cps
Nickel	60-2	320	263	277	287	10.34	cps
Phosphorus	31-2	807	890	883	860	5.38	cps
Potassium	39-2	61567	61815	62009	61797	0.36	cps
Rhodium	103-1	6162786	5899997	5822291	5961692	2.99	cps
Rhodium	103-2	3642167	3713838	3640289	3665431	1.14	cps
Scandium	45-1	4114160	4050901	4038821	4067960	0.99	cps
Scandium	45-2	335793	336055	330765	334205	0.89	cps
Selenium	82-1	334	322	272	309	10.54	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	333	333	360	342	4.50	cps
Silicon	28-1	1215385	1200444	1207392	1207740	0.62	cps
Silver	107-1	267	213	240	240	11.11	cps
Silver	109-1	210	210	133	184	24.00	cps
Sodium	23-2	37445	37512	37395	37451	0.16	cps
Strontium	86-1	640	710	793	714	10.74	cps
Strontium	88-1	183	113	137	144	24.68	cps
Sulfur	34-1	203449	203854	208617	205307	1.40	cps
Terbium	159-1	6968013	6733864	6830021	6843966	1.72	cps
Terbium	159-2	5017214	5079066	4962648	5019643	1.16	cps
Thallium	203-1	377	343	400	373	7.63	cps
Thallium	205-1	853	813	870	846	3.44	cps
Tin	118-1	1127	1157	1130	1138	1.44	cps
Titanium	47-1	143	97	133	124	19.74	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P7
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:50:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	70	33	43	49	38.78	cps
Vanadium	51-2	33	10	20	21	55.45	cps
Yttrium	89-1	11143118	10594262	10403187	10713522	3.59	cps
Yttrium	89-2	2866902	2910168	2832978	2870016	1.35	cps
Zinc	66-2	2497	2324	2464	2428	3.79	cps
Zirconium	90-1	523	493	453	490	7.17	cps
Zirconium	91-1	103	83	80	89	14.20	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1220	1183	1147	1183	3.10	cps
Antimony	121-1	163	147	150	153	5.75	cps
Arsenic	75-2	7	23	13	14	58.06	cps
Barium	135-1	93	33	27	51	71.84	cps
Barium	137-1	80	40	97	72	40.33	cps
Beryllium	9-1	13	13	7	11	34.61	cps
Bismuth	209-1	4246106	4136760	4199757	4194208	1.31	cps
Bismuth	209-2	3909576	3811947	3842582	3854701	1.30	cps
Bromine	81-1	8863	8696	9050	8869	1.99	cps
Bromine	81-2	113	110	150	124	17.83	cps
Cadmium	108-1	10	10	17	12	31.50	cps
Cadmium	106-1	3754	3440	3607	3600	4.36	cps
Cadmium	111-1	2634	2445	2537	2538	3.73	cps
Calcium	43-1	373	260	243	292	24.21	cps
Calcium	44-1	27342	27409	27352	27368	0.13	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1373	1420	1420	1405	1.92	cps
Cobalt	59-2	123	87	83	98	22.70	cps
Copper	63-2	1393	1420	1433	1416	1.44	cps
Dysprosium	156-1	7	3	10	7	50.03	cps
Dysprosium	156-2	0	0	3	1	173.21	cps
Erbium	164-1	33	40	43	39	13.09	cps
Erbium	164-2	47	40	27	38	26.95	cps
Gadolinium	160-1	23	90	73	62	55.76	cps
Gadolinium	160-2	397	443	490	443	10.53	cps
Holmium	165-1	6931383	6520423	6656380	6702729	3.12	cps
Holmium	165-2	5340080	5203608	5178426	5240705	1.66	cps
Indium	115-1	6096156	6009606	5952718	6019493	1.20	cps
Indium	115-2	2264160	2247631	2274057	2261949	0.59	cps
Iron	56-2	14667	14504	14694	14622	0.70	cps
Iron	57-2	1570	1423	1583	1525	5.82	cps
Iron	54-2	1830	1633	1793	1752	5.97	cps
Krypton	83-1	397	417	500	438	12.52	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	357	410	380	382	6.99	cps
Lead	207-1	337	363	380	360	6.07	cps
Lead	208-1	1463	1630	1597	1563	5.64	cps
Lithium	6-1	663398	635292	632176	643622	2.67	cps
Magnesium	24-2	463	480	510	484	4.88	cps
Manganese	55-2	563	630	640	611	6.82	cps
Molybdenum	94-1	247	430	227	301	37.23	cps
Molybdenum	95-1	203	187	267	219	19.28	cps
Molybdenum	96-1	367	307	293	322	12.12	cps
Molybdenum	97-1	190	160	167	172	9.15	cps
Molybdenum	98-1	473	400	403	426	9.73	cps
Neodymium	150-1	3	10	7	7	50.03	cps
Neodymium	150-2	7	7	7	7	0.00	cps
Nickel	60-2	380	263	290	311	19.65	cps
Phosphorus	31-2	867	863	803	844	4.22	cps
Potassium	39-2	60141	60202	59670	60004	0.49	cps
Rhodium	103-1	6143697	5959580	5947457	6016911	1.83	cps
Rhodium	103-2	3829986	3714592	3809511	3784696	1.63	cps
Scandium	45-1	4346540	4065153	4049654	4153782	4.02	cps
Scandium	45-2	346160	342445	340316	342974	0.86	cps
Selenium	82-1	272	429	202	301	38.50	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	373	297	340	337	11.42	cps
Silicon	28-1	1201235	1232875	1199931	1211347	1.54	cps
Silver	107-1	160	177	133	157	13.95	cps
Silver	109-1	103	123	153	127	19.87	cps
Sodium	23-2	33313	33206	32645	33054	1.09	cps
Strontium	86-1	700	707	727	711	1.95	cps
Strontium	88-1	153	117	130	133	13.92	cps
Sulfur	34-1	205868	209331	208860	208020	0.90	cps
Terbium	159-1	7101086	6776807	6715688	6864527	3.02	cps
Terbium	159-2	5191578	5140711	5167280	5166523	0.49	cps
Thallium	203-1	293	310	293	299	3.22	cps
Thallium	205-1	687	767	717	723	5.59	cps
Tin	118-1	937	990	910	946	4.31	cps
Titanium	47-1	90	133	90	104	23.96	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BL	Instrumnet Name :	P7
Client Sample ID :	PBW799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 15:54:09	DataFile Name :	021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	27	17	13	19	36.75	cps
Vanadium	51-2	30	13	13	19	50.96	cps
Yttrium	89-1	10951912	10616090	10633370	10733791	1.76	cps
Yttrium	89-2	3006268	2898414	2904951	2936544	2.06	cps
Zinc	66-2	2664	2577	2434	2558	4.54	cps
Zirconium	90-1	537	477	353	456	20.52	cps
Zirconium	91-1	50	73	90	71	28.26	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6708	6852	6842	6800	1.18	cps
Antimony	121-1	20812	20341	20298	20484	1.39	cps
Arsenic	75-2	637	723	670	677	6.46	cps
Barium	135-1	24034	23413	23089	23512	2.04	cps
Barium	137-1	41357	42049	40782	41396	1.53	cps
Beryllium	9-1	1860	1867	1720	1816	4.56	cps
Bismuth	209-1	4145542	4062336	4113533	4107137	1.02	cps
Bismuth	209-2	3887390	3820563	3821437	3843130	1.00	cps
Bromine	81-1	8919	8869	8939	8909	0.40	cps
Bromine	81-2	163	140	143	149	8.48	cps
Cadmium	108-1	223	197	220	213	6.81	cps
Cadmium	106-1	3617	3430	3364	3470	3.78	cps
Cadmium	111-1	4939	4911	4868	4906	0.74	cps
Calcium	43-1	17771	17133	17704	17536	2.00	cps
Calcium	44-1	301986	305020	303537	303515	0.50	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	11638	11391	11491	11507	1.08	cps
Cobalt	59-2	8332	8509	8249	8364	1.59	cps
Copper	63-2	12999	12665	13042	12902	1.60	cps
Dysprosium	156-1	10	7	10	9	21.63	cps
Dysprosium	156-2	7	10	7	8	24.71	cps
Erbium	164-1	47	43	60	50	17.64	cps
Erbium	164-2	37	53	33	41	26.06	cps
Gadolinium	160-1	93	83	60	79	21.68	cps
Gadolinium	160-2	437	343	447	409	13.94	cps
Holmium	165-1	6757376	6534206	6441673	6577752	2.47	cps
Holmium	165-2	5219487	5072874	5056308	5116223	1.76	cps
Indium	115-1	5990436	5836787	5811715	5879646	1.65	cps
Indium	115-2	2255021	2210791	2240712	2235508	1.01	cps
Iron	56-2	928974	930839	916135	925316	0.87	cps
Iron	57-2	24540	24560	24500	24533	0.12	cps
Iron	54-2	52882	52247	51692	52274	1.14	cps
Krypton	83-1	453	513	440	469	8.33	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	6558	6465	6302	6442	2.02	cps
Lead	207-1	5805	5858	5521	5728	3.16	cps
Lead	208-1	25710	26017	25400	25709	1.20	cps
Lithium	6-1	644733	632718	620995	632815	1.88	cps
Magnesium	24-2	240231	236006	234500	236912	1.25	cps
Manganese	55-2	4847	5018	5214	5026	3.65	cps
Molybdenum	94-1	23312	23442	23295	23350	0.34	cps
Molybdenum	95-1	28231	27877	28498	28202	1.11	cps
Molybdenum	96-1	31200	31728	30829	31252	1.44	cps
Molybdenum	97-1	17277	17667	17511	17485	1.12	cps
Molybdenum	98-1	44809	45053	44397	44753	0.74	cps
Neodymium	150-1	3	10	3	6	69.34	cps
Neodymium	150-2	3	7	3	4	43.40	cps
Nickel	60-2	2157	2177	2177	2170	0.53	cps
Phosphorus	31-2	4234	4354	4381	4323	1.81	cps
Potassium	39-2	336027	336654	338008	336897	0.30	cps
Rhodium	103-1	6105695	5908367	5914455	5976172	1.88	cps
Rhodium	103-2	3660238	3611235	3683169	3651547	1.01	cps
Scandium	45-1	4136933	4053577	3999273	4063261	1.71	cps
Scandium	45-2	337876	333984	335357	335739	0.59	cps
Selenium	82-1	1431	1384	1484	1433	3.47	cps
Selenium	77-2	140	170	147	152	10.35	cps
Selenium	78-2	767	713	760	747	3.89	cps
Silicon	28-1	1261562	1239149	1275327	1258679	1.45	cps
Silver	107-1	15211	15185	15358	15251	0.61	cps
Silver	109-1	14104	14277	14457	14279	1.24	cps
Sodium	23-2	395525	392684	392708	393639	0.41	cps
Strontium	86-1	4281	4094	4297	4224	2.67	cps
Strontium	88-1	31153	31163	31126	31148	0.06	cps
Sulfur	34-1	227032	229129	229562	228574	0.59	cps
Terbium	159-1	6974698	6676256	6602782	6751245	2.92	cps
Terbium	159-2	5016426	4902581	5029607	4982871	1.40	cps
Thallium	203-1	8860	8900	8950	8903	0.51	cps
Thallium	205-1	21036	21581	21838	21485	1.90	cps
Tin	118-1	43887	43248	43552	43562	0.73	cps
Titanium	47-1	8659	8479	8362	8500	1.76	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	PB169799BS	Instrumnet Name :	P7
Client Sample ID :	LCS799	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:09:50	DataFile Name :	024LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	25979	26112	25662	25918	0.89	cps
Vanadium	51-2	21856	21722	21198	21592	1.61	cps
Yttrium	89-1	10834847	10492423	10581579	10636283	1.67	cps
Yttrium	89-2	2870065	2856420	2867620	2864702	0.25	cps
Zinc	66-2	8096	7829	7916	7947	1.71	cps
Zirconium	90-1	20087	20344	20261	20231	0.65	cps
Zirconium	91-1	4274	4661	4504	4480	4.34	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2777	2650	3237	2888	10.70	cps
Antimony	121-1	1560	1937	2137	1878	15.59	cps
Arsenic	75-2	1297	1300	1133	1243	7.66	cps
Barium	135-1	90181	94333	94887	93134	2.76	cps
Barium	137-1	159512	164187	165094	162931	1.84	cps
Beryllium	9-1	13	33	10	19	66.81	cps
Bismuth	209-1	3186588	3188315	3180240	3185048	0.13	cps
Bismuth	209-2	3042423	3027293	3004379	3024698	0.63	cps
Bromine	81-1	6738929	10149846	12671077	9853284	30.22	cps
Bromine	81-2	2828524	2898071	2973413	2900003	2.50	cps
Cadmium	108-1	40	37	23	33	26.47	cps
Cadmium	106-1	3077	3024	3107	3069	1.38	cps
Cadmium	111-1	2259	2228	2272	2253	1.01	cps
Calcium	43-1	3746971	3992168	4011160	3916766	3.76	cps
Calcium	44-1	61262052	64678399	64071366	63337272	2.88	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8119	8309	8369	8266	1.58	cps
Cobalt	59-2	11972	11681	12195	11949	2.16	cps
Copper	63-2	6191	6635	7095	6640	6.81	cps
Dysprosium	156-1	140	100	143	128	18.87	cps
Dysprosium	156-2	173	120	180	158	20.84	cps
Erbium	164-1	157	227	253	212	23.53	cps
Erbium	164-2	193	137	197	176	19.21	cps
Gadolinium	160-1	237	230	197	221	9.69	cps
Gadolinium	160-2	417	470	423	437	6.65	cps
Holmium	165-1	5687236	5611518	5696577	5665110	0.82	cps
Holmium	165-2	4520943	4505883	4564235	4530354	0.67	cps
Indium	115-1	4859863	4905866	4927219	4897649	0.70	cps
Indium	115-2	1879522	1892909	1887214	1886548	0.36	cps
Iron	56-2	77947374	77868782	77576977	77797711	0.25	cps
Iron	57-2	2059608	2088529	2045040	2064392	1.07	cps
Iron	54-2	4279995	4226734	4218702	4241810	0.79	cps
Krypton	83-1	430	400	490	440	10.41	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1333	1443	1493	1423	5.75	cps
Lead	207-1	1160	1207	1183	1183	1.97	cps
Lead	208-1	5377	5634	5611	5541	2.56	cps
Lithium	6-1	523509	526861	546797	532389	2.36	cps
Magnesium	24-2	74775322	75309162	75788872	75291119	0.67	cps
Manganese	55-2	6169055	6104129	6260555	6177913	1.27	cps
Molybdenum	94-1	5838	5661	5761	5753	1.54	cps
Molybdenum	95-1	6458	6768	6618	6615	2.34	cps
Molybdenum	96-1	7502	8129	7856	7829	4.02	cps
Molybdenum	97-1	4154	4254	4611	4340	5.53	cps
Molybdenum	98-1	10874	11198	11018	11030	1.47	cps
Neodymium	150-1	150	160	177	162	8.31	cps
Neodymium	150-2	80	93	130	101	25.61	cps
Nickel	60-2	5865	5518	6088	5823	4.93	cps
Phosphorus	31-2	6185	6351	6471	6336	2.27	cps
Potassium	39-2	24838393	24617582	24553647	24669874	0.61	cps
Rhodium	103-1	4805488	4735659	4855649	4798932	1.26	cps
Rhodium	103-2	3099307	3044531	2978632	3040823	1.99	cps
Scandium	45-1	3628967	3749698	3639225	3672630	1.82	cps
Scandium	45-2	302970	299950	303783	302234	0.67	cps
Selenium	82-1	1616	2366	2703	2228	24.97	cps
Selenium	77-2	7	13	3	8	65.47	cps
Selenium	78-2	340	403	447	397	13.52	cps
Silicon	28-1	50268414	52566209	51640911	51491845	2.25	cps
Silver	107-1	1120	633	737	830	30.89	cps
Silver	109-1	1067	583	657	769	33.88	cps
Sodium	23-2	884758813	897121693	881573240	887817916	0.93	cps
Strontium	86-1	4468340	4499743	4639680	4535921	2.01	cps
Strontium	88-1	37871694	40016711	40448534	39445646	3.50	cps
Sulfur	34-1	8551007	9104297	9169411	8941572	3.80	cps
Terbium	159-1	5900127	5896692	5990201	5929007	0.89	cps
Terbium	159-2	4535340	4457097	4428875	4473770	1.23	cps
Thallium	203-1	433	457	507	466	8.05	cps
Thallium	205-1	817	1063	1210	1030	19.30	cps
Tin	118-1	19006	18399	18559	18654	1.69	cps
Titanium	47-1	1063	1207	1307	1192	10.26	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:13:09	DataFile Name :	025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	993	1043	980	1006	3.32	cps
Vanadium	51-2	2574	2524	2410	2502	3.34	cps
Yttrium	89-1	9263758	9443259	9560797	9422605	1.59	cps
Yttrium	89-2	2602533	2551931	2567092	2573852	1.01	cps
Zinc	66-2	4234	4177	4214	4208	0.68	cps
Zirconium	90-1	5321	5204	5261	5262	1.11	cps
Zirconium	91-1	1077	1040	1043	1053	1.93	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2221	2679	1944	2281	16.27	cps
Antimony	121-1	437	473	440	450	4.51	cps
Arsenic	75-2	107	160	160	142	21.65	cps
Barium	135-1	26311	26835	26498	26548	1.00	cps
Barium	137-1	46074	46202	46376	46217	0.33	cps
Beryllium	9-1	13	0	20	11	91.66	cps
Bismuth	209-1	3386799	3445531	3396206	3409512	0.93	cps
Bismuth	209-2	3202301	3172789	3144027	3173039	0.92	cps
Bromine	81-1	4421864	5361628	5595533	5126342	12.12	cps
Bromine	81-2	1068447	1072130	1066597	1069058	0.26	cps
Cadmium	108-1	7	13	7	9	43.25	cps
Cadmium	106-1	2974	3170	3114	3086	3.28	cps
Cadmium	111-1	2094	2267	2208	2189	4.02	cps
Calcium	43-1	997390	1019545	1018490	1011808	1.24	cps
Calcium	44-1	15562756	16268846	16023405	15951669	2.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3077	2847	2977	2967	3.89	cps
Cobalt	59-2	246136	242159	242197	243497	0.94	cps
Copper	63-2	3707	3627	3654	3663	1.11	cps
Dysprosium	156-1	17	27	27	23	24.74	cps
Dysprosium	156-2	30	13	40	28	48.51	cps
Erbium	164-1	87	73	43	68	32.75	cps
Erbium	164-2	37	60	30	42	37.31	cps
Gadolinium	160-1	63	100	87	83	22.27	cps
Gadolinium	160-2	430	390	410	410	4.88	cps
Holmium	165-1	5713391	5919862	5847423	5826892	1.80	cps
Holmium	165-2	4565455	4603143	4580915	4583171	0.41	cps
Indium	115-1	5189932	5055255	5192121	5145769	1.52	cps
Indium	115-2	1924904	1923355	1909231	1919163	0.45	cps
Iron	56-2	168146141	166165528	165754361	166688676	0.77	cps
Iron	57-2	4166660	4096132	4129682	4130825	0.85	cps
Iron	54-2	9207759	8878657	9194554	9093657	2.05	cps
Krypton	83-1	443	330	463	412	17.44	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	547	497	490	511	6.06	cps
Lead	207-1	463	513	390	456	13.62	cps
Lead	208-1	2253	2087	1933	2091	7.65	cps
Lithium	6-1	580972	571768	583493	578744	1.07	cps
Magnesium	24-2	19046998	18912274	19319061	19092777	1.09	cps
Manganese	55-2	16904861	17240155	16961491	17035502	1.05	cps
Molybdenum	94-1	443	467	427	446	4.51	cps
Molybdenum	95-1	570	677	673	640	9.48	cps
Molybdenum	96-1	1387	1290	1237	1305	5.83	cps
Molybdenum	97-1	283	300	310	298	4.52	cps
Molybdenum	98-1	543	490	527	520	5.25	cps
Neodymium	150-1	47	43	37	42	12.06	cps
Neodymium	150-2	33	37	30	33	10.01	cps
Nickel	60-2	29492	29128	29138	29253	0.71	cps
Phosphorus	31-2	893	730	837	820	10.11	cps
Potassium	39-2	6011591	5909283	5868833	5929902	1.24	cps
Rhodium	103-1	5122350	5029309	5021379	5057680	1.11	cps
Rhodium	103-2	3093780	3083621	3097464	3091622	0.23	cps
Scandium	45-1	3728271	3719890	3674653	3707605	0.78	cps
Scandium	45-2	296847	298178	295778	296935	0.41	cps
Selenium	82-1	1153	1412	1365	1310	10.53	cps
Selenium	77-2	0	7	3	3	100.05	cps
Selenium	78-2	393	400	373	389	3.57	cps
Silicon	28-1	20097071	20514961	20818398	20476810	1.77	cps
Silver	107-1	400	493	417	437	11.40	cps
Silver	109-1	450	387	400	412	8.10	cps
Sodium	23-2	336927162	341675355	336270875	338291131	0.87	cps
Strontium	86-1	966163	981832	982302	976765	0.94	cps
Strontium	88-1	8664204	8713807	8657946	8678652	0.35	cps
Sulfur	34-1	4676500	4577379	4768314	4674064	2.04	cps
Terbium	159-1	6022817	5867381	6010217	5966805	1.45	cps
Terbium	159-2	4551676	4446732	4499439	4499282	1.17	cps
Thallium	203-1	457	403	440	433	6.30	cps
Thallium	205-1	950	1110	1103	1055	8.58	cps
Tin	118-1	16313	15055	13617	14995	9.00	cps
Titanium	47-1	340	360	1577	759	93.34	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:16:18	DataFile Name :	026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	607	783	630	673	14.25	cps
Vanadium	51-2	257	290	297	281	7.62	cps
Yttrium	89-1	9598340	9474641	9517548	9530176	0.66	cps
Yttrium	89-2	2539477	2443686	2551263	2511475	2.35	cps
Zinc	66-2	8296	8469	8352	8372	1.06	cps
Zirconium	90-1	640	680	727	682	6.36	cps
Zirconium	91-1	133	143	110	129	13.27	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2194	2100	1950	2081	5.90	cps
Antimony	121-1	243	1746	277	755	113.60	cps
Arsenic	75-2	310	287	253	283	10.05	cps
Barium	135-1	21870	24700	24040	23537	6.29	cps
Barium	137-1	38816	45623	41430	41956	8.18	cps
Beryllium	9-1	337	477	7	273	88.29	cps
Bismuth	209-1	3620247	3735483	3691924	3682552	1.58	cps
Bismuth	209-2	3396310	3431774	3363448	3397177	1.01	cps
Bromine	81-1	947571	965632	945351	952852	1.17	cps
Bromine	81-2	165661	162045	160592	162766	1.60	cps
Cadmium	108-1	7	30	13	17	72.11	cps
Cadmium	106-1	3044	3090	3020	3051	1.17	cps
Cadmium	111-1	2159	3097	2125	2460	22.41	cps
Calcium	43-1	759418	804624	810555	791532	3.53	cps
Calcium	44-1	12169938	12580568	12882553	12544353	2.85	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3807	3777	3821	3802	0.58	cps
Cobalt	59-2	34159	33457	32929	33515	1.84	cps
Copper	63-2	2597	2524	2557	2559	1.44	cps
Dysprosium	156-1	287	263	267	272	4.64	cps
Dysprosium	156-2	237	320	233	263	18.65	cps
Erbium	164-1	317	293	303	304	3.85	cps
Erbium	164-2	270	257	233	253	7.33	cps
Gadolinium	160-1	270	277	370	306	18.30	cps
Gadolinium	160-2	607	610	533	583	7.43	cps
Holmium	165-1	5932558	5867038	5972953	5924183	0.90	cps
Holmium	165-2	4740892	4654536	4640068	4678499	1.17	cps
Indium	115-1	5269791	5351751	5300561	5307368	0.78	cps
Indium	115-2	2073019	1987693	1974429	2011714	2.66	cps
Iron	56-2	204535090	205715597	203731604	204660764	0.49	cps
Iron	57-2	5114648	5148078	4921611	5061446	2.42	cps
Iron	54-2	11397290	11354207	11078274	11276590	1.53	cps
Krypton	83-1	470	433	390	431	9.29	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	21415	4012	633	8687	128.37	cps
Lead	207-1	7465	5162	437	4355	82.28	cps
Lead	208-1	36079	22496	2200	20258	84.16	cps
Lithium	6-1	574791	587107	591246	584382	1.46	cps
Magnesium	24-2	3601595	3615376	3493092	3570021	1.88	cps
Manganese	55-2	5446620	5317650	5374883	5379717	1.20	cps
Molybdenum	94-1	657	1007	580	748	30.43	cps
Molybdenum	95-1	1084	1107	693	961	24.17	cps
Molybdenum	96-1	1677	2541	1667	1961	25.58	cps
Molybdenum	97-1	460	1017	330	602	60.59	cps
Molybdenum	98-1	1157	4273	790	2073	92.31	cps
Neodymium	150-1	237	390	343	323	24.31	cps
Neodymium	150-2	250	253	243	249	2.05	cps
Nickel	60-2	1590	1473	1687	1583	6.75	cps
Phosphorus	31-2	2207	2294	1977	2159	7.58	cps
Potassium	39-2	998616	994382	962823	985274	1.99	cps
Rhodium	103-1	5216093	5201917	5382332	5266781	1.90	cps
Rhodium	103-2	3377430	3249948	3206893	3278090	2.71	cps
Scandium	45-1	3572323	3659322	3672130	3634592	1.49	cps
Scandium	45-2	302592	303156	296259	300669	1.27	cps
Selenium	82-1	386	425	535	448	17.25	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	270	367	423	353	21.94	cps
Silicon	28-1	18040089	19337319	20161650	19179686	5.58	cps
Silver	107-1	333	340	307	327	5.40	cps
Silver	109-1	300	250	283	278	9.17	cps
Sodium	23-2	20532860	20806488	20057782	20465710	1.85	cps
Strontium	86-1	438837	462084	468790	456570	3.44	cps
Strontium	88-1	3929779	4075956	4113599	4039778	2.40	cps
Sulfur	34-1	2618709	2766786	2848124	2744540	4.24	cps
Terbium	159-1	6072144	6270222	6257210	6199859	1.79	cps
Terbium	159-2	4688260	4633901	4465640	4595934	2.53	cps
Thallium	203-1	4006	2137	287	2143	86.77	cps
Thallium	205-1	28491	3687	533	10904	140.43	cps
Tin	118-1	6508	6802	5978	6429	6.50	cps
Titanium	47-1	804	500	350	551	41.92	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-03	Instrumnet Name :	P7
Client Sample ID :	PMW-8D(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:19:28	DataFile Name :	027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	4088	1733	203	2008	97.46	cps
Vanadium	51-2	717	737	750	734	2.28	cps
Yttrium	89-1	9573056	9442575	9745857	9587163	1.59	cps
Yttrium	89-2	2552730	2583280	2474758	2536923	2.21	cps
Zinc	66-2	4557	4684	4394	4545	3.20	cps
Zirconium	90-1	883	860	820	854	3.75	cps
Zirconium	91-1	260	220	140	207	29.57	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9912	8366	7229	8502	15.83	cps
Antimony	121-1	220	260	290	257	13.68	cps
Arsenic	75-2	360	367	337	354	4.45	cps
Barium	135-1	24858	24979	25540	25126	1.45	cps
Barium	137-1	42507	42952	43593	43017	1.27	cps
Beryllium	9-1	33	27	27	29	13.31	cps
Bismuth	209-1	3651840	3618645	3581329	3617271	0.98	cps
Bismuth	209-2	3350774	3382075	3387319	3373389	0.59	cps
Bromine	81-1	560922	683918	739117	661319	13.79	cps
Bromine	81-2	145308	146967	146835	146370	0.63	cps
Cadmium	108-1	13	13	20	16	24.76	cps
Cadmium	106-1	3277	2964	3024	3088	5.39	cps
Cadmium	111-1	2301	2102	2126	2176	5.00	cps
Calcium	43-1	925653	956503	954664	945607	1.83	cps
Calcium	44-1	14632825	15346493	15205239	15061519	2.51	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	7779	7619	7435	7611	2.26	cps
Cobalt	59-2	49769	49716	49977	49820	0.28	cps
Copper	63-2	2027	2284	1997	2102	7.50	cps
Dysprosium	156-1	183	217	233	211	12.06	cps
Dysprosium	156-2	213	263	253	243	10.87	cps
Erbium	164-1	247	250	227	241	5.23	cps
Erbium	164-2	163	197	217	192	14.02	cps
Gadolinium	160-1	223	303	310	279	17.29	cps
Gadolinium	160-2	550	550	493	531	6.16	cps
Holmium	165-1	5835222	5924380	5820372	5859992	0.96	cps
Holmium	165-2	4635931	4610062	4595308	4613767	0.45	cps
Indium	115-1	5271173	5167407	5133266	5190615	1.38	cps
Indium	115-2	1973659	1899784	1954138	1942527	1.97	cps
Iron	56-2	167462691	164986424	166207154	166218756	0.74	cps
Iron	57-2	4156350	4076168	4177510	4136676	1.29	cps
Iron	54-2	9175128	9048479	9351020	9191542	1.65	cps
Krypton	83-1	370	360	390	373	4.09	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	820	913	850	861	5.53	cps
Lead	207-1	627	760	690	692	9.63	cps
Lead	208-1	3187	3450	3364	3334	4.03	cps
Lithium	6-1	577277	565563	577030	573290	1.17	cps
Magnesium	24-2	3595882	3659932	3706610	3654141	1.52	cps
Manganese	55-2	5407401	5305686	5340989	5351358	0.97	cps
Molybdenum	94-1	783	840	820	814	3.53	cps
Molybdenum	95-1	413	450	413	426	4.97	cps
Molybdenum	96-1	1217	1290	1227	1245	3.20	cps
Molybdenum	97-1	283	233	207	241	16.14	cps
Molybdenum	98-1	480	513	480	491	3.92	cps
Neodymium	150-1	277	310	323	303	7.93	cps
Neodymium	150-2	167	200	180	182	9.21	cps
Nickel	60-2	2500	2684	2494	2559	4.21	cps
Phosphorus	31-2	2627	2590	2400	2539	4.79	cps
Potassium	39-2	1142519	1183169	1180675	1168788	1.95	cps
Rhodium	103-1	5194495	5154160	5258798	5202484	1.01	cps
Rhodium	103-2	3247071	3147836	3228122	3207676	1.64	cps
Scandium	45-1	3605830	3583127	3567446	3585468	0.54	cps
Scandium	45-2	299917	295477	300926	298773	0.97	cps
Selenium	82-1	442	450	431	441	2.16	cps
Selenium	77-2	3	0	7	3	100.05	cps
Selenium	78-2	340	363	283	329	12.51	cps
Silicon	28-1	17705843	18546531	18830690	18361021	3.19	cps
Silver	107-1	173	130	200	168	21.06	cps
Silver	109-1	177	177	177	177	0.00	cps
Sodium	23-2	22809477	22883079	23240795	22977784	1.00	cps
Strontium	86-1	500327	518302	525572	514734	2.52	cps
Strontium	88-1	4499424	4626159	4701613	4609065	2.22	cps
Sulfur	34-1	2305324	2317774	2396749	2339949	2.12	cps
Terbium	159-1	5977733	5974222	6092498	6014818	1.12	cps
Terbium	159-2	4515474	4550287	4499063	4521608	0.58	cps
Thallium	203-1	210	203	263	226	14.58	cps
Thallium	205-1	473	417	473	454	7.20	cps
Tin	118-1	3957	3941	3817	3905	1.96	cps
Titanium	47-1	1523	1610	1547	1560	2.88	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-04	Instrumnet Name :	P7
Client Sample ID :	PMW-8S(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:22:35	DataFile Name :	028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	217	290	220	242	17.10	cps
Vanadium	51-2	697	657	710	688	4.04	cps
Yttrium	89-1	9266545	9552988	9274680	9364738	1.74	cps
Yttrium	89-2	2588301	2534749	2550106	2557719	1.08	cps
Zinc	66-2	3567	3427	3721	3572	4.11	cps
Zirconium	90-1	1427	1567	1620	1538	6.49	cps
Zirconium	91-1	327	270	373	323	16.01	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1113	1210	1093	1139	5.48	cps
Antimony	121-1	130	87	147	121	25.57	cps
Arsenic	75-2	10	3	17	10	66.70	cps
Barium	135-1	223	207	197	209	6.45	cps
Barium	137-1	353	303	297	318	9.75	cps
Beryllium	9-1	23	17	7	16	53.90	cps
Bismuth	209-1	3637521	3464490	3526448	3542820	2.47	cps
Bismuth	209-2	3348089	3316975	3229668	3298244	1.86	cps
Bromine	81-1	212506	190536	171089	191377	10.83	cps
Bromine	81-2	25960	25292	23686	24979	4.68	cps
Cadmium	108-1	3	3	0	2	86.60	cps
Cadmium	106-1	2944	2940	2980	2955	0.75	cps
Cadmium	111-1	2065	2086	2100	2083	0.84	cps
Calcium	43-1	1047	1050	1043	1047	0.32	cps
Calcium	44-1	39830	38382	39268	39160	1.86	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1680	1707	1497	1628	7.02	cps
Cobalt	59-2	80	80	63	74	12.93	cps
Copper	63-2	1477	1747	1517	1580	9.22	cps
Dysprosium	156-1	7	3	0	3	100.05	cps
Dysprosium	156-2	0	0	3	1	173.21	cps
Erbium	164-1	33	63	33	43	39.97	cps
Erbium	164-2	23	30	23	26	15.07	cps
Gadolinium	160-1	67	33	43	48	35.81	cps
Gadolinium	160-2	380	343	340	354	6.26	cps
Holmium	165-1	5730967	5506462	5595181	5610870	2.02	cps
Holmium	165-2	4560613	4521743	4346879	4476412	2.54	cps
Indium	115-1	5032901	4894840	4946186	4957975	1.41	cps
Indium	115-2	1924849	1902856	1873699	1900468	1.35	cps
Iron	56-2	22407	23335	22550	22764	2.19	cps
Iron	57-2	1913	1583	1730	1742	9.49	cps
Iron	54-2	2314	2374	2407	2365	2.00	cps
Krypton	83-1	377	563	513	484	19.95	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	403	387	327	372	10.83	cps
Lead	207-1	363	333	287	328	11.79	cps
Lead	208-1	1623	1533	1390	1516	7.77	cps
Lithium	6-1	551823	531925	540733	541494	1.84	cps
Magnesium	24-2	2167	1990	2207	2121	5.44	cps
Manganese	55-2	783	953	923	887	10.23	cps
Molybdenum	94-1	250	230	257	246	5.65	cps
Molybdenum	95-1	213	227	203	214	5.46	cps
Molybdenum	96-1	287	193	327	269	25.44	cps
Molybdenum	97-1	931	157	183	424	103.76	cps
Molybdenum	98-1	383	313	297	331	13.89	cps
Neodymium	150-1	17	13	3	11	62.48	cps
Neodymium	150-2	3	0	10	4	114.60	cps
Nickel	60-2	323	400	363	362	10.59	cps
Phosphorus	31-2	843	783	793	807	3.99	cps
Potassium	39-2	61604	61661	60081	61115	1.47	cps
Rhodium	103-1	5073751	4929162	4953953	4985622	1.55	cps
Rhodium	103-2	3191664	3216069	3162539	3190090	0.84	cps
Scandium	45-1	3485366	3377360	3419668	3427465	1.59	cps
Scandium	45-2	289917	291441	292173	291177	0.40	cps
Selenium	82-1	375	192	208	258	39.28	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	320	333	333	329	2.34	cps
Silicon	28-1	1401114	1416598	1368708	1395473	1.75	cps
Silver	107-1	123	157	137	139	12.08	cps
Silver	109-1	83	97	120	100	18.56	cps
Sodium	23-2	162911	162906	160590	162136	0.83	cps
Strontium	86-1	963	910	907	927	3.43	cps
Strontium	88-1	1363	1610	1530	1501	8.38	cps
Sulfur	34-1	219571	219690	218936	219399	0.18	cps
Terbium	159-1	5940667	5754625	5769064	5821452	1.78	cps
Terbium	159-2	4535716	4354311	4441192	4443740	2.04	cps
Thallium	203-1	203	150	173	176	15.23	cps
Thallium	205-1	343	410	393	382	9.08	cps
Tin	118-1	3560	3647	3614	3607	1.21	cps
Titanium	47-1	133	70	100	101	31.34	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-05	Instrumnet Name :	P7
Client Sample ID :	FB(20250909)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:25:47	DataFile Name :	029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	13	13	7	11	34.61	cps
Vanadium	51-2	67	67	83	72	13.32	cps
Yttrium	89-1	9088120	8852067	8984619	8974935	1.32	cps
Yttrium	89-2	2481621	2488647	2476094	2482121	0.25	cps
Zinc	66-2	2314	2417	2214	2315	4.39	cps
Zirconium	90-1	443	413	370	409	9.02	cps
Zirconium	91-1	73	73	50	66	20.55	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	49255	49558	48727	49180	0.85	cps
Antimony	121-1	280	350	297	309	11.84	cps
Arsenic	75-2	823	707	783	771	7.69	cps
Barium	135-1	16723	17154	17825	17234	3.22	cps
Barium	137-1	29133	30319	30232	29895	2.21	cps
Beryllium	9-1	577	600	560	579	3.47	cps
Bismuth	209-1	3643099	3650362	3502181	3598547	2.32	cps
Bismuth	209-2	3348734	3538685	3579914	3489111	3.53	cps
Bromine	81-1	237288	289358	307620	278089	13.12	cps
Bromine	81-2	58629	59697	59218	59181	0.90	cps
Cadmium	108-1	13	10	13	12	15.73	cps
Cadmium	106-1	3357	3657	3370	3462	4.90	cps
Cadmium	111-1	2354	2566	2380	2433	4.76	cps
Calcium	43-1	473483	492082	489419	484995	2.07	cps
Calcium	44-1	7466128	7759089	7620160	7615126	1.92	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	9301	8796	8623	8906	3.96	cps
Cobalt	59-2	34001	33053	33300	33452	1.47	cps
Copper	63-2	14445	1847	1780	6024	121.06	cps
Dysprosium	156-1	74685	76319	76002	75669	1.15	cps
Dysprosium	156-2	84131	88018	88846	86998	2.89	cps
Erbium	164-1	62325	63494	63996	63272	1.35	cps
Erbium	164-2	49100	52626	51850	51192	3.62	cps
Gadolinium	160-1	74048	76582	75871	75500	1.73	cps
Gadolinium	160-2	63624	64776	65499	64633	1.46	cps
Holmium	165-1	6076103	5996533	5928097	6000244	1.23	cps
Holmium	165-2	4690546	4887391	5005067	4861001	3.27	cps
Indium	115-1	5131803	5297244	5264471	5231173	1.67	cps
Indium	115-2	2003350	2073652	2117932	2064978	2.80	cps
Iron	56-2	662481043	688875870	703094123	684817012	3.01	cps
Iron	57-2	16082599	16843382	17232328	16719436	3.50	cps
Iron	54-2	36456524	37808808	37988688	37418007	2.24	cps
Krypton	83-1	550	530	620	567	8.34	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1073	1213	1163	1150	6.17	cps
Lead	207-1	970	957	947	958	1.22	cps
Lead	208-1	4447	4424	4674	4515	3.06	cps
Lithium	6-1	569448	565338	569375	568054	0.41	cps
Magnesium	24-2	5251357	5590918	5675880	5506052	4.08	cps
Manganese	55-2	8059803	8599501	8547003	8402102	3.54	cps
Molybdenum	94-1	3530	3714	3751	3665	3.22	cps
Molybdenum	95-1	560	647	560	589	8.50	cps
Molybdenum	96-1	4411	4664	4574	4550	2.82	cps
Molybdenum	97-1	453	417	393	421	7.18	cps
Molybdenum	98-1	623	700	780	701	11.17	cps
Neodymium	150-1	132211	136415	135121	134582	1.60	cps
Neodymium	150-2	90888	94666	92884	92812	2.04	cps
Nickel	60-2	5055	3257	3510	3941	24.69	cps
Phosphorus	31-2	1133	773	897	934	19.58	cps
Potassium	39-2	896589	888662	904570	896607	0.89	cps
Rhodium	103-1	5250113	5265097	5362313	5292508	1.15	cps
Rhodium	103-2	3278932	3469612	3457821	3402122	3.14	cps
Scandium	45-1	3619270	3614729	3595824	3609941	0.34	cps
Scandium	45-2	305830	318108	317500	313813	2.21	cps
Selenium	82-1	494	501	354	450	18.44	cps
Selenium	77-2	333	273	333	313	11.06	cps
Selenium	78-2	617	613	717	649	9.05	cps
Silicon	28-1	15838243	16316821	16323501	16159522	1.72	cps
Silver	107-1	143	140	140	141	1.37	cps
Silver	109-1	100	130	117	116	13.01	cps
Sodium	23-2	4659263	4762974	4773487	4731908	1.33	cps
Strontium	86-1	283297	292445	291482	289075	1.74	cps
Strontium	88-1	2498368	2638355	2613646	2583456	2.89	cps
Sulfur	34-1	5419167	5593998	5499188	5504118	1.59	cps
Terbium	159-1	5937174	6228594	6154819	6106862	2.48	cps
Terbium	159-2	4709854	4832336	4863374	4801855	1.69	cps
Thallium	203-1	170	207	143	173	18.34	cps
Thallium	205-1	440	423	467	443	4.93	cps
Tin	118-1	3387	3777	3641	3602	5.50	cps
Titanium	47-1	1050	1230	1053	1111	9.27	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:29:04	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	163	173	150	162	7.22	cps
Vanadium	51-2	8564	7379	7699	7880	7.78	cps
Yttrium	89-1	10901783	10752750	10906331	10853622	0.81	cps
Yttrium	89-2	3030917	3111269	3098977	3080388	1.41	cps
Zinc	66-2	8273	4144	4197	5538	42.77	cps
Zirconium	90-1	8713	8823	8466	8667	2.11	cps
Zirconium	91-1	1887	1960	1953	1933	2.10	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	45100	45785	47042	45976	2.14	cps
Antimony	121-1	127	97	113	112	13.39	cps
Arsenic	75-2	523	420	447	463	11.58	cps
Barium	135-1	18893	19070	18676	18879	1.04	cps
Barium	137-1	32698	32865	31989	32517	1.43	cps
Beryllium	9-1	220	187	177	194	11.67	cps
Bismuth	209-1	3619186	3604139	3491109	3571478	1.96	cps
Bismuth	209-2	3208463	3258368	3139615	3202149	1.86	cps
Bromine	81-1	679125	947018	1111359	912500	23.91	cps
Bromine	81-2	235760	238902	243186	239283	1.56	cps
Cadmium	108-1	10	13	23	16	44.60	cps
Cadmium	106-1	3214	2940	3130	3095	4.53	cps
Cadmium	111-1	2259	2076	2195	2177	4.28	cps
Calcium	43-1	1773771	1778031	1782516	1778106	0.25	cps
Calcium	44-1	28567094	29101702	28775727	28814841	0.94	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6235	6225	6285	6248	0.51	cps
Cobalt	59-2	25929	26393	26106	26143	0.90	cps
Copper	63-2	1367	1517	1507	1463	5.73	cps
Dysprosium	156-1	15525	15822	15482	15610	1.19	cps
Dysprosium	156-2	18129	18072	17611	17937	1.58	cps
Erbium	164-1	12973	12886	12789	12883	0.71	cps
Erbium	164-2	9373	9934	9713	9673	2.92	cps
Gadolinium	160-1	14831	14948	15425	15068	2.09	cps
Gadolinium	160-2	12576	12489	12506	12524	0.37	cps
Holmium	165-1	5754338	5759123	5776890	5763450	0.21	cps
Holmium	165-2	4402829	4521896	4421091	4448605	1.44	cps
Indium	115-1	5078325	5058222	4937381	5024643	1.52	cps
Indium	115-2	1891608	1889472	1864137	1881739	0.81	cps
Iron	56-2	365208408	368776741	373912021	369299057	1.18	cps
Iron	57-2	8990196	8902545	9162289	9018343	1.47	cps
Iron	54-2	19923888	20149998	19723350	19932412	1.07	cps
Krypton	83-1	400	403	390	398	1.74	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	717	797	783	766	5.60	cps
Lead	207-1	730	680	533	648	15.78	cps
Lead	208-1	2987	3180	2697	2955	8.23	cps
Lithium	6-1	566005	557466	553470	558980	1.15	cps
Magnesium	24-2	2712573	2768854	2747109	2742845	1.03	cps
Manganese	55-2	3805438	3828468	3808271	3814059	0.33	cps
Molybdenum	94-1	2004	2047	1853	1968	5.16	cps
Molybdenum	95-1	420	390	367	392	6.82	cps
Molybdenum	96-1	2724	2534	2520	2592	4.39	cps
Molybdenum	97-1	357	280	310	316	12.24	cps
Molybdenum	98-1	557	540	573	557	2.99	cps
Neodymium	150-1	27737	27594	27133	27488	1.15	cps
Neodymium	150-2	17284	18128	17751	17721	2.39	cps
Nickel	60-2	15962	15832	15902	15899	0.41	cps
Phosphorus	31-2	813	793	823	810	1.89	cps
Potassium	39-2	2606014	2638987	2635060	2626687	0.69	cps
Rhodium	103-1	5116806	5040608	4996518	5051311	1.20	cps
Rhodium	103-2	3073340	3138415	3115483	3109079	1.06	cps
Scandium	45-1	3598080	3583254	3563116	3581483	0.49	cps
Scandium	45-2	285579	287747	287467	286931	0.41	cps
Selenium	82-1	442	573	567	527	14.03	cps
Selenium	77-2	60	53	77	63	18.98	cps
Selenium	78-2	360	377	443	393	11.21	cps
Silicon	28-1	11851801	12315701	11984348	12050617	1.98	cps
Silver	107-1	140	130	87	119	23.84	cps
Silver	109-1	117	60	83	87	32.86	cps
Sodium	23-2	44241201	44794289	45891558	44975683	1.87	cps
Strontium	86-1	759280	760758	763499	761179	0.28	cps
Strontium	88-1	6794395	6833766	6844267	6824143	0.39	cps
Sulfur	34-1	5226472	5342717	5252703	5273964	1.16	cps
Terbium	159-1	6144848	5827742	5958017	5976869	2.67	cps
Terbium	159-2	4410792	4438526	4385012	4411443	0.61	cps
Thallium	203-1	1377	1300	1357	1345	2.96	cps
Thallium	205-1	3240	3174	3227	3214	1.10	cps
Tin	118-1	1730	1807	1867	1801	3.80	cps
Titanium	47-1	523	600	447	523	14.65	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-07	Instrumnet Name :	P7
Client Sample ID :	PMW-3(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:32:15	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	490	473	553	506	8.35	cps
Vanadium	51-2	4924	5041	4901	4955	1.51	cps
Yttrium	89-1	9692093	9499795	9397141	9529676	1.57	cps
Yttrium	89-2	2471677	2524854	2542085	2512872	1.46	cps
Zinc	66-2	11101	11384	11168	11218	1.32	cps
Zirconium	90-1	4434	5031	4731	4732	6.31	cps
Zirconium	91-1	913	883	947	914	3.46	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2271	1720	1860	1950	14.68	cps
Antimony	121-1	250	230	247	242	4.43	cps
Arsenic	75-2	2960	2940	2770	2890	3.61	cps
Barium	135-1	14965	15265	15068	15099	1.01	cps
Barium	137-1	26408	27183	26121	26570	2.07	cps
Beryllium	9-1	17	13	10	13	25.01	cps
Bismuth	209-1	3288379	3294227	3362949	3315185	1.25	cps
Bismuth	209-2	3288192	3260553	3150937	3233227	2.25	cps
Bromine	81-1	416426	457988	477012	450475	6.88	cps
Bromine	81-2	90170	90606	90709	90495	0.32	cps
Cadmium	108-1	3	0	3	2	86.60	cps
Cadmium	106-1	2900	2894	2690	2828	4.22	cps
Cadmium	111-1	2048	2046	1894	1996	4.41	cps
Calcium	43-1	1625546	1656216	1627890	1636551	1.04	cps
Calcium	44-1	26357821	27016136	25989973	26454643	1.97	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2744	2884	2760	2796	2.74	cps
Cobalt	59-2	2424	2144	2327	2298	6.19	cps
Copper	63-2	1530	1333	1363	1409	7.52	cps
Dysprosium	156-1	177	177	223	192	14.02	cps
Dysprosium	156-2	247	233	237	239	2.90	cps
Erbium	164-1	283	263	347	298	14.61	cps
Erbium	164-2	253	170	193	206	20.91	cps
Gadolinium	160-1	287	260	290	279	5.90	cps
Gadolinium	160-2	557	560	610	576	5.19	cps
Holmium	165-1	5439570	5648920	5386765	5491752	2.52	cps
Holmium	165-2	4579047	4438190	4422368	4479869	1.93	cps
Indium	115-1	4800916	4824333	4768740	4797996	0.58	cps
Indium	115-2	1897028	1891265	1889195	1892496	0.21	cps
Iron	56-2	72425122	69952114	70788034	71055090	1.77	cps
Iron	57-2	1892410	1830735	1800572	1841239	2.54	cps
Iron	54-2	4036663	3859568	3918808	3938346	2.29	cps
Krypton	83-1	437	467	430	444	4.39	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	483	410	370	421	13.65	cps
Lead	207-1	350	320	327	332	4.74	cps
Lead	208-1	1650	1623	1553	1609	3.10	cps
Lithium	6-1	529451	540430	526981	532287	1.35	cps
Magnesium	24-2	2814217	2743244	2733641	2763701	1.59	cps
Manganese	55-2	1642103	1590279	1582045	1604809	2.03	cps
Molybdenum	94-1	1890	1923	1960	1925	1.82	cps
Molybdenum	95-1	2244	2327	2357	2309	2.54	cps
Molybdenum	96-1	2844	2847	2960	2884	2.30	cps
Molybdenum	97-1	1443	1537	1470	1483	3.24	cps
Molybdenum	98-1	3794	3724	3460	3659	4.80	cps
Neodymium	150-1	393	403	397	398	1.28	cps
Neodymium	150-2	240	273	290	268	9.51	cps
Nickel	60-2	1947	1937	2037	1973	2.79	cps
Phosphorus	31-2	947	953	963	954	0.88	cps
Potassium	39-2	1395677	1403268	1403650	1400865	0.32	cps
Rhodium	103-1	4819401	4961129	4866948	4882493	1.48	cps
Rhodium	103-2	3198611	3185453	3119799	3167954	1.33	cps
Scandium	45-1	3340475	3439260	3304823	3361519	2.07	cps
Scandium	45-2	292461	287103	287541	289035	1.03	cps
Selenium	82-1	219	244	301	255	16.47	cps
Selenium	77-2	10	7	3	7	50.03	cps
Selenium	78-2	350	377	373	367	3.96	cps
Silicon	28-1	20786587	21521821	20841835	21050081	1.95	cps
Silver	107-1	107	133	63	101	34.95	cps
Silver	109-1	73	67	77	72	7.05	cps
Sodium	23-2	17761313	17120520	17422143	17434659	1.84	cps
Strontium	86-1	549859	568029	552049	556646	1.78	cps
Strontium	88-1	4787836	5047245	4943542	4926208	2.65	cps
Sulfur	34-1	1693946	1776601	1704561	1725036	2.61	cps
Terbium	159-1	5593387	5719173	5543834	5618798	1.61	cps
Terbium	159-2	4515737	4354198	4358987	4409641	2.08	cps
Thallium	203-1	143	123	130	132	7.70	cps
Thallium	205-1	293	307	373	324	13.21	cps
Tin	118-1	2227	2340	2260	2276	2.56	cps
Titanium	47-1	287	333	240	287	16.28	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-08	Instrumnet Name :	P7
Client Sample ID :	PMW-7S(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:35:22	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1753	1813	1837	1801	2.39	cps
Vanadium	51-2	1253	1230	1227	1237	1.18	cps
Yttrium	89-1	8607668	8776654	8545443	8643255	1.38	cps
Yttrium	89-2	2512839	2457119	2436073	2468677	1.61	cps
Zinc	66-2	3024	2787	2997	2936	4.42	cps
Zirconium	90-1	1540	1517	1430	1496	3.88	cps
Zirconium	91-1	420	357	343	373	10.97	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1297	1277	1774	1449	19.42	cps
Antimony	121-1	163	177	210	183	13.11	cps
Arsenic	75-2	2640	2817	2787	2748	3.44	cps
Barium	135-1	31107	30479	30723	30770	1.03	cps
Barium	137-1	52272	53671	53380	53108	1.39	cps
Beryllium	9-1	23	23	33	27	21.65	cps
Bismuth	209-1	3545720	3512316	3471650	3509895	1.06	cps
Bismuth	209-2	3231375	3240761	3260033	3244057	0.45	cps
Bromine	81-1	331420	394217	432730	386122	13.24	cps
Bromine	81-2	86722	86408	89371	87501	1.86	cps
Cadmium	108-1	13	13	3	10	57.75	cps
Cadmium	106-1	2944	3000	2764	2903	4.26	cps
Cadmium	111-1	2061	2114	1942	2039	4.32	cps
Calcium	43-1	1554701	1575050	1614148	1581300	1.91	cps
Calcium	44-1	25247722	26270735	26191402	25903287	2.20	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2480	2174	2234	2296	7.08	cps
Cobalt	59-2	2394	2254	2227	2291	3.91	cps
Copper	63-2	1297	1400	1220	1306	6.92	cps
Dysprosium	156-1	73	50	47	57	25.64	cps
Dysprosium	156-2	40	37	47	41	12.39	cps
Erbium	164-1	97	143	107	116	21.26	cps
Erbium	164-2	87	110	73	90	20.62	cps
Gadolinium	160-1	83	100	110	98	13.78	cps
Gadolinium	160-2	403	450	377	410	9.05	cps
Holmium	165-1	5701286	5606218	5572229	5626578	1.19	cps
Holmium	165-2	4417450	4452678	4556762	4475630	1.62	cps
Indium	115-1	5045586	4979206	4973686	4999493	0.80	cps
Indium	115-2	1847913	1883685	1904085	1878561	1.51	cps
Iron	56-2	64527111	66343217	66047137	65639155	1.48	cps
Iron	57-2	1695544	1682258	1720755	1699519	1.15	cps
Iron	54-2	3594117	3643088	3646008	3627738	0.80	cps
Krypton	83-1	347	390	363	367	5.96	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	360	373	400	378	5.39	cps
Lead	207-1	337	307	247	297	15.45	cps
Lead	208-1	1510	1357	1393	1420	5.64	cps
Lithium	6-1	552363	553588	544663	550205	0.88	cps
Magnesium	24-2	2719235	2816703	2788139	2774693	1.81	cps
Manganese	55-2	1588684	1640826	1663230	1630914	2.35	cps
Molybdenum	94-1	550	650	647	616	9.23	cps
Molybdenum	95-1	673	650	677	667	2.18	cps
Molybdenum	96-1	1073	1133	1067	1091	3.37	cps
Molybdenum	97-1	440	420	433	431	2.36	cps
Molybdenum	98-1	1127	1027	1080	1078	4.64	cps
Neodymium	150-1	53	43	33	43	23.08	cps
Neodymium	150-2	37	27	13	26	45.82	cps
Nickel	60-2	1043	990	1013	1016	2.63	cps
Phosphorus	31-2	1407	1253	1410	1357	6.60	cps
Potassium	39-2	1302337	1346916	1363981	1337745	2.38	cps
Rhodium	103-1	4977060	4913039	4824559	4904886	1.56	cps
Rhodium	103-2	3093271	3128115	3158503	3126630	1.04	cps
Scandium	45-1	3436891	3512385	3431104	3460127	1.31	cps
Scandium	45-2	287163	289584	291124	289290	0.69	cps
Selenium	82-1	398	340	360	366	8.06	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	323	337	310	323	4.12	cps
Silicon	28-1	25202291	25718187	25377260	25432579	1.03	cps
Silver	107-1	80	87	117	94	20.68	cps
Silver	109-1	77	87	87	83	6.93	cps
Sodium	23-2	16318811	16832974	16696198	16615995	1.60	cps
Strontium	86-1	563982	576054	573571	571202	1.12	cps
Strontium	88-1	4975314	5205350	5163597	5114753	2.40	cps
Sulfur	34-1	1665901	1701412	1700915	1689409	1.21	cps
Terbium	159-1	5875398	5715681	5684211	5758430	1.78	cps
Terbium	159-2	4268838	4372844	4411431	4351038	1.70	cps
Thallium	203-1	113	97	113	108	8.93	cps
Thallium	205-1	277	287	373	312	17.03	cps
Tin	118-1	2217	2380	2170	2256	4.89	cps
Titanium	47-1	290	367	307	321	12.56	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-09	Instrumnet Name :	P7
Client Sample ID :	PMW-7D(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:38:29	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	0	20	20	13	86.60	cps
Vanadium	51-2	407	397	437	413	5.04	cps
Yttrium	89-1	8975408	9029678	8938370	8981152	0.51	cps
Yttrium	89-2	2430547	2495086	2462727	2462787	1.31	cps
Zinc	66-2	2500	2490	2364	2451	3.11	cps
Zirconium	90-1	1848	663	593	1035	68.11	cps
Zirconium	91-1	123	123	110	119	6.48	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1827	1934	1967	1909	3.83	cps
Antimony	121-1	247	263	260	257	3.44	cps
Arsenic	75-2	2967	3104	3120	3064	2.75	cps
Barium	135-1	17244	17428	16647	17106	2.39	cps
Barium	137-1	29050	30135	29918	29701	1.93	cps
Beryllium	9-1	33	7	7	16	98.94	cps
Bismuth	209-1	4005810	4029307	3910824	3981981	1.58	cps
Bismuth	209-2	3557312	3578873	3600309	3578831	0.60	cps
Bromine	81-1	257672	290830	306607	285036	8.76	cps
Bromine	81-2	58619	59228	58428	58758	0.71	cps
Cadmium	108-1	17	13	17	16	12.40	cps
Cadmium	106-1	3354	3244	3237	3278	2.00	cps
Cadmium	111-1	2353	2278	2271	2301	1.97	cps
Calcium	43-1	1797763	1862132	1841802	1833899	1.79	cps
Calcium	44-1	30104117	30194554	29762133	30020268	0.76	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2127	2304	2244	2225	4.04	cps
Cobalt	59-2	2460	2367	2554	2460	3.79	cps
Copper	63-2	1363	1367	1297	1342	2.94	cps
Dysprosium	156-1	223	253	240	239	6.29	cps
Dysprosium	156-2	213	207	267	229	14.37	cps
Erbium	164-1	307	357	277	313	12.90	cps
Erbium	164-2	197	223	163	194	15.46	cps
Gadolinium	160-1	317	300	297	304	3.52	cps
Gadolinium	160-2	663	563	680	636	9.93	cps
Holmium	165-1	6493525	6609752	6513236	6538838	0.95	cps
Holmium	165-2	4941720	5029048	4896103	4955624	1.36	cps
Indium	115-1	5585518	5843685	5682509	5703904	2.29	cps
Indium	115-2	2116350	2099254	2090786	2102130	0.62	cps
Iron	56-2	76044664	77153101	76446432	76548066	0.73	cps
Iron	57-2	1917665	1956997	1958842	1944501	1.20	cps
Iron	54-2	4188793	4164452	4083413	4145553	1.33	cps
Krypton	83-1	377	363	457	399	12.66	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	597	380	373	450	28.25	cps
Lead	207-1	400	340	313	351	12.64	cps
Lead	208-1	2000	1533	1463	1666	17.52	cps
Lithium	6-1	633308	645792	629096	636065	1.37	cps
Magnesium	24-2	3018313	2955343	2916955	2963537	1.73	cps
Manganese	55-2	1715694	1719541	1656151	1697129	2.09	cps
Molybdenum	94-1	2034	2040	1987	2020	1.44	cps
Molybdenum	95-1	2507	2520	2330	2452	4.33	cps
Molybdenum	96-1	2780	3220	3144	3048	7.71	cps
Molybdenum	97-1	1637	1540	1560	1579	3.23	cps
Molybdenum	98-1	3747	3901	3737	3795	2.41	cps
Neodymium	150-1	443	413	487	448	8.23	cps
Neodymium	150-2	283	293	267	281	4.79	cps
Nickel	60-2	1947	1950	1943	1947	0.17	cps
Phosphorus	31-2	883	890	1093	956	12.49	cps
Potassium	39-2	1474161	1494633	1469428	1479407	0.91	cps
Rhodium	103-1	5745654	5850240	5753181	5783025	1.01	cps
Rhodium	103-2	3497771	3539897	3490911	3509526	0.76	cps
Scandium	45-1	3959782	4040657	3982246	3994228	1.05	cps
Scandium	45-2	322397	322011	322548	322319	0.09	cps
Selenium	82-1	390	428	267	362	23.31	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	390	307	327	341	12.75	cps
Silicon	28-1	23179760	24227843	23912101	23773235	2.26	cps
Silver	107-1	100	103	80	94	13.36	cps
Silver	109-1	73	83	67	74	11.26	cps
Sodium	23-2	18556550	18912692	18631909	18700384	1.00	cps
Strontium	86-1	612903	632955	621325	622394	1.62	cps
Strontium	88-1	5489115	5691422	5585186	5588574	1.81	cps
Sulfur	34-1	1884034	1953472	1903562	1913689	1.87	cps
Terbium	159-1	6624169	6799152	6664464	6695928	1.37	cps
Terbium	159-2	4850493	4923010	4871843	4881782	0.76	cps
Thallium	203-1	173	177	107	152	25.94	cps
Thallium	205-1	350	310	253	304	15.95	cps
Tin	118-1	2367	2370	2637	2458	6.30	cps
Titanium	47-1	527	293	307	376	34.90	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-10	Instrumnet Name :	P7
Client Sample ID :	DUP(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:41:40	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	3676	2017	1853	2515	40.08	cps
Vanadium	51-2	1243	1210	1170	1208	3.04	cps
Yttrium	89-1	10459102	10441757	10282421	10394427	0.94	cps
Yttrium	89-2	2766661	2722597	2742909	2744056	0.80	cps
Zinc	66-2	3037	3100	3100	3079	1.19	cps
Zirconium	90-1	1517	1730	1613	1620	6.59	cps
Zirconium	91-1	367	400	353	373	6.44	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	61884	62811	63789	62828	1.52	cps
Antimony	121-1	23	40	57	40	41.68	cps
Arsenic	75-2	110	90	100	100	10.00	cps
Barium	135-1	3228	2740	2577	2848	11.90	cps
Barium	137-1	4627	4617	4587	4611	0.45	cps
Beryllium	9-1	410	387	480	426	11.41	cps
Bismuth	209-1	3906100	3748012	3923374	3859162	2.50	cps
Bismuth	209-2	3597874	3682288	3672173	3650779	1.26	cps
Bromine	81-1	101909	100718	100116	100914	0.90	cps
Bromine	81-2	16666	16239	16556	16487	1.35	cps
Cadmium	108-1	10	13	20	14	35.26	cps
Cadmium	106-1	3330	3117	3264	3237	3.37	cps
Cadmium	111-1	2324	2186	2281	2264	3.12	cps
Calcium	43-1	80181	80867	80798	80615	0.47	cps
Calcium	44-1	1287887	1318173	1300758	1302273	1.17	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1790	1950	1787	1842	5.07	cps
Cobalt	59-2	59370	59327	59116	59271	0.23	cps
Copper	63-2	1387	1427	1547	1453	5.73	cps
Dysprosium	156-1	6405	5981	6015	6134	3.84	cps
Dysprosium	156-2	7809	8146	8716	8224	5.58	cps
Erbium	164-1	4974	5031	4934	4980	0.98	cps
Erbium	164-2	3757	3887	3744	3796	2.09	cps
Gadolinium	160-1	5518	5585	5424	5509	1.46	cps
Gadolinium	160-2	5168	4954	5284	5135	3.26	cps
Holmium	165-1	6232171	6186496	6150867	6189845	0.66	cps
Holmium	165-2	4975881	4987929	4888763	4950858	1.09	cps
Indium	115-1	5420253	5337574	5403215	5387014	0.81	cps
Indium	115-2	2096093	2027436	2067984	2063838	1.67	cps
Iron	56-2	124330775	125110271	124846301	124762449	0.32	cps
Iron	57-2	3082368	3096751	3038452	3072524	0.99	cps
Iron	54-2	6654805	6739100	6788497	6727467	1.00	cps
Krypton	83-1	467	403	470	447	8.41	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	433	407	487	442	9.21	cps
Lead	207-1	340	317	377	344	8.78	cps
Lead	208-1	1803	1617	1807	1742	6.24	cps
Lithium	6-1	620925	606545	607487	611652	1.32	cps
Magnesium	24-2	404469	405107	402385	403987	0.35	cps
Manganese	55-2	2273736	2284498	2311954	2290063	0.86	cps
Molybdenum	94-1	500	380	400	427	15.07	cps
Molybdenum	95-1	343	277	207	276	24.80	cps
Molybdenum	96-1	947	923	967	946	2.29	cps
Molybdenum	97-1	187	157	217	187	16.07	cps
Molybdenum	98-1	380	400	407	396	3.51	cps
Neodymium	150-1	9043	8923	9223	9063	1.67	cps
Neodymium	150-2	6131	6425	5925	6160	4.08	cps
Nickel	60-2	29289	29259	29559	29369	0.56	cps
Phosphorus	31-2	873	913	807	864	6.23	cps
Potassium	39-2	1258311	1235373	1265878	1253187	1.27	cps
Rhodium	103-1	5481181	5392508	5510463	5461384	1.12	cps
Rhodium	103-2	3474629	3342112	3459400	3425380	2.12	cps
Scandium	45-1	3888437	3759368	3694637	3780814	2.61	cps
Scandium	45-2	309357	310997	314887	311747	0.91	cps
Selenium	82-1	221	355	197	257	33.05	cps
Selenium	77-2	13	27	10	17	52.93	cps
Selenium	78-2	367	353	387	369	4.55	cps
Silicon	28-1	2855101	2840223	2911882	2869069	1.32	cps
Silver	107-1	90	67	87	81	15.56	cps
Silver	109-1	47	83	57	62	30.46	cps
Sodium	23-2	31618977	31208249	30679639	31168955	1.51	cps
Strontium	86-1	64699	64484	64745	64643	0.22	cps
Strontium	88-1	564010	559657	563207	562291	0.41	cps
Sulfur	34-1	3036964	2954108	3095416	3028829	2.34	cps
Terbium	159-1	6442182	6298275	6387297	6375918	1.14	cps
Terbium	159-2	4921921	4790595	4902900	4871805	1.46	cps
Thallium	203-1	110	163	140	138	19.41	cps
Thallium	205-1	353	340	323	339	4.44	cps
Tin	118-1	1107	1047	1153	1102	4.85	cps
Titanium	47-1	257	257	230	248	6.21	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DL2X5	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 16:48:12	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	30	17	40	29	40.51	cps
Vanadium	51-2	1310	1320	1263	1298	2.33	cps
Yttrium	89-1	9967564	9897759	10110125	9991816	1.08	cps
Yttrium	89-2	2735231	2718750	2734481	2729487	0.34	cps
Zinc	66-2	19803	20304	19636	19915	1.74	cps
Zirconium	90-1	793	820	810	808	1.67	cps
Zirconium	91-1	217	137	153	169	24.99	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1100	1117	1043	1087	3.54	cps
Antimony	121-1	67	70	120	86	34.92	cps
Arsenic	75-2	13	20	0	11	91.66	cps
Barium	135-1	160	177	167	168	5.00	cps
Barium	137-1	283	293	293	290	1.99	cps
Beryllium	9-1	10	23	0	11	105.35	cps
Bismuth	209-1	3683932	3702080	3604888	3663633	1.41	cps
Bismuth	209-2	3378141	3299493	3310939	3329524	1.28	cps
Bromine	81-1	40144	38162	37738	38682	3.32	cps
Bromine	81-2	5381	5071	5051	5168	3.58	cps
Cadmium	108-1	10	7	10	9	21.63	cps
Cadmium	106-1	2860	2767	2860	2829	1.90	cps
Cadmium	111-1	2002	1942	2009	1984	1.84	cps
Calcium	43-1	1123	1090	1040	1084	3.87	cps
Calcium	44-1	37944	38496	38011	38151	0.79	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1727	1643	1843	1738	5.78	cps
Cobalt	59-2	157	113	140	137	16.00	cps
Copper	63-2	1180	1180	1020	1127	8.20	cps
Dysprosium	156-1	17	13	13	14	13.35	cps
Dysprosium	156-2	10	13	20	14	35.26	cps
Erbium	164-1	50	53	40	48	14.52	cps
Erbium	164-2	43	27	50	40	30.04	cps
Gadolinium	160-1	43	47	43	44	4.34	cps
Gadolinium	160-2	343	380	330	351	7.37	cps
Holmium	165-1	5825805	5710951	5603493	5713416	1.95	cps
Holmium	165-2	4526052	4605811	4498658	4543507	1.23	cps
Indium	115-1	5063969	4932899	4957483	4984784	1.40	cps
Indium	115-2	1894089	1885090	1894157	1891112	0.28	cps
Iron	56-2	199465	199149	196963	198526	0.69	cps
Iron	57-2	5948	5901	5664	5838	2.60	cps
Iron	54-2	12245	11775	11921	11980	2.01	cps
Krypton	83-1	453	473	357	428	14.58	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	313	287	330	310	7.05	cps
Lead	207-1	307	260	313	293	9.91	cps
Lead	208-1	1367	1247	1363	1326	5.16	cps
Lithium	6-1	570988	568345	558389	565907	1.17	cps
Magnesium	24-2	2347	2470	2484	2434	3.10	cps
Manganese	55-2	4407	4191	4367	4322	2.67	cps
Molybdenum	94-1	243	290	233	256	11.84	cps
Molybdenum	95-1	273	197	197	222	19.92	cps
Molybdenum	96-1	253	310	240	268	13.88	cps
Molybdenum	97-1	120	180	167	156	20.25	cps
Molybdenum	98-1	370	227	350	316	24.60	cps
Neodymium	150-1	17	13	30	20	44.10	cps
Neodymium	150-2	3	10	10	8	49.52	cps
Nickel	60-2	383	410	457	417	8.91	cps
Phosphorus	31-2	787	850	687	774	10.63	cps
Potassium	39-2	60529	60038	60664	60410	0.55	cps
Rhodium	103-1	5211760	5096998	5074996	5127918	1.43	cps
Rhodium	103-2	3190892	3183417	3146064	3173458	0.76	cps
Scandium	45-1	3548723	3481120	3432000	3487281	1.68	cps
Scandium	45-2	288345	284394	289068	287269	0.88	cps
Selenium	82-1	212	193	345	250	32.97	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	317	290	347	318	8.92	cps
Silicon	28-1	1272962	1284270	1291211	1282814	0.72	cps
Silver	107-1	77	77	103	86	17.99	cps
Silver	109-1	53	40	67	53	25.00	cps
Sodium	23-2	181344	180335	179326	180335	0.56	cps
Strontium	86-1	860	973	997	943	7.75	cps
Strontium	88-1	2320	2114	2297	2244	5.05	cps
Sulfur	34-1	221553	222513	221750	221938	0.23	cps
Terbium	159-1	5944047	5971987	5897311	5937782	0.64	cps
Terbium	159-2	4457153	4485055	4431560	4457923	0.60	cps
Thallium	203-1	150	133	147	143	6.15	cps
Thallium	205-1	317	350	333	333	5.00	cps
Tin	118-1	2854	2784	2887	2841	1.86	cps
Titanium	47-1	83	97	83	88	8.77	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-12	Instrumnet Name :	P7
Client Sample ID :	FB(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:51:32	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	13	7	13	11	34.61	cps
Vanadium	51-2	80	53	47	60	29.40	cps
Yttrium	89-1	9003057	9019701	9008012	9010257	0.09	cps
Yttrium	89-2	2443230	2449930	2446441	2446533	0.14	cps
Zinc	66-2	2134	2144	2060	2112	2.15	cps
Zirconium	90-1	350	370	397	372	6.29	cps
Zirconium	91-1	30	60	47	46	32.99	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	106386	105273	107491	106383	1.04	cps
Antimony	121-1	150	233	200	194	21.57	cps
Arsenic	75-2	1030	960	993	994	3.52	cps
Barium	135-1	25850	26351	25960	26054	1.01	cps
Barium	137-1	43376	45493	45931	44933	3.04	cps
Beryllium	9-1	50	47	37	44	15.61	cps
Bismuth	209-1	3651444	3485240	3576605	3571096	2.33	cps
Bismuth	209-2	3335893	3288650	3331023	3318522	0.78	cps
Bromine	81-1	185650	239073	283014	235912	20.67	cps
Bromine	81-2	58164	59626	60299	59363	1.84	cps
Cadmium	108-1	20	10	20	17	34.64	cps
Cadmium	106-1	2984	2907	3140	3010	3.95	cps
Cadmium	111-1	2108	2075	2224	2136	3.68	cps
Calcium	43-1	390111	385676	395740	390509	1.29	cps
Calcium	44-1	6164875	6212626	6181936	6186479	0.39	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	15969	16065	15869	15968	0.62	cps
Cobalt	59-2	25215	24660	25211	25029	1.27	cps
Copper	63-2	2230	2074	2237	2180	4.24	cps
Dysprosium	156-1	20231	21286	20866	20794	2.55	cps
Dysprosium	156-2	19140	19350	19390	19293	0.70	cps
Erbium	164-1	20572	19097	19968	19879	3.73	cps
Erbium	164-2	15182	15182	15429	15264	0.93	cps
Gadolinium	160-1	22719	23156	24752	23542	4.55	cps
Gadolinium	160-2	19581	19200	19527	19436	1.06	cps
Holmium	165-1	5680831	5974458	5801252	5818847	2.54	cps
Holmium	165-2	4619079	4520676	4570335	4570030	1.08	cps
Indium	115-1	5027761	4990354	4926909	4981675	1.02	cps
Indium	115-2	1912735	1900690	1931252	1914892	0.80	cps
Iron	56-2	157379158	155400568	156198968	156326231	0.64	cps
Iron	57-2	4005267	3835214	3844199	3894893	2.46	cps
Iron	54-2	8674863	8581972	8493539	8583458	1.06	cps
Krypton	83-1	443	513	407	454	11.93	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1093	953	1103	1050	7.99	cps
Lead	207-1	803	837	893	844	5.39	cps
Lead	208-1	4100	3760	4157	4006	5.36	cps
Lithium	6-1	576424	566553	567072	570016	0.97	cps
Magnesium	24-2	1527249	1495411	1553182	1525280	1.90	cps
Manganese	55-2	546443	535678	543351	541824	1.02	cps
Molybdenum	94-1	1420	1417	1330	1389	3.67	cps
Molybdenum	95-1	997	917	933	949	4.45	cps
Molybdenum	96-1	1940	1997	1993	1977	1.61	cps
Molybdenum	97-1	657	687	690	678	2.71	cps
Molybdenum	98-1	1493	1500	1643	1546	5.48	cps
Neodymium	150-1	37844	37821	38446	38037	0.93	cps
Neodymium	150-2	24361	24418	24802	24527	0.98	cps
Nickel	60-2	11975	11715	12068	11919	1.54	cps
Phosphorus	31-2	990	1050	977	1006	3.88	cps
Potassium	39-2	1926373	1931394	1981265	1946344	1.56	cps
Rhodium	103-1	4883528	5051574	5057276	4997459	1.98	cps
Rhodium	103-2	3169522	3083323	3172276	3141707	1.61	cps
Scandium	45-1	3470679	3545598	3497516	3504598	1.08	cps
Scandium	45-2	289530	284093	291378	288334	1.31	cps
Selenium	82-1	336	303	382	340	11.74	cps
Selenium	77-2	97	123	80	100	21.86	cps
Selenium	78-2	460	377	363	400	13.10	cps
Silicon	28-1	4872806	5096210	5014938	4994651	2.26	cps
Silver	107-1	157	103	113	124	22.78	cps
Silver	109-1	93	77	83	84	9.93	cps
Sodium	23-2	23004823	22529169	22856606	22796866	1.07	cps
Strontium	86-1	84025	85326	86435	85262	1.41	cps
Strontium	88-1	730020	727428	757493	738313	2.26	cps
Sulfur	34-1	898594	918889	954797	924093	3.08	cps
Terbium	159-1	5808796	5944160	6133563	5962173	2.74	cps
Terbium	159-2	4477132	4368338	4488623	4444697	1.49	cps
Thallium	203-1	160	157	147	154	4.49	cps
Thallium	205-1	377	387	317	360	10.52	cps
Tin	118-1	3444	3887	4071	3801	8.48	cps
Titanium	47-1	300	263	303	289	7.68	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-13	Instrumnet Name :	P7
Client Sample ID :	PMW-4(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:54:51	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	460	570	633	554	15.82	cps
Vanadium	51-2	4277	4161	4144	4194	1.73	cps
Yttrium	89-1	9539995	9174407	9527573	9413992	2.21	cps
Yttrium	89-2	2564957	2575325	2547774	2562685	0.54	cps
Zinc	66-2	11074	11178	10627	10960	2.67	cps
Zirconium	90-1	2267	2240	2167	2225	2.33	cps
Zirconium	91-1	513	483	583	527	9.74	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	44917	47917	49793	47542	5.17	cps
Antimony	121-1	297	283	323	301	6.76	cps
Arsenic	75-2	93	63	63	73	23.62	cps
Barium	135-1	75502	77487	75978	76322	1.36	cps
Barium	137-1	128220	133976	130382	130860	2.22	cps
Beryllium	9-1	33	20	23	26	27.15	cps
Bismuth	209-1	3395103	3435041	3373396	3401180	0.92	cps
Bismuth	209-2	3033599	3139573	3158804	3110659	2.17	cps
Bromine	81-1	135706	149913	159445	148355	8.05	cps
Bromine	81-2	29042	29409	29626	29359	1.01	cps
Cadmium	108-1	13	20	7	13	49.99	cps
Cadmium	106-1	2830	2584	2610	2675	5.06	cps
Cadmium	111-1	2029	1845	1883	1919	5.06	cps
Calcium	43-1	2328928	2397954	2257160	2328014	3.02	cps
Calcium	44-1	37155279	38254062	37705854	37705065	1.46	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3734	4004	3757	3832	3.91	cps
Cobalt	59-2	6138	6501	6535	6391	3.44	cps
Copper	63-2	2524	2550	2587	2554	1.25	cps
Dysprosium	156-1	237	280	307	274	12.87	cps
Dysprosium	156-2	290	377	483	383	25.27	cps
Erbium	164-1	287	273	237	266	9.75	cps
Erbium	164-2	267	193	210	223	17.21	cps
Gadolinium	160-1	310	347	353	337	6.93	cps
Gadolinium	160-2	670	623	580	624	7.21	cps
Holmium	165-1	5462960	5676027	5522570	5553852	1.98	cps
Holmium	165-2	4135070	4205031	4380811	4240304	2.99	cps
Indium	115-1	4807338	4971882	4874991	4884737	1.69	cps
Indium	115-2	1765832	1776121	1816705	1786219	1.51	cps
Iron	56-2	3719599	3840078	3864045	3807908	2.03	cps
Iron	57-2	162064	170841	171793	168233	3.19	cps
Iron	54-2	211400	218398	219560	216453	2.04	cps
Krypton	83-1	333	357	347	346	3.39	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	893	1137	923	985	13.48	cps
Lead	207-1	753	783	780	772	2.13	cps
Lead	208-1	3614	4030	3874	3839	5.48	cps
Lithium	6-1	558134	563778	547632	556515	1.47	cps
Magnesium	24-2	5058660	5268209	5331452	5219440	2.74	cps
Manganese	55-2	433390	445903	447347	442213	1.74	cps
Molybdenum	94-1	2870	1817	1857	2181	27.35	cps
Molybdenum	95-1	1177	1233	1290	1233	4.60	cps
Molybdenum	96-1	1520	1483	1480	1495	1.49	cps
Molybdenum	97-1	860	940	833	878	6.32	cps
Molybdenum	98-1	2147	2064	1997	2069	3.63	cps
Neodymium	150-1	587	527	537	550	5.84	cps
Neodymium	150-2	330	383	410	374	10.88	cps
Nickel	60-2	2567	2740	2677	2661	3.30	cps
Phosphorus	31-2	833	840	800	824	2.60	cps
Potassium	39-2	507425	522151	528294	519290	2.07	cps
Rhodium	103-1	4875545	4950006	4774837	4866796	1.81	cps
Rhodium	103-2	2903347	2940875	2954245	2932822	0.90	cps
Scandium	45-1	3349556	3420201	3357124	3375627	1.15	cps
Scandium	45-2	268777	277707	282107	276197	2.46	cps
Selenium	82-1	343	295	348	329	8.92	cps
Selenium	77-2	3	7	7	6	34.70	cps
Selenium	78-2	300	307	300	302	1.27	cps
Silicon	28-1	31543700	31884292	32237642	31888545	1.09	cps
Silver	107-1	90	120	120	110	15.75	cps
Silver	109-1	70	90	80	80	12.50	cps
Sodium	23-2	5576551	5817662	5929835	5774683	3.13	cps
Strontium	86-1	1000675	1026591	1006275	1011180	1.35	cps
Strontium	88-1	8981855	9005524	9064270	9017217	0.47	cps
Sulfur	34-1	2855283	2902117	2880278	2879226	0.81	cps
Terbium	159-1	5705729	5861128	5560639	5709165	2.63	cps
Terbium	159-2	4054949	4182520	4242888	4160119	2.31	cps
Thallium	203-1	177	123	150	150	17.78	cps
Thallium	205-1	353	367	337	352	4.27	cps
Tin	118-1	2734	2674	2677	2695	1.25	cps
Titanium	47-1	13274	6750	9088	9704	34.06	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-14	Instrumnet Name :	P7
Client Sample ID :	MW-1(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 16:58:05	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8586	9150	9083	8940	3.45	cps
Vanadium	51-2	1293	1377	1440	1370	5.37	cps
Yttrium	89-1	8648749	8837787	8648178	8711571	1.25	cps
Yttrium	89-2	2306228	2441061	2358247	2368512	2.87	cps
Zinc	66-2	3340	3397	3584	3440	3.70	cps
Zirconium	90-1	2274	2380	2404	2352	2.95	cps
Zirconium	91-1	587	627	737	650	11.96	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2735	2685	1813	2411	21.50	cps
Antimony	121-1	103	133	143	127	16.44	cps
Arsenic	75-2	0	20	20	13	86.60	cps
Barium	135-1	109646	110159	110166	109990	0.27	cps
Barium	137-1	189593	193796	191553	191647	1.10	cps
Beryllium	9-1	3	10	0	4	114.60	cps
Bismuth	209-1	3744183	3506697	3710072	3653651	3.51	cps
Bismuth	209-2	3468736	3264383	3116826	3283315	5.38	cps
Bromine	81-1	181937	221771	246480	216730	15.03	cps
Bromine	81-2	50626	50737	50396	50586	0.34	cps
Cadmium	108-1	7	13	7	9	43.25	cps
Cadmium	106-1	2997	3060	2970	3009	1.54	cps
Cadmium	111-1	2120	2166	2088	2125	1.85	cps
Calcium	43-1	1385836	1441772	1415062	1414224	1.98	cps
Calcium	44-1	22629520	22410163	22426481	22488721	0.54	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2487	2517	2280	2428	5.31	cps
Cobalt	59-2	923	820	857	867	6.04	cps
Copper	63-2	1367	1277	1293	1312	3.65	cps
Dysprosium	156-1	40	47	37	41	12.39	cps
Dysprosium	156-2	27	23	43	31	34.44	cps
Erbium	164-1	83	67	83	78	12.37	cps
Erbium	164-2	30	50	37	39	26.18	cps
Gadolinium	160-1	77	93	80	83	10.58	cps
Gadolinium	160-2	357	377	380	371	3.40	cps
Holmium	165-1	6078237	5763908	6015425	5952523	2.79	cps
Holmium	165-2	4774691	4461352	4366075	4534039	4.72	cps
Indium	115-1	5163829	5162003	5244263	5190032	0.91	cps
Indium	115-2	2053675	1903412	1881522	1946203	4.82	cps
Iron	56-2	6719635	6556926	6371599	6549386	2.66	cps
Iron	57-2	214444	210800	205994	210413	2.01	cps
Iron	54-2	376649	371180	365464	371098	1.51	cps
Krypton	83-1	383	410	417	403	4.37	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	487	410	490	462	9.79	cps
Lead	207-1	403	423	413	413	2.42	cps
Lead	208-1	1827	1807	1817	1817	0.55	cps
Lithium	6-1	605496	571766	594921	590728	2.92	cps
Magnesium	24-2	1309357	1264748	1249429	1274512	2.44	cps
Manganese	55-2	173964	168936	166673	169857	2.20	cps
Molybdenum	94-1	317	283	373	324	14.02	cps
Molybdenum	95-1	330	327	283	313	8.31	cps
Molybdenum	96-1	473	383	423	427	10.57	cps
Molybdenum	97-1	170	223	193	196	13.67	cps
Molybdenum	98-1	467	533	533	511	7.53	cps
Neodymium	150-1	53	50	70	58	18.55	cps
Neodymium	150-2	37	47	33	39	17.85	cps
Nickel	60-2	700	660	623	661	5.80	cps
Phosphorus	31-2	900	1027	860	929	9.37	cps
Potassium	39-2	920462	902456	879278	900732	2.29	cps
Rhodium	103-1	5322433	5057645	5232200	5204093	2.59	cps
Rhodium	103-2	3335427	3121255	3084674	3180452	4.26	cps
Scandium	45-1	3673910	3453246	3666581	3597912	3.48	cps
Scandium	45-2	308894	291490	285103	295163	4.17	cps
Selenium	82-1	322	238	292	284	14.90	cps
Selenium	77-2	0	3	7	3	100.05	cps
Selenium	78-2	320	283	320	308	6.88	cps
Silicon	28-1	12758231	13098250	13187174	13014551	1.74	cps
Silver	107-1	73	83	103	87	17.63	cps
Silver	109-1	77	57	60	64	16.63	cps
Sodium	23-2	2943538	2891560	2854857	2896652	1.54	cps
Strontium	86-1	3468181	3464541	3548701	3493807	1.36	cps
Strontium	88-1	30225884	30844125	30439880	30503296	1.03	cps
Sulfur	34-1	529012	535237	536839	533696	0.77	cps
Terbium	159-1	6261623	5917571	6165709	6114968	2.90	cps
Terbium	159-2	4751632	4340473	4325488	4472531	5.41	cps
Thallium	203-1	83	123	93	100	20.82	cps
Thallium	205-1	240	267	253	253	5.26	cps
Tin	118-1	1350	1383	1453	1396	3.78	cps
Titanium	47-1	280	360	313	318	12.65	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-15	Instrumnet Name :	P7
Client Sample ID :	MW-2(MCUA)(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:01:17	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	510	463	473	482	5.10	cps
Vanadium	51-2	110	83	100	98	13.78	cps
Yttrium	89-1	9756665	9044105	9731837	9510869	4.25	cps
Yttrium	89-2	2638642	2474122	2371722	2494828	5.40	cps
Zinc	66-2	2757	2480	2624	2620	5.28	cps
Zirconium	90-1	473	477	440	463	4.38	cps
Zirconium	91-1	107	87	83	92	13.69	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	62444	54558	74824	63942	15.98	cps
Antimony	121-1	113	93	93	100	11.55	cps
Arsenic	75-2	547	457	483	496	9.33	cps
Barium	135-1	44486	43841	44449	44259	0.82	cps
Barium	137-1	76867	79428	79240	78511	1.82	cps
Beryllium	9-1	97	137	103	112	19.10	cps
Bismuth	209-1	3636626	3341263	3420473	3466121	4.41	cps
Bismuth	209-2	3154142	3153746	3178658	3162182	0.45	cps
Bromine	81-1	237473	286859	321741	282024	15.01	cps
Bromine	81-2	64594	65508	66864	65655	1.74	cps
Cadmium	108-1	17	7	13	12	41.65	cps
Cadmium	106-1	2674	2887	2414	2658	8.92	cps
Cadmium	111-1	1873	2030	1687	1863	9.21	cps
Calcium	43-1	93450	92457	91373	92427	1.12	cps
Calcium	44-1	1528682	1486542	1430957	1482060	3.31	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4951	4968	4891	4936	0.82	cps
Cobalt	59-2	136871	137347	138273	137497	0.52	cps
Copper	63-2	2184	2147	2164	2165	0.85	cps
Dysprosium	156-1	1327	1277	1327	1310	2.20	cps
Dysprosium	156-2	1413	1393	1357	1388	2.07	cps
Erbium	164-1	1163	1257	1217	1212	3.86	cps
Erbium	164-2	940	957	1013	970	3.96	cps
Gadolinium	160-1	1320	1483	1363	1389	6.09	cps
Gadolinium	160-2	1557	1460	1383	1467	5.92	cps
Holmium	165-1	5544397	5497578	5370657	5470877	1.64	cps
Holmium	165-2	4352636	4356925	4347565	4352375	0.11	cps
Indium	115-1	4947795	4792662	4865855	4868771	1.59	cps
Indium	115-2	1867583	1837379	1831514	1845492	1.05	cps
Iron	56-2	140700431	137989165	141465771	140051789	1.30	cps
Iron	57-2	3498792	3447085	3439416	3461764	0.93	cps
Iron	54-2	7694705	7663488	7871617	7743270	1.45	cps
Krypton	83-1	373	420	437	410	8.01	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1173	1230	1340	1248	6.79	cps
Lead	207-1	870	980	1053	968	9.53	cps
Lead	208-1	4324	5024	4974	4774	8.18	cps
Lithium	6-1	584687	553981	550343	563004	3.35	cps
Magnesium	24-2	2139845	2135056	2205469	2160123	1.82	cps
Manganese	55-2	5008140	4940119	5040704	4996321	1.03	cps
Molybdenum	94-1	2567	2654	3362	2861	15.25	cps
Molybdenum	95-1	657	627	617	633	3.29	cps
Molybdenum	96-1	1700	1663	1713	1692	1.53	cps
Molybdenum	97-1	370	357	327	351	6.32	cps
Molybdenum	98-1	760	820	823	801	4.45	cps
Neodymium	150-1	2427	2360	2274	2354	3.27	cps
Neodymium	150-2	1567	1370	1573	1503	7.68	cps
Nickel	60-2	32739	32135	32565	32480	0.96	cps
Phosphorus	31-2	1300	1360	1427	1362	4.65	cps
Potassium	39-2	449517	444674	458555	450915	1.56	cps
Rhodium	103-1	4907407	4899582	4934970	4913986	0.38	cps
Rhodium	103-2	3068901	2972895	2993738	3011845	1.68	cps
Scandium	45-1	3417062	3330904	3299302	3349089	1.82	cps
Scandium	45-2	281113	275623	277241	277993	1.01	cps
Selenium	82-1	327	373	311	337	9.44	cps
Selenium	77-2	10	7	17	11	45.82	cps
Selenium	78-2	363	320	323	336	7.19	cps
Silicon	28-1	25642289	23478785	22707315	23942796	6.35	cps
Silver	107-1	87	83	50	73	27.65	cps
Silver	109-1	57	40	70	56	27.06	cps
Sodium	23-2	4182084	3969337	4092426	4081282	2.62	cps
Strontium	86-1	89417	90436	91197	90350	0.99	cps
Strontium	88-1	778866	788990	774001	780619	0.98	cps
Sulfur	34-1	898670	926323	920237	915077	1.59	cps
Terbium	159-1	5609216	5727304	5785344	5707288	1.57	cps
Terbium	159-2	4326521	4292366	4327160	4315349	0.46	cps
Thallium	203-1	143	93	97	111	25.16	cps
Thallium	205-1	343	247	270	287	17.60	cps
Tin	118-1	1887	1990	2077	1985	4.79	cps
Titanium	47-1	10922	16153	28157	18410	48.00	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-16	Instrumnet Name :	P7
Client Sample ID :	PMW-1(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:04:35	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	683	803	817	768	9.56	cps
Vanadium	51-2	4044	3941	4207	4064	3.31	cps
Yttrium	89-1	9130929	8679071	8720005	8843335	2.83	cps
Yttrium	89-2	2361785	2349428	2339761	2350324	0.47	cps
Zinc	66-2	46252	45466	45914	45877	0.86	cps
Zirconium	90-1	6108	6658	6535	6434	4.49	cps
Zirconium	91-1	1337	1353	1617	1436	10.95	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	10084	11277	10807	10723	5.61	cps
Antimony	121-1	357	340	417	371	10.87	cps
Arsenic	75-2	2530	2587	2297	2471	6.22	cps
Barium	135-1	25964	27053	27346	26788	2.72	cps
Barium	137-1	47533	48228	49198	48320	1.73	cps
Beryllium	9-1	37	47	27	37	27.27	cps
Bismuth	209-1	3637542	3515043	3654608	3602398	2.11	cps
Bismuth	209-2	3332979	3422513	3444344	3399945	1.74	cps
Bromine	81-1	142249	161982	173866	159366	10.02	cps
Bromine	81-2	32733	31864	31260	31952	2.32	cps
Cadmium	108-1	27	7	27	20	57.73	cps
Cadmium	106-1	3027	2807	2897	2910	3.80	cps
Cadmium	111-1	2160	2037	2123	2107	3.00	cps
Calcium	43-1	193302	200564	207713	200526	3.59	cps
Calcium	44-1	3089536	3157117	3257414	3168022	2.67	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	40555	40334	40130	40340	0.53	cps
Cobalt	59-2	8206	7665	8126	7999	3.65	cps
Copper	63-2	8186	7939	8286	8137	2.19	cps
Dysprosium	156-1	1227	1243	1290	1253	2.62	cps
Dysprosium	156-2	1477	1390	1427	1431	3.04	cps
Erbium	164-1	950	1007	1083	1013	6.60	cps
Erbium	164-2	793	760	833	796	4.62	cps
Gadolinium	160-1	1200	1373	1420	1331	8.71	cps
Gadolinium	160-2	1483	1433	1487	1468	2.04	cps
Holmium	165-1	5772543	5634832	5745321	5717565	1.28	cps
Holmium	165-2	4592696	4521877	4605830	4573468	0.99	cps
Indium	115-1	5066814	5032420	5034584	5044606	0.38	cps
Indium	115-2	1942561	1966198	1967047	1958602	0.71	cps
Iron	56-2	137222548	136602205	139230211	137684988	1.00	cps
Iron	57-2	3339759	3400008	3435321	3391696	1.42	cps
Iron	54-2	7577899	7542347	7437118	7519122	0.97	cps
Krypton	83-1	433	317	417	389	16.23	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1953	2054	2104	2037	3.75	cps
Lead	207-1	1607	1600	1720	1642	4.11	cps
Lead	208-1	7808	7754	8074	7879	2.18	cps
Lithium	6-1	572537	559612	577618	569922	1.63	cps
Magnesium	24-2	975171	970751	982438	976120	0.60	cps
Manganese	55-2	543479	540032	547740	543750	0.71	cps
Molybdenum	94-1	2410	2594	2594	2532	4.18	cps
Molybdenum	95-1	2804	2944	2854	2867	2.48	cps
Molybdenum	96-1	3650	3921	4054	3875	5.30	cps
Molybdenum	97-1	1683	1677	1903	1755	7.35	cps
Molybdenum	98-1	4464	4467	4521	4484	0.71	cps
Neodymium	150-1	2597	2694	2714	2668	2.34	cps
Neodymium	150-2	2050	1940	1783	1925	6.96	cps
Nickel	60-2	25816	25859	25502	25726	0.76	cps
Phosphorus	31-2	853	803	760	806	5.80	cps
Potassium	39-2	1138064	1141303	1148036	1142468	0.45	cps
Rhodium	103-1	5129456	5247551	5184740	5187249	1.14	cps
Rhodium	103-2	3209665	3233386	3210630	3217893	0.42	cps
Scandium	45-1	3470679	3435462	3526917	3477686	1.33	cps
Scandium	45-2	296176	293056	295115	294782	0.54	cps
Selenium	82-1	298	377	270	315	17.71	cps
Selenium	77-2	3	13	3	7	86.65	cps
Selenium	78-2	323	337	367	342	6.49	cps
Silicon	28-1	8518428	8950745	9026737	8831970	3.10	cps
Silver	107-1	73	80	57	70	17.17	cps
Silver	109-1	53	47	73	58	24.02	cps
Sodium	23-2	3970961	3989642	3945955	3968852	0.55	cps
Strontium	86-1	108266	114633	115846	112915	3.61	cps
Strontium	88-1	965249	972162	1013845	983752	2.67	cps
Sulfur	34-1	389949	398724	400256	396310	1.40	cps
Terbium	159-1	5986145	6157354	6166104	6103201	1.66	cps
Terbium	159-2	4547301	4450374	4539340	4512338	1.19	cps
Thallium	203-1	110	110	97	106	7.29	cps
Thallium	205-1	300	273	240	271	11.09	cps
Tin	118-1	7138	8032	7679	7617	5.91	cps
Titanium	47-1	1230	1110	1143	1161	5.34	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-17	Instrumnet Name :	P7
Client Sample ID :	PMW-5(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:07:45	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	507	477	450	478	5.93	cps
Vanadium	51-2	1817	1693	1707	1739	3.89	cps
Yttrium	89-1	8979370	8977038	9117366	9024591	0.89	cps
Yttrium	89-2	2513703	2541889	2531195	2528929	0.56	cps
Zinc	66-2	91479	90586	91606	91224	0.61	cps
Zirconium	90-1	1917	2397	2170	2161	11.11	cps
Zirconium	91-1	427	430	447	434	2.47	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	60934	61041	59863	60613	1.07	cps
Antimony	121-1	103	120	113	112	7.47	cps
Arsenic	75-2	537	593	440	523	14.82	cps
Barium	135-1	17287	17120	17407	17272	0.83	cps
Barium	137-1	30807	30409	30165	30460	1.06	cps
Beryllium	9-1	830	880	880	863	3.34	cps
Bismuth	209-1	3599643	3573587	3590028	3587753	0.37	cps
Bismuth	209-2	3366653	3353229	3202634	3307505	2.75	cps
Bromine	81-1	269026	353777	406141	342981	20.17	cps
Bromine	81-2	83686	86619	88983	86429	3.07	cps
Cadmium	108-1	7	3	3	4	43.40	cps
Cadmium	106-1	2927	2870	3007	2935	2.34	cps
Cadmium	111-1	2068	2030	2126	2075	2.32	cps
Calcium	43-1	1111033	1112680	1106527	1110080	0.29	cps
Calcium	44-1	17503788	17419889	17301384	17408354	0.58	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3207	3020	3117	3115	3.00	cps
Cobalt	59-2	36334	36334	35672	36113	1.06	cps
Copper	63-2	1207	1230	1203	1213	1.20	cps
Dysprosium	156-1	9263	9273	8800	9112	2.97	cps
Dysprosium	156-2	9860	10210	9994	10021	1.76	cps
Erbium	164-1	8676	8346	8519	8514	1.94	cps
Erbium	164-2	6562	6682	6368	6537	2.42	cps
Gadolinium	160-1	9253	8933	9186	9124	1.85	cps
Gadolinium	160-2	7689	7872	7819	7793	1.21	cps
Holmium	165-1	5946322	5726373	5884443	5852379	1.94	cps
Holmium	165-2	4578627	4579943	4475802	4544791	1.31	cps
Indium	115-1	5196625	5150409	5069415	5138816	1.25	cps
Indium	115-2	1886746	1922400	1928994	1912714	1.19	cps
Iron	56-2	144816508	145300845	145194221	145103858	0.18	cps
Iron	57-2	3609398	3644865	3574744	3609669	0.97	cps
Iron	54-2	7799888	7895836	7850258	7848660	0.61	cps
Krypton	83-1	403	453	420	426	5.98	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	857	873	860	863	1.02	cps
Lead	207-1	687	827	800	771	9.64	cps
Lead	208-1	3390	3574	3550	3505	2.85	cps
Lithium	6-1	583904	580860	580147	581637	0.34	cps
Magnesium	24-2	1899924	1930140	1901238	1910434	0.89	cps
Manganese	55-2	2677691	2728858	2701015	2702521	0.95	cps
Molybdenum	94-1	753	773	800	776	3.02	cps
Molybdenum	95-1	410	333	413	386	11.74	cps
Molybdenum	96-1	1073	1197	1150	1140	5.46	cps
Molybdenum	97-1	210	200	227	212	6.35	cps
Molybdenum	98-1	580	487	463	510	12.11	cps
Neodymium	150-1	13426	13567	13827	13607	1.49	cps
Neodymium	150-2	8866	9270	8743	8960	3.08	cps
Nickel	60-2	11148	11208	11238	11198	0.41	cps
Phosphorus	31-2	1123	1033	1140	1099	5.22	cps
Potassium	39-2	3781562	3752125	3726535	3753408	0.73	cps
Rhodium	103-1	5185916	5098735	5066785	5117145	1.21	cps
Rhodium	103-2	3122975	3177452	3140116	3146848	0.89	cps
Scandium	45-1	3545402	3587472	3523498	3552124	0.92	cps
Scandium	45-2	291124	290609	289411	290382	0.30	cps
Selenium	82-1	397	376	363	379	4.52	cps
Selenium	77-2	43	20	37	33	36.05	cps
Selenium	78-2	373	437	313	374	16.47	cps
Silicon	28-1	8995660	9189147	9049135	9077981	1.10	cps
Silver	107-1	67	63	47	59	18.19	cps
Silver	109-1	17	60	60	46	54.91	cps
Sodium	23-2	17144769	16975282	16766491	16962181	1.12	cps
Strontium	86-1	244495	249421	245482	246466	1.06	cps
Strontium	88-1	2202960	2179995	2202207	2195054	0.59	cps
Sulfur	34-1	2711061	2737855	2737453	2728790	0.56	cps
Terbium	159-1	5984868	5933814	5889425	5936036	0.80	cps
Terbium	159-2	4377895	4416820	4456289	4417001	0.89	cps
Thallium	203-1	580	507	547	544	6.74	cps
Thallium	205-1	1240	1110	1290	1213	7.66	cps
Tin	118-1	4001	3891	4137	4009	3.08	cps
Titanium	47-1	247	220	227	231	6.01	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:11:01	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	977	803	807	862	11.50	cps
Vanadium	51-2	4994	5304	4988	5095	3.55	cps
Yttrium	89-1	9467924	9426094	9390620	9428213	0.41	cps
Yttrium	89-2	2523338	2530674	2514372	2522794	0.32	cps
Zinc	66-2	10017	10167	9586	9923	3.04	cps
Zirconium	90-1	1343	1443	1580	1456	8.16	cps
Zirconium	91-1	293	290	340	308	9.08	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6080954	6158699	5982374	6074009	1.45	cps
Antimony	121-1	2287981	2317822	2279532	2295112	0.88	cps
Arsenic	75-2	142514	141384	137068	140322	2.05	cps
Barium	135-1	2739705	2770641	2737126	2749157	0.68	cps
Barium	137-1	4700383	4783406	4811007	4764932	1.21	cps
Beryllium	9-1	369856	382988	379637	377494	1.81	cps
Bismuth	209-1	3494085	3573420	3496707	3521404	1.28	cps
Bismuth	209-2	3102362	3094474	3085125	3093987	0.28	cps
Bromine	81-1	99764	94054	86528	93449	7.10	cps
Bromine	81-2	12152	12042	11344	11846	3.70	cps
Cadmium	108-1	43743	44585	45097	44475	1.54	cps
Cadmium	106-1	63853	64596	64309	64253	0.58	cps
Cadmium	111-1	601939	619442	609970	610450	1.44	cps
Calcium	43-1	3604975	3620022	3665409	3630135	0.87	cps
Calcium	44-1	59301932	59951259	59730497	59661230	0.55	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1150273	1131898	1103712	1128628	2.08	cps
Cobalt	59-2	1745150	1786638	1702496	1744761	2.41	cps
Copper	63-2	13368825	13152803	12831922	13117850	2.06	cps
Dysprosium	156-1	157	170	117	148	18.78	cps
Dysprosium	156-2	277	323	310	303	7.92	cps
Erbium	164-1	280	273	303	286	5.52	cps
Erbium	164-2	207	233	257	232	10.77	cps
Gadolinium	160-1	203	200	173	192	8.55	cps
Gadolinium	160-2	507	463	433	468	7.88	cps
Holmium	165-1	5989023	5877714	5848986	5905241	1.25	cps
Holmium	165-2	4505540	4432567	4437809	4458639	0.91	cps
Indium	115-1	4969477	4816234	4868598	4884770	1.59	cps
Indium	115-2	1875686	1828223	1814415	1839441	1.75	cps
Iron	56-2	268317649	264212596	258758936	263763061	1.82	cps
Iron	57-2	6555904	6577994	6463694	6532531	0.93	cps
Iron	54-2	14357391	14437334	14273551	14356092	0.57	cps
Krypton	83-1	450	447	360	419	12.18	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7977613	8251594	8187297	8138835	1.76	cps
Lead	207-1	6978909	7086892	7096189	7053997	0.92	cps
Lead	208-1	31646561	32628164	32535607	32270111	1.68	cps
Lithium	6-1	578501	569993	575312	574602	0.75	cps
Magnesium	24-2	53051073	53213269	52382334	52882225	0.83	cps
Manganese	55-2	9368476	9297591	9302497	9322855	0.42	cps
Molybdenum	94-1	8686637	8950873	9015174	8884228	1.96	cps
Molybdenum	95-1	12644327	12911746	12503177	12686417	1.64	cps
Molybdenum	96-1	13486118	13824041	13623059	13644406	1.25	cps
Molybdenum	97-1	7546845	7809995	7911355	7756065	2.43	cps
Molybdenum	98-1	19631004	20185964	20409466	20075478	2.00	cps
Neodymium	150-1	180	117	233	177	33.06	cps
Neodymium	150-2	90	47	90	76	33.11	cps
Nickel	60-2	447467	435515	427177	436720	2.34	cps
Phosphorus	31-2	64596	64994	61430	63673	3.07	cps
Potassium	39-2	30296015	29355504	29984383	29878634	1.60	cps
Rhodium	103-1	4927303	5005080	4961550	4964644	0.79	cps
Rhodium	103-2	3037110	3075779	2906013	3006301	2.96	cps
Scandium	45-1	3593736	3605017	3504425	3567726	1.54	cps
Scandium	45-2	294647	292209	281713	289523	2.37	cps
Selenium	82-1	47890	49088	48648	48542	1.25	cps
Selenium	77-2	5178	5038	4814	5010	3.66	cps
Selenium	78-2	17477	17000	17023	17167	1.57	cps
Silicon	28-1	16282651	16746685	16481405	16503580	1.41	cps
Silver	107-1	3055528	3108058	3051401	3071662	1.03	cps
Silver	109-1	2919618	2982617	2936472	2946236	1.11	cps
Sodium	23-2	85861267	85907935	83589802	85119668	1.56	cps
Strontium	86-1	799834	814339	812477	808883	0.98	cps
Strontium	88-1	6952818	7214139	7184481	7117146	2.01	cps
Sulfur	34-1	442679	449188	446099	445989	0.73	cps
Terbium	159-1	6046476	5963650	5902081	5970735	1.21	cps
Terbium	159-2	4478821	4507757	4315067	4433882	2.34	cps
Thallium	203-1	2013848	2064724	2060456	2046343	1.38	cps
Thallium	205-1	4798297	4925410	4917091	4880266	1.46	cps
Tin	118-1	1886664	1937365	1939063	1921031	1.55	cps
Titanium	47-1	3658050	3735847	3686528	3693475	1.07	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P7
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:14:08	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6239513	6310832	6418437	6322927	1.42	cps
Vanadium	51-2	950854	958045	931081	946660	1.47	cps
Yttrium	89-1	9240821	9121800	9056152	9139591	1.02	cps
Yttrium	89-2	2483137	2462564	2380027	2441909	2.23	cps
Zinc	66-2	2409351	2336682	2305887	2350640	2.26	cps
Zirconium	90-1	4283564	4448630	4413145	4381779	1.98	cps
Zirconium	91-1	944349	971249	960632	958743	1.41	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2107	1883	1793	1928	8.37	cps
Antimony	121-1	457	607	587	550	14.81	cps
Arsenic	75-2	23	23	13	20	28.87	cps
Barium	135-1	387	423	430	413	5.64	cps
Barium	137-1	543	773	730	682	17.91	cps
Beryllium	9-1	40	43	60	48	22.43	cps
Bismuth	209-1	4431187	4275742	4151474	4286134	3.27	cps
Bismuth	209-2	3840542	3920585	3840896	3867341	1.19	cps
Bromine	81-1	23325	23285	22885	23165	1.05	cps
Bromine	81-2	2724	2777	2717	2739	1.20	cps
Cadmium	108-1	20	13	30	21	39.75	cps
Cadmium	106-1	3184	2850	3097	3044	5.68	cps
Cadmium	111-1	2278	2066	2230	2191	5.08	cps
Calcium	43-1	607	883	787	759	18.50	cps
Calcium	44-1	32152	34002	32957	33037	2.81	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1633	1510	1520	1555	4.41	cps
Cobalt	59-2	243	217	187	216	13.15	cps
Copper	63-2	2990	2604	2640	2745	7.78	cps
Dysprosium	156-1	3	0	10	4	114.60	cps
Dysprosium	156-2	3	7	7	6	34.70	cps
Erbium	164-1	70	63	33	56	35.16	cps
Erbium	164-2	43	57	40	47	18.90	cps
Gadolinium	160-1	63	47	50	53	16.53	cps
Gadolinium	160-2	407	497	427	443	10.66	cps
Holmium	165-1	6955345	7001115	6772093	6909518	1.75	cps
Holmium	165-2	5215923	5244746	5256565	5239078	0.40	cps
Indium	115-1	6202131	5908429	5900150	6003570	2.87	cps
Indium	115-2	2270115	2197241	2208143	2225167	1.77	cps
Iron	56-2	54256	48719	46054	49676	8.42	cps
Iron	57-2	2286	2253	2293	2278	0.94	cps
Iron	54-2	3981	3670	3457	3703	7.11	cps
Krypton	83-1	380	523	507	470	16.68	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1460	1570	1387	1472	6.27	cps
Lead	207-1	1107	1253	1257	1206	7.11	cps
Lead	208-1	5087	5887	5597	5524	7.33	cps
Lithium	6-1	676089	669292	672294	672559	0.51	cps
Magnesium	24-2	6668	6278	5845	6264	6.58	cps
Manganese	55-2	1887	1567	1617	1690	10.19	cps
Molybdenum	94-1	1253	1600	1480	1445	12.19	cps
Molybdenum	95-1	1903	2294	2257	2151	10.01	cps
Molybdenum	96-1	1967	2384	2154	2168	9.63	cps
Molybdenum	97-1	1140	1400	1350	1297	10.64	cps
Molybdenum	98-1	2704	3771	3264	3246	16.44	cps
Neodymium	150-1	7	3	3	4	43.40	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	327	360	350	346	4.95	cps
Phosphorus	31-2	827	790	760	792	4.21	cps
Potassium	39-2	62387	61390	61537	61771	0.87	cps
Rhodium	103-1	6185244	6065675	5957124	6069348	1.88	cps
Rhodium	103-2	3794650	3754226	3673274	3740717	1.65	cps
Scandium	45-1	4237329	4086973	4056548	4126950	2.35	cps
Scandium	45-2	341094	335420	334412	336975	1.07	cps
Selenium	82-1	341	284	281	302	11.19	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	273	317	407	332	20.47	cps
Silicon	28-1	839054	835080	844746	839627	0.58	cps
Silver	107-1	487	477	520	494	4.59	cps
Silver	109-1	373	493	393	420	15.31	cps
Sodium	23-2	55834	53834	54215	54628	1.94	cps
Strontium	86-1	780	983	803	856	13.01	cps
Strontium	88-1	1100	1363	1137	1200	11.89	cps
Sulfur	34-1	212571	215606	216265	214814	0.92	cps
Terbium	159-1	7331217	7103621	6989813	7141550	2.43	cps
Terbium	159-2	5066598	5114291	5135566	5105485	0.69	cps
Thallium	203-1	347	467	423	412	14.74	cps
Thallium	205-1	880	1070	980	977	9.73	cps
Tin	118-1	887	997	940	941	5.85	cps
Titanium	47-1	540	757	673	657	16.64	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P7
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:21:27	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	727	1087	860	891	20.42	cps
Vanadium	51-2	117	147	153	139	14.06	cps
Yttrium	89-1	11169707	10787506	10685341	10880851	2.35	cps
Yttrium	89-2	2860528	2835456	2886497	2860827	0.89	cps
Zinc	66-2	2814	2720	2800	2778	1.82	cps
Zirconium	90-1	733	807	697	746	7.51	cps
Zirconium	91-1	147	150	197	164	17.00	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	275874	276594	270224	274231	1.27	cps
Antimony	121-1	207	213	200	207	3.23	cps
Arsenic	75-2	493	413	357	421	16.31	cps
Barium	135-1	12069	12309	12219	12199	0.99	cps
Barium	137-1	21617	21099	21420	21378	1.22	cps
Beryllium	9-1	1953	1993	1847	1931	3.93	cps
Bismuth	209-1	3618978	3549112	3571943	3580011	1.00	cps
Bismuth	209-2	3232228	3179137	3189127	3200164	0.88	cps
Bromine	81-1	223440	229710	234114	229088	2.34	cps
Bromine	81-2	41872	41886	40800	41519	1.50	cps
Cadmium	108-1	7	10	10	9	21.63	cps
Cadmium	106-1	2940	2800	2974	2905	3.17	cps
Cadmium	111-1	2060	2007	2095	2054	2.16	cps
Calcium	43-1	371178	375912	374601	373897	0.65	cps
Calcium	44-1	5974967	5920435	5878249	5924550	0.82	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3834	3834	3550	3739	4.38	cps
Cobalt	59-2	266021	269890	264046	266652	1.11	cps
Copper	63-2	1397	1503	1417	1439	3.94	cps
Dysprosium	156-1	28152	28673	28796	28540	1.20	cps
Dysprosium	156-2	37219	37079	36528	36942	0.99	cps
Erbium	164-1	22485	23103	23660	23083	2.55	cps
Erbium	164-2	17811	17254	17341	17469	1.72	cps
Gadolinium	160-1	26191	26138	26335	26221	0.39	cps
Gadolinium	160-2	21664	21567	20983	21404	1.72	cps
Holmium	165-1	5878152	5942738	5884748	5901879	0.60	cps
Holmium	165-2	4665860	4640068	4560098	4622009	1.19	cps
Indium	115-1	5082981	5113917	5138175	5111691	0.54	cps
Indium	115-2	1873912	1882234	1864383	1873510	0.48	cps
Iron	56-2	566529738	565319792	558043738	563297756	0.81	cps
Iron	57-2	13925576	13751697	13894299	13857191	0.67	cps
Iron	54-2	30973393	30899170	30438702	30770422	0.94	cps
Krypton	83-1	483	520	503	502	3.65	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	837	833	877	849	2.84	cps
Lead	207-1	743	663	773	727	7.82	cps
Lead	208-1	3190	3334	3360	3295	2.78	cps
Lithium	6-1	565388	566438	559371	563733	0.68	cps
Magnesium	24-2	1928709	1849316	1845972	1874666	2.50	cps
Manganese	55-2	10420416	10515058	10261019	10398831	1.23	cps
Molybdenum	94-1	1557	1603	1413	1525	6.50	cps
Molybdenum	95-1	770	753	880	801	8.59	cps
Molybdenum	96-1	3734	3764	3794	3764	0.80	cps
Molybdenum	97-1	510	580	523	538	6.91	cps
Molybdenum	98-1	1020	1010	943	991	4.21	cps
Neodymium	150-1	42447	43022	43163	42877	0.88	cps
Neodymium	150-2	27817	27360	27200	27459	1.17	cps
Nickel	60-2	131133	130025	127579	129579	1.40	cps
Phosphorus	31-2	903	887	970	920	4.79	cps
Potassium	39-2	5453733	5399272	5374789	5409265	0.75	cps
Rhodium	103-1	5083629	5055785	5034362	5057925	0.49	cps
Rhodium	103-2	3146538	3053128	3063462	3087709	1.66	cps
Scandium	45-1	3570473	3607428	3546074	3574658	0.86	cps
Scandium	45-2	289302	283759	282864	285308	1.22	cps
Selenium	82-1	369	315	289	324	12.49	cps
Selenium	77-2	97	57	70	74	27.36	cps
Selenium	78-2	533	527	463	508	7.61	cps
Silicon	28-1	9292817	9604466	9450868	9449384	1.65	cps
Silver	107-1	143	127	137	136	6.19	cps
Silver	109-1	130	113	87	110	19.87	cps
Sodium	23-2	140494468	142415461	134409265	139106398	3.00	cps
Strontium	86-1	295940	303420	303169	300843	1.41	cps
Strontium	88-1	2684302	2666285	2710387	2686991	0.83	cps
Sulfur	34-1	12862076	12992894	13105244	12986738	0.94	cps
Terbium	159-1	6006406	6177070	6232330	6138602	1.92	cps
Terbium	159-2	4511662	4472888	4487215	4490588	0.44	cps
Thallium	203-1	167	193	173	178	7.81	cps
Thallium	205-1	473	437	360	423	13.66	cps
Tin	118-1	1597	1577	1603	1592	0.87	cps
Titanium	47-1	807	880	730	806	9.31	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:24:46	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	117	97	110	108	9.45	cps
Vanadium	51-2	5805	5604	5835	5748	2.18	cps
Yttrium	89-1	9920794	9947953	10026887	9965211	0.55	cps
Yttrium	89-2	2629725	2655743	2597707	2627725	1.11	cps
Zinc	66-2	74432	74887	73306	74208	1.10	cps
Zirconium	90-1	2944	2764	2837	2848	3.18	cps
Zirconium	91-1	640	510	603	584	11.47	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	149314	152231	150011	150519	1.01	cps
Antimony	121-1	80	130	100	103	24.35	cps
Arsenic	75-2	163	230	253	216	21.67	cps
Barium	135-1	6432	6331	6638	6467	2.42	cps
Barium	137-1	11518	11131	11388	11346	1.74	cps
Beryllium	9-1	1007	923	937	956	4.68	cps
Bismuth	209-1	3847618	3766181	3761623	3791808	1.28	cps
Bismuth	209-2	3575127	3469194	3524887	3523069	1.50	cps
Bromine	81-1	134770	136798	137548	136372	1.05	cps
Bromine	81-2	24220	24380	24207	24269	0.40	cps
Cadmium	108-1	17	13	13	14	13.35	cps
Cadmium	106-1	3284	3157	3224	3222	1.97	cps
Cadmium	111-1	2310	2217	2261	2263	2.06	cps
Calcium	43-1	199196	199199	198369	198921	0.24	cps
Calcium	44-1	3212729	3200059	3157076	3189955	0.91	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2727	2740	2787	2751	1.15	cps
Cobalt	59-2	143366	144704	145401	144490	0.72	cps
Copper	63-2	1337	1317	1243	1299	3.78	cps
Dysprosium	156-1	15439	15228	15025	15231	1.36	cps
Dysprosium	156-2	19781	20044	19557	19794	1.23	cps
Erbium	164-1	12095	11705	11782	11861	1.74	cps
Erbium	164-2	9443	9320	9193	9319	1.34	cps
Gadolinium	160-1	14578	14184	13840	14201	2.60	cps
Gadolinium	160-2	11785	11935	11858	11860	0.63	cps
Holmium	165-1	6453264	6214747	6193492	6287168	2.29	cps
Holmium	165-2	4969705	4989702	4905996	4955134	0.88	cps
Indium	115-1	5445818	5455050	5456014	5452294	0.10	cps
Indium	115-2	2036250	2035744	2020379	2030791	0.44	cps
Iron	56-2	303154475	301718996	303007502	302626991	0.26	cps
Iron	57-2	7558056	7413945	7510118	7494040	0.98	cps
Iron	54-2	16622134	16734756	16598554	16651815	0.44	cps
Krypton	83-1	467	463	450	460	1.92	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	707	633	547	629	12.74	cps
Lead	207-1	550	460	607	539	13.73	cps
Lead	208-1	2667	2207	2397	2423	9.54	cps
Lithium	6-1	597024	585814	578782	587207	1.57	cps
Magnesium	24-2	965320	970302	973667	969763	0.43	cps
Manganese	55-2	5688494	5553612	5642465	5628190	1.22	cps
Molybdenum	94-1	867	933	893	898	3.74	cps
Molybdenum	95-1	537	547	530	538	1.56	cps
Molybdenum	96-1	2200	2084	2134	2139	2.74	cps
Molybdenum	97-1	287	303	347	312	9.92	cps
Molybdenum	98-1	677	660	667	668	1.26	cps
Neodymium	150-1	22882	22515	22969	22789	1.06	cps
Neodymium	150-2	14621	15168	14978	14922	1.86	cps
Nickel	60-2	69943	69604	69962	69836	0.29	cps
Phosphorus	31-2	733	853	807	798	7.58	cps
Potassium	39-2	3005174	3041009	2984079	3010087	0.96	cps
Rhodium	103-1	5538009	5479181	5469934	5495708	0.67	cps
Rhodium	103-2	3433469	3402730	3355674	3397291	1.15	cps
Scandium	45-1	3846380	3840088	3732909	3806459	1.68	cps
Scandium	45-2	310850	308625	312247	310574	0.59	cps
Selenium	82-1	425	271	387	361	22.16	cps
Selenium	77-2	47	40	63	50	24.03	cps
Selenium	78-2	467	453	353	424	14.59	cps
Silicon	28-1	5455814	5469266	5439243	5454774	0.28	cps
Silver	107-1	103	77	80	87	16.76	cps
Silver	109-1	57	37	87	60	41.94	cps
Sodium	23-2	74008617	74519719	74111766	74213367	0.36	cps
Strontium	86-1	159795	162629	161154	161193	0.88	cps
Strontium	88-1	1413915	1405024	1436598	1418512	1.15	cps
Sulfur	34-1	6931900	7044506	6991319	6989242	0.81	cps
Terbium	159-1	6593412	6607457	6530415	6577095	0.62	cps
Terbium	159-2	4894769	4874152	4804321	4857747	0.98	cps
Thallium	203-1	147	130	153	143	8.39	cps
Thallium	205-1	293	300	353	316	10.42	cps
Tin	118-1	1323	1247	1327	1299	3.48	cps
Titanium	47-1	717	393	523	545	29.91	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-11DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-10(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:27:54	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	93	70	50	71	30.50	cps
Vanadium	51-2	3137	3077	3147	3120	1.21	cps
Yttrium	89-1	10605657	10193869	10267798	10355775	2.12	cps
Yttrium	89-2	2779149	2770101	2718342	2755864	1.19	cps
Zinc	66-2	42527	42146	42310	42328	0.45	cps
Zirconium	90-1	1497	1430	1607	1511	5.91	cps
Zirconium	91-1	290	303	297	297	2.25	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	61195	59763	59311	60090	1.64	cps
Antimony	121-1	897	520	240	552	59.67	cps
Arsenic	75-2	547	613	487	549	11.54	cps
Barium	135-1	18853	17995	18362	18403	2.34	cps
Barium	137-1	33390	32718	31077	32395	3.67	cps
Beryllium	9-1	1120	867	823	937	17.11	cps
Bismuth	209-1	3673214	3656731	3530672	3620206	2.15	cps
Bismuth	209-2	3390837	3350669	3416415	3385974	0.98	cps
Bromine	81-1	263792	343440	398264	335165	20.17	cps
Bromine	81-2	82583	84903	84255	83914	1.43	cps
Cadmium	108-1	33	23	3	20	76.39	cps
Cadmium	106-1	3300	3254	2654	3069	11.75	cps
Cadmium	111-1	2540	2418	1892	2283	15.09	cps
Calcium	43-1	1130171	1142026	1144384	1138860	0.67	cps
Calcium	44-1	17961033	18065612	18250334	18092327	0.81	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3357	3400	3487	3415	1.94	cps
Cobalt	59-2	37089	36955	34934	36326	3.32	cps
Copper	63-2	1190	1303	1397	1297	7.98	cps
Dysprosium	156-1	9477	9537	9660	9558	0.98	cps
Dysprosium	156-2	10054	9777	10034	9955	1.55	cps
Erbium	164-1	8556	8726	8466	8583	1.54	cps
Erbium	164-2	6498	6908	6515	6641	3.50	cps
Gadolinium	160-1	9370	9613	9433	9472	1.33	cps
Gadolinium	160-2	7976	7932	7889	7932	0.55	cps
Holmium	165-1	6094860	5957187	5655401	5902483	3.81	cps
Holmium	165-2	4675010	4585509	4585471	4615330	1.12	cps
Indium	115-1	5388370	5297193	4946380	5210647	4.48	cps
Indium	115-2	1967082	1937204	1889903	1931396	2.01	cps
Iron	56-2	146601461	146348224	144539521	145829736	0.77	cps
Iron	57-2	3688596	3679411	3528943	3632317	2.47	cps
Iron	54-2	7947362	7932971	7679614	7853316	1.92	cps
Krypton	83-1	467	547	390	468	16.75	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3051	2084	1277	2137	41.56	cps
Lead	207-1	2637	1897	1017	1850	43.84	cps
Lead	208-1	12120	8516	4954	8530	42.01	cps
Lithium	6-1	565704	556577	532844	551708	3.07	cps
Magnesium	24-2	1924011	1896463	1843161	1887878	2.18	cps
Manganese	55-2	2694933	2680167	2648703	2674601	0.88	cps
Molybdenum	94-1	4118	5233	1033	3461	62.85	cps
Molybdenum	95-1	4285	2604	880	2590	65.74	cps
Molybdenum	96-1	5148	3921	1917	3662	44.54	cps
Molybdenum	97-1	2687	1957	513	1719	64.35	cps
Molybdenum	98-1	6252	4613	1454	4106	59.40	cps
Neodymium	150-1	14124	14614	14147	14295	1.94	cps
Neodymium	150-2	9023	8920	8813	8918	1.18	cps
Nickel	60-2	11498	11521	11188	11402	1.63	cps
Phosphorus	31-2	1043	947	960	983	5.33	cps
Potassium	39-2	3734539	3719962	3639547	3698016	1.38	cps
Rhodium	103-1	5324785	5215111	4916653	5152183	4.10	cps
Rhodium	103-2	3251843	3160135	3145187	3185722	1.81	cps
Scandium	45-1	3649610	3601107	3514473	3588397	1.91	cps
Scandium	45-2	291169	292291	290103	291188	0.38	cps
Selenium	82-1	298	268	347	304	13.10	cps
Selenium	77-2	47	27	30	34	31.11	cps
Selenium	78-2	337	413	333	361	12.53	cps
Silicon	28-1	9690604	8986914	9198707	9292075	3.89	cps
Silver	107-1	107	60	87	84	27.73	cps
Silver	109-1	83	70	70	74	10.34	cps
Sodium	23-2	17272217	16690728	16272083	16745009	3.00	cps
Strontium	86-1	255396	255692	256099	255729	0.14	cps
Strontium	88-1	2237030	2273834	2305220	2272028	1.50	cps
Sulfur	34-1	2753516	2723592	2745726	2740945	0.57	cps
Terbium	159-1	6082734	6129620	5821076	6011143	2.77	cps
Terbium	159-2	4615893	4548897	4473695	4546162	1.56	cps
Thallium	203-1	1300	1107	580	996	37.43	cps
Thallium	205-1	3044	3124	1513	2560	35.45	cps
Tin	118-1	3791	3671	3294	3585	7.23	cps
Titanium	47-1	6922	1040	694	2885	121.32	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-20	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)D	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:31:04	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	3867	2357	1113	2446	56.38	cps
Vanadium	51-2	5131	5061	5114	5102	0.72	cps
Yttrium	89-1	9533768	9700701	9245793	9493421	2.42	cps
Yttrium	89-2	2573613	2555665	2499749	2543009	1.51	cps
Zinc	66-2	10134	9717	10077	9976	2.27	cps
Zirconium	90-1	2717	2450	1773	2314	21.02	cps
Zirconium	91-1	570	467	367	468	21.73	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	14714	15124	14540	14793	2.03	cps
Antimony	121-1	160	257	197	204	23.87	cps
Arsenic	75-2	93	157	113	121	26.73	cps
Barium	135-1	4748	4614	4357	4573	4.34	cps
Barium	137-1	7746	8056	7999	7933	2.08	cps
Beryllium	9-1	203	243	233	227	9.18	cps
Bismuth	209-1	4194929	4103668	3911303	4069967	3.56	cps
Bismuth	209-2	3737731	3728345	3745702	3737259	0.23	cps
Bromine	81-1	144493	147105	146418	146005	0.93	cps
Bromine	81-2	25659	24995	24801	25152	1.79	cps
Cadmium	108-1	27	13	33	24	41.66	cps
Cadmium	106-1	3024	3237	3354	3205	5.22	cps
Cadmium	111-1	2131	2303	2351	2262	5.11	cps
Calcium	43-1	251502	245791	247897	248396	1.16	cps
Calcium	44-1	4105824	4077295	3916077	4033065	2.54	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2057	2020	2267	2115	6.30	cps
Cobalt	59-2	8573	9476	9353	9134	5.37	cps
Copper	63-2	1907	2037	2244	2062	8.23	cps
Dysprosium	156-1	2010	2147	2040	2066	3.48	cps
Dysprosium	156-2	2270	2287	2464	2340	4.58	cps
Erbium	164-1	1980	1900	1923	1935	2.13	cps
Erbium	164-2	1460	1430	1533	1475	3.61	cps
Gadolinium	160-1	1947	2054	2197	2066	6.07	cps
Gadolinium	160-2	2067	2010	1984	2020	2.11	cps
Holmium	165-1	6802975	6911519	6425527	6713340	3.80	cps
Holmium	165-2	5260035	5129358	5098666	5162686	1.66	cps
Indium	115-1	5983380	5921491	5750461	5885111	2.05	cps
Indium	115-2	2201274	2169113	2171036	2180474	0.83	cps
Iron	56-2	32185006	31912739	31705296	31934347	0.75	cps
Iron	57-2	825085	817691	813374	818717	0.72	cps
Iron	54-2	1792030	1751430	1790615	1778025	1.30	cps
Krypton	83-1	460	473	460	464	1.66	cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	480	527	480	496	5.44	cps
Lead	207-1	403	440	447	430	5.43	cps
Lead	208-1	1853	2007	1783	1881	6.07	cps
Lithium	6-1	663581	637021	612399	637667	4.01	cps
Magnesium	24-2	404113	406292	400356	403587	0.74	cps
Manganese	55-2	589863	593612	588437	590637	0.45	cps
Molybdenum	94-1	373	377	310	353	10.63	cps
Molybdenum	95-1	260	210	243	238	10.71	cps
Molybdenum	96-1	437	463	497	466	6.46	cps
Molybdenum	97-1	197	150	170	172	13.60	cps
Molybdenum	98-1	367	320	347	344	6.80	cps
Neodymium	150-1	2984	3100	3167	3084	3.01	cps
Neodymium	150-2	2014	2037	1910	1987	3.39	cps
Nickel	60-2	2920	3070	2954	2981	2.64	cps
Phosphorus	31-2	820	840	797	819	2.65	cps
Potassium	39-2	897283	897226	885880	893463	0.74	cps
Rhodium	103-1	6015479	5893260	5842678	5917139	1.50	cps
Rhodium	103-2	3722628	3645798	3613182	3660536	1.54	cps
Scandium	45-1	4293988	4143365	3965948	4134434	3.97	cps
Scandium	45-2	330408	328118	327867	328798	0.43	cps
Selenium	82-1	347	288	309	315	9.51	cps
Selenium	77-2	3	7	13	8	65.47	cps
Selenium	78-2	390	293	380	354	15.00	cps
Silicon	28-1	2898110	2926321	2827237	2883889	1.77	cps
Silver	107-1	317	363	240	307	20.31	cps
Silver	109-1	240	280	237	252	9.56	cps
Sodium	23-2	3727054	3741266	3813097	3760472	1.23	cps
Strontium	86-1	55357	56572	55856	55928	1.09	cps
Strontium	88-1	481733	483056	481920	482236	0.15	cps
Sulfur	34-1	734670	736237	747778	739562	0.97	cps
Terbium	159-1	6706224	6678622	6913410	6766085	1.90	cps
Terbium	159-2	5087553	5168745	5072231	5109510	1.02	cps
Thallium	203-1	323	270	303	299	9.01	cps
Thallium	205-1	670	740	747	719	5.91	cps
Tin	118-1	1437	1460	1313	1403	5.62	cps
Titanium	47-1	140	140	113	131	11.74	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-18LX5	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)L	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:37:17	DataFile Name :	050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	170	260	193	208	22.48	cps
Vanadium	51-2	1443	1707	1943	1698	14.73	cps
Yttrium	89-1	11024569	10759010	10459934	10747838	2.63	cps
Yttrium	89-2	2901185	2877319	2820996	2866500	1.44	cps
Zinc	66-2	4457	4294	4501	4417	2.47	cps
Zirconium	90-1	603	597	627	609	2.59	cps
Zirconium	91-1	133	83	140	119	26.05	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	977	1070	1117	1054	6.76	cps
Antimony	121-1	77	57	117	83	36.66	cps
Arsenic	75-2	7	10	17	11	45.82	cps
Barium	135-1	147	180	163	163	10.20	cps
Barium	137-1	267	330	360	319	14.94	cps
Beryllium	9-1	3	3	3	3	0.00	cps
Bismuth	209-1	3443325	3394916	3470838	3436359	1.12	cps
Bismuth	209-2	3258951	3182696	3189855	3210501	1.31	cps
Bromine	81-1	51613	48188	44544	48115	7.35	cps
Bromine	81-2	6035	5888	5551	5825	4.26	cps
Cadmium	108-1	13	7	3	8	65.47	cps
Cadmium	106-1	2734	2624	2584	2647	2.94	cps
Cadmium	111-1	1931	1839	1820	1863	3.20	cps
Calcium	43-1	927	930	980	946	3.16	cps
Calcium	44-1	34536	34055	33688	34093	1.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1573	1747	1680	1667	5.25	cps
Cobalt	59-2	70	97	90	86	16.22	cps
Copper	63-2	1140	1187	1140	1156	2.33	cps
Dysprosium	156-1	3	13	7	8	65.47	cps
Dysprosium	156-2	0	7	0	2	173.21	cps
Erbium	164-1	33	30	40	34	14.78	cps
Erbium	164-2	23	43	30	32	31.61	cps
Gadolinium	160-1	47	33	63	48	31.46	cps
Gadolinium	160-2	330	333	403	356	11.65	cps
Holmium	165-1	5525048	5471024	5619486	5538519	1.36	cps
Holmium	165-2	4413065	4440345	4401723	4418378	0.45	cps
Indium	115-1	4861374	4805633	4924480	4863829	1.22	cps
Indium	115-2	1845088	1854704	1824586	1841459	0.84	cps
Iron	56-2	40715	48211	61653	50193	21.14	cps
Iron	57-2	2213	2323	2637	2391	9.19	cps
Iron	54-2	3274	3580	4377	3744	15.22	cps
Krypton	83-1	447	477	477	467	3.71	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	333	437	383	384	13.44	cps
Lead	207-1	323	287	330	313	7.45	cps
Lead	208-1	1287	1453	1487	1409	7.61	cps
Lithium	6-1	525496	516957	531315	524590	1.38	cps
Magnesium	24-2	2317	2190	2444	2317	5.47	cps
Manganese	55-2	1340	1360	1610	1437	10.47	cps
Molybdenum	94-1	283	237	260	260	8.97	cps
Molybdenum	95-1	193	237	223	218	10.19	cps
Molybdenum	96-1	280	233	250	254	9.29	cps
Molybdenum	97-1	157	147	153	152	3.35	cps
Molybdenum	98-1	363	353	280	332	13.70	cps
Neodymium	150-1	3	0	17	7	132.33	cps
Neodymium	150-2	3	7	3	4	43.40	cps
Nickel	60-2	390	357	407	384	6.62	cps
Phosphorus	31-2	767	803	723	764	5.24	cps
Potassium	39-2	60423	59589	60837	60283	1.05	cps
Rhodium	103-1	4937005	4869036	4874826	4893622	0.77	cps
Rhodium	103-2	3045707	3134151	3017336	3065731	1.99	cps
Scandium	45-1	3370493	3306267	3378187	3351649	1.18	cps
Scandium	45-2	280480	276081	281111	279224	0.98	cps
Selenium	82-1	251	199	254	235	13.28	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	270	257	350	292	17.28	cps
Silicon	28-1	1365940	1335465	1328312	1343239	1.49	cps
Silver	107-1	133	120	137	130	6.79	cps
Silver	109-1	127	83	143	118	26.30	cps
Sodium	23-2	128478	127936	128018	128144	0.23	cps
Strontium	86-1	783	887	837	836	6.18	cps
Strontium	88-1	1273	1277	1273	1275	0.15	cps
Sulfur	34-1	209739	211029	212550	211106	0.67	cps
Terbium	159-1	5808008	5635165	5628030	5690401	1.79	cps
Terbium	159-2	4351964	4327404	4257140	4312169	1.14	cps
Thallium	203-1	130	130	157	139	11.09	cps
Thallium	205-1	347	310	363	340	8.02	cps
Tin	118-1	3530	3514	3644	3563	1.99	cps
Titanium	47-1	80	130	97	102	24.90	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-21	Instrumnet Name :	P7
Client Sample ID :	FB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:40:27	DataFile Name :	051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	17	3	7	9	78.08	cps
Vanadium	51-2	53	80	57	63	22.94	cps
Yttrium	89-1	9017386	8650053	8810106	8825848	2.09	cps
Yttrium	89-2	2355183	2382749	2400942	2379625	0.97	cps
Zinc	66-2	1957	2040	2100	2032	3.54	cps
Zirconium	90-1	323	407	313	348	14.74	cps
Zirconium	91-1	80	90	43	71	34.56	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	256845	258781	260889	258839	0.78	cps
Antimony	121-1	421270	425171	427675	424705	0.76	cps
Arsenic	75-2	10894	11184	10877	10985	1.57	cps
Barium	135-1	2041946	2038242	2041465	2040551	0.10	cps
Barium	137-1	3522104	3549908	3564390	3545467	0.61	cps
Beryllium	9-1	35253	35337	36683	35758	2.24	cps
Bismuth	209-1	3310856	3381929	3373396	3355394	1.16	cps
Bismuth	209-2	3191000	3146275	3192956	3176744	0.83	cps
Bromine	81-1	263996	361610	425465	350357	23.21	cps
Bromine	81-2	90334	90659	94855	91950	2.74	cps
Cadmium	108-1	3881	4117	3854	3951	3.67	cps
Cadmium	106-1	8229	8463	8006	8232	2.78	cps
Cadmium	111-1	62814	62403	62974	62730	0.47	cps
Calcium	43-1	1030642	1028439	1042912	1033998	0.75	cps
Calcium	44-1	16226579	16244626	16613124	16361443	1.33	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	432390	434003	432659	433017	0.20	cps
Cobalt	59-2	1722471	1674111	1714995	1703859	1.53	cps
Copper	63-2	592252	588168	582583	587668	0.83	cps
Dysprosium	156-1	7916	7912	8252	8027	2.43	cps
Dysprosium	156-2	9006	8823	8760	8863	1.45	cps
Erbium	164-1	7205	7229	7235	7223	0.22	cps
Erbium	164-2	5965	5825	5815	5868	1.43	cps
Gadolinium	160-1	7842	8039	8356	8079	3.21	cps
Gadolinium	160-2	6758	6965	6802	6842	1.59	cps
Holmium	165-1	5424319	5465991	5519768	5470026	0.87	cps
Holmium	165-2	4341331	4341560	4360737	4347876	0.26	cps
Indium	115-1	4695706	4843299	4807261	4782089	1.61	cps
Indium	115-2	1825199	1827246	1792994	1815146	1.06	cps
Iron	56-2	137253265	136351221	133589428	135731305	1.41	cps
Iron	57-2	3423520	3321354	3335916	3360264	1.64	cps
Iron	54-2	7489847	7548873	7467605	7502108	0.56	cps
Krypton	83-1	437	490	487	471	6.34	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	59641	61030	60333	60335	1.15	cps
Lead	207-1	50969	52297	52093	51787	1.38	cps
Lead	208-1	235391	242344	239579	239105	1.46	cps
Lithium	6-1	521618	523164	522345	522376	0.15	cps
Magnesium	24-2	1766528	1768818	1729676	1755007	1.25	cps
Manganese	55-2	3358339	3295394	3328716	3327483	0.95	cps
Molybdenum	94-1	710	767	743	740	3.85	cps
Molybdenum	95-1	403	383	360	382	5.67	cps
Molybdenum	96-1	1157	1140	1157	1151	0.84	cps
Molybdenum	97-1	280	273	250	268	5.88	cps
Molybdenum	98-1	663	703	620	662	6.29	cps
Neodymium	150-1	12012	11962	12155	12043	0.83	cps
Neodymium	150-2	8132	8022	7802	7986	2.11	cps
Nickel	60-2	443521	432233	436946	437567	1.30	cps
Phosphorus	31-2	893	943	887	908	3.41	cps
Potassium	39-2	3460577	3539062	3480255	3493298	1.17	cps
Rhodium	103-1	4729676	4816576	4790381	4778878	0.93	cps
Rhodium	103-2	3061708	2967702	2971877	3000429	1.77	cps
Scandium	45-1	3330035	3298811	3313036	3313961	0.47	cps
Scandium	45-2	273047	274665	274480	274064	0.32	cps
Selenium	82-1	11102	11137	11207	11149	0.48	cps
Selenium	77-2	1160	977	1227	1121	11.55	cps
Selenium	78-2	4191	4151	4257	4200	1.28	cps
Silicon	28-1	8352724	8296943	8327620	8325763	0.34	cps
Silver	107-1	274884	282607	284776	280755	1.85	cps
Silver	109-1	261579	266248	265828	264552	0.98	cps
Sodium	23-2	15540839	15822365	15545124	15636109	1.03	cps
Strontium	86-1	227728	232754	233965	231482	1.43	cps
Strontium	88-1	2052953	2034935	2098351	2062080	1.58	cps
Sulfur	34-1	2509461	2522073	2492109	2507881	0.60	cps
Terbium	159-1	5533863	5601742	5760014	5631873	2.06	cps
Terbium	159-2	4318090	4301585	4237049	4285575	1.00	cps
Thallium	203-1	182108	185114	185386	184203	0.99	cps
Thallium	205-1	430023	441572	441753	437783	1.54	cps
Tin	118-1	2844	2954	2860	2886	2.05	cps
Titanium	47-1	213	237	243	231	6.82	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-19	Instrumnet Name :	P7
Client Sample ID :	PMW-2(20250911)S	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:43:45	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	707	760	723	730	3.74	cps
Vanadium	51-2	904412	894259	888811	895827	0.88	cps
Yttrium	89-1	8745860	8811263	8950825	8835983	1.18	cps
Yttrium	89-2	2428542	2368550	2387314	2394802	1.28	cps
Zinc	66-2	229163	228858	227210	228410	0.46	cps
Zirconium	90-1	1650	1603	1513	1589	4.37	cps
Zirconium	91-1	313	383	373	357	10.61	cps

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LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1103	1203	1060	1122	6.55	cps
Antimony	121-1	107	183	100	130	35.62	cps
Arsenic	75-2	7	27	3	12	103.26	cps
Barium	135-1	240	233	233	236	1.63	cps
Barium	137-1	443	430	370	414	9.42	cps
Beryllium	9-1	7	3	13	8	65.47	cps
Bismuth	209-1	3427383	3303489	3451899	3394257	2.34	cps
Bismuth	209-2	3234559	3230772	3207733	3224355	0.45	cps
Bromine	81-1	89852	78682	69295	79277	12.98	cps
Bromine	81-2	9203	8929	8176	8769	6.07	cps
Cadmium	108-1	7	17	13	12	41.65	cps
Cadmium	106-1	2647	2630	2607	2628	0.76	cps
Cadmium	111-1	1852	1840	1826	1839	0.71	cps
Calcium	43-1	1170	1077	1117	1121	4.18	cps
Calcium	44-1	37754	37851	38422	38009	0.95	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1873	1650	1610	1711	8.29	cps
Cobalt	59-2	57	97	93	82	26.99	cps
Copper	63-2	1167	1417	1467	1350	11.91	cps
Dysprosium	156-1	7	0	13	7	99.98	cps
Dysprosium	156-2	0	7	3	3	100.05	cps
Erbium	164-1	30	33	23	29	17.63	cps
Erbium	164-2	17	20	47	28	59.19	cps
Gadolinium	160-1	47	23	70	47	50.00	cps
Gadolinium	160-2	310	367	353	343	8.63	cps
Holmium	165-1	5412615	5484444	5485931	5460997	0.77	cps
Holmium	165-2	4454585	4529788	4365408	4449927	1.85	cps
Indium	115-1	4866961	4786649	4795832	4816481	0.91	cps
Indium	115-2	1861217	1879837	1854262	1865105	0.71	cps
Iron	56-2	18418	17287	18048	17917	3.22	cps
Iron	57-2	1580	1597	1723	1633	4.80	cps
Iron	54-2	2250	2177	2200	2209	1.70	cps
Krypton	83-1	520	387	487	464	14.94	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	320	333	327	327	2.04	cps
Lead	207-1	257	237	263	252	5.50	cps
Lead	208-1	1267	1227	1180	1224	3.54	cps
Lithium	6-1	521274	527452	533022	527249	1.11	cps
Magnesium	24-2	2030	2140	2000	2057	3.58	cps
Manganese	55-2	587	623	687	632	8.00	cps
Molybdenum	94-1	240	260	257	252	4.25	cps
Molybdenum	95-1	230	203	187	207	10.58	cps
Molybdenum	96-1	223	233	257	238	7.19	cps
Molybdenum	97-1	153	153	137	148	6.51	cps
Molybdenum	98-1	307	293	380	327	14.29	cps
Neodymium	150-1	10	20	0	10	100.00	cps
Neodymium	150-2	10	3	7	7	50.03	cps
Nickel	60-2	347	380	410	379	8.36	cps
Phosphorus	31-2	763	720	630	704	9.66	cps
Potassium	39-2	61453	61457	60674	61195	0.74	cps
Rhodium	103-1	4872545	4858789	4954690	4895342	1.06	cps
Rhodium	103-2	3162240	3141204	3114518	3139321	0.76	cps
Scandium	45-1	3327596	3347762	3315054	3330137	0.50	cps
Scandium	45-2	283500	282330	279222	281684	0.78	cps
Selenium	82-1	189	355	171	238	42.60	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	283	363	360	336	13.49	cps
Silicon	28-1	1480799	1454927	1433548	1456424	1.62	cps
Silver	107-1	237	213	150	200	22.42	cps
Silver	109-1	193	183	127	168	21.43	cps
Sodium	23-2	126145	127052	125084	126093	0.78	cps
Strontium	86-1	923	907	897	909	1.48	cps
Strontium	88-1	1583	1783	1703	1690	5.96	cps
Sulfur	34-1	209299	210280	211432	210337	0.51	cps
Terbium	159-1	5753611	5723643	5739547	5738933	0.26	cps
Terbium	159-2	4374797	4338219	4376092	4363036	0.49	cps
Thallium	203-1	127	147	120	131	10.59	cps
Thallium	205-1	293	270	310	291	6.90	cps
Tin	118-1	5494	5561	5858	5638	3.43	cps
Titanium	47-1	63	97	77	79	21.27	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-22	Instrumnet Name :	P7
Client Sample ID :	EB(20250911)	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 17:46:49	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	7	10	17	11	45.82	cps
Vanadium	51-2	77	67	80	74	9.32	cps
Yttrium	89-1	8748159	8790315	8806699	8781724	0.34	cps
Yttrium	89-2	2444452	2400567	2370506	2405175	1.55	cps
Zinc	66-2	2067	1913	2317	2099	9.70	cps
Zirconium	90-1	347	333	393	358	8.81	cps
Zirconium	91-1	53	50	37	47	18.89	cps

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On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2814	1140	1210	1721	55.00	cps
Antimony	121-1	197	180	187	188	4.47	cps
Arsenic	75-2	147	120	137	134	10.02	cps
Barium	135-1	10878	10787	10951	10872	0.75	cps
Barium	137-1	18859	19160	18822	18947	0.98	cps
Beryllium	9-1	3	7	3	4	43.40	cps
Bismuth	209-1	3955133	3881251	3856318	3897567	1.32	cps
Bismuth	209-2	3526448	3475854	3491546	3497949	0.74	cps
Bromine	81-1	591327	758652	854788	734922	18.14	cps
Bromine	81-2	175477	176009	180989	177492	1.71	cps
Cadmium	108-1	13	7	7	9	43.25	cps
Cadmium	106-1	2994	3014	3250	3086	4.63	cps
Cadmium	111-1	2110	2118	2287	2172	4.61	cps
Calcium	43-1	456510	443880	446910	449100	1.47	cps
Calcium	44-1	7326428	7021891	7217000	7188440	2.15	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2300	2190	2150	2214	3.51	cps
Cobalt	59-2	1390	1363	1447	1400	3.04	cps
Copper	63-2	1687	1617	1780	1695	4.84	cps
Dysprosium	156-1	27	20	20	22	17.33	cps
Dysprosium	156-2	23	17	7	16	53.90	cps
Erbium	164-1	70	107	97	91	20.80	cps
Erbium	164-2	53	50	37	47	18.89	cps
Gadolinium	160-1	67	70	70	69	2.79	cps
Gadolinium	160-2	403	387	383	391	2.74	cps
Holmium	165-1	6598619	6468304	6457820	6508248	1.21	cps
Holmium	165-2	5001235	4998528	4856433	4952065	1.67	cps
Indium	115-1	5796147	5559809	5539817	5631924	2.53	cps
Indium	115-2	2090945	2082955	2046200	2073367	1.15	cps
Iron	56-2	8946208	8568041	8621189	8711813	2.35	cps
Iron	57-2	238428	231900	230546	233625	1.80	cps
Iron	54-2	502672	483449	481620	489247	2.38	cps
Krypton	83-1	387	420	477	428	10.64	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	473	600	520	531	12.06	cps
Lead	207-1	407	440	470	439	7.22	cps
Lead	208-1	1917	2200	2077	2065	6.88	cps
Lithium	6-1	634089	613391	625705	624395	1.67	cps
Magnesium	24-2	8857116	8487287	8354788	8566397	3.04	cps
Manganese	55-2	689060	670914	666688	675554	1.76	cps
Molybdenum	94-1	727	760	833	773	7.06	cps
Molybdenum	95-1	917	937	860	904	4.40	cps
Molybdenum	96-1	1230	1070	1120	1140	7.18	cps
Molybdenum	97-1	610	663	607	627	5.07	cps
Molybdenum	98-1	1533	1490	1470	1498	2.16	cps
Neodymium	150-1	23	23	23	23	0.00	cps
Neodymium	150-2	10	10	17	12	31.50	cps
Nickel	60-2	977	873	913	921	5.66	cps
Phosphorus	31-2	1457	1317	1160	1311	11.32	cps
Potassium	39-2	2806823	2769638	2741160	2772540	1.19	cps
Rhodium	103-1	5758181	5640981	5487848	5629003	2.41	cps
Rhodium	103-2	3479577	3400010	3314865	3398151	2.42	cps
Scandium	45-1	4152362	3894715	3947365	3998147	3.40	cps
Scandium	45-2	322639	313845	308463	314982	2.27	cps
Selenium	82-1	491	469	409	456	9.37	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	367	373	287	342	14.09	cps
Silicon	28-1	6842502	6783561	6823038	6816367	0.44	cps
Silver	107-1	267	280	233	260	9.25	cps
Silver	109-1	240	140	143	174	32.56	cps
Sodium	23-2	105025645	98486962	98781742	100764783	3.66	cps
Strontium	86-1	504139	501361	498213	501238	0.59	cps
Strontium	88-1	4528495	4471594	4406994	4469028	1.36	cps
Sulfur	34-1	1322643	1316571	1343891	1327702	1.08	cps
Terbium	159-1	6795640	6637613	6682866	6705373	1.21	cps
Terbium	159-2	4976844	4811512	4887634	4891997	1.69	cps
Thallium	203-1	130	170	157	152	13.38	cps
Thallium	205-1	347	380	353	360	4.90	cps
Tin	118-1	1457	1567	1607	1543	5.03	cps
Titanium	47-1	180	180	247	202	19.03	cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-01DLX10	Instrumnet Name :	P7
Client Sample ID :	PMW-9S(20250909)	Dilution Factor :	10
Date & Time Acquired :	2025-09-23 17:50:05	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	103	97	123	108	12.88	cps
Vanadium	51-2	230	273	320	274	16.40	cps
Yttrium	89-1	10398067	10323323	10317030	10346140	0.44	cps
Yttrium	89-2	2758918	2679641	2618150	2685570	2.63	cps
Zinc	66-2	2800	2764	2947	2837	3.42	cps
Zirconium	90-1	873	847	803	841	4.20	cps
Zirconium	91-1	153	173	137	154	11.89	cps

Reviewed By:JANVI
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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1200	1570	1247	1339	15.05	cps
Antimony	121-1	53	73	107	78	34.65	cps
Arsenic	75-2	47	37	20	34	39.11	cps
Barium	135-1	733	5294	5705	3911	70.56	cps
Barium	137-1	1430	9276	9336	6681	68.07	cps
Beryllium	9-1	13	3	3	7	86.65	cps
Bismuth	209-1	5485627	3782290	3801291	4356402	22.45	cps
Bismuth	209-2	3635648	3842187	4103585	3860473	6.07	cps
Bromine	81-1	166407	435038	559346	386930	51.91	cps
Bromine	81-2	116468	118117	115118	116568	1.29	cps
Cadmium	108-1	13	13	20	16	24.76	cps
Cadmium	106-1	3877	3094	2874	3282	16.08	cps
Cadmium	111-1	2715	2173	2021	2303	15.84	cps
Calcium	43-1	23406	197057	206019	142161	72.41	cps
Calcium	44-1	404068	3103260	3309568	2272299	71.35	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1633	1623	1543	1600	3.08	cps
Cobalt	59-2	51371	47077	39977	46142	12.47	cps
Copper	63-2	1643	1520	1673	1612	5.04	cps
Dysprosium	156-1	3	20	13	12	68.66	cps
Dysprosium	156-2	10	0	0	3	173.21	cps
Erbium	164-1	50	40	60	50	20.00	cps
Erbium	164-2	33	70	40	48	40.88	cps
Gadolinium	160-1	70	63	77	70	9.53	cps
Gadolinium	160-2	393	507	450	450	12.59	cps
Holmium	165-1	9089772	6411173	6341955	7280967	21.52	cps
Holmium	165-2	5238627	5457051	5830723	5508800	5.44	cps
Indium	115-1	8164123	5453277	5525833	6381077	24.21	cps
Indium	115-2	2135106	2303136	2522316	2320186	8.37	cps
Iron	56-2	33945548	32399133	27302019	31215566	11.14	cps
Iron	57-2	873292	823491	691240	796008	11.82	cps
Iron	54-2	1935945	1766868	1500933	1734582	12.64	cps
Krypton	83-1	383	400	500	428	14.75	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	370	330	363	354	6.05	cps
Lead	207-1	300	347	363	337	9.75	cps
Lead	208-1	1360	1550	1510	1473	6.80	cps
Lithium	6-1	943058	626588	616469	728705	25.48	cps
Magnesium	24-2	3962836	3679217	3037937	3559997	13.31	cps
Manganese	55-2	3542128	3276605	2774608	3197780	12.19	cps
Molybdenum	94-1	220	300	240	253	16.44	cps
Molybdenum	95-1	93	270	290	218	49.70	cps
Molybdenum	96-1	170	337	370	292	36.67	cps
Molybdenum	97-1	87	147	163	132	30.50	cps
Molybdenum	98-1	103	297	320	240	49.56	cps
Neodymium	150-1	3	17	17	12	63.01	cps
Neodymium	150-2	13	10	7	10	33.30	cps
Nickel	60-2	6351	6011	4854	5739	13.68	cps
Phosphorus	31-2	707	697	717	707	1.42	cps
Potassium	39-2	1270211	1214952	1082339	1189168	8.12	cps
Rhodium	103-1	7910847	5503586	5482620	6299018	22.16	cps
Rhodium	103-2	3555757	3798124	4069089	3807657	6.74	cps
Scandium	45-1	5561008	3800415	3876525	4412649	22.55	cps
Scandium	45-2	319433	350212	369868	346504	7.34	cps
Selenium	82-1	343	289	314	315	8.53	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	327	330	367	341	6.51	cps
Silicon	28-1	1525051	4885298	5041149	3817166	52.04	cps
Silver	107-1	153	167	137	152	9.87	cps
Silver	109-1	127	113	120	120	5.55	cps
Sodium	23-2	68467147	64782181	56034606	63094645	10.12	cps
Strontium	86-1	25017	188680	200781	138159	71.06	cps
Strontium	88-1	212536	1707076	1802236	1240616	71.87	cps
Sulfur	34-1	261793	1042189	1214302	839428	60.47	cps
Terbium	159-1	8930942	6502137	6535579	7322886	19.02	cps
Terbium	159-2	4983941	5351389	5691290	5342207	6.62	cps
Thallium	203-1	153	157	150	153	2.17	cps
Thallium	205-1	370	407	403	393	5.15	cps
Tin	118-1	860	1370	1433	1221	25.74	cps
Titanium	47-1	97	130	133	120	16.90	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-02DLX5	Instrumnet Name :	P7
Client Sample ID :	PMW-9D(20250909)	Dilution Factor :	5
Date & Time Acquired :	2025-09-23 17:53:18	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	43	170	140	118	56.20	cps
Vanadium	51-2	90	63	53	69	27.52	cps
Yttrium	89-1	14363431	10099040	10052612	11505028	21.52	cps
Yttrium	89-2	2831935	2918482	3109835	2953417	4.81	cps
Zinc	66-2	3844	3807	3921	3857	1.50	cps
Zirconium	90-1	567	423	357	449	23.90	cps
Zirconium	91-1	63	93	107	88	25.29	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	23906	24326	24219	24150	0.91	cps
Antimony	121-1	167	147	147	153	7.53	cps
Arsenic	75-2	360	310	427	366	16.01	cps
Barium	135-1	9270	9116	9016	9134	1.40	cps
Barium	137-1	16089	15956	15752	15932	1.07	cps
Beryllium	9-1	287	253	313	284	10.57	cps
Bismuth	209-1	3972428	3819876	3947246	3913183	2.09	cps
Bismuth	209-2	3525053	3553753	3579893	3552900	0.77	cps
Bromine	81-1	205865	214785	213980	211543	2.33	cps
Bromine	81-2	35379	34330	33979	34563	2.11	cps
Cadmium	108-1	13	3	13	10	57.75	cps
Cadmium	106-1	3490	3054	3174	3239	6.97	cps
Cadmium	111-1	2451	2159	2222	2277	6.74	cps
Calcium	43-1	258305	258486	255291	257361	0.70	cps
Calcium	44-1	4117076	4074121	3963180	4051459	1.96	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5018	4871	6152	5347	13.11	cps
Cobalt	59-2	16319	16679	16336	16445	1.24	cps
Copper	63-2	1697	1857	1710	1755	5.06	cps
Dysprosium	156-1	40896	39810	40348	40351	1.35	cps
Dysprosium	156-2	43120	43471	42762	43117	0.82	cps
Erbium	164-1	34914	34219	33854	34329	1.57	cps
Erbium	164-2	26145	25981	26806	26311	1.66	cps
Gadolinium	160-1	41331	40288	40442	40687	1.38	cps
Gadolinium	160-2	32979	33076	32518	32858	0.91	cps
Holmium	165-1	6394378	6149724	6245706	6263269	1.97	cps
Holmium	165-2	4909447	5022528	4970029	4967335	1.14	cps
Indium	115-1	5703968	5599005	5514501	5605825	1.69	cps
Indium	115-2	2042759	2049116	2052103	2047993	0.23	cps
Iron	56-2	342746835	339930142	342782742	341819906	0.48	cps
Iron	57-2	8481709	8595977	8352566	8476750	1.44	cps
Iron	54-2	18654880	18779840	18547583	18660768	0.62	cps
Krypton	83-1	483	510	537	510	5.23	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	733	777	693	734	5.67	cps
Lead	207-1	603	567	587	586	3.14	cps
Lead	208-1	2917	2960	3030	2969	1.93	cps
Lithium	6-1	611092	599591	595172	601952	1.37	cps
Magnesium	24-2	2694355	2777664	2708786	2726935	1.63	cps
Manganese	55-2	4115953	4165573	4194886	4158804	0.96	cps
Molybdenum	94-1	2040	1930	1993	1988	2.78	cps
Molybdenum	95-1	423	420	463	436	5.54	cps
Molybdenum	96-1	2384	2434	2420	2412	1.07	cps
Molybdenum	97-1	293	217	273	261	15.23	cps
Molybdenum	98-1	523	477	477	492	5.47	cps
Neodymium	150-1	73705	72419	71396	72507	1.60	cps
Neodymium	150-2	45818	46269	45319	45802	1.04	cps
Nickel	60-2	1670	1880	1837	1796	6.18	cps
Phosphorus	31-2	693	647	630	657	5.00	cps
Potassium	39-2	470277	469185	465091	468184	0.58	cps
Rhodium	103-1	5700879	5575152	5518902	5598311	1.66	cps
Rhodium	103-2	3445873	3425924	3389747	3420515	0.83	cps
Scandium	45-1	3898751	3764749	3878276	3847259	1.88	cps
Scandium	45-2	306808	311570	307206	308528	0.86	cps
Selenium	82-1	402	344	349	365	8.79	cps
Selenium	77-2	173	127	160	153	15.68	cps
Selenium	78-2	520	473	487	493	4.87	cps
Silicon	28-1	9287151	9228024	9177029	9230735	0.60	cps
Silver	107-1	140	147	160	149	6.84	cps
Silver	109-1	110	93	110	104	9.21	cps
Sodium	23-2	2371475	2366347	2350327	2362716	0.47	cps
Strontium	86-1	155113	155707	153415	154745	0.77	cps
Strontium	88-1	1374003	1345075	1341414	1353498	1.32	cps
Sulfur	34-1	3080360	3073725	3077029	3077038	0.11	cps
Terbium	159-1	6752247	6537212	6481858	6590439	2.17	cps
Terbium	159-2	4831979	4859619	4810066	4833888	0.51	cps
Thallium	203-1	107	170	117	131	25.97	cps
Thallium	205-1	347	317	273	312	11.81	cps
Tin	118-1	2374	2150	2104	2209	6.53	cps
Titanium	47-1	550	587	560	566	3.35	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	Q3084-06DLX2	Instrumnet Name :	P7
Client Sample ID :	PMW-6(20250910)	Dilution Factor :	2
Date & Time Acquired :	2025-09-23 17:56:29	DataFile Name :	056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	83	67	77	76	11.10	cps
Vanadium	51-2	3824	3717	3677	3739	2.03	cps
Yttrium	89-1	11037073	10818692	10620199	10825321	1.93	cps
Yttrium	89-2	2811378	2817458	2850861	2826566	0.75	cps
Zinc	66-2	3270	3387	3334	3330	1.75	cps
Zirconium	90-1	4961	4627	4824	4804	3.49	cps
Zirconium	91-1	1063	1033	1053	1050	1.45	cps

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Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6007581	6022288	6096547	6042139	0.79	cps
Antimony	121-1	2223990	2298444	2260587	2261007	1.65	cps
Arsenic	75-2	137838	139268	139348	138818	0.61	cps
Barium	135-1	2712525	2727287	2697881	2712564	0.54	cps
Barium	137-1	4685846	4716137	4713963	4705315	0.36	cps
Beryllium	9-1	362550	368322	367370	366081	0.85	cps
Bismuth	209-1	3433314	3361034	3415832	3403393	1.11	cps
Bismuth	209-2	3230043	3179928	3154225	3188065	1.21	cps
Bromine	81-1	28514	28631	28695	28613	0.32	cps
Bromine	81-2	3584	3500	3707	3597	2.89	cps
Cadmium	108-1	43071	44134	44431	43879	1.63	cps
Cadmium	106-1	63026	64436	64054	63839	1.14	cps
Cadmium	111-1	597835	609320	609291	605482	1.09	cps
Calcium	43-1	3621819	3629221	3628262	3626434	0.11	cps
Calcium	44-1	58476832	59669764	58093022	58746540	1.40	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1131604	1123402	1124016	1126341	0.41	cps
Cobalt	59-2	1717077	1679436	1684399	1693637	1.21	cps
Copper	63-2	13203698	13232814	13138567	13191693	0.37	cps
Dysprosium	156-1	110	143	127	127	13.16	cps
Dysprosium	156-2	347	360	303	337	8.80	cps
Erbium	164-1	253	263	337	284	16.00	cps
Erbium	164-2	200	230	213	214	7.01	cps
Gadolinium	160-1	153	177	200	177	13.21	cps
Gadolinium	160-2	477	490	460	476	3.16	cps
Holmium	165-1	5772467	5754719	5635614	5720933	1.30	cps
Holmium	165-2	4637189	4534478	4488612	4553426	1.67	cps
Indium	115-1	4912632	4854546	4779388	4848856	1.38	cps
Indium	115-2	1899672	1898174	1823714	1873853	2.32	cps
Iron	56-2	261763676	262386049	265200329	263116685	0.70	cps
Iron	57-2	6599233	6634944	6718290	6650822	0.92	cps
Iron	54-2	14814678	14452031	14486579	14584429	1.37	cps
Krypton	83-1	437	470	443	450	3.92	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7960276	8074956	8044939	8026724	0.74	cps
Lead	207-1	6757359	7081309	6933008	6923892	2.34	cps
Lead	208-1	31272794	31866860	31900773	31680142	1.11	cps
Lithium	6-1	538518	553449	546779	546249	1.37	cps
Magnesium	24-2	52563259	53542918	53699216	53268464	1.16	cps
Manganese	55-2	9524855	9311845	9274159	9370286	1.44	cps
Molybdenum	94-1	8854872	8984925	8713833	8851210	1.53	cps
Molybdenum	95-1	12421850	12721394	12586602	12576615	1.19	cps
Molybdenum	96-1	13251672	13637765	13688773	13526070	1.77	cps
Molybdenum	97-1	7603762	7834678	7796373	7744938	1.60	cps
Molybdenum	98-1	19884400	20223631	20083892	20063974	0.85	cps
Neodymium	150-1	170	160	167	166	3.08	cps
Neodymium	150-2	40	37	57	44	24.11	cps
Nickel	60-2	436835	433304	439568	436569	0.72	cps
Phosphorus	31-2	63729	62132	63304	63055	1.31	cps
Potassium	39-2	30328218	29697502	29747805	29924508	1.17	cps
Rhodium	103-1	4880352	4900055	4823050	4867819	0.82	cps
Rhodium	103-2	3035443	3090324	3042987	3056251	0.97	cps
Scandium	45-1	3519448	3512651	3524479	3518859	0.17	cps
Scandium	45-2	290706	295468	288089	291421	1.28	cps
Selenium	82-1	47650	48344	47856	47950	0.74	cps
Selenium	77-2	4834	5081	5154	5023	3.34	cps
Selenium	78-2	16930	17314	17227	17157	1.17	cps
Silicon	28-1	16315568	16202086	16551238	16356297	1.09	cps
Silver	107-1	3003312	3088085	3077638	3056345	1.51	cps
Silver	109-1	2885227	2911321	2933571	2910039	0.83	cps
Sodium	23-2	84489655	84367919	84841540	84566372	0.29	cps
Strontium	86-1	785700	813610	806360	801890	1.81	cps
Strontium	88-1	7107735	7260069	7120971	7162925	1.18	cps
Sulfur	34-1	444258	448099	442013	444790	0.69	cps
Terbium	159-1	5837544	6015907	6059526	5970992	1.97	cps
Terbium	159-2	4424087	4499495	4451313	4458298	0.86	cps
Thallium	203-1	1967738	2002313	2003380	1991144	1.02	cps
Thallium	205-1	4770008	4792136	4759907	4774017	0.35	cps
Tin	118-1	1873520	1906552	1877868	1885980	0.95	cps
Titanium	47-1	3648203	3782318	3656322	3695614	2.03	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:03:43	DataFile Name :	057CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6031928	6230282	6187148	6149786	1.70	cps
Vanadium	51-2	936965	944922	948698	943528	0.63	cps
Yttrium	89-1	9202055	9156083	9019473	9125870	1.04	cps
Yttrium	89-2	2478360	2478165	2466460	2474328	0.28	cps
Zinc	66-2	2360045	2410280	2400990	2390438	1.12	cps
Zirconium	90-1	4330845	4436850	4412148	4393281	1.26	cps
Zirconium	91-1	937851	957023	963304	952726	1.39	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1210	1190	1240	1213	2.07	cps
Antimony	121-1	197	160	187	181	10.47	cps
Arsenic	75-2	3	10	13	9	57.30	cps
Barium	135-1	60	53	43	52	16.07	cps
Barium	137-1	70	103	100	91	20.15	cps
Beryllium	9-1	13	7	7	9	43.25	cps
Bismuth	209-1	4242360	4152764	3898795	4097973	4.35	cps
Bismuth	209-2	3586303	3601142	3533461	3573635	1.00	cps
Bromine	81-1	14087	14027	14053	14056	0.21	cps
Bromine	81-2	1160	1110	1140	1137	2.21	cps
Cadmium	108-1	7	17	10	11	45.82	cps
Cadmium	106-1	3274	2954	2874	3034	6.98	cps
Cadmium	111-1	2314	2086	2025	2141	7.11	cps
Calcium	43-1	240	233	240	238	1.62	cps
Calcium	44-1	22491	22114	22224	22276	0.87	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1831	1333	1363	1509	18.49	cps
Cobalt	59-2	73	90	80	81	10.34	cps
Copper	63-2	1270	1130	1407	1269	10.90	cps
Dysprosium	156-1	7	0	3	3	100.05	cps
Dysprosium	156-2	3	0	10	4	114.60	cps
Erbium	164-1	40	40	73	51	37.65	cps
Erbium	164-2	40	43	43	42	4.55	cps
Gadolinium	160-1	73	70	53	66	16.35	cps
Gadolinium	160-2	367	373	400	380	4.64	cps
Holmium	165-1	6801202	6651042	6397028	6616424	3.09	cps
Holmium	165-2	4968866	4902851	4912954	4928224	0.72	cps
Indium	115-1	5957102	5718104	5547941	5741049	3.58	cps
Indium	115-2	2136793	2078885	2101543	2105740	1.39	cps
Iron	56-2	18034	17964	18164	18054	0.56	cps
Iron	57-2	1570	1537	1387	1498	6.52	cps
Iron	54-2	2104	1897	2207	2069	7.63	cps
Krypton	83-1	513	460	460	478	6.45	cps

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	413	437	447	432	3.96	cps
Lead	207-1	367	403	383	384	4.77	cps
Lead	208-1	1607	1660	1757	1675	4.54	cps
Lithium	6-1	661041	632059	611499	634866	3.92	cps
Magnesium	24-2	867	930	910	902	3.59	cps
Manganese	55-2	823	797	717	779	7.13	cps
Molybdenum	94-1	270	357	320	316	13.79	cps
Molybdenum	95-1	283	357	283	308	13.76	cps
Molybdenum	96-1	347	380	383	370	5.48	cps
Molybdenum	97-1	223	223	253	233	7.42	cps
Molybdenum	98-1	427	470	537	478	11.60	cps
Neodymium	150-1	3	10	3	6	69.34	cps
Neodymium	150-2	0	3	7	3	100.05	cps
Nickel	60-2	317	317	253	296	12.37	cps
Phosphorus	31-2	683	617	683	661	5.82	cps
Potassium	39-2	57364	57378	57675	57472	0.31	cps
Rhodium	103-1	5965931	5897506	5542693	5802044	3.92	cps
Rhodium	103-2	3481682	3431100	3467541	3460108	0.75	cps
Scandium	45-1	4106761	3942418	3759424	3936201	4.41	cps
Scandium	45-2	310185	311569	312769	311507	0.42	cps
Selenium	82-1	213	157	203	191	15.47	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	313	307	247	289	12.71	cps
Silicon	28-1	804966	807925	800113	804335	0.49	cps
Silver	107-1	143	187	127	152	20.35	cps
Silver	109-1	147	180	123	150	18.98	cps
Sodium	23-2	46971	47637	47369	47326	0.71	cps
Strontium	86-1	737	770	757	754	2.22	cps
Strontium	88-1	203	230	233	222	7.40	cps
Sulfur	34-1	216545	218466	217215	217409	0.45	cps
Terbium	159-1	6996930	6821440	6368388	6728919	4.82	cps
Terbium	159-2	4924569	4854756	4921790	4900371	0.81	cps
Thallium	203-1	150	233	183	189	22.21	cps
Thallium	205-1	410	440	447	432	4.52	cps
Tin	118-1	740	763	850	784	7.39	cps
Titanium	47-1	143	100	103	116	20.87	cps

Reviewed By:JANVI
On:9/24/2025 4:50:32 PM
Inst Id :P7

LB Number :	LB137284	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P7
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-09-23 18:18:10	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	53	63	67	61	11.36	cps
Vanadium	51-2	10	13	33	19	66.81	cps
Yttrium	89-1	10649085	10295658	10042146	10328963	2.95	cps
Yttrium	89-2	2695356	2716272	2701095	2704241	0.40	cps
Zinc	66-2	2470	2460	2504	2478	0.92	cps
Zirconium	90-1	453	433	570	486	15.20	cps
Zirconium	91-1	97	83	113	98	15.37	cps

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169799

SOP ID : M200.8-Trace Elements-22, MSFAM01.1-Metals ICPMS-2

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: 09/23/2025 **Time :** 10:30 **Temp :** 96 °C

End Digest Date: 09/23/2025 **Time :** 13:35 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SKG.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	0.50	MP87337
Spike Sol. B	0.50	MP87338
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	1.00	MP85156
1:1 HCL	0.50	MP87148
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/23/25 14:35	SKG metals lab.	(Metals lab)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169799

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB169799BL	PBW799	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	8
PB169799BS	LCS799	<2	50	50	Colorless	Colorless	Clear	Clear	MP87337	9
Q3084-01	PMW-9S(20250909)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	10
Q3084-02	PMW-9D(20250909)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
Q3084-03	PMW-8D(20250909)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
Q3084-04	PMW-8S(20250909)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
Q3084-05	FB(20250909)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	14
Q3084-06	PMW-6(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	15
Q3084-07	PMW-3(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	16
Q3084-08	PMW-7S(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	17
Q3084-09	PMW-7D(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	18
Q3084-10	DUP(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	19
Q3084-11	PMW-10(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	20
Q3084-12	FB(20250910)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	21
Q3084-13	PMW-4(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	22
Q3084-14	MW-1(MCUA)(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	23
Q3084-15	MW-2(MCUA)(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	24
Q3084-16	PMW-1(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	25
Q3084-17	PMW-5(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	26
Q3084-18	PMW-2(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	27
Q3084-19	Q3084-18MS	<2	50	50	Colorless	Colorless	Clear	Clear	MP87338	28
Q3084-20	Q3084-18MSD	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	29
Q3084-21	FB(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	30
Q3084-22	EB(20250911)	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	31

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

Prep Standard - Chemical Standard Summary

Order ID : Q3084

Test : Metals CLP MS

Prepbatch ID : PB169799,

Sequence ID/Qc Batch ID: LB137284,

Standard ID :
MP85156,MP87074,MP87075,MP87076,MP87077,MP87078,MP87079,MP87080,MP87081,MP87082,MP87085,MP87086,MP87087,MP87088,MP87090,MP87091,MP87092,MP87148,MP87337,MP87338,

Chemical ID :
M5245,M5520,M5658,M5697,M5739,M5798,M5799,M5800,M5801,M5815,M5817,M5820,M5962,M5969,M5979,M5981,M5993,M5999,M6021,M6023,M6025,M6026,M6027,M6028,M6030,M6032,M6055,M6079,M6086,M6127,M6128,M6137,M6138,M6140,M6142,M6144,M6145,M6146,M6151,M6153,M6156,M6159,M6163,M6164,M6165,M6171,M6172,M6175,M6176,M6178,M6185,M6187,M6200,W3112,

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	10/08/2025	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)	MP87074	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICPA)	Sarabjit Jaswal 09/09/2025

FROM 25.00000ml of M6151 + 4925.00000ml of W3112 + 50.00000ml of M6187 = 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	MP87075	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 1.00000ml of M6159 + 2.50000ml of M6140 + 2.50000ml of M6142 + 5.00000ml of M6086 + 5.00000ml of M6171 + 5.00000ml of M6172 + 79.00000ml of MP87074 = 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)	MP87076	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

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 M5979 + 10.00000ml of M6178 + 10.00000ml of M6187 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6032 + 4.90000ml of M6140 + 4.90000ml of M6142 + 5.00000ml of M6151 + 50.00000ml of M6175 + 834.10000ml of W3112 + 9.00000ml of M5697 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M6086 + 9.90000ml of M6171 + 9.90000ml of M6172 = 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)	MP87077	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6187 + 48.50000ml of W3112 + 50.00000ml of MP87076 = 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)	MP87078	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6187 + 73.50000ml of W3112 + 25.00000ml of MP87076 = 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)	MP87079	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6187 + 86.00000ml of W3112 + 12.50000ml of MP87076 = 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)	MP87080	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6187 + 88.50000ml of W3112 + 10.00000ml of MP87077 = 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)	MP87081	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.00500ml of M6153 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6027 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5658 + 0.10000ml of M5697 + 0.10000ml of M6146 + 0.10000ml of M6159 + 0.25000ml of M5799 + 0.25000ml of M5962 + 0.25000ml of M5979 + 0.25000ml of M6021 + 0.25000ml of M6140 + 0.25000ml of M6145 + 0.25000ml of M6178 + 0.50000ml of M6032 + 0.50000ml of M6137 + 1.25000ml of M5815 + 1.25000ml of M5817 + 1.25000ml of M6151 + 2.50000ml of M6086 + 2.50000ml of M6142 + 2.50000ml of M6171 + 2.50000ml of M6172 + 2.50000ml of M6187 + 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)	MP87082	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6187 + 98.00000ml of W3112 + 0.50000ml of MP87081 = 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
4213	NEW ICV-6020B	MP87085	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.00800ml of M6164 + 0.00800ml of M6165 + 0.01600ml of M6163 + 49.96800ml of MP87074 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3961	CCV	MP87086	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.20000ml of M6026 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M6079 + 0.50000ml of M6137 + 0.50000ml of M6176 + 1.00000ml of M5815 + 1.00000ml of M5817 + 10.00000ml of M6187 + 12.45000ml of M6140 + 12.45000ml of M6142 + 2.00000ml of M6032 + 24.95000ml of M6086 + 24.95000ml of M6171 + 24.95000ml of M6172 + 25.00000ml of M6175 + 4.50000ml of M5697 + 4.50000ml of M6128 + 4.50000ml of M6145 + 4.95000ml of M6159 + 5.00000ml of M6151 + 5.50000ml of M5979 + 5.50000ml of M6178 + 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	MP87087	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 10.00000ml of M6185 + 90.00000ml of MP87074 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1143	ICSAB ICPMS	MP87088	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 10.00000ml of M5245 + 10.00000ml of M6185 + 80.00000ml of MP87074 = 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	MP87090	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 0.01000ml of M6171 + 9.99000ml of MP87074 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3894	TUNE 200PPB	MP87091	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP87090 + 96.00000ml of MP87074 = 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	MP87092	09/03/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 09/09/2025

FROM 5.00000ml of M6187 + 75.00000ml of M5739 + 170.00000ml of MP87074 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP87148	09/09/2025	02/17/2026	Sagar Kanani	None	None	Sarabjit Jaswal 09/10/2025

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3963	CONC.LCSW SPIKE	MP87337	09/23/2025	12/08/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/25/2025

FROM 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6027 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.05000ml of M6176 + 0.10000ml of M5658 + 0.10000ml of M5697 + 0.10000ml of M6146 + 0.25000ml of M5799 + 0.25000ml of M5962 + 0.25000ml of M5979 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.25000ml of M6156 + 0.50000ml of M6032 + 1.00000ml of M6140 + 1.25000ml of M5820 + 1.25000ml of M5969 + 2.50000ml of M5520 + 2.50000ml of M6127 + 2.50000ml of M6138 + 2.50000ml of M6144 + 2.50000ml of M6200 + 226.10000ml of W3112 + 5.00000ml of M6187 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
870	ICPMS SPIKE SOL.B	MP87338	09/23/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/25/2025

FROM 0.45000ml of M5962 + 5.00000ml of M5993 + 5.00000ml of M5999 + 39.55000ml of MP87074 = Final Quantity: 50.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	07/01/2026	07/02/2025 / jaswal	02/20/2020 / jaswal	M5245

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 #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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 #
Inorganic Ventures	CLPP-SPK-4 / SOIL/WATER SPIKE SOLN 4, 125mL	V2-MEB742036	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5993

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-1 / SOIL/WATER SPIKE SOLN 1, 125mL	T2-MEB721963	07/27/2027	09/04/2024 / Jaswal	02/22/2024 / kareem	M5999

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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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	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

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / Jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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 #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	032123	03/21/2026	11/06/2024 / JANVI	06/12/2024 / JANVI	M6156

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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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	011525	01/15/2028	07/15/2025 / Janvi	02/13/2025 / Janvi	M6171

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGNA10-5 / Sodium, 500 ml, 10000 PPM	V2-NA740547	07/29/2026	07/29/2025 / Janvi	01/25/2025 / Janvi	M6172

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	V2-MEB742014	07/17/2026	07/17/2025 / Janvi	01/27/2025 / Janvi	M6175

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	MS ICSA-0803	07/01/2026	07/02/2025 / Janvi	07/14/2022 / Janvi	M6185

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

INORGANIC VENTURES™

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Certificate of Analysis

R: 02/22/24 M5991, M5992, M5993, M5994, M5995

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-4
Lot Number:	V2-MEB742036
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead,
	10 µg/mL ea: Selenium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	50.00 ± 0.22 µg/mL	Lead, Pb	20.00 ± 0.09 µg/mL
Selenium, Se	10.00 ± 0.04 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

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

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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		

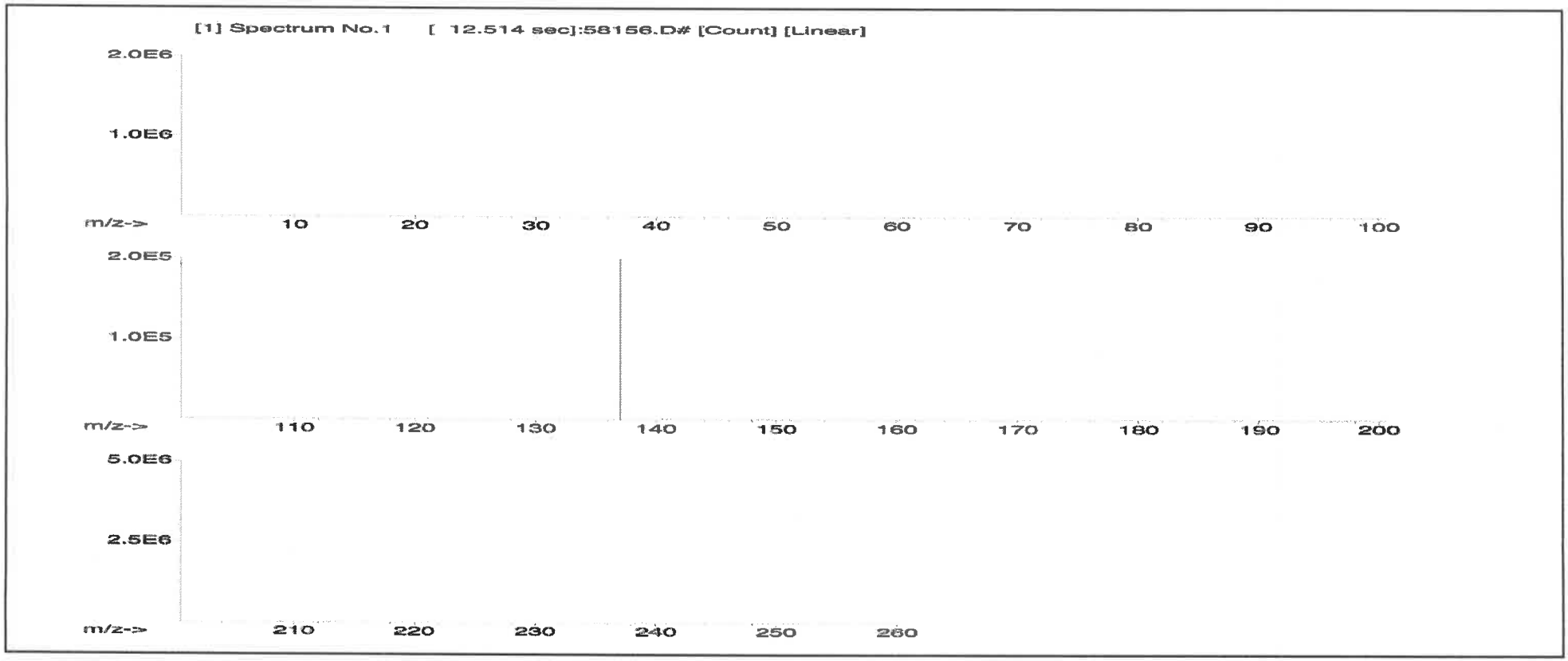
Giovanni Esposito

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:

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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Revd 10/14/2024 M6085/M6086/M6087

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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		

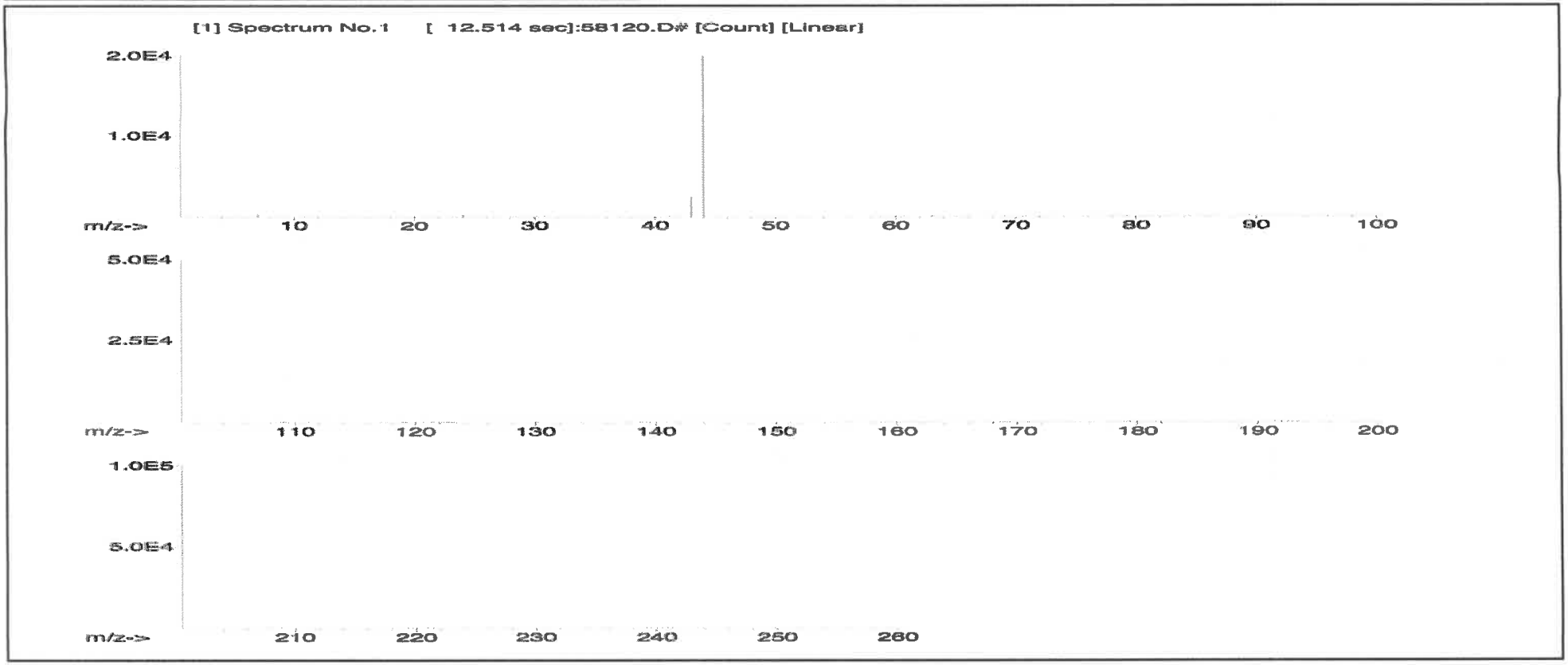
Giovanni Esposito

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	ori-rat >2000mg/kg	3109a



423

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6028

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AR-1539 Certificate Number
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R 8/5/24

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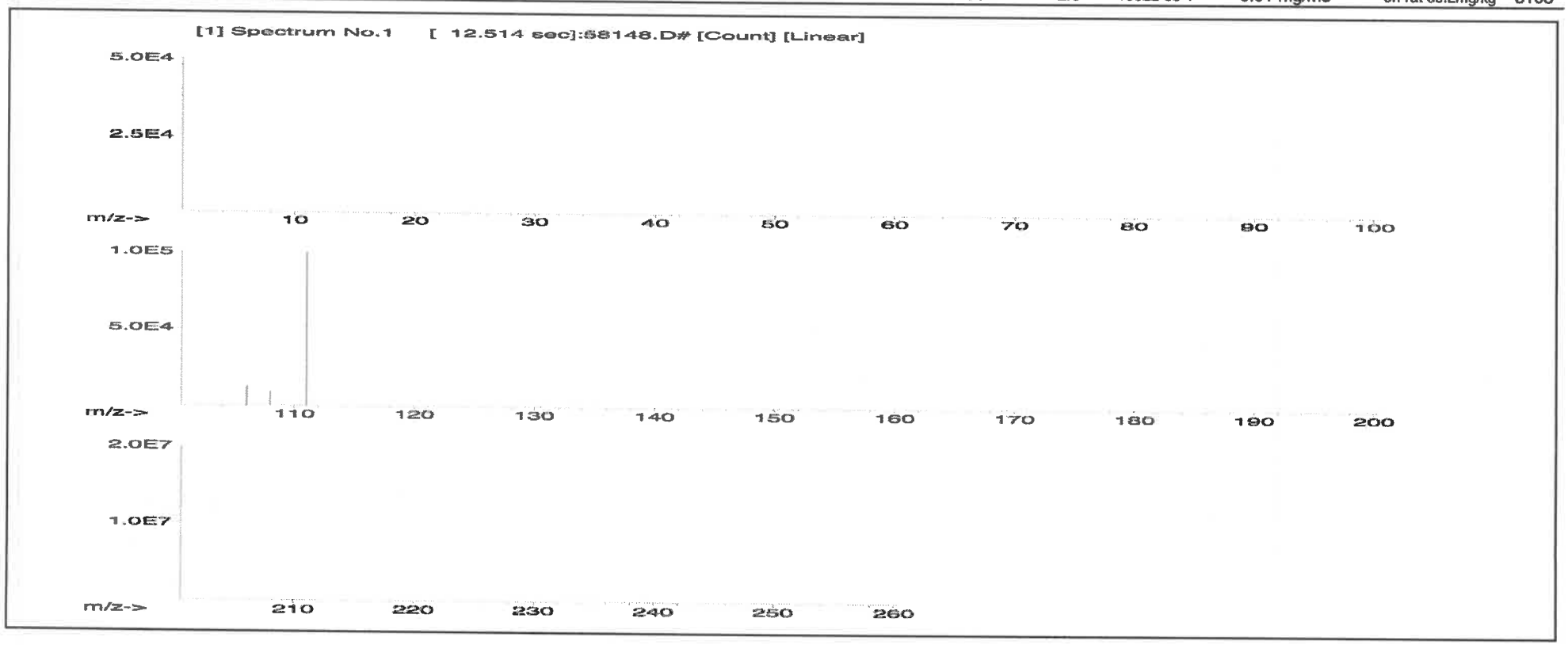
CERTIFIED WEIGHT REPORT:

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
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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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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 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*

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:

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.

ICSA: M5244

ICSB: M5245

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

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	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.10)	-1.9	2.1	19.0	16.2	21.9
Ba	10	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0.0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.70)	-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	(0.30)	-9.7	10.0	(19.0)	9.0	29.0
Ag	1.0	(0.0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0.0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.50)	-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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428

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

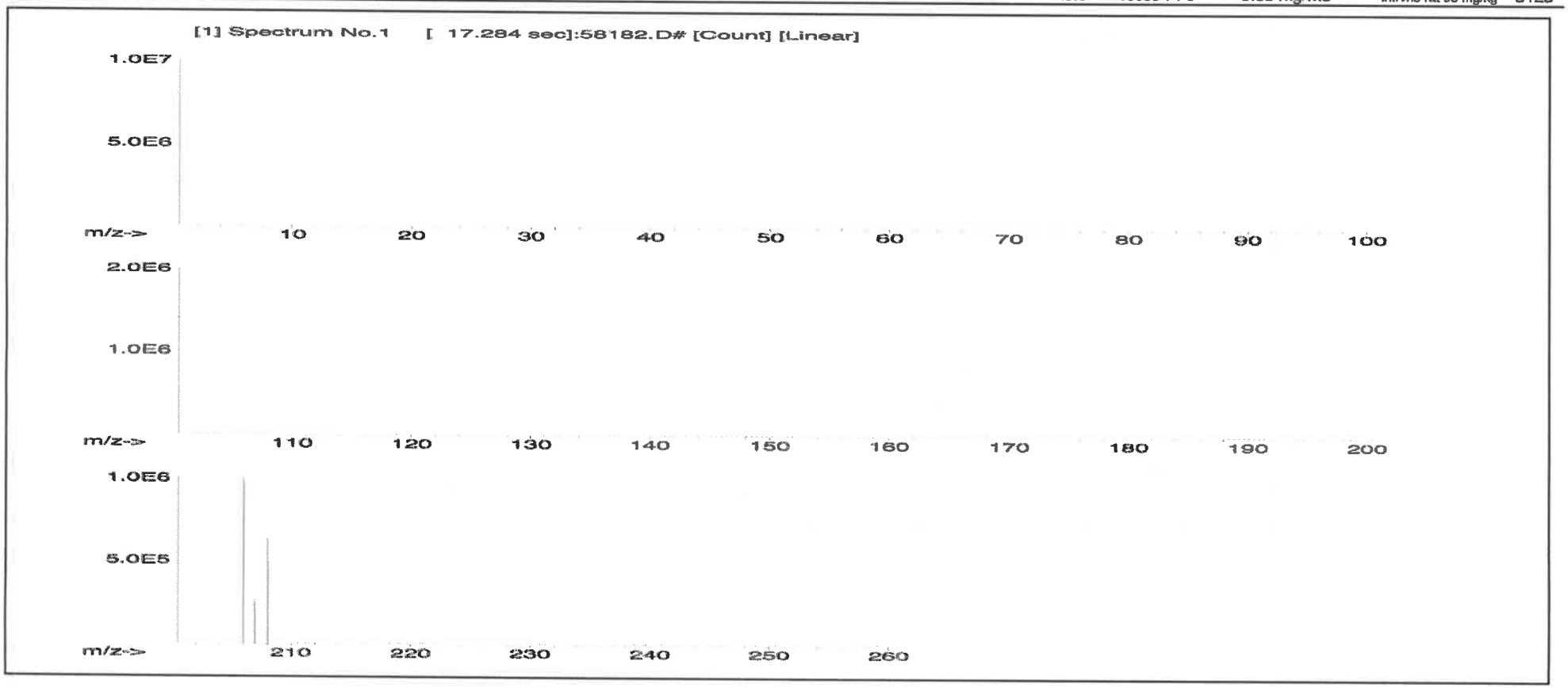
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance 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



429

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* 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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M6026

R: 8/5/24

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430

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

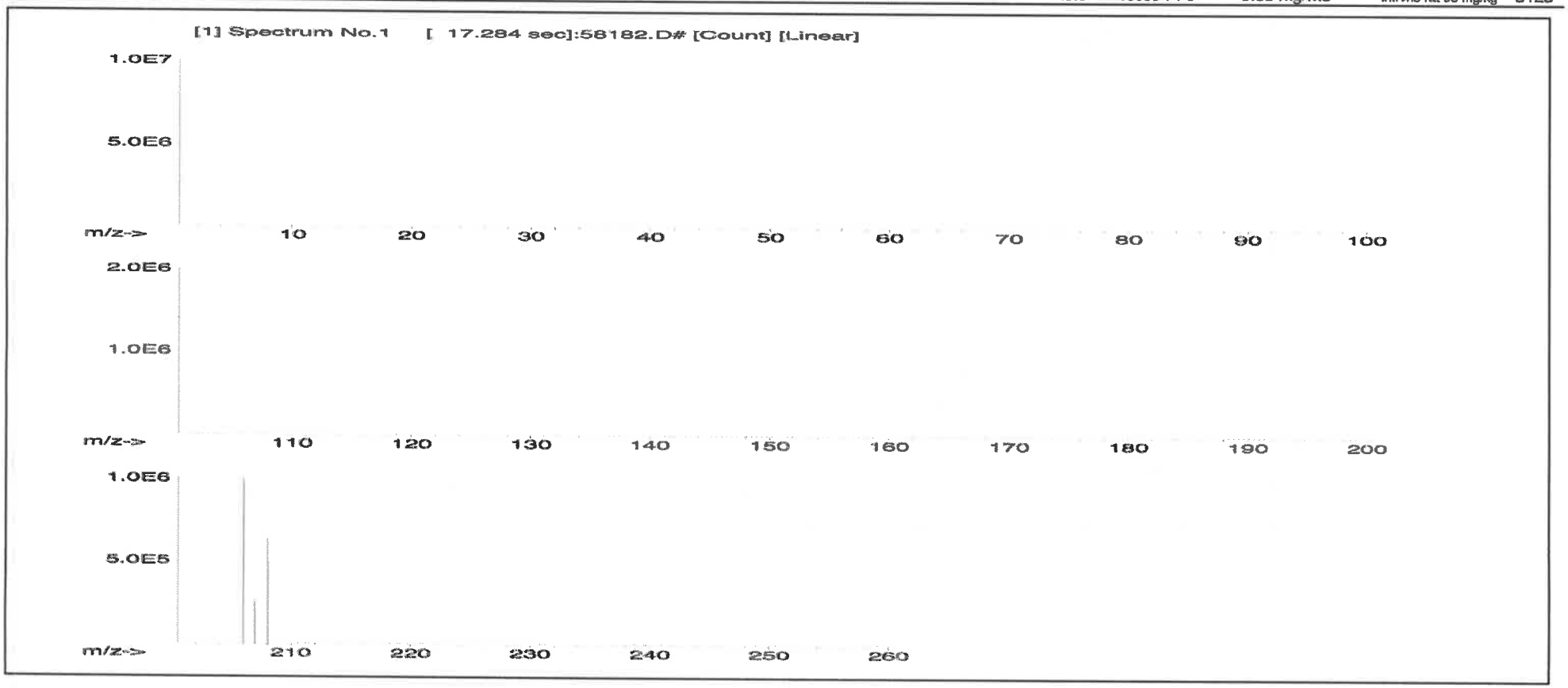
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance 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



431

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 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	

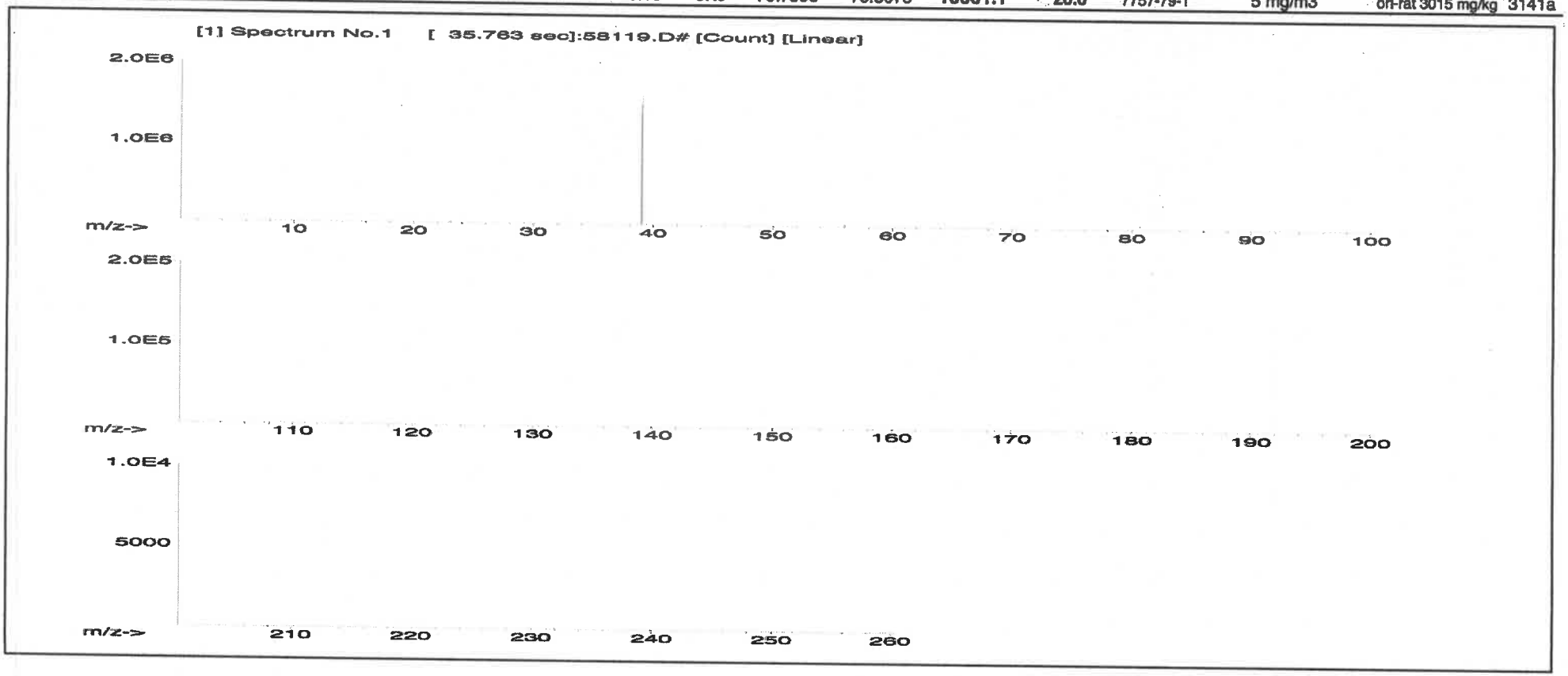
5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

432

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



433

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.
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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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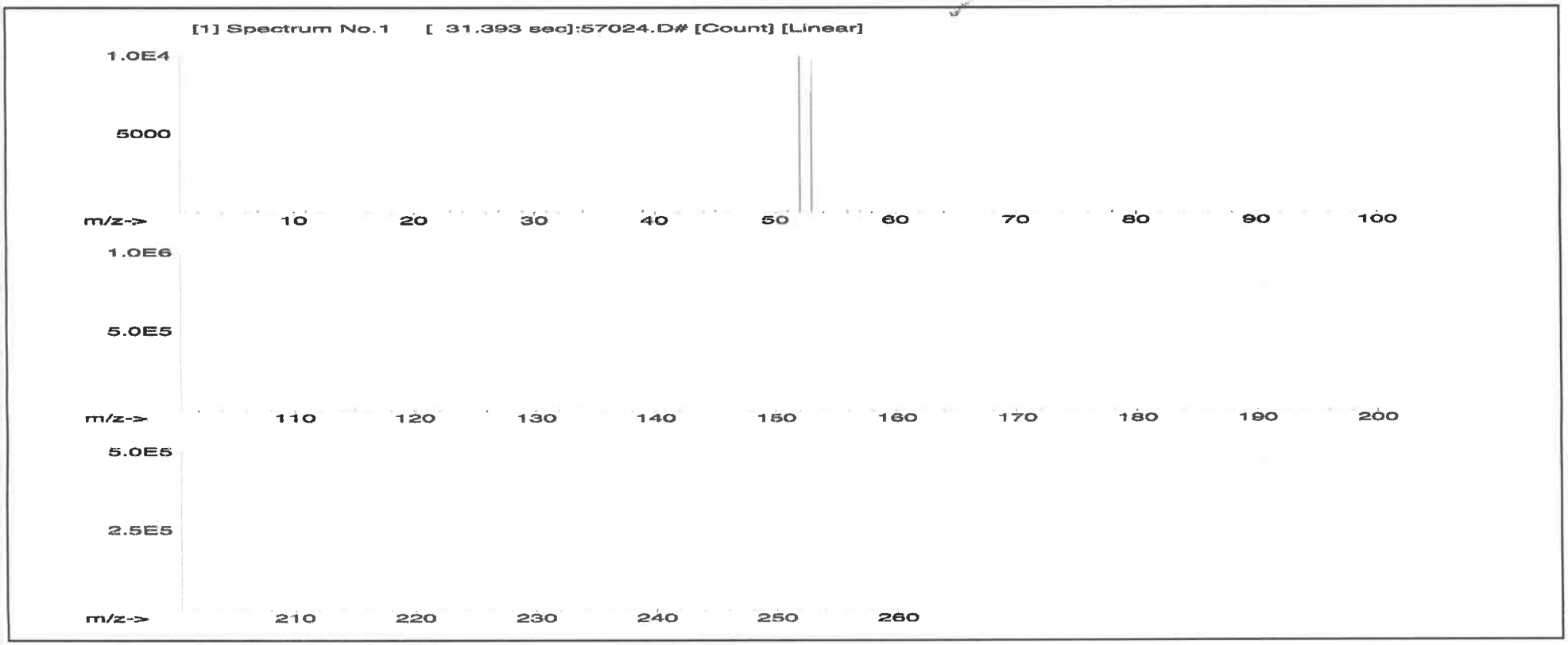
434

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1.	Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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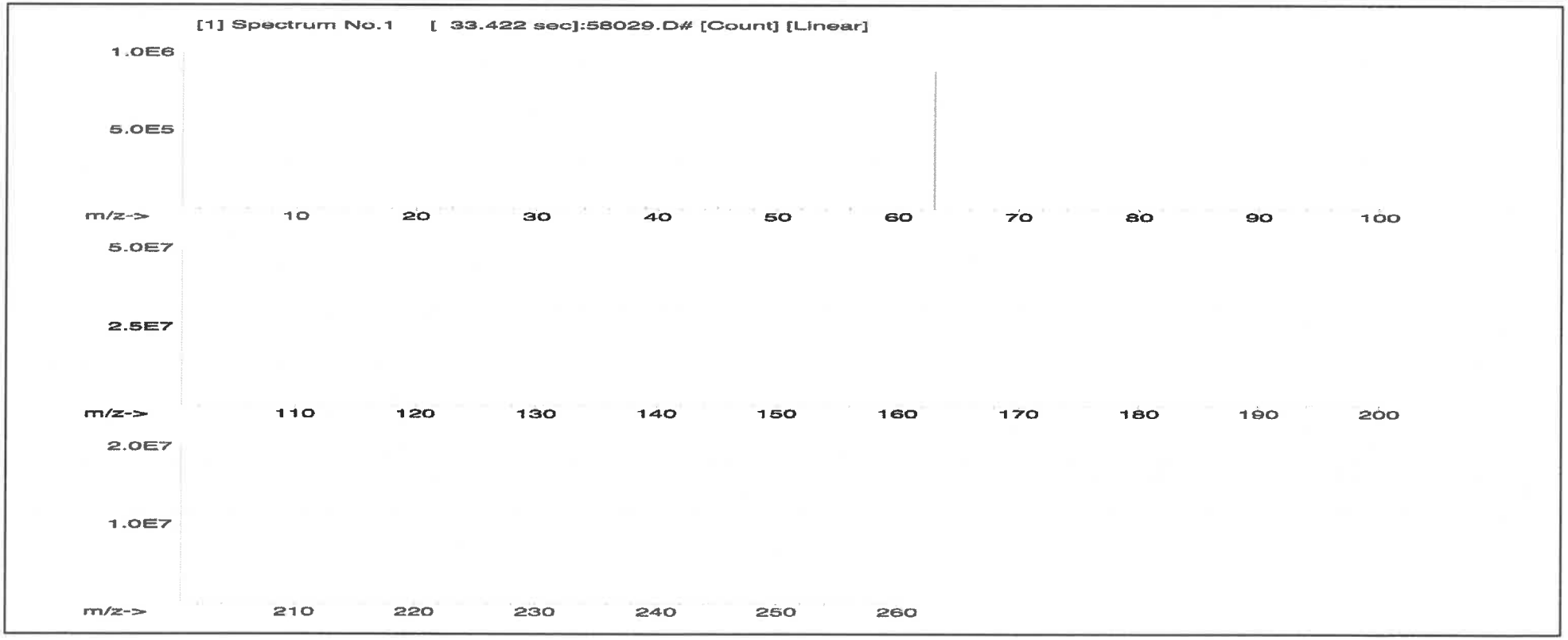
436

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**58029**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Copper (Cu)**				
		2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



437

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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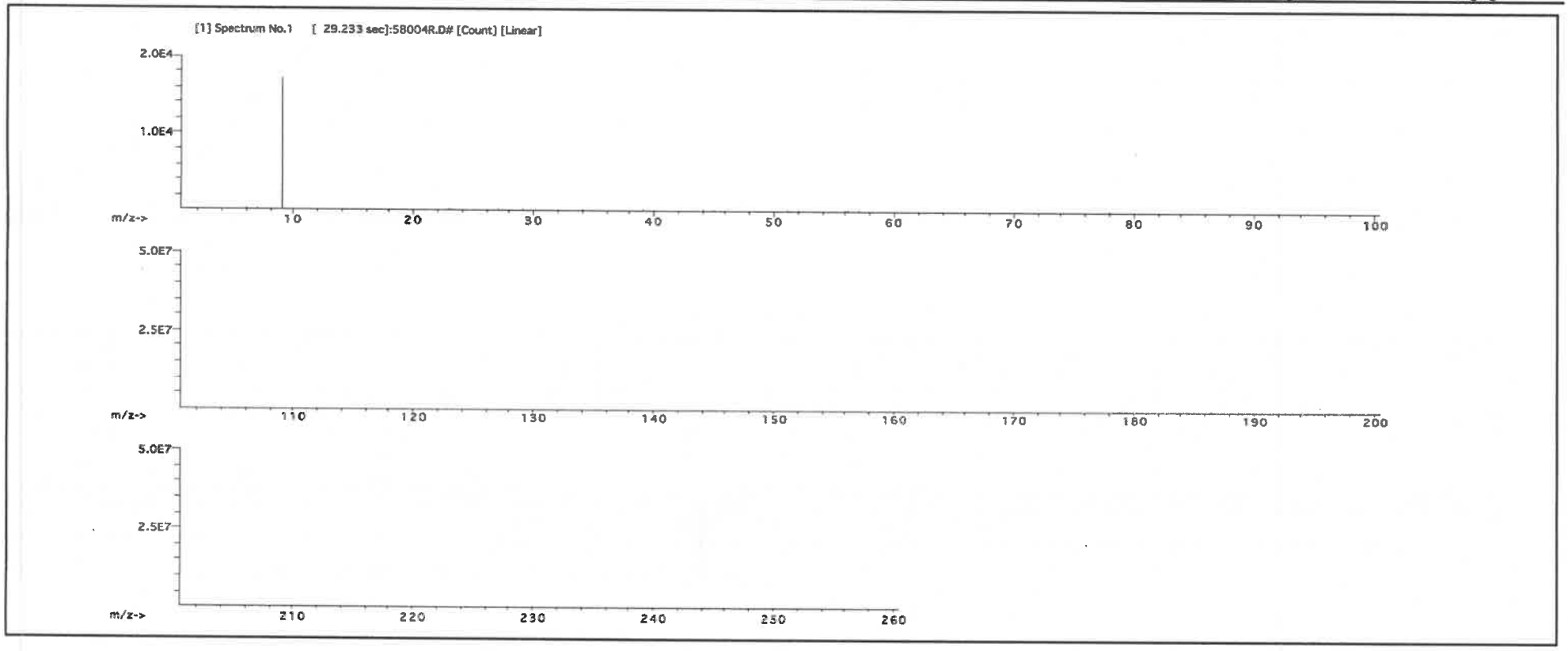
438

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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* 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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440

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

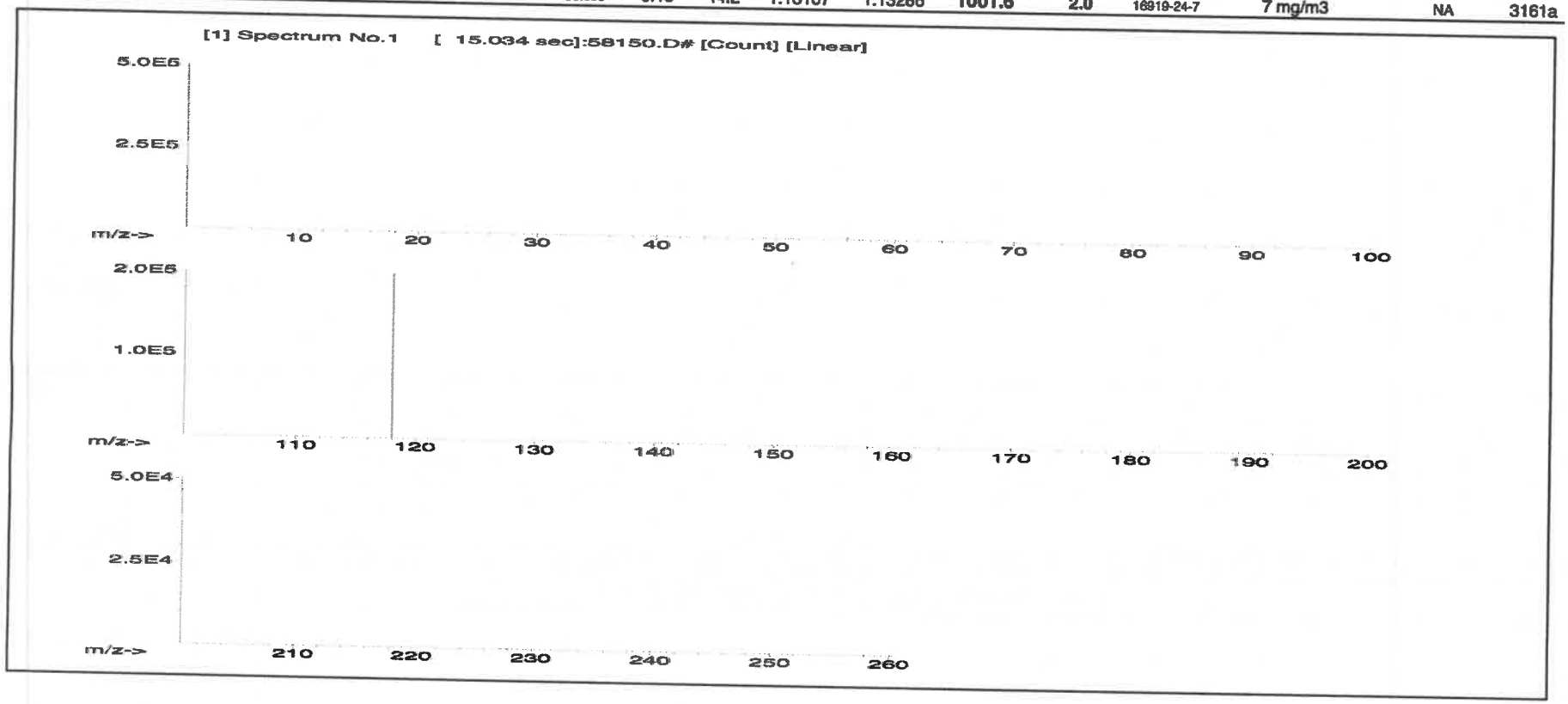
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



441

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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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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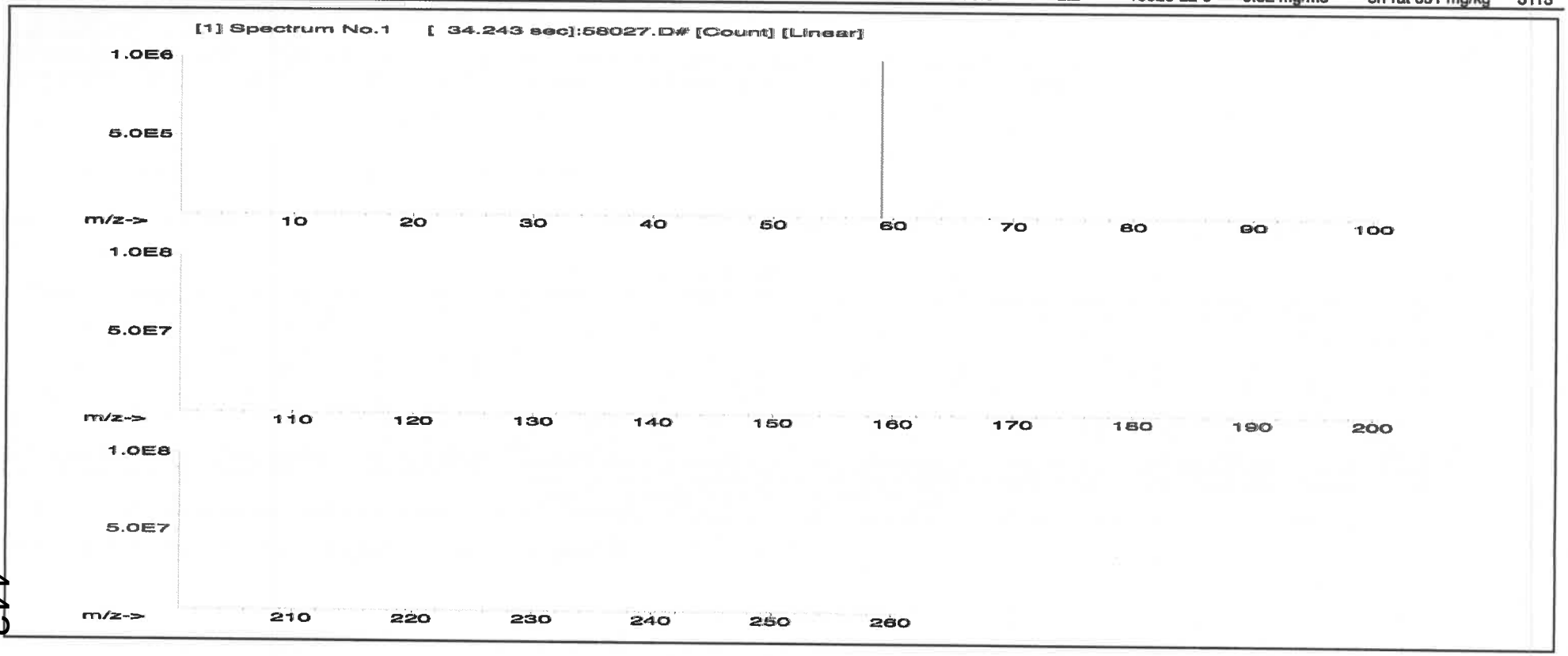
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**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



442

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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* 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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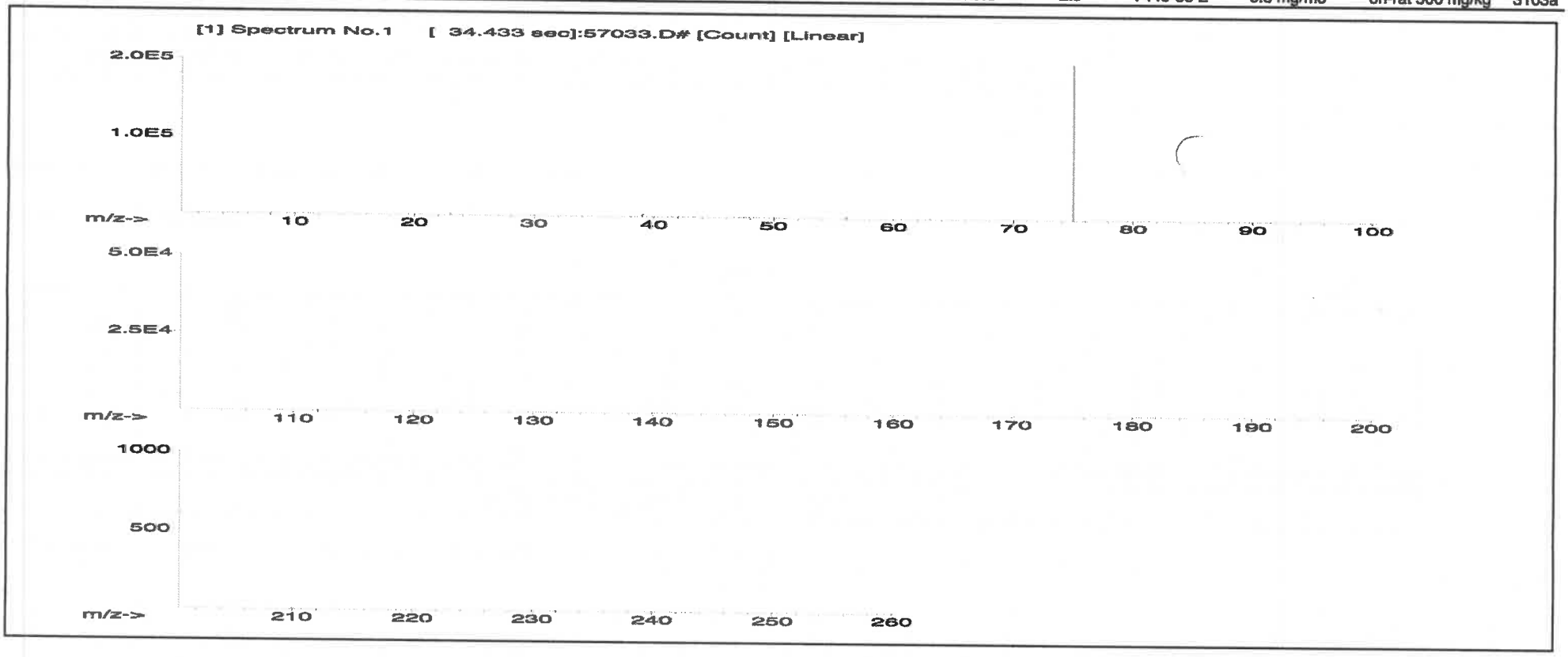
CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
Description:	**Arsenic (As)**				
		2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By: Lawrence Barry 111323

Reviewed By: Pedro L. Rentas 111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



445

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* 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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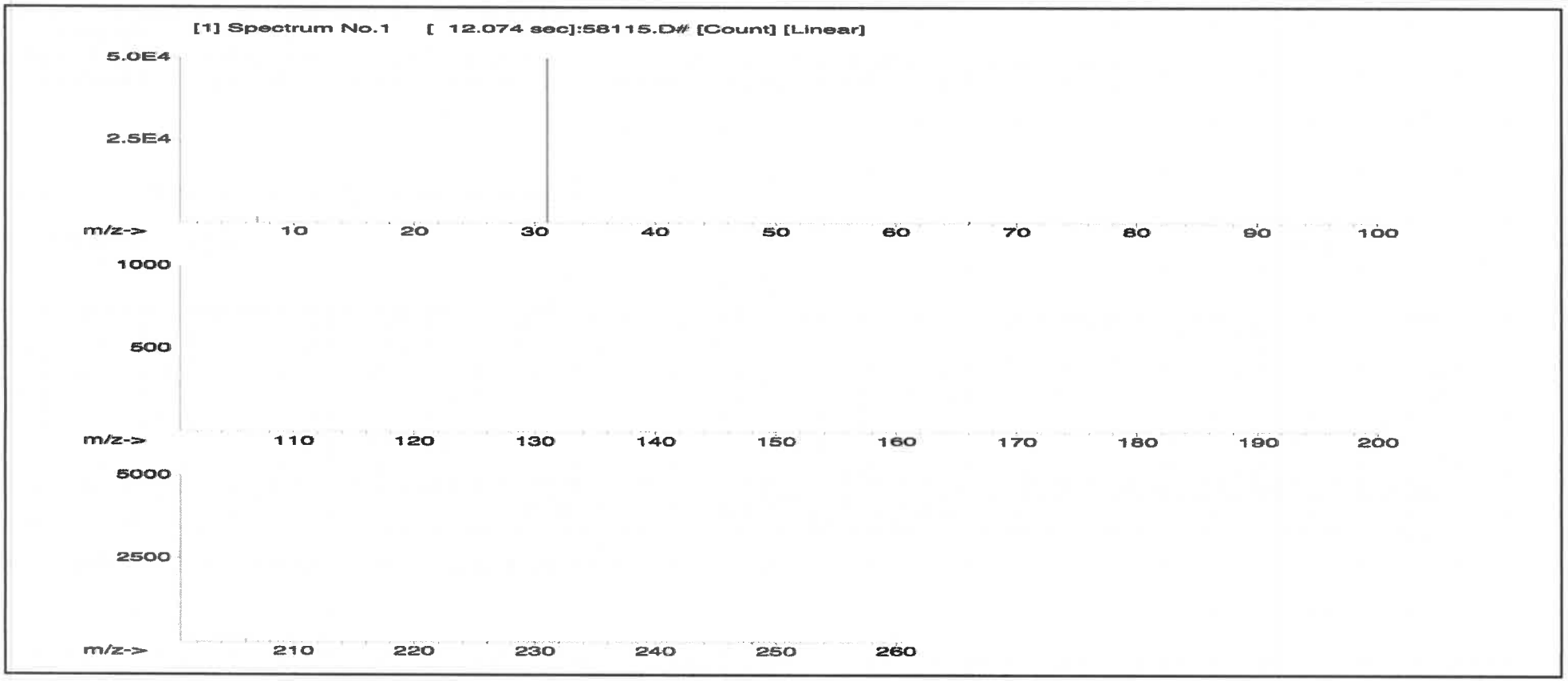
446

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



447

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

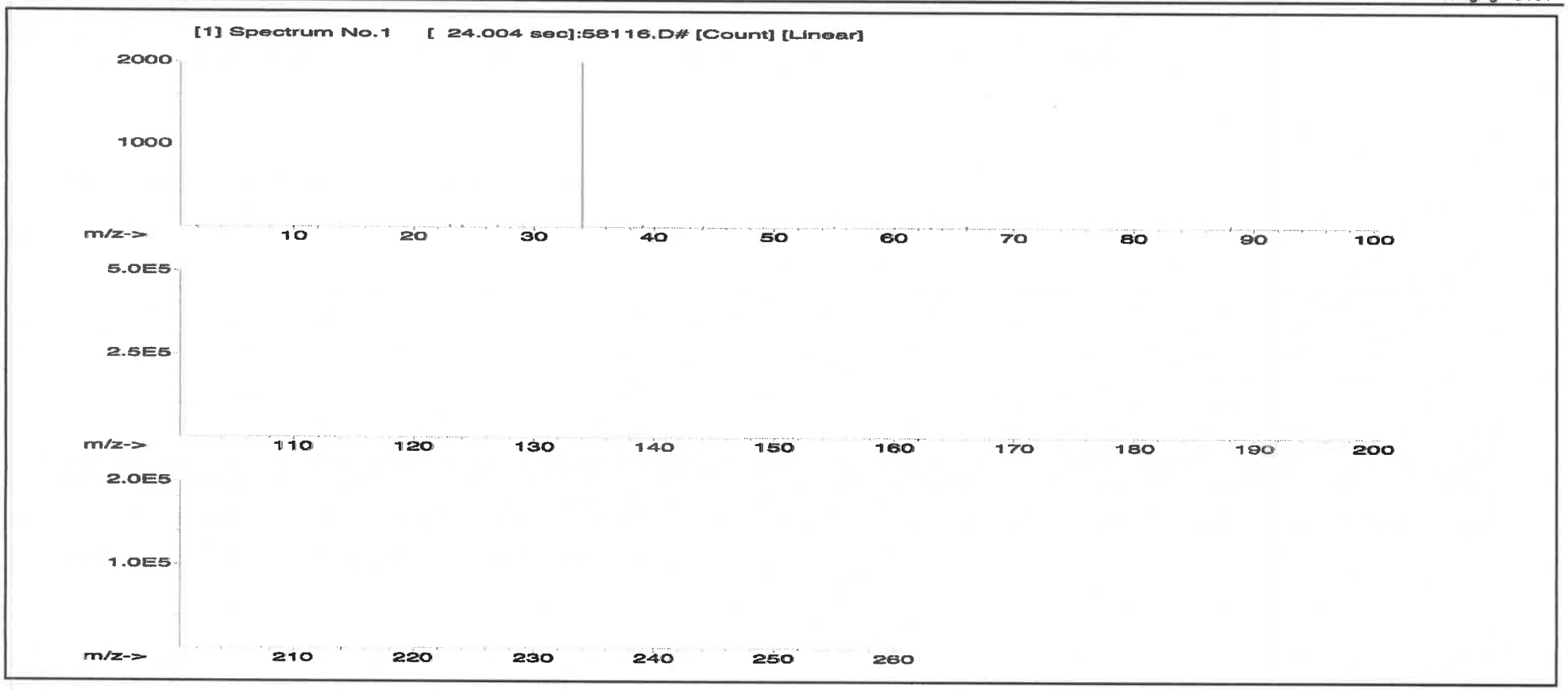
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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



449

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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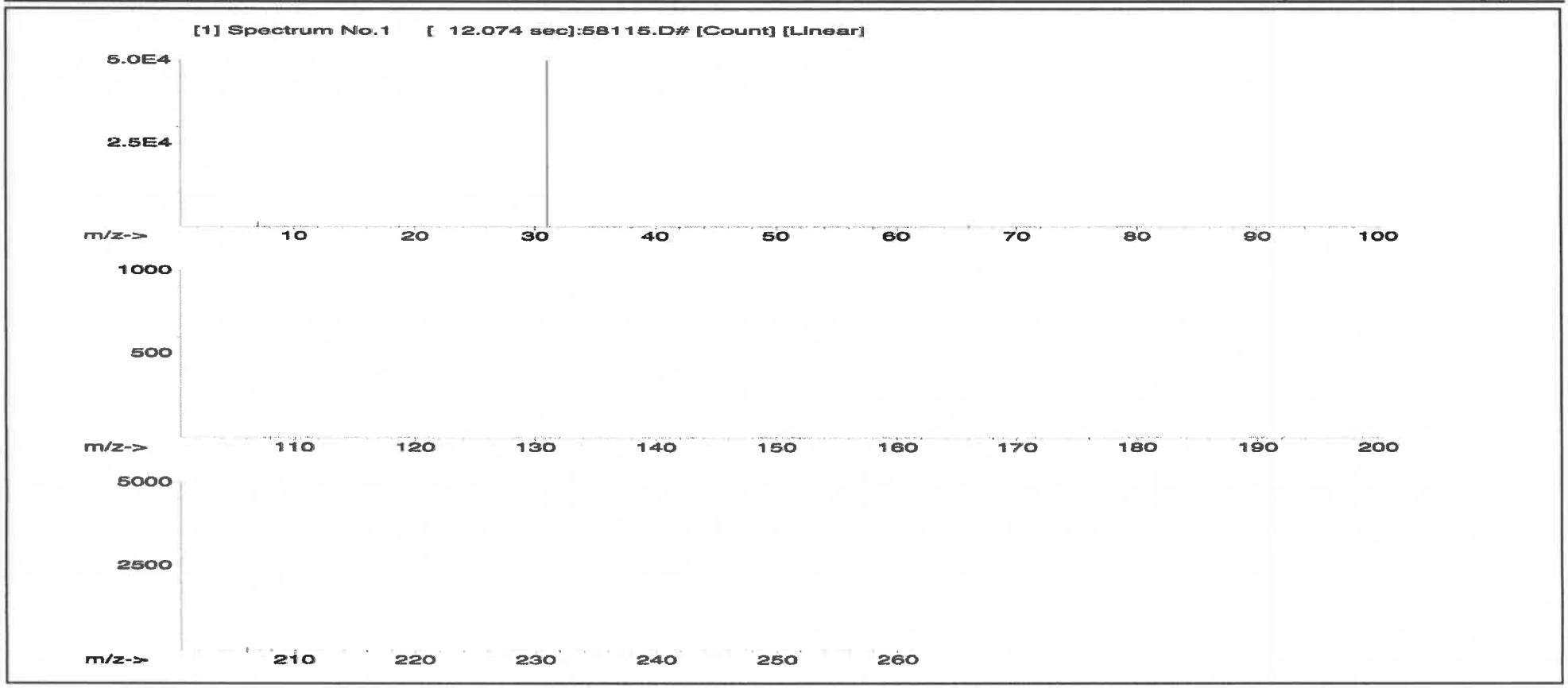
450

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



451

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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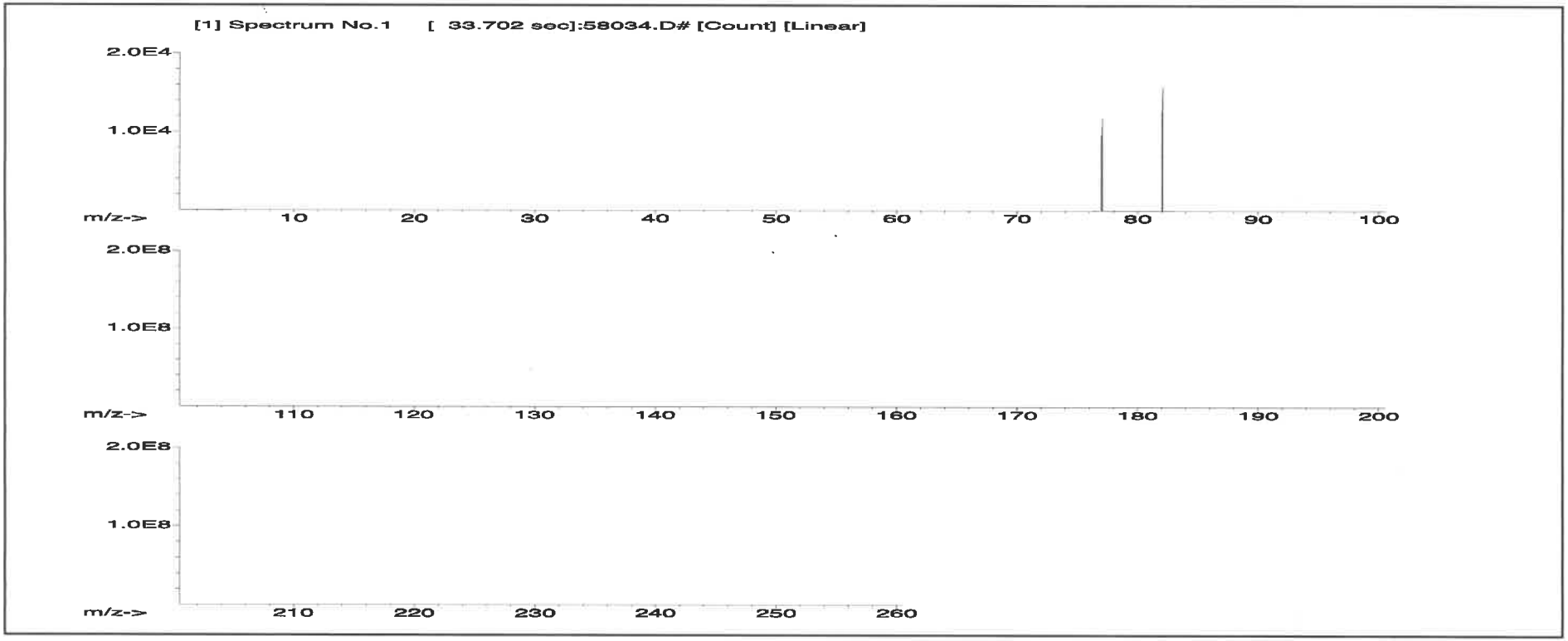
452

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



453

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).

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Certified Reference Material CRM

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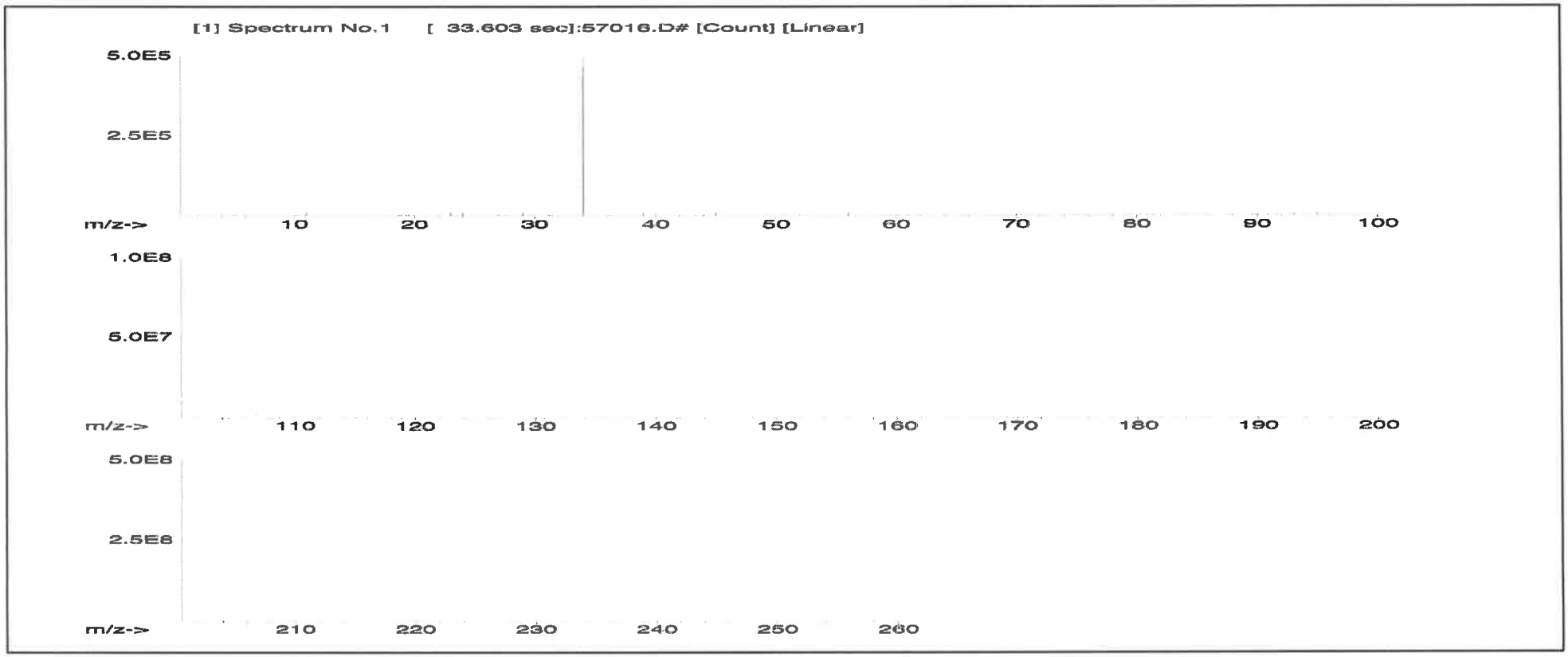
454

CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



455

M5978, M5979

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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	<	0.000536	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

H5981 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	

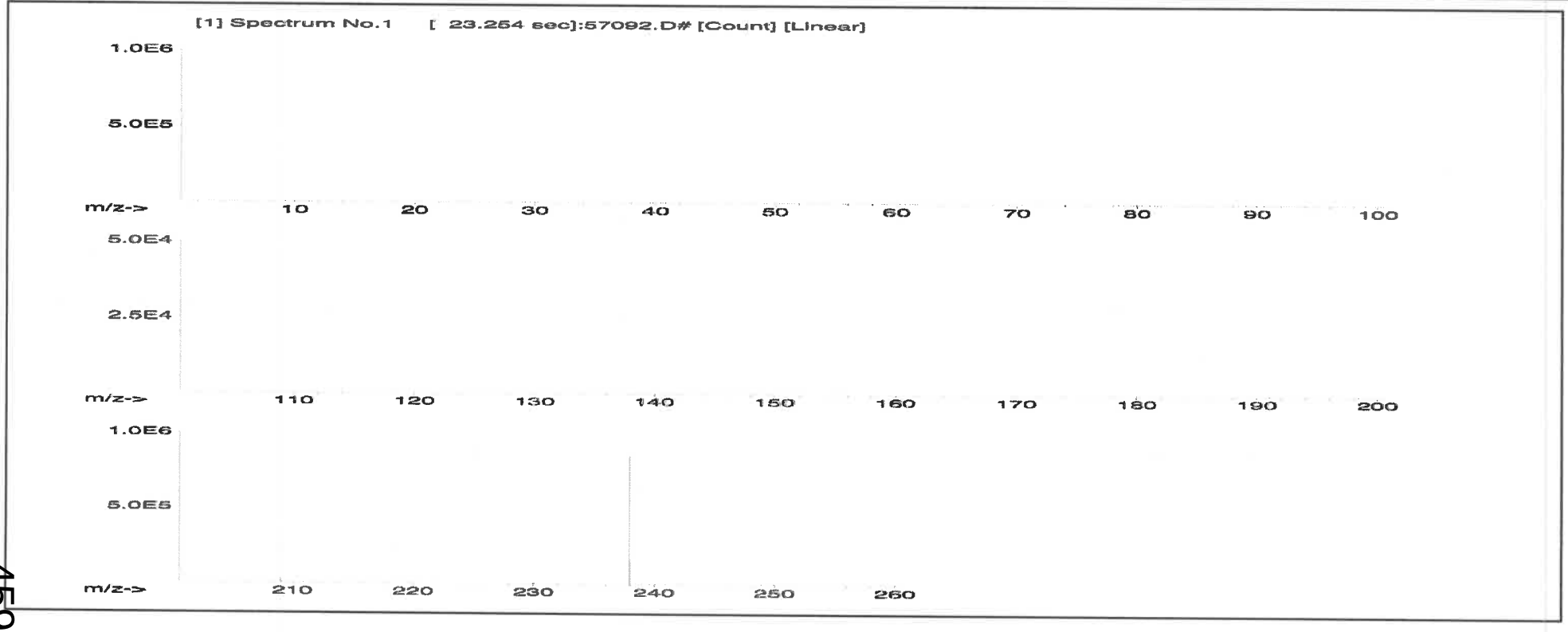
Giovanni Esposito

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



459

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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

Refine your results. Redefine your industry.

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F: 540-585-3012
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R: 2/22/2024
M5999

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Manganese, Nickel, Vanadium, Zinc, Cobalt, 250 µg/mL ea: Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
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
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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

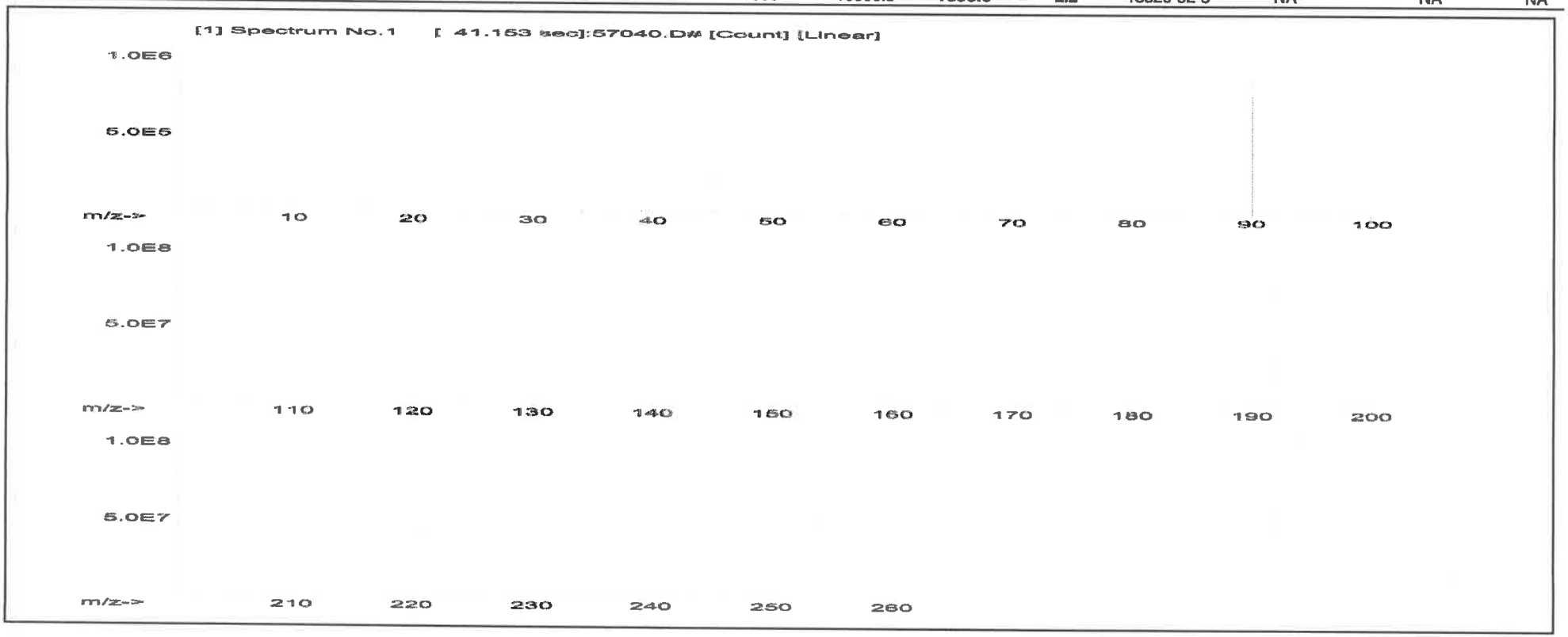
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CERTIFIED WEIGHT REPORT:

		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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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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

R→ 1/13/25

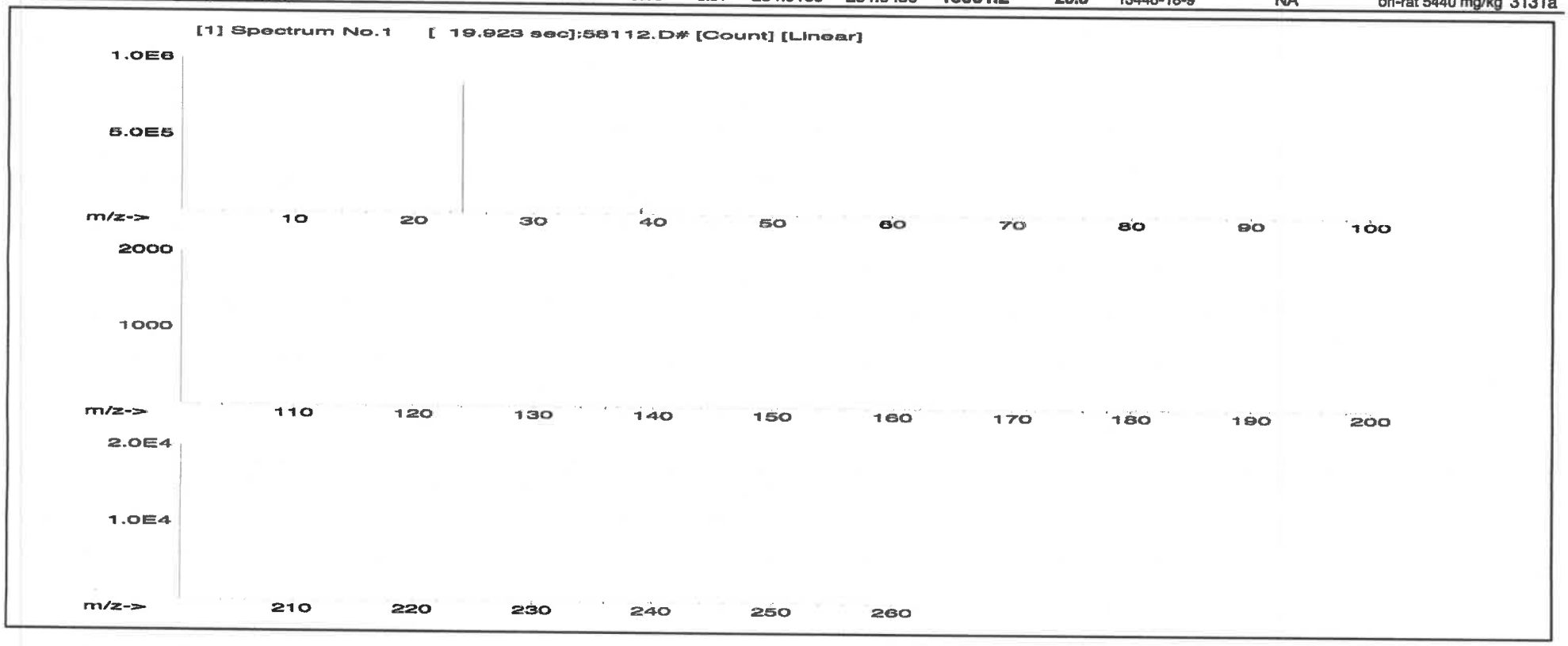
M 6127

Part Number:	**58112**		**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**112124**				
Description:	**Magnesium (Mg)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

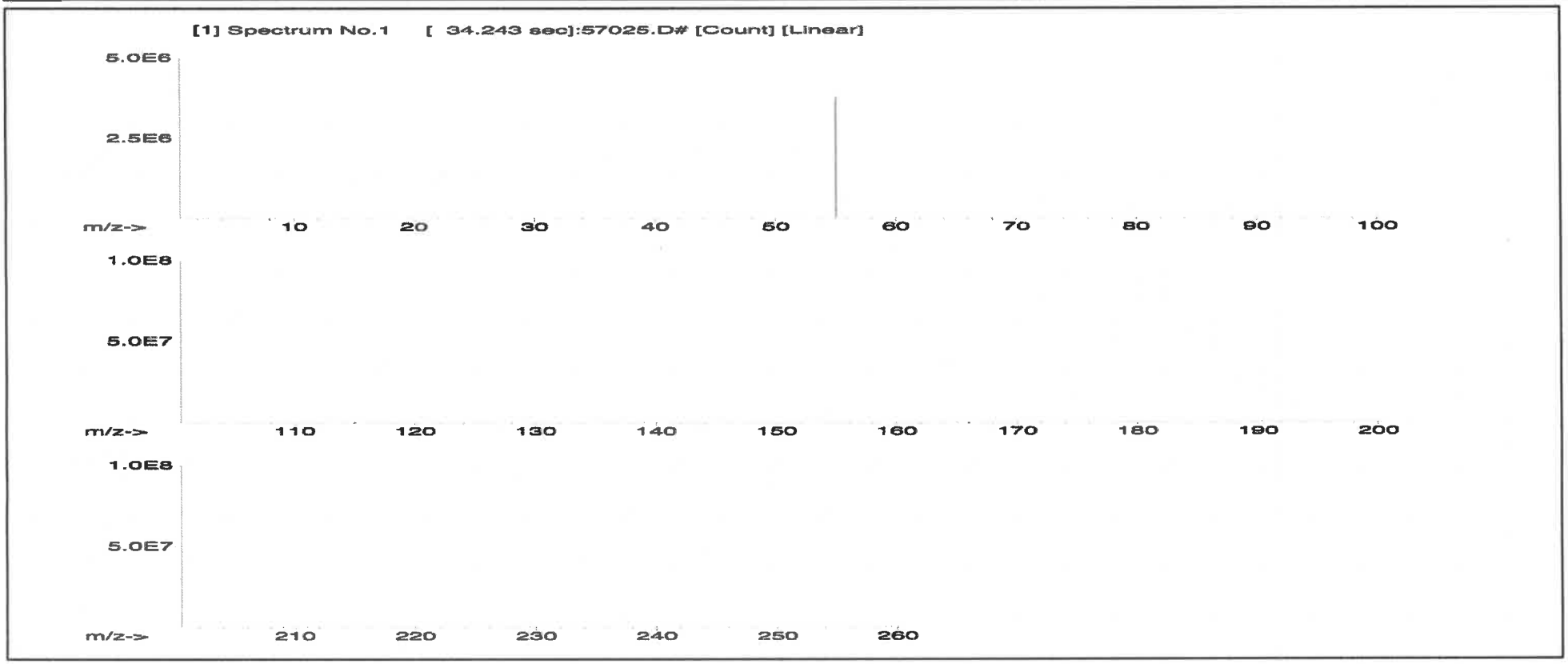
R->1/13/25
M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
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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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

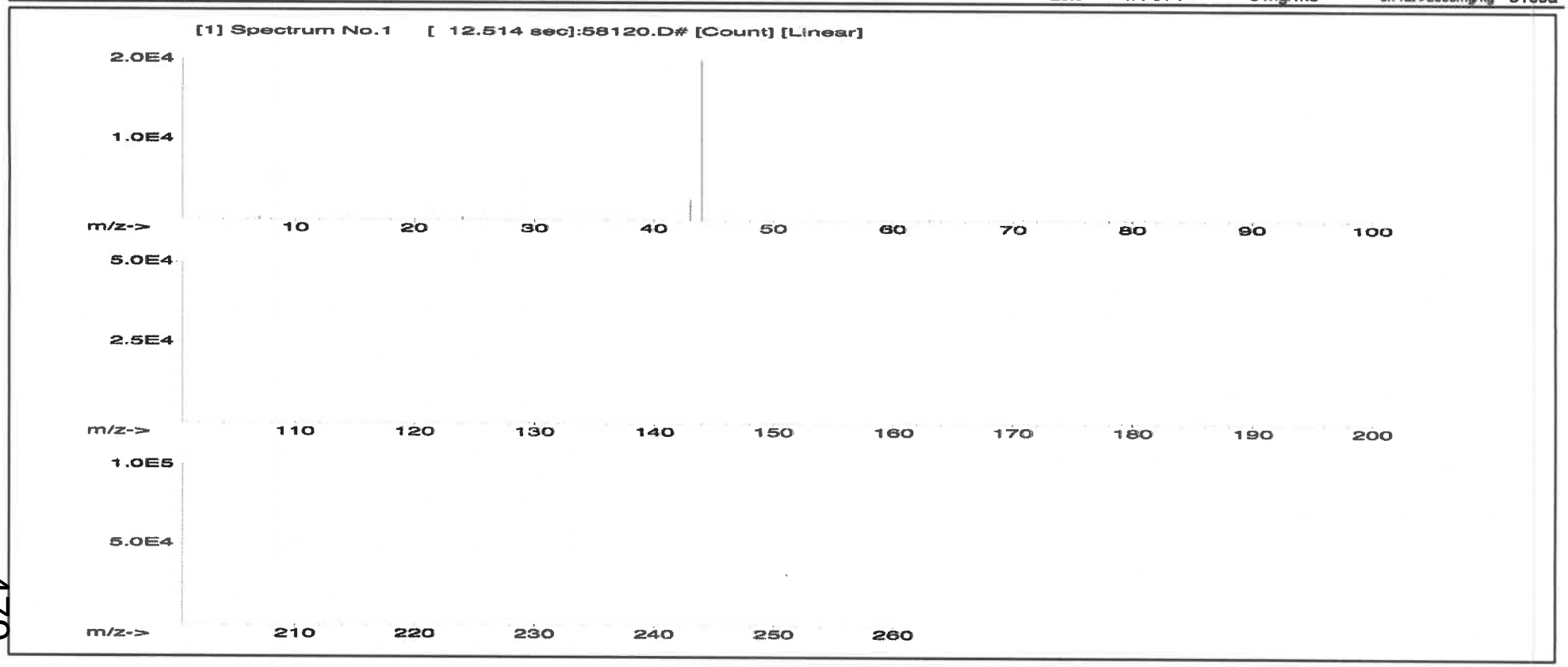
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2677	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



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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.
* 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
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CERTIFIED WEIGHT REPORT:

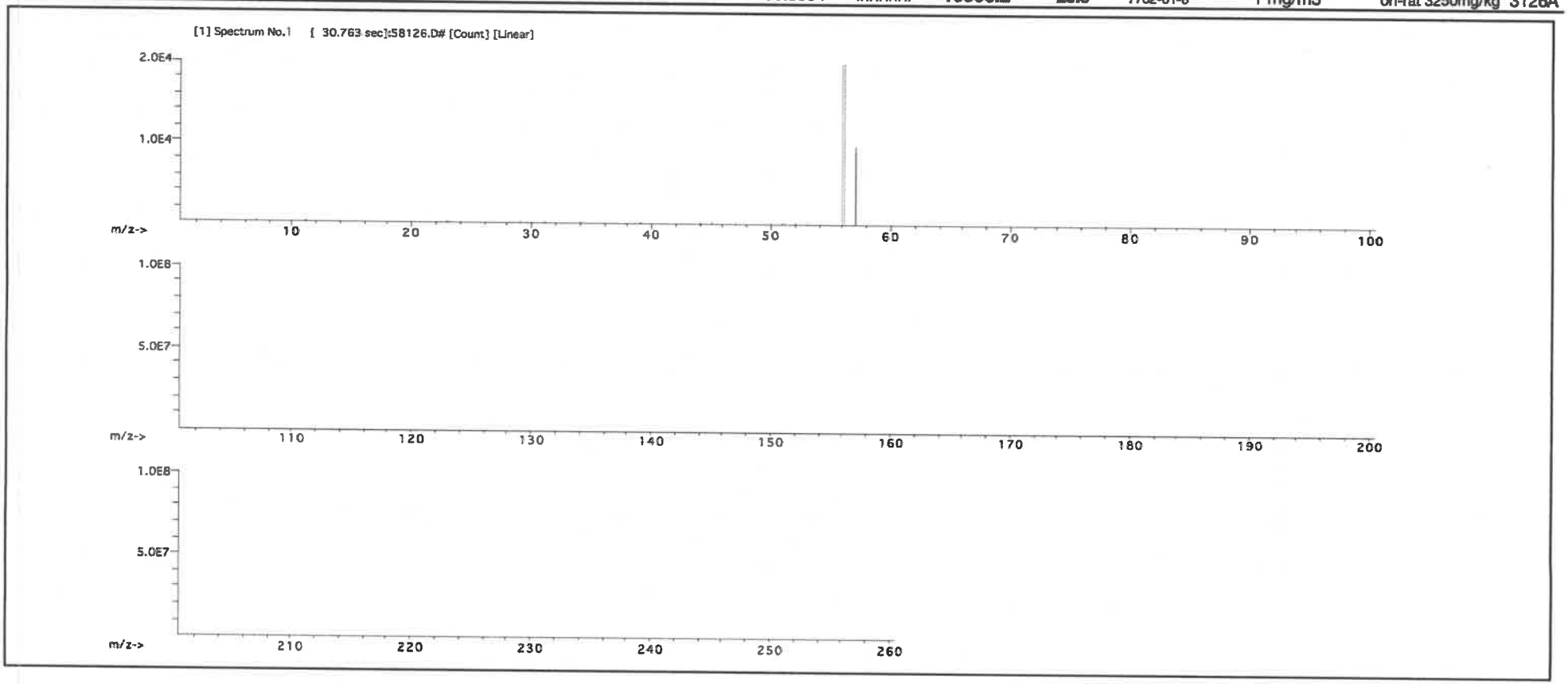
R->1|B|2S

M6140

Part Number:	**58126**		**Lot #**		
Lot Number:	**011025**	**Solvent:**	24012496	Nitric Acid	
Description:	**Iron (Fe)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	011028				
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		

Formulated By:	Benson Chan 011025
Reviewed By:	Pedro L. Rentas 011025

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



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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	T	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

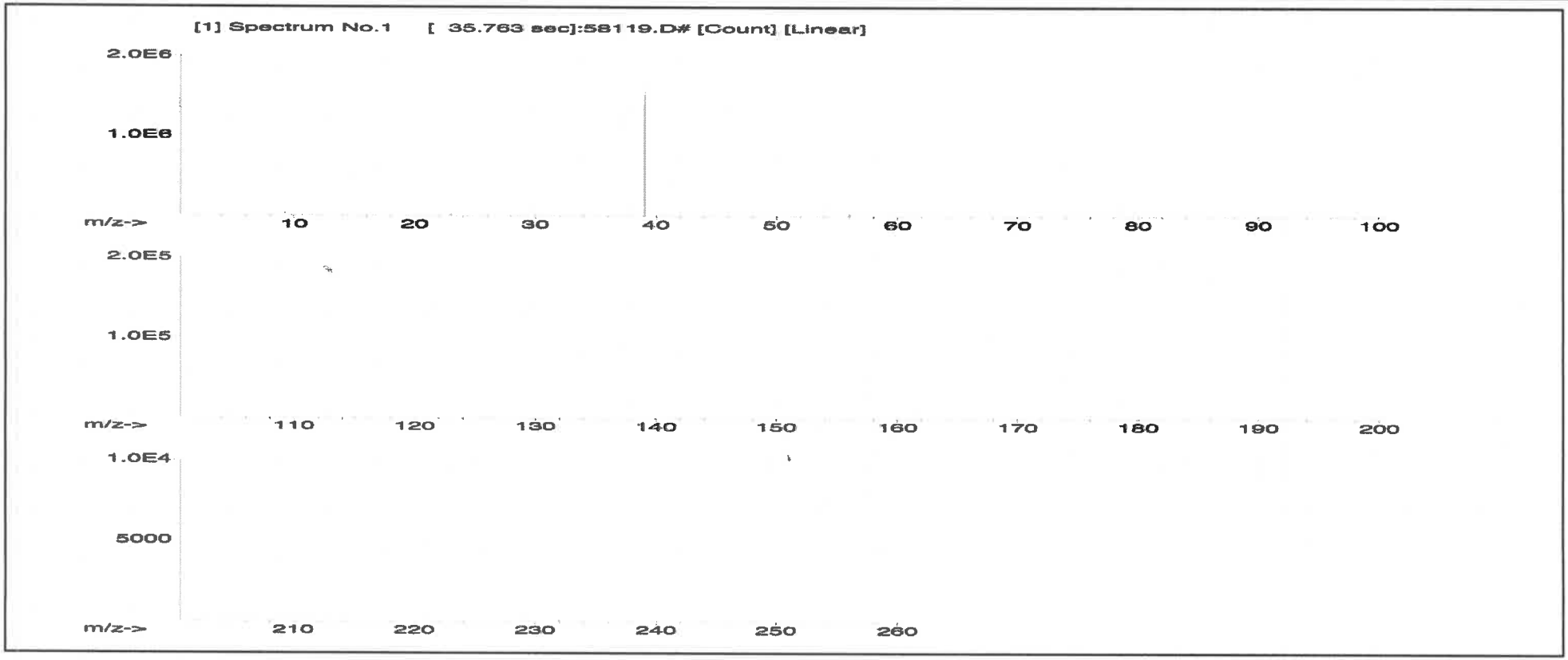
Giovanni Esposito

Formulated By:	Giovanni Esposito	103024

Pedro Rentas

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



484

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).
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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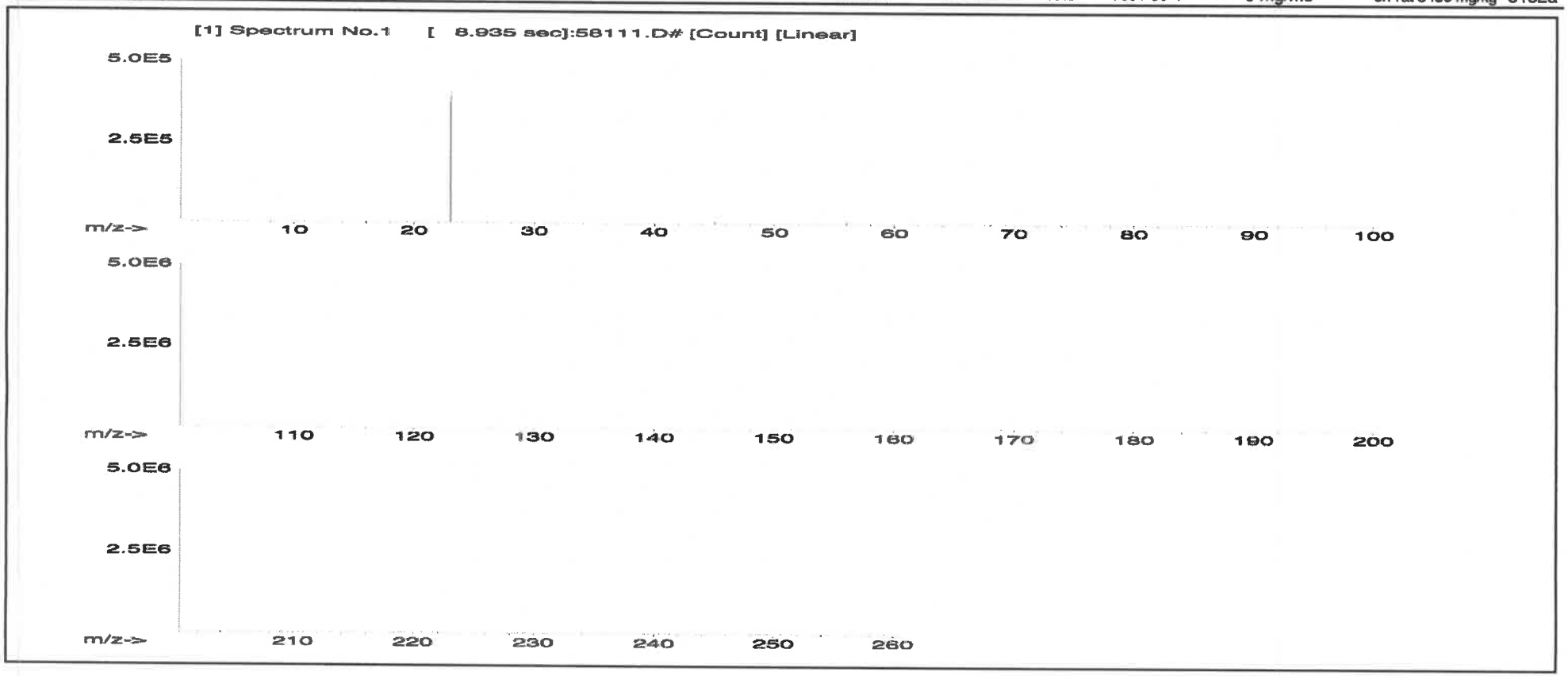
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**			**Lot #**	
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
	MG144	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Rentas	072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



486

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* 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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487

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

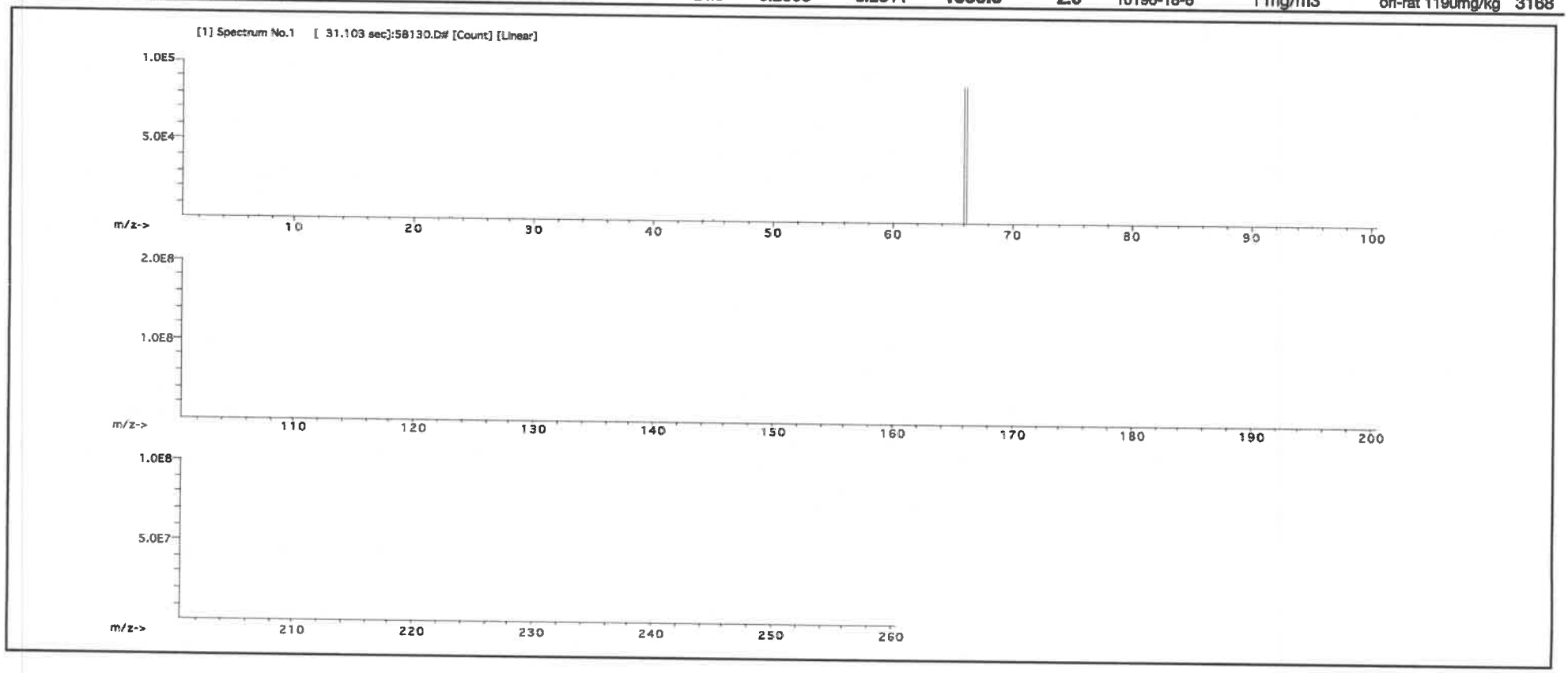
		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 2000.1 0.10 Flask Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 121724

Reviewed By: Pedro L. Rentas 121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



488

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.

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Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

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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:

$w_i = (1/u_{char\ i})^2 / \langle\Sigma(1/(u_{char\ i})^2)$

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M6156

Certified Reference Material CRM

R→ 6/12/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

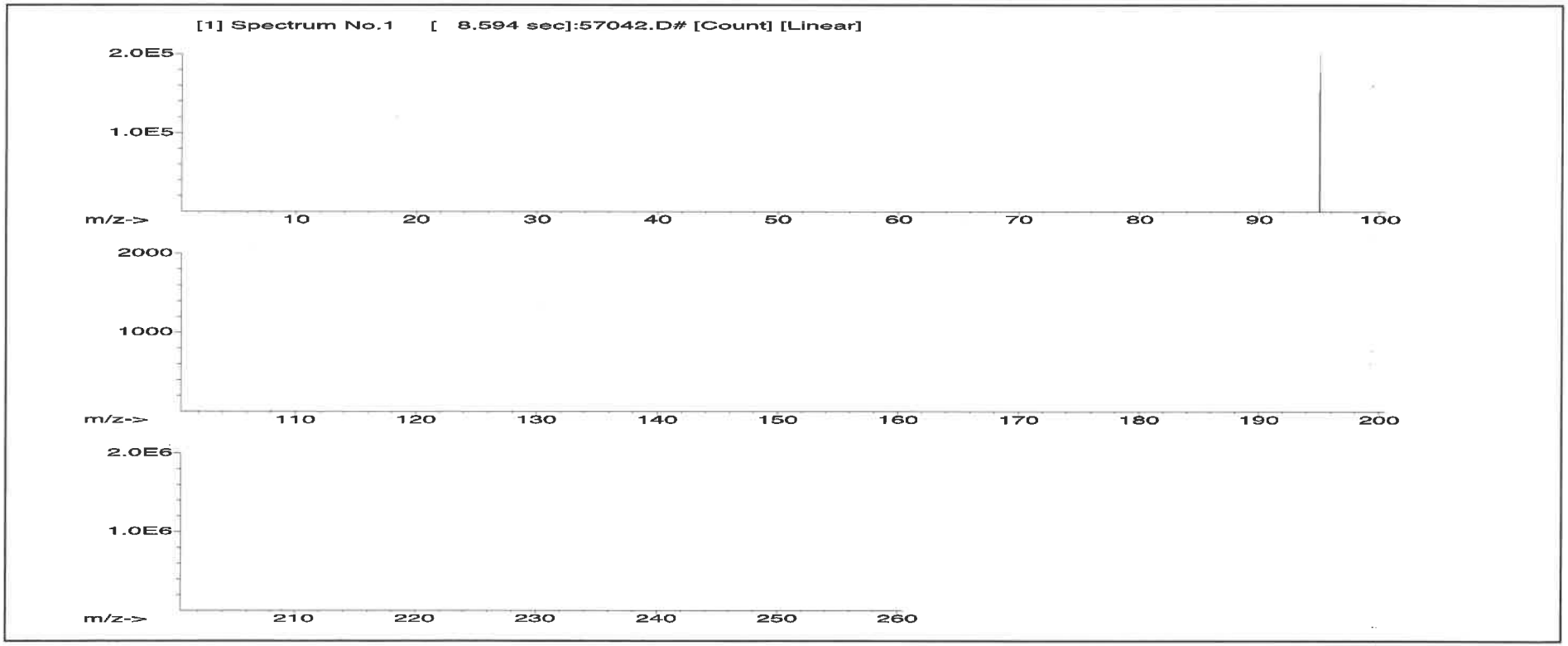
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57042**			
Lot Number:	**032123**			
Description:	**Molybdenum (Mo)**	MKBQ8597V	Ammonium hydroxide	
		0.5%	15.0 (mL)	Ammonium hydroxide
Expiration Date:	032126			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	032123
Reviewed By:	Pedro L. Rentas	032123

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	112322	0.1000	300.0	0.084	1000	10001.4	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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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	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Aluminum, Barium, 500 µg/mL ea: Iron, 250 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 125 µg/mL ea: Silver, Copper, 100 µg/mL ea: Chromium, 25 µg/mL ea: Beryllium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 000 ± 4 µg/mL	Barium, Ba	1 000 ± 6 µg/mL
Beryllium, Be	24.98 ± 0.12 µg/mL	Calcium, Ca	2 500 ± 8 µg/mL
Chromium, Cr	99.9 ± 0.6 µg/mL	Cobalt, Co	250.2 ± 1.2 µg/mL
Copper, Cu	125.0 ± 0.5 µg/mL	Iron, Fe	500.0 ± 2.2 µg/mL
Magnesium, Mg	2 500 ± 11 µg/mL	Manganese, Mn	249.9 ± 1.1 µg/mL
Nickel, Ni	250.0 ± 1.2 µg/mL	Potassium, K	2 500 ± 11 µg/mL
Silver, Ag	125.0 ± 0.6 µg/mL	Sodium, Na	2 500 ± 11 µg/mL
Vanadium, V	250.0 ± 1.1 µg/mL	Zinc, Zn	249.9 ± 1.1 µg/mL

Density: 1.081 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 22, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

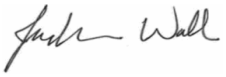
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-2
Lot Number:	U2-MEB733713
Matrix:	3% (w/v) Tartaric acid 1% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**500.0 ± 2.8 µg/mL**		

Density: 1.017 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
w_i = the weighting factors for each method calculated using the inverse square of the variance:
$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with
$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char\ a}$ = the errors from characterization
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 01, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 01, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

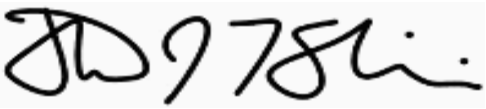
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-3
Lot Number:	V2-MEB749572
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 250 µg/mL ea: Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**500.0 ± 3.1 µg/mL**	**Cadmium, Cd**	**250.1 ± 1.1 µg/mL**
Lead, Pb	**500.0 ± 2.3 µg/mL**	**Selenium, Se**	**500.0 ± 3.2 µg/mL**
Thallium, Tl	**500.0 ± 3.0 µg/mL**		

Density: 1.040 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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- 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.

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10.1 ISO 9001 Quality Management System Registration

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- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 02, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 02, 2030**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

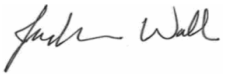
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



R -> 2/13/25

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

M 6171

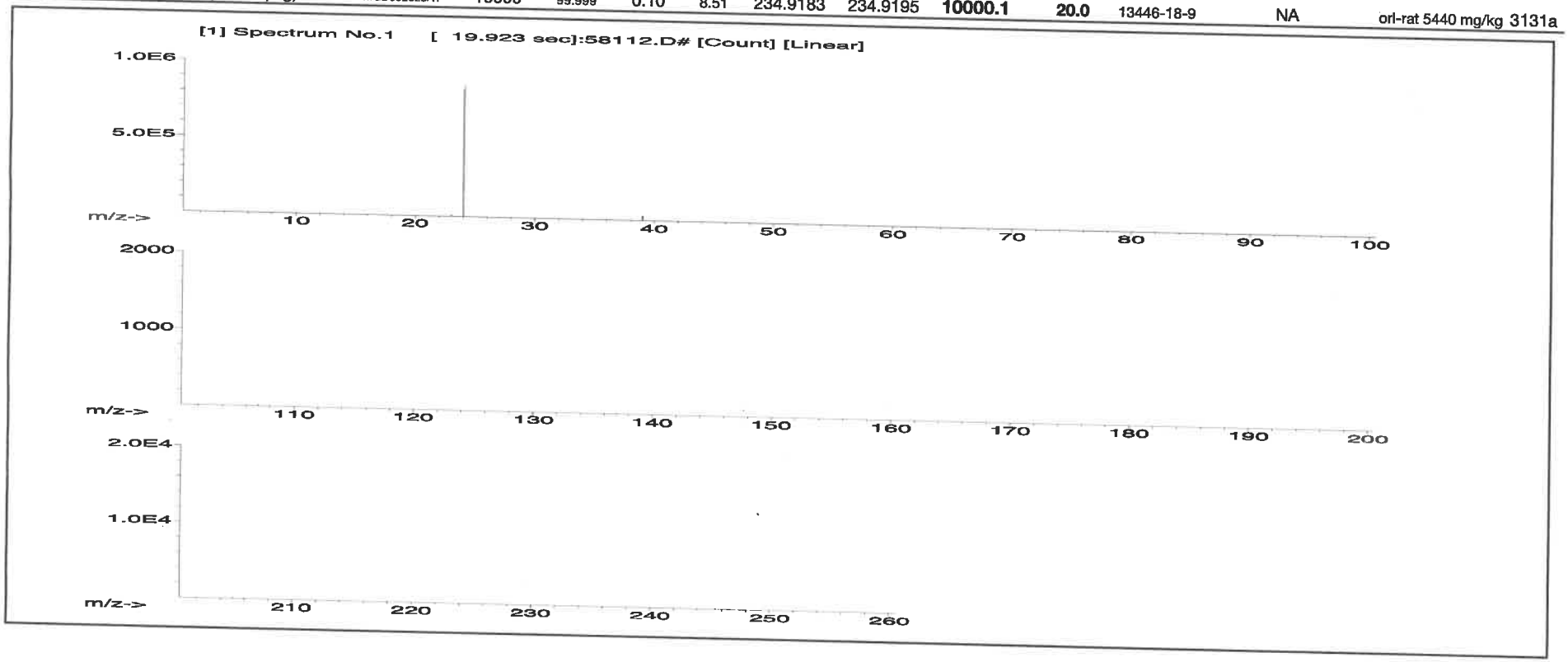
Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	011525
Reviewed By:	Pedro L. Rentas	011525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

R-> 4/25/25 M6172

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Refine your results. Redefine your industry.

Certificate of Analysis

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Christiansburg, VA 24073 USA
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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:	CGNA10
Lot Number:	V2-NA740547
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Sodium
Starting Material:	Sodium Carbonate
Starting Material Lot#:	2453 and 2606
Starting Material Purity:	99.9976%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10018 ± 30 µg/mL

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10026 ± 18 µg/mL** Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	**9986 ± 66 µg/mL** ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	**10002 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000860	M	Eu	<	0.000860	s	Na	<		O	Se	<	0.034000	O	Zn		0.000387
O	Al		0.003121	O	Fe		0.001622	M	Nb	<	0.000860	O	Si		0.044943	M	Zr	<	0.001800
M	As	<	0.001800	M	Ga	<	0.000860	M	Nd	<	0.000860	M	Sm	<	0.000860				
M	Au	<	0.005700	M	Gd	<	0.000860	O	Ni	<	0.000980	M	Sn	<	0.000860				
O	B	<	0.025000	M	Ge	<	0.003500	M	Os	<	0.029000	M	Sr		0.000436				
M	Ba		0.004494	M	Hf	<	0.000860	O	P		0.005742	M	Ta	<	0.000086				
O	Be	<	0.000160	M	Hg	<	0.002900	M	Pb	<	0.002600	M	Tb	<	0.000860				
M	Bi	<	0.000860	M	Ho	<	0.000860	M	Pd	<	0.004300	M	Te	<	0.004300				
O	Ca		0.112358	M	In	<	0.000860	M	Pr	<	0.000860	M	Th	<	0.003500				
O	Cd	<	0.000730	M	Ir	<	0.000940	M	Pt	<	0.000860	O	Ti		0.000399				
M	Ce	<	0.000860	O	K		0.349560	M	Rb		0.000436	M	Tl	<	0.000860				
M	Co	<	0.000860	M	La	<	0.000860	M	Re	<	0.000860	M	Tm	<	0.000860				
O	Cr	<	0.002000	O	Li		0.000224	M	Rh	<	0.000860	M	U	<	0.000860				
M	Cs		0.000287	M	Lu	<	0.000860	M	Ru	<	0.000940	O	V	<	0.001500				
O	Cu	<	0.004100	M	Mg		0.097377	O	S		0.018726	M	W	<	0.007700				
M	Dy	<	0.000860	M	Mn	<	0.007700	M	Sb	<	0.000860	M	Y	<	0.000860				
M	Er	<	0.000860	O	Mo	<	0.002800	O	Sc	<	0.000610	M	Yb	<	0.000860				

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.

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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 - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

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 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 23, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 23, 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



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→ 1/27/25

M6175

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:	6020CAL-1
Lot Number:	V2-MEB742014
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	20.02 ± 0.08 µg/mL	Antimony, Sb	20.03 ± 0.11 µg/mL
Arsenic, As	20.03 ± 0.16 µg/mL	Barium, Ba	20.02 ± 0.11 µg/mL
Beryllium, Be	20.02 ± 0.15 µg/mL	Cadmium, Cd	20.02 ± 0.11 µg/mL
Calcium, Ca	20.03 ± 0.09 µg/mL	Chromium, Cr	20.03 ± 0.13 µg/mL
Cobalt, Co	20.03 ± 0.12 µg/mL	Copper, Cu	20.03 ± 0.10 µg/mL
Iron, Fe	20.04 ± 0.09 µg/mL	Lead, Pb	20.03 ± 0.11 µg/mL
Magnesium, Mg	20.03 ± 0.10 µg/mL	Manganese, Mn	20.03 ± 0.11 µg/mL
Nickel, Ni	20.03 ± 0.11 µg/mL	Potassium, K	20.03 ± 0.10 µg/mL
Selenium, Se	20.03 ± 0.13 µg/mL	Silver, Ag	20.03 ± 0.09 µg/mL
Sodium, Na	20.03 ± 0.10 µg/mL	Thallium, Tl	20.03 ± 0.10 µg/mL
Vanadium, V	20.03 ± 0.11 µg/mL	Zinc, Zn	20.03 ± 0.11 µg/mL

Density: 1.027 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
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
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
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 11, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 11, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

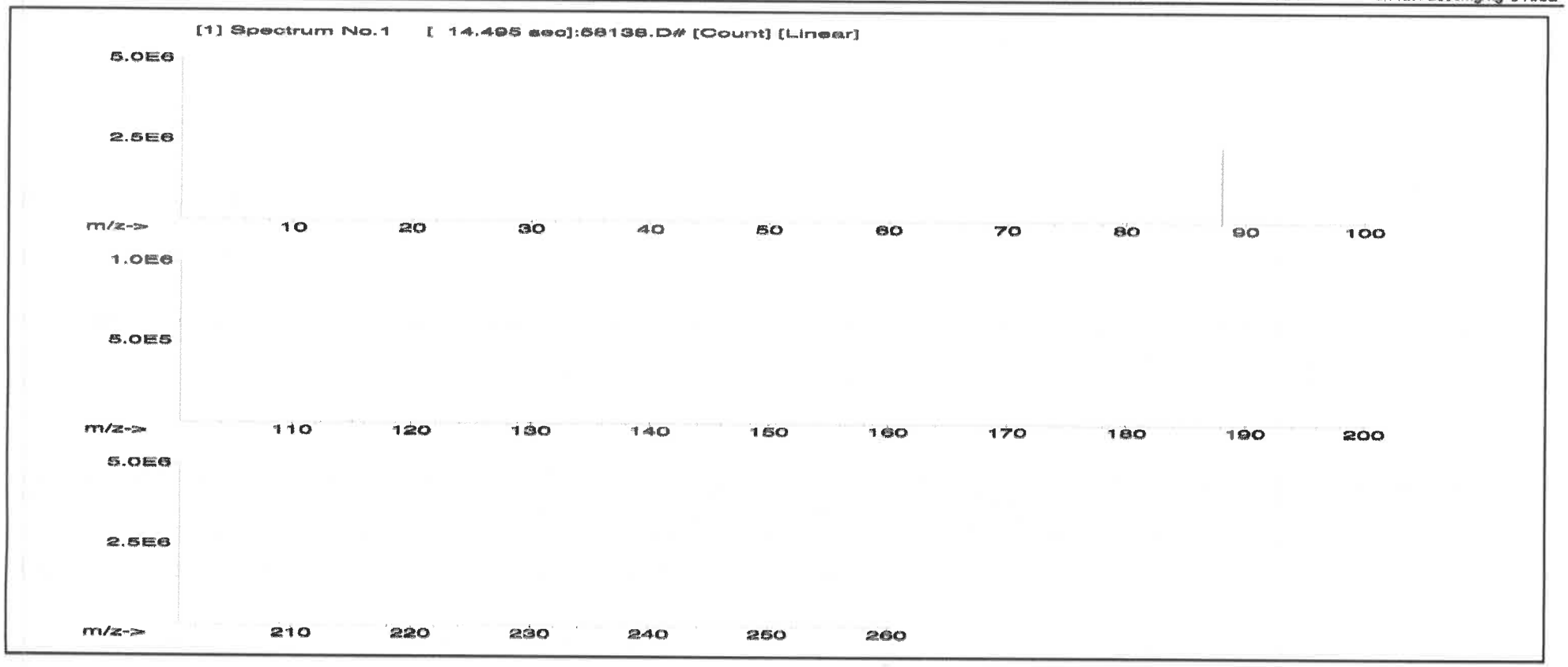
R->8/6/25

Part Number:	57038		**Lot #**		
Lot Number:	092724	**Solvent:**	24002546	Nitric Acid	
Description:	Strontium (Sr)				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	092727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

M6176

Formulated By:	Benson Chan	092724
Reviewed By:	Pedro L. Rentas	092724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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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	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

R>8/6/28
M6178

Part Number:	57082		**Lot #**		
Lot Number:	031525	**Solvent:**	24014457	Nitric Acid	
Description:	Lead (Pb)		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.10	Flask Uncertainty		

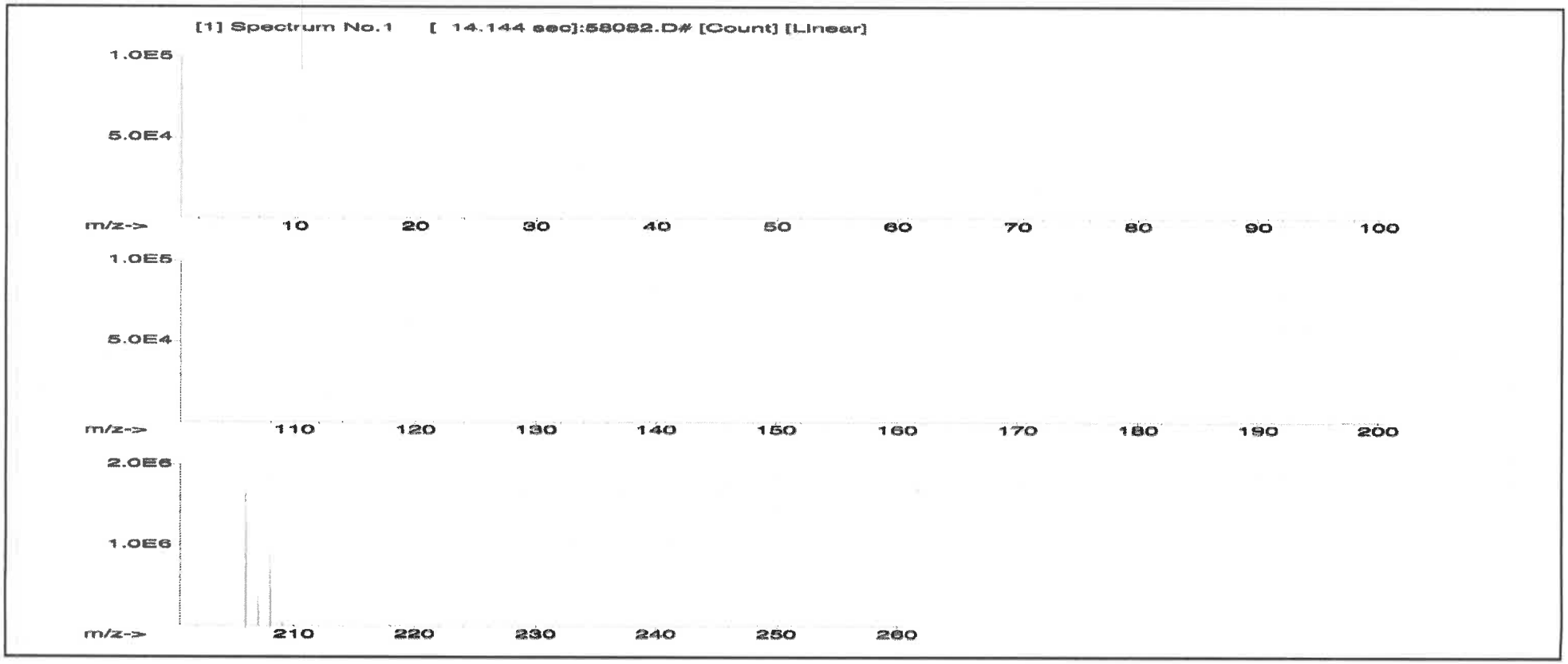
Giovanni Esposito

Formulated By:	Giovanni Esposito	031525

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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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	<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).

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:

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.

M6185 ICSA

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

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.

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/05/24

M6027

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

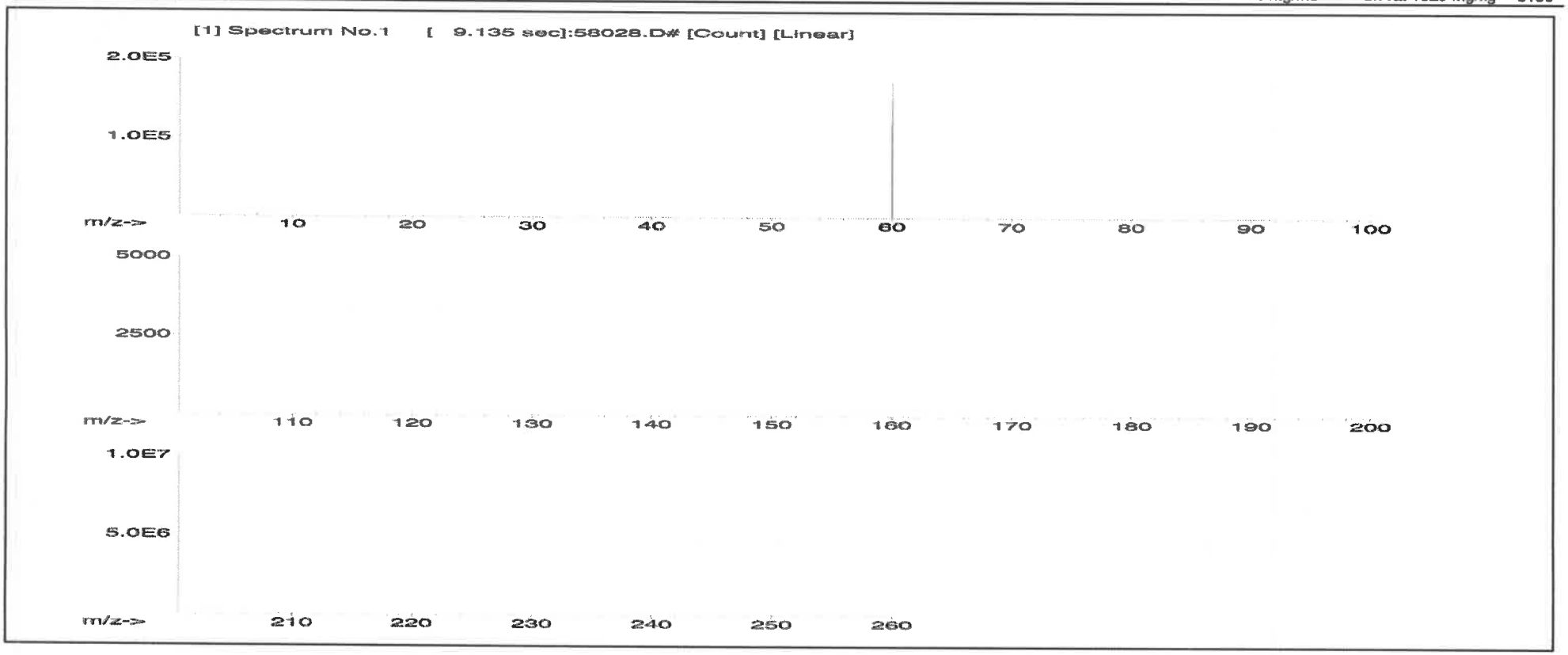
533

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**062024**			
Description:	**Nickel (Ni)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062027			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated **By:**	Benson Chan	062024
Reviewed By:	Pedro L. Rentas	062024

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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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	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).

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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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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

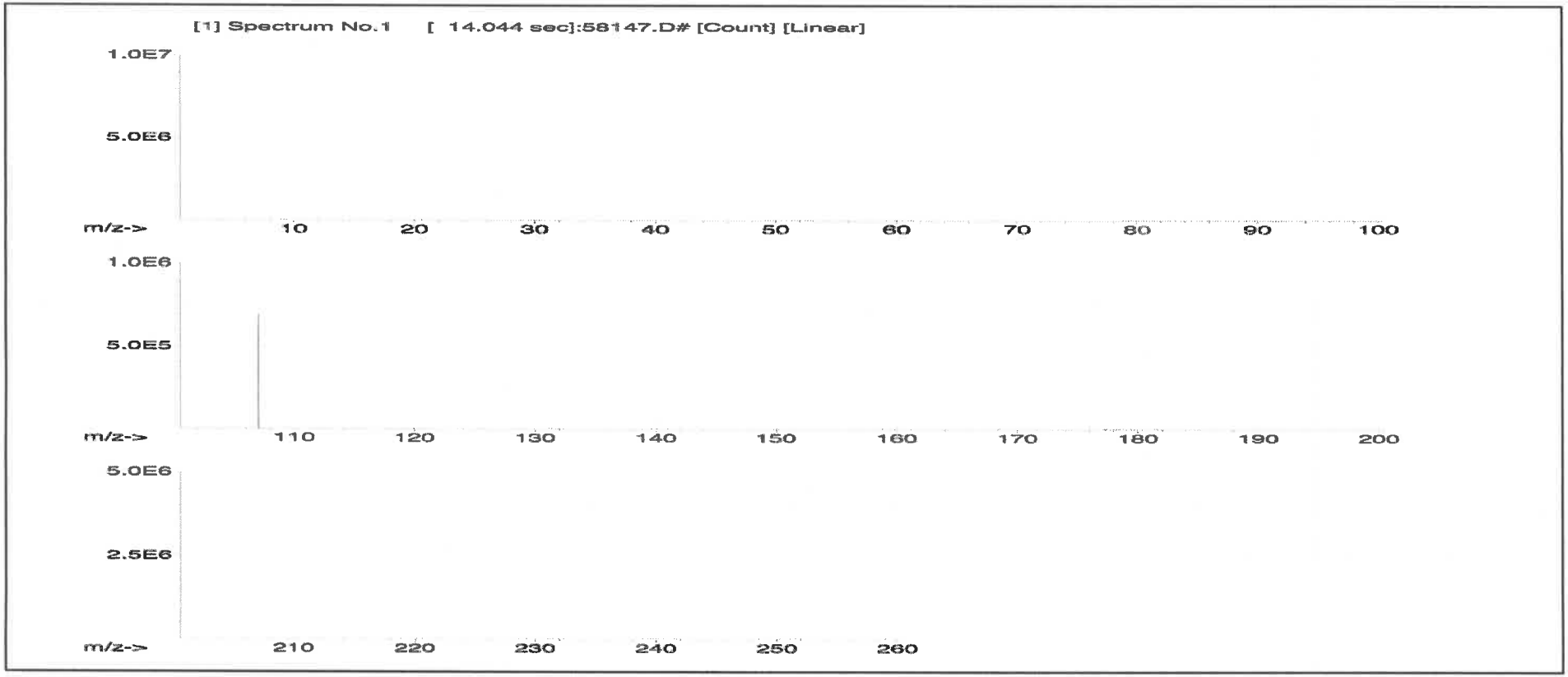
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 10/18/24

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541

CERTIFIED WEIGHT REPORT:

MG146

		Lot #	Solvent:		
Part Number:	**57051**	24002546	Nitric Acid		
Lot Number:	**071724**				
Description:	**Antimony (Sb)**				
		2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	071727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.26	0.058	Flask Uncertainty		

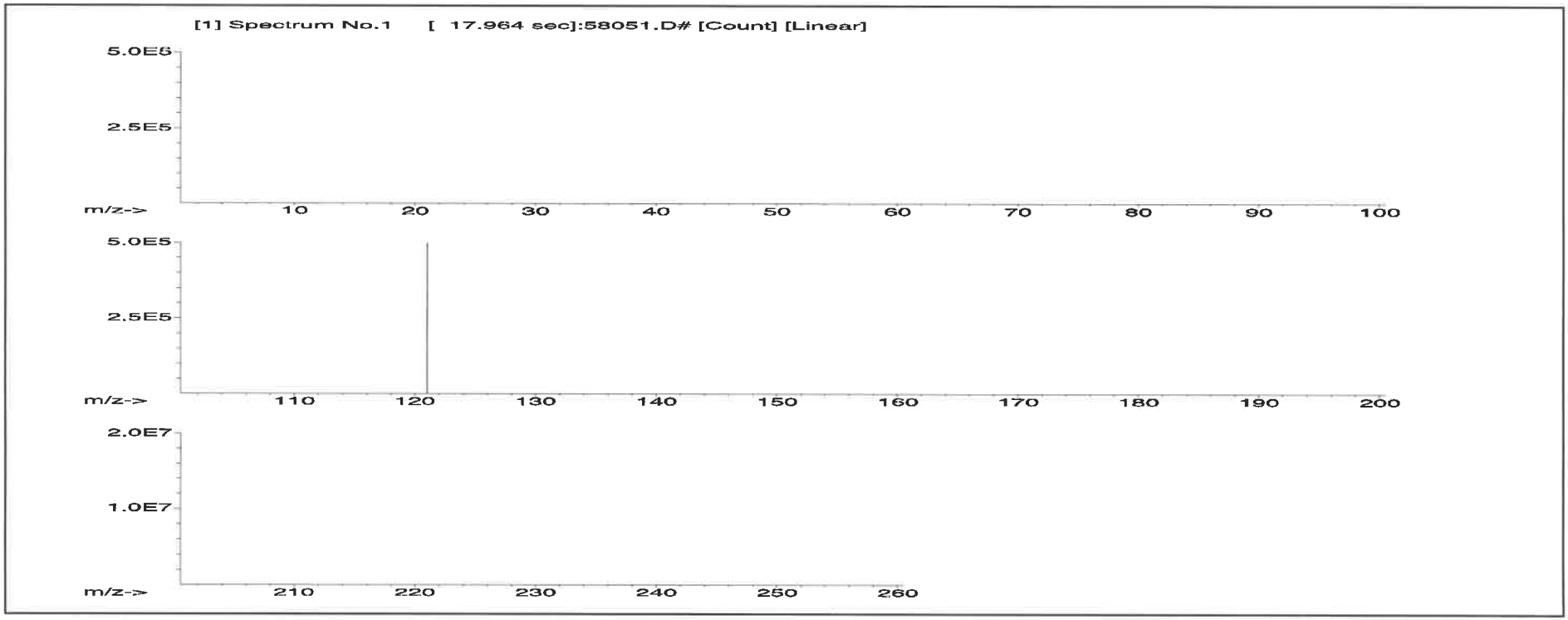
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



542

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:

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545

CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

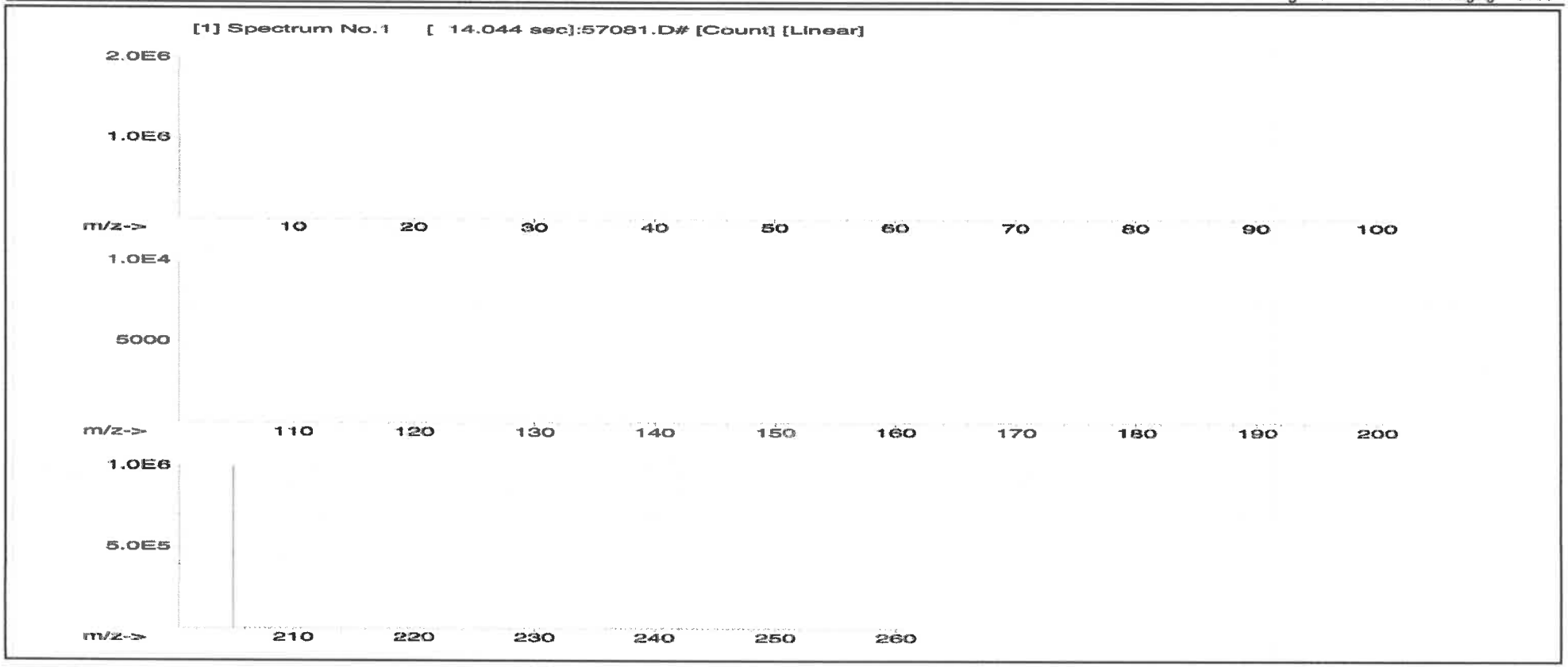
Aleah O'Brady

Formulated By:	Aleah O'Brady	062724

Pedro Rentas

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



546

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:



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547

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**			
Description:	**Vanadium (V)**	24002546	Nitric Acid	
		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	

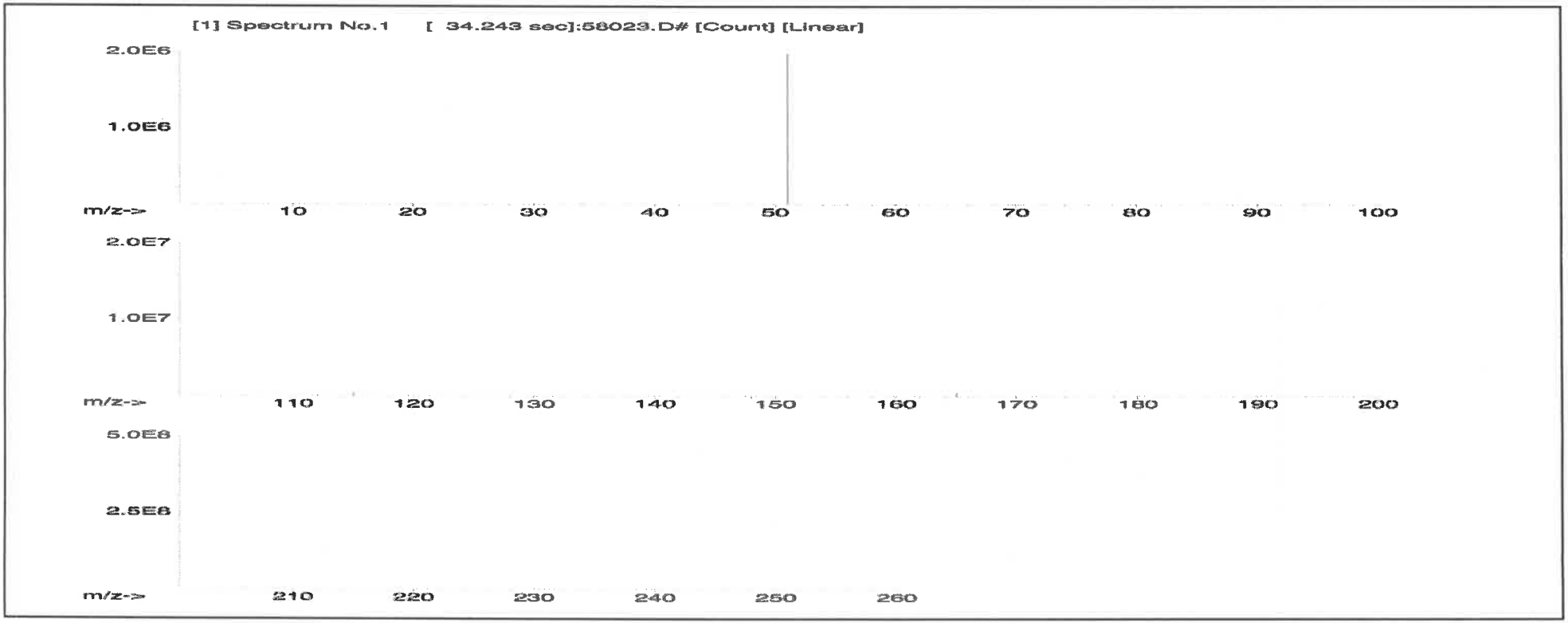
Aleah O'Brady

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



548

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

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

Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB137284

Review By	jaswal	Review On	9/24/2025 10:22:59 AM
Supervise By	JANVI	Supervise On	9/24/2025 4:50:32 PM

STD. NAME	STD REF.#
ICAL Standard	MP87074,MP87082,MP87080,MP87079,MP87078,MP87077,MP87076,MP87075
ICV Standard	MP87085
CCV Standard	MP87086
ICSA Standard	MP87087,MP87088
CRI Standard	
LCS Standard	
Chk Standard	MP87091,MP87092

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE001	TUNE	09/23/25 14:17		Jaswal	OK
2	S00	S0	CAL1	09/23/25 14:48		Jaswal	OK
3	S02	S02	CAL3	09/23/25 14:52		Jaswal	OK
4	S03	S03	CAL4	09/23/25 14:55		Jaswal	OK
5	S04	S04	CAL5	09/23/25 14:58		Jaswal	OK
6	S05	S05	CAL6	09/23/25 15:04		Jaswal	OK
7	S06	S06	CAL7	09/23/25 15:07		Jaswal	OK
8	S07	S07	CAL8	09/23/25 15:10		Jaswal	OK
9	S08	S08	CAL9	09/23/25 15:12		Jaswal	OK
10	ICV001	ICV001	ICV	09/23/25 15:32		Jaswal	OK
11	ICB001	ICB001	ICB	09/23/25 15:35		Jaswal	OK
12	ICSA001	ICSA001	ICSA	09/23/25 15:38		Jaswal	OK
13	ICSAB001	ICSAB001	ICSAB	09/23/25 15:41		Jaswal	OK
14	CCV001	CCV001	CCV	09/23/25 15:45		Jaswal	OK
15	CCB001	CCB001	CCB	09/23/25 15:50		Jaswal	OK
16	PB169799BL	PBW799	MB	09/23/25 15:54		Jaswal	OK
17	PB169799BS	LCS799	LCS	09/23/25 16:09		Jaswal	OK
18	Q3084-01	PMW-9S(20250909)	SAM	09/23/25 16:13		Jaswal	OK

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Fax : 908 789 8922

Instrument ID: P7

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Supervise By	JANVI	Supervise On	9/24/2025 4:50:32 PM

STD. NAME	STD REF.#
ICAL Standard	MP87074,MP87082,MP87080,MP87079,MP87078,MP87077,MP87076,MP87075
ICV Standard	MP87085
CCV Standard	MP87086
ICSA Standard	MP87087,MP87088
CRI Standard	
LCS Standard	
Chk Standard	MP87091,MP87092

19	Q3084-02	PMW-9D(20250909)	SAM	09/23/25 16:16		Jaswal	OK
20	Q3084-03	PMW-8D(20250909)	SAM	09/23/25 16:19		Jaswal	OK
21	Q3084-04	PMW-8S(20250909)	SAM	09/23/25 16:22		Jaswal	OK
22	Q3084-05	FB(20250909)	SAM	09/23/25 16:25		Jaswal	OK
23	Q3084-06	PMW-6(20250910)	SAM	09/23/25 16:29	Fe High	Jaswal	Dilution
24	Q3084-07	PMW-3(20250910)	SAM	09/23/25 16:32		Jaswal	OK
25	Q3084-08	PMW-7S(20250910)	SAM	09/23/25 16:35		Jaswal	OK
26	Q3084-09	PMW-7D(20250910)	SAM	09/23/25 16:38		Jaswal	OK
27	Q3084-10	DUP(20250910)	SAM	09/23/25 16:41		Jaswal	OK
28	Q3084-11DL2	PMW-10(20250910)	SAM	09/23/25 16:48	Not Required	Jaswal	Not Ok
29	Q3084-12	FB(20250910)	SAM	09/23/25 16:51		Jaswal	OK
30	Q3084-13	PMW-4(20250911)	SAM	09/23/25 16:54		Jaswal	OK
31	Q3084-14	MW-1(MCUA)(20250	SAM	09/23/25 16:58		Jaswal	OK
32	Q3084-15	MW-2(MCUA)(20250	SAM	09/23/25 17:01		Jaswal	OK
33	Q3084-16	PMW-1(20250911)	SAM	09/23/25 17:04		Jaswal	OK
34	Q3084-17	PMW-5(20250911)	SAM	09/23/25 17:07		Jaswal	OK
35	Q3084-18	PMW-2(20250911)	SAM	09/23/25 17:11		Jaswal	OK
36	CCV002	CCV002	CCV	09/23/25 17:14		Jaswal	OK
37	CCB002	CCB002	CCB	09/23/25 17:21		Jaswal	OK
38	Q3084-11	PMW-10(20250910)	SAM	09/23/25 17:24	Fe High	Jaswal	Dilution

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Fax : 908 789 8922

Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB137284

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Supervise By	JANVI	Supervise On	9/24/2025 4:50:32 PM

STD. NAME	STD REF.#
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ICV Standard	MP87085
CCV Standard	MP87086
ICSA Standard	MP87087,MP87088
CRI Standard	
LCS Standard	
Chk Standard	MP87091,MP87092

39	Q3084-11DL	PMW-10(20250910)	SAM	09/23/25 17:27	2X For Fe	Jaswal	Confirms
40	Q3084-20	PMW-2(20250911)D	DUP	09/23/25 17:31		Jaswal	OK
41	Q3084-18L	PMW-2(20250911)L	SD	09/23/25 17:37		Jaswal	OK
42	Q3084-21	FB(20250911)	SAM	09/23/25 17:40		Jaswal	OK
43	Q3084-19	PMW-2(20250911)S	MS	09/23/25 17:43		Jaswal	OK
44	Q3084-22	EB(20250911)	SAM	09/23/25 17:46		Jaswal	OK
45	Q3084-01DL	PMW-9S(20250909)	SAM	09/23/25 17:50	Not Required	Jaswal	Not Ok
46	Q3084-02DL	PMW-9D(20250909)	SAM	09/23/25 17:53	Not Required	Jaswal	Not Ok
47	Q3084-06DL	PMW-6(20250910)	SAM	09/23/25 17:56	2X For Fe	Jaswal	Confirms
48	CCV003	CCV003	CCV	09/23/25 18:03		Jaswal	OK
49	CCB003	CCB003	CCB	09/23/25 18:18		Jaswal	OK

EPA SAMPLE NO.

DUP(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-10

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1445

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

EB(20250911)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-22

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1517

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250909)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-05

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1433

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250910)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-12

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1449

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

FB(20250911)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-21

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1515

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MW-1(MCUA)(20250

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-14

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1454

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MW-2(MCUA)(20250

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-15

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1456

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-1(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-16

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.025	J	09/24/2025	1459

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-10(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-11

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.13	J	09/24/2025	1447

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-2(20250911)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-18

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1503

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-3(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-07

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.047	J	09/24/2025	1438

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-4(20250911)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-13

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1452

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-5(20250911)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-17

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1501

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-6(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-06

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.21		09/24/2025	1435

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-7D(20250910)

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-09

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1442

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-7S(20250910)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-08

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	09/24/2025	1440

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-8D(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-03

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.11	J	09/24/2025	1429

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-8S(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-04

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.057	J	09/24/2025	1431

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-9D(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-02

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.42		09/24/2025	1426

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

PMW-9S(20250909)

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No. : SDG No.: Q3084

Matrix: Water Lab Sample ID: Q3084-01

% Solids: Date Received: 09/11/2025

Analytical Method: Hg

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.11	J	09/24/2025	1424

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2 - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : S DG No.: Q3084

Initial Calibration Verification Source : MP87328

Continuing Calibration Verification Source : MP87330

Run Batch: LB137291 Analytical Method: CVAA

Concentration Units: µg/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV44				ID: CCV33				ID: CCV34		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury	4.0	3.8	96		5.0	5.1	102		5.1	102	

FORM 2 - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : S DG No.: Q3084

Initial Calibration Verification Source : MP87328

Continuing Calibration Verification Source : MP87330

Run Batch: LB137291 Analytical Method: CVAA

Concentration Units: µg/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV35				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					5.0	5.1	102				

FORM 3 - IN
BLANKS

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevil MA No. : SDG No.: Q3084

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): ug/L

Analytical Method: CVAA Preparation Batch: PB169817

Run Batch: LB137291 Preparation Method: 7470A

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID: ICB44	Q	ID: CCB33	Q	ID: CCB34	Q	ID: CCB35	Q	ID: PBW817	Q
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

EPA SAMPLE NO.

PMW-2(20250911)S

FORM 5A - IN

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevil MA No. : SDG No.: Q3084

Matrix : Water Analytical Method: CVAA

% Solids:

Concentration Units (µg/L, mg/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Mercury	75 - 125	1.1		0.2	U	1.0	105	

EPA SAMPLE NO.

PMW-2(20250911)D

FORM 6 - IN
DUPLICATES

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevill MA No. : SDG No.: Q3084

Matrix : Water Analytical Method: CVAA

% Solids:

Concentration Units (µg/L, mg/L or mg/kg dry weight): ug/L

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Mercury	0.2	0.2	U	0.045	J		

FORM 9-IN

METHOD DETECTION LIMIT

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Say MA No.: SDG No.: Q3084

Analytical Method: CVAA Instrument ID: CV1

Preparation Method: 7470A

Concentration Units (µg/L, µg or mg/kg): ug/L

Analyte	Wavelength/Mass	MDL	Date Analyzed
Mercury	253.70	0.022	02/12/2025

FORM 12-IN

ANALYSIS LOG

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayre MA No.: SDG No.: Q3084

Instrument ID: CV1 Analytical Method: CVAA

Start Date: 09/24/2025 End Date: 09/24/2025

Run Batch: LB137291

EPA Sample No.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1342															X											
S01	1.0	1344															X											
S02	1.0	1349															X											
S03	1.0	1354															X											
S04	1.0	1359															X											
S05	1.0	1404															X											
ICV44	1.0	1410															X											
ICB44	1.0	1412															X											
CCV33	1.0	1415															X											
CCB33	1.0	1417															X											
PBW817	1.0	1422															X											
PMW-9S(202	1.0	1424															X											
PMW-9D(202	1.0	1426															X											
PMW-8D(202	1.0	1429															X											
PMW-8S(202	1.0	1431															X											
FB(2025090	1.0	1433															X											
PMW-6(2025	1.0	1435															X											
PMW-3(2025	1.0	1438															X											
PMW-7S(202	1.0	1440															X											
PMW-7D(202	1.0	1442															X											
DUP(2025091	1.0	1445															X											
PMW-10(202	1.0	1447															X											
FB(2025091	1.0	1449															X											
PMW-4(2025	1.0	1452															X											
MW-1(MCUA)	1.0	1454															X											
MW-2(MCUA)	1.0	1456															X											
PMW-1(2025	1.0	1459															X											
PMW-5(2025	1.0	1501															X											
PMW-2(2025	1.0	1503															X											
PMW-2(2025	1.0	1506															X											
CCV34	1.0	1508															X											
CCB34	1.0	1510															X											
PMW-2(2025	1.0	1512															X											
FB(2025091	1.0	1515															X											
EB(2025091	1.0	1517															X											
CCV35	1.0	1521															X											
CCB35	1.0	1523															X											

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevi MA No.: SDG No.: Q3084

Instrument ID: CV1 Start Date: 09/24/2025

Analytical Method: CVAA Run Batch: LB137291

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0	0.0	0	0.2	0.22	9	2.5	2.3	-7

FORM 15-IN

INITIAL CALIBRATION

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayrevi MA No.: SDG No.: Q3084

Instrument ID: CV1 Start Date: 09/24/2025

Analytical Method: CVAA Run Batch: LB137291

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	5	5.2	3	7.5	7.9	5	10	9.6	-4

FORM 16-IN

INITIAL CALIBRATION SUMMARY

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: ARC Sayreville MA No: SDG No.: Q3084

Instrument ID: CV1 Start Date : 09/24/2025

Analytical Method: CVAA Run Batch : LB137291

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Mercury	0.998000	0.000365	-0.022200	Lin. Reg	NONE

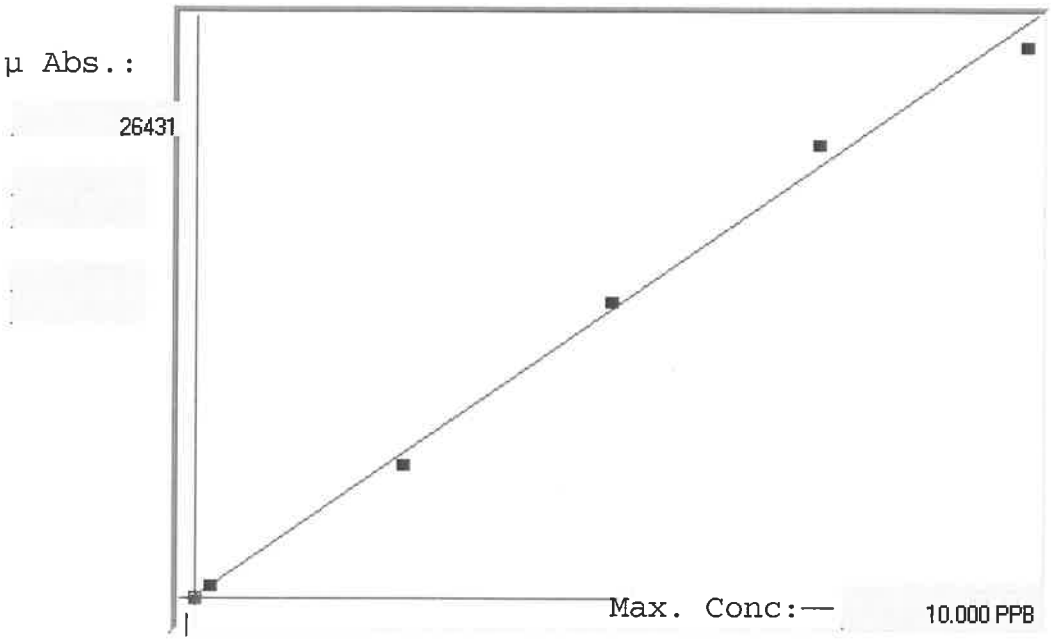
Reviewed By:jaswal
On:9/24/2025 4:47:34 PM
Inst Id :CV1

LB137291

SFAM01.1

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 3.6462e-004 Slop

C= -2.2156e-002

y= intercept

Rho= 0.9977310

Accept=Accepted

MB
09/24/2025

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.00	0.00	-0.04	-0.04	-59	0.00	-59				
0.05	0.05									
0.20	0.20	0.21	0.01	660	0.0 %	660				
2.50	2.50	2.33	-0.16	6468	0.0 %	6468				
5.00	5.00	5.16	0.16	14234	0.0 %	14234				
7.50	7.50	7.90	0.40	21744	0.0 %	21744				
10.0	10.00	9.61	-0.38	26431	0.0 %	26431				

3/61)

-7

MB
09/24/25

Reviewed By:jaswal
On:9/24/2025 4:47:34 PM
Inst Id :CV1

LB137291

INSTRUMENT ID CV1

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type
0	S0	-59	-	0	SFAM01.1	PPB	9/24/2025 13:42	Std
0.2	S01	660	-	0.2	SFAM01.1	PPB	9/24/2025 13:44	Std
2.5	S02	6468	-	2.5	SFAM01.1	PPB	9/24/2025 13:49	Std
5	S03	14234	-	5	SFAM01.1	PPB	9/24/2025 13:54	Std
7.5	S04	21744	-	7.5	SFAM01.1	PPB	9/24/2025 13:59	Std
10	S05	26431	-	10	SFAM01.1	PPB	9/24/2025 14:04	Std
ICV44	ICV44	10593	3.8402	-	SFAM01.1	PPB	9/24/2025 14:10	SMPL
ICB44	ICB44	-190	-0.0914	-	SFAM01.1	PPB	9/24/2025 14:12	SMPL
CCV33	CCV33	14026	5.092	-	SFAM01.1	PPB	9/24/2025 14:15	SMPL
CCB33	CCB33	-222	-0.1031	-	SFAM01.1	PPB	9/24/2025 14:17	SMPL
PB169817BL	PBW817	7	-0.0196	-	SFAM01.1	PPB	9/24/2025 14:22	SMPL
Q3084-01	PMW-9S(20250909)	366	0.1113	-	SFAM01.1	PPB	9/24/2025 14:24	SMPL
Q3084-02	PMW-9D(20250909)	1216	0.4212	-	SFAM01.1	PPB	9/24/2025 14:26	SMPL
Q3084-03	PMW-8D(20250909)	371	0.1131	-	SFAM01.1	PPB	9/24/2025 14:29	SMPL
Q3084-04	PMW-8S(20250909)	216	0.0566	-	SFAM01.1	PPB	9/24/2025 14:31	SMPL
Q3084-05	FB(20250909)	-127	-0.0685	-	SFAM01.1	PPB	9/24/2025 14:33	SMPL
Q3084-06	PMW-6(20250910)	631	0.2079	-	SFAM01.1	PPB	9/24/2025 14:35	SMPL
Q3084-07	PMW-3(20250910)	190	0.0471	-	SFAM01.1	PPB	9/24/2025 14:38	SMPL
Q3084-08	PMW-7S(20250910)	-7	-0.0247	-	SFAM01.1	PPB	9/24/2025 14:40	SMPL
Q3084-09	PMW-7D(20250910)	68	0.0026	-	SFAM01.1	PPB	9/24/2025 14:42	SMPL
Q3084-10	DUP(20250910)	40	-0.0076	-	SFAM01.1	PPB	9/24/2025 14:45	SMPL
Q3084-11	PMW-10(20250910)	426	0.1332	-	SFAM01.1	PPB	9/24/2025 14:47	SMPL
Q3084-12	FB(20250910)	-95	-0.0568	-	SFAM01.1	PPB	9/24/2025 14:49	SMPL
Q3084-13	PMW-4(20250911)	116	0.0201	-	SFAM01.1	PPB	9/24/2025 14:52	SMPL
Q3084-14	MW-1(MCUA)(20250911)	-31	-0.0335	-	SFAM01.1	PPB	9/24/2025 14:54	SMPL
Q3084-15	MW-2(MCUA)(20250911)	-9	-0.0254	-	SFAM01.1	PPB	9/24/2025 14:56	SMPL
Q3084-16	PMW-1(20250911)	129	0.0249	-	SFAM01.1	PPB	9/24/2025 14:59	SMPL
Q3084-17	PMW-5(20250911)	116	0.0201	-	SFAM01.1	PPB	9/24/2025 15:01	SMPL
Q3084-18	PMW-2(20250911)	87	0.0096	-	SFAM01.1	PPB	9/24/2025 15:03	SMPL
Q3084-19	PMW-2(20250911)S	2944	1.0513	-	SFAM01.1	PPB	9/24/2025 15:06	SMPL
CCV34	CCV34	14065	5.1062	-	SFAM01.1	PPB	9/24/2025 15:08	SMPL
CCB34	CCB34	-222	-0.1031	-	SFAM01.1	PPB	9/24/2025 15:10	SMPL
Q3084-20	PMW-2(20250911)D	183	0.0446	-	SFAM01.1	PPB	9/24/2025 15:12	SMPL
Q3084-21	FB(20250911)	-38	-0.036	-	SFAM01.1	PPB	9/24/2025 15:15	SMPL
Q3084-22	EB(20250911)	25	-0.013	-	SFAM01.1	PPB	9/24/2025 15:17	SMPL
CCV35	CCV35	14107	5.1215	-	SFAM01.1	PPB	9/24/2025 15:21	SMPL
CCB35	CCB35	-159	-0.0801	-	SFAM01.1	PPB	9/24/2025 15:23	SMPL

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169817

SOP ID : M7470A-Mercury-20, MSFAM01.1-Mercury in Water-2

SDG No : NA

Start Digest Date: 09/24/2025 **Time :** 10:35 **Temp :** 94 °C

Matrix : WATER

End Digest Date: 09/24/2025 **Time :** 12:35 **Temp :** 95 °C

Pippete ID: HG A

Digestion tube ID: M60

Balance ID : N/A

Block thermometer ID: MET-DIG. #1

Filter paper ID : N/A

Dig Technician Signature: MB

pH Strip ID : M6069

Supervisor Signature: MH

Hood ID : #1

Temp : **1.** 94°C **2.** N/A

Block ID: **1.** HOT BLOCK HG -01 **2.** N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	100mL	MP87328
CCV	100mL	MP87330
Matrix Spike	040mL	MP87319
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	7.5mL	MP87071
KMnO4 (5%)	15mL	MP87072
K2S2O8 (5%)	8mL	MP87073
Hydroxylamine HCL (12%)	6mL	MP87149
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	100mL	MP87321
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	100mL	MP87322
2.5 ppb	S2.5	100mL	MP87323
5.0 ppb	S5.0	100mL	MP87324
7.5 ppb	S7.5	100mL	MP87325
10.0 ppb	S10.0	100mL	MP87327
ICV	ICV	100mL	MP87328
ICB	ICB	100mL	MP87329
CCV	CCV	100mL	MP87330
CCB	CCB	100mL	MP87331
CRI	CRI	N/A	N/A
CHK STD	CHK STD	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/24/25 13:25	MB Bench dry	MB metrum
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169817

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB169817BL	PBW817	100	100	<2	N/A	3-1
Q3084-01	PMW-9S(20250909)	100	100	<2	N/A	2
Q3084-02	PMW-9D(20250909)	100	100	<2	N/A	3
Q3084-03	PMW-8D(20250909)	100	100	<2	N/A	4
Q3084-04	PMW-8S(20250909)	100	100	<2	N/A	5
Q3084-05	FB(20250909)	100	100	<2	N/A	6
Q3084-06	PMW-6(20250910)	100	100	<2	N/A	7
Q3084-07	PMW-3(20250910)	100	100	<2	N/A	8
Q3084-08	PMW-7S(20250910)	100	100	<2	N/A	9
Q3084-09	PMW-7D(20250910)	100	100	<2	N/A	10
Q3084-10	DUP(20250910)	100	100	<2	N/A	11
Q3084-11	PMW-10(20250910)	100	100	<2	N/A	12
Q3084-12	FB(20250910)	100	100	<2	N/A	13
Q3084-13	PMW-4(20250911)	100	100	<2	N/A	14
Q3084-14	MW-1(MCUA)(20250911)	100	100	<2	N/A	15
Q3084-15	MW-2(MCUA)(20250911)	100	100	<2	N/A	16
Q3084-16	PMW-1(20250911)	100	100	<2	N/A	17
Q3084-17	PMW-5(20250911)	100	100	<2	N/A	18
Q3084-18	PMW-2(20250911)	100	100	<2	N/A	19
Q3084-19	Q3084-18MS	100	100	<2	MP87319	20
Q3084-20	Q3084-18MSD	100	100	<2	N/A	21
Q3084-21	FB(20250911)	100	100	<2	N/A	22
Q3084-22	EB(20250911)	100	100	<2	N/A	23

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Prep Standard - Chemical Standard Summary

Order ID : Q3084

Test : Mercury

Prepbatch ID : PB169817,

Sequence ID/Qc Batch ID: LB137291,

Standard ID :
MP87071,MP87072,MP87073,MP87149,MP87319,MP87321,MP87322,MP87323,MP87324,MP87325,MP87327,MP87328,MP87329,MP87330,MP87331,MP87335,

Chemical ID :
M4397,M4916,M5062,M5882,M5884,M6157,M6161,M6187,M6196,M6200,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP87071	09/04/2025	11/07/2025	Mohan Bera	None	None	Sarabjit Jaswal 09/04/2025

FROM 1600.00000ml of M6157 + 800.00000ml of M6187 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP87072	09/04/2025	03/04/2026	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/04/2025

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP87073	09/04/2025	03/05/2026	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/04/2025

FROM 100.00000ml of M4397 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP87149	09/09/2025	02/03/2026	Mohan Bera	METALS_SCALE_2 (M SC-2)	None	Sarabjit Jaswal 09/10/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M5884 + 240.00000ml of M6196 = 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
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP87319	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 1.00000ml of M6187 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP87321	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 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
1341	Hg 0.2 PPB STD	MP87322	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 247.30000ml of W3112 + 0.20000ml of MP87319 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP87323	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 245.00000ml of W3112 + 2.50000ml of MP87319 = 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
1343	Hg 5.0 PPB STD	MP87324	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 242.50000ml of W3112 + 5.00000ml of MP87319 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP87325	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 240.00000ml of W3112 + 7.50000ml of MP87319 = 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
1345	Hg 10.0 PPB STD	MP87327	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 237.50000ml of W3112 + 10.00000ml of MP87319 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP87328	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6187 + 450.00000ml 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
1351	ICB (Hg 0.00 PPB SOLUTION)	MP87329	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP87330	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/25/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6187 + 10.00000ml of MP87319 = 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
1352	CCB (Hg 0.00 PPB SOLUTION)	MP87331	09/24/2025	09/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 09/25/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6187 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP87335	09/24/2025	09/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/25/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6200 = 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-3238-05 / Potassium Persulfate (2.5kg)	0000227540	09/24/2025	08/16/2019 / RICHARD	07/17/2019 / RICHARD	M4397

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 #
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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	24i1262013	11/07/2025	05/07/2025 / RUPESH	02/18/2025 / Mohan	M6157

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CHEMICAL RECEIPT LOG BOOK

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	12/31/2025	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	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	H330-500 / HYDROXYLAMINE HYDROCHLORIDE ACS 500G	243373	02/03/2026	09/04/2025 / mohan	08/04/2025 / mohan	M6196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

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Fair Lawn, NJ 07410
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201.796.1329 fax

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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.

Potassium Permanganate
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination

avantor™ | J.T.Baker®

M4397
Supplied – 07.17.19
Opened – 08.16.19
exp – 09.24.25

Material No.: 3227-05
Batch No.: 0000227540
Manufactured Date: 2018/09/26
Retest Date: 2025/09/24
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
ACS - Assay ($KMnO_4$)	>= 99.0 %	99.0
ACS - Insoluble Matter	<= 0.2 %	< 0.1
ACS - Chloride and Chlorate (as Cl)	<= 0.005 %	0.005
ACS - Sulfate (SO_4)	<= 0.02 %	0.02
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	0.004

For Laboratory, Research or Manufacturing Use

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

RS
08.16.19

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

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M4913-16
MB

Certificate of Analysis

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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.
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Certificate of Analysis

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info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

600

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MF884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor | J.T.Baker

M615 MB

Material No.: 9673-33
Batch No.: 24I1262013
Manufactured Date: 2024-08-07
Retest Date:2029-08-06
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H_2SO_4)	95.0 - 98.0 %	96.2 %
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 & Antimony (as As)	<= 4.0 ppb	<2.0 ppb
Trace Impurities - Boron (B)	<= 10.0 ppb	<5.0 ppb
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	<1.0 ppb
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	<1.0 ppb
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	<0.3 ppb
Trace Impurities - Copper (Cu)	<= 1.0 ppb	<1.0 ppb
Trace Impurities - Gold (Au)	<= 10.0 ppb	<5.0 ppb
Heavy Metals (as Pb)	<= 500.0 ppb	<100.0 ppb
Trace Impurities - Iron (Fe)	<= 50.0 ppb	<1.0 ppb
Trace Impurities - Lead (Pb)	<= 0.5 ppb	<0.5 ppb
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	<1.0 ppb
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	<1.0 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	<10.0 ppb
Trace Impurities - Selenium (Se)	<= 50.0 ppb	7.2 ppb
Trace Impurities - Silicon (Si)	<= 100.0 ppb	12.8 ppb
Trace Impurities - Silver (Ag)	<= 1.0 ppb	<1.0 ppb

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker

Material No.: 9673-33
Batch No.: 24I1262013

Test	Specification	Result
Trace Impurities - Sodium (Na)	<= 500.0 ppb	<5.0 ppb
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	<1.0 ppb
Trace Impurities - Tin (Sn)	<= 5.0 ppb	1.1 ppb
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	<1.0 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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 # LB137291

Review By	mohan	Review On	9/24/2025 4:46:37 PM
Supervise By	jaswal	Supervise On	9/24/2025 4:47:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP87321,MP87322,MP87323,MP87324,MP87325,MP87327
ICV Standard	MP87328
CCV Standard	MP87330
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP87329,MP87331,MP87335

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	09/24/25 13:42		mohan	OK
2	S0.2	S01	CAL2	09/24/25 13:44		mohan	OK
3	S2.5	S02	CAL3	09/24/25 13:49		mohan	OK
4	S5.0	S03	CAL4	09/24/25 13:54		mohan	OK
5	S7.5	S04	CAL5	09/24/25 13:59		mohan	OK
6	S10	S05	CAL6	09/24/25 14:04		mohan	OK
7	ICV44	ICV44	ICV	09/24/25 14:10		mohan	OK
8	ICB44	ICB44	ICB	09/24/25 14:12		mohan	OK
9	CCV33	CCV33	CCV	09/24/25 14:15		mohan	OK
10	CCB33	CCB33	CCB	09/24/25 14:17		mohan	OK
11	PB169817BL	PBW817	MB	09/24/25 14:22		mohan	OK
12	Q3084-01	PMW-9S(20250909)	SAM	09/24/25 14:24		mohan	OK
13	Q3084-02	PMW-9D(20250909)	SAM	09/24/25 14:26		mohan	OK
14	Q3084-03	PMW-8D(20250909)	SAM	09/24/25 14:29		mohan	OK
15	Q3084-04	PMW-8S(20250909)	SAM	09/24/25 14:31		mohan	OK
16	Q3084-05	FB(20250909)	SAM	09/24/25 14:33		mohan	OK
17	Q3084-06	PMW-6(20250910)	SAM	09/24/25 14:35		mohan	OK
18	Q3084-07	PMW-3(20250910)	SAM	09/24/25 14:38		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 # LB137291

Review By	mohan	Review On	9/24/2025 4:46:37 PM
Supervise By	jaswal	Supervise On	9/24/2025 4:47:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP87321,MP87322,MP87323,MP87324,MP87325,MP87327
ICV Standard	MP87328
CCV Standard	MP87330
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP87329,MP87331,MP87335

19	Q3084-08	PMW-7S(20250910)	SAM	09/24/25 14:40		mohan	OK
20	Q3084-09	PMW-7D(20250910)	SAM	09/24/25 14:42		mohan	OK
21	Q3084-10	DUP(20250910)	SAM	09/24/25 14:45		mohan	OK
22	Q3084-11	PMW-10(20250910)	SAM	09/24/25 14:47		mohan	OK
23	Q3084-12	FB(20250910)	SAM	09/24/25 14:49		mohan	OK
24	Q3084-13	PMW-4(20250911)	SAM	09/24/25 14:52		mohan	OK
25	Q3084-14	MW-1(MCUA)(202509	SAM	09/24/25 14:54		mohan	OK
26	Q3084-15	MW-2(MCUA)(202509	SAM	09/24/25 14:56		mohan	OK
27	Q3084-16	PMW-1(20250911)	SAM	09/24/25 14:59		mohan	OK
28	Q3084-17	PMW-5(20250911)	SAM	09/24/25 15:01		mohan	OK
29	Q3084-18	PMW-2(20250911)	SAM	09/24/25 15:03		mohan	OK
30	Q3084-19	PMW-2(20250911)S	MS	09/24/25 15:06		mohan	OK
31	CCV34	CCV34	CCV	09/24/25 15:08		mohan	OK
32	CCB34	CCB34	CCB	09/24/25 15:10		mohan	OK
33	Q3084-20	PMW-2(20250911)D	DUP	09/24/25 15:12		mohan	OK
34	Q3084-21	FB(20250911)	SAM	09/24/25 15:15		mohan	OK
35	Q3084-22	EB(20250911)	SAM	09/24/25 15:17		mohan	OK
36	CCV35	CCV35	CCV	09/24/25 15:21		mohan	OK
37	CCB35	CCB35	CCB	09/24/25 15:23		mohan	OK

Alliance TECHNICAL GROUP 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Login Summary Report

Order ID :	Q3084	Order Date :	9/11/2025 3:35:00 PM	Project Mgr :	Yazmeen
Client :	Arcadis	Project :	ARC Sayreville PostEx 2025	Report Type :	USEPA CLP
Contact :	Kaiti Liao	Receive Date :	9/11/2025 3:35:00 PM	EDD Type :	EQUIS
Date Sign Off :	9/12/2025 11:11:22 AM				

Sample ID	Client ID	Matrix	Sampling Date	Test	Test Group	Method	TAT Days	Fax Due Date	HC Due Date
Q3084-01	PMW-9S(20250909)	Water	09/09/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-02	PMW-9D(20250909)	Water	09/09/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-03	PMW-8D(20250909)	Water	09/09/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-04	PMW-8S(20250909)	Water	09/09/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-05	FB(20250909)	Water	09/09/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-06	PMW-6(20250910)	Water	09/10/2025						
				Mercury		SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS		SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1		SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1		SFAM_Trace	10	09/25/2025	09/25/2025

Q3084-07	PMW-3(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-08	PMW-7S(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-09	PMW-7D(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-10	DUP(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-11	PMW-10(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-12	FB(20250910)	Water	09/10/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-13	PMW-4(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-14	MW-1(MCUA)(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025

Q3084-15	MW-2(MCUA)(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-16	PMW-1(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-17	PMW-5(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-18	PMW-2(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-19	Q3084-18MS	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-20	Q3084-18MSD	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-21	FB(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-22	EB(20250911)	Water	09/11/2025					
				Mercury	SFAM_HG	10	09/25/2025	09/25/2025
				Metals CLP MS	SFAM_MS	10	09/25/2025	09/25/2025
				SVOCMS Group1	SFAM_SVOC	10	09/25/2025	09/25/2025
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025

Q3084-23	TB(20250911)	Water	09/11/2025					
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025
Q3084-25	VHBLK001	Water	09/11/2025					
				VOCMS Group1	SFAM_Trace	10	09/25/2025	09/25/2025

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169799 **WorkList ID :** 192021 **Department :** Digestion **Date :** 09-23-2025 09:44:04

619

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3084-01	PMW-9S(20250909)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-02	PMW-9D(20250909)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-03	PMW-8D(20250909)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-04	PMW-8S(20250909)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-05	FB(20250909)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-06	PMW-6(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_MS
Q3084-07	PMW-3(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-08	PMW-7S(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-09	PMW-7D(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-10	DUP(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-11	PMW-10(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-12	FB(20250910)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_MS
Q3084-13	PMW-4(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-14	MW-1(MCUA)(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-15	MW-2(MCUA)(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-16	PMW-1(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-17	PMW-5(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-18	PMW-2(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-19	Q3084-18MS	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-20	Q3084-18MSD	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS
Q3084-21	FB(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS

Date/Time 09/23/25 10:05

Raw Sample Received by: SKS met dig

Raw Sample Relinquished by: CPCsm

Date/Time 09/23/25 11:05

Raw Sample Received by: CPCsm

Raw Sample Relinquished by: SKS met dig

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169799 **WorkList ID :** 192021 **Department :** Digestion **Date :** 09-23-2025 09:44:04

620

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3084-22	EB(20250911)	Water	Metals CLP MS	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_MS

Date/Time 09/23/25 10:05
Raw Sample Received by: SLY metdig
Raw Sample Relinquished by: CVPCSM)

Date/Time 09/23/25 11:05
Raw Sample Received by: CVPCSM)
Raw Sample Relinquished by: SLY metdig

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3084_HgW **WorkList ID :** 192027 **Department :** Digestion **Date :** 09-23-2025 16:15:09

621

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3084-01	PMW-9S(20250909)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_HG
Q3084-02	PMW-9D(20250909)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_HG
Q3084-03	PMW-8D(20250909)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_HG
Q3084-04	PMW-8S(20250909)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_HG
Q3084-05	FB(20250909)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/09/2025	SFAM_HG
Q3084-06	PMW-6(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-07	PMW-3(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-08	PMW-7S(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-09	PMW-7D(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-10	DUP(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-11	PMW-10(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-12	FB(20250910)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/10/2025	SFAM_HG
Q3084-13	PMW-4(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-14	MW-1(MCUA)(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-15	MW-2(MCUA)(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-16	PMW-1(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-17	PMW-5(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-18	PMW-2(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-19	Q3084-18MS	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-20	Q3084-18MSD	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG
Q3084-21	FB(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG

Date/Time 09/23/25 10:15

Raw Sample Received by: SIS met dis

Raw Sample Relinquished by: CPCMJ

Date/Time 09/24/25 11:15

Raw Sample Received by: CPCMJ

Raw Sample Relinquished by: SIS met dis

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3084_HgW **WorkList ID :** 192027 **Department :** Digestion **Date :** 09-23-2025 16:15:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3084-22	EB(20250911)	Water	Mercury	1:1 HNO3 to pH < 2	ARCA06	D31	09/11/2025	SFAM_HG

622

Date/Time 09/24/25 10:15

Raw Sample Received by: SIS metals

Raw Sample Relinquished by: CPCSM

Date/Time 09/24/25 11:15

Raw Sample Received by: CPCSM

Raw Sample Relinquished by: SIS metals