SDG COVER PAGE

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

Lab Code: ACE Case No.: 51956 MA No.: SDG No.: MJNLB3

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MJNLB3	Q1127-01		X		
MJNLB5	Q1127-02		X		
MJNLB5D	Q1127-03		X		
MJNLB5S	Q1127-04		X		
MJNLB6	Q1127-05		X		
MJNLB8	Q1127-06		X		
MJNLB9	Q1127-07		X		
MJNLC0	Q1127-08		X		
MJNLE5	Q1127-09	X		X	
MJNLE5D	Q1127-10	X		X	
MJNLE5S	Q1127-11	X		X	

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. All edits and manual integrations have been peer-reviewed. Release of the data contained in this hardcopy Complete SDG File and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name:

Date: Title:

68HERH20D0011 SDG # MJNLB3

USEPA CLP COC (LAB COPY)

DateShipped: 1/16/2025
CarrierName: FedEx
AirbillNo: 7714 8350 4498

CHAIN OF CUSTODY RECORD

Case #: 51821
Cooler #: 22

No: 10-011525-154228-0025

Lab: Alliance Technical Group LLC
Lab Contact: Mohammad Ahmed
Lab Phone: 908-728-3151

2

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MJNLA3	MJNLA3	Sediment/ SB	Grab	TCLP-Metals(21)	1615 (< 6 C), 1616 (< 6 C) (2)	OU6-IDW-SO-001	01/15/2025 14:10	
MJNLB3	MJNLB3	Water/ SB	Grab	ICP-MS(21)	1635 (HNO3 pH<2) (1)	OU6-SW-EB-001	01/15/2025 02:15	/ 1 pH ok
MJNLB4	MJNLB4	Water Filtered/ SB	Grab	ICP-MS(21)	1636 (HNO3 pH<2) (1)	OU6-SW-EB-001	01/15/2025 02:15	
MJNLB5	MJNLB5	Water/ SB	Grab	ICP-MS(21)	1637 (HNO3 pH<2) (1)	OU6-SW-SP01	01/15/2025 01:20	/ 2 pH ok
MJNLB6	MJNLB6	Water/ SB	Grab	ICP-MS(21)	1638 (HNO3 pH<2) (1)	OU6-SW-SP03-FD	01/15/2025 00:50	/ 3
MJNLB8	MJNLB8	Water/ SB	Grab	ICP-MS(21)	1640 (HNO3 pH<2) (1)	OU6-SW-SP03	01/15/2025 00:50	/ 4
MJNLB9	MJNLB9	Water/ SB	Grab	ICP-MS(21)	1641 (HNO3 pH<2) (1)	OU6-SW-SP04	01/15/2025 00:20	/ 5
MJNLC0	MJNLC0	Water/ SB	Grab	ICP-MS(21)	1642 (HNO3 pH<2) (1)	OU6-SW-SP05	01/14/2025 23:30	/ 6
MJNLE5	MJNLE5	Water/ SB	Grab	ICP-AES(21)	1667 (HNO3 pH<2) (1)	OU6-IDW-W-001	01/15/2025 14:50	/ 7 AES pH ok
MJNLG3	MJNLG3	Water Filtered/ SB	Grab	ICP-MS(21)	1681 (HNO3 pH<2) (1)	OU6-SW-SP01	01/15/2025 01:20	
MJNLG4	MJNLG4	Water Filtered/ SB	Grab	ICP-MS(21)	1682 (HNO3 pH<2) (1)	OU6-SW-SP03-FD	01/15/2025 00:50	
MJNLG6	MJNLG6	Water Filtered/ SB	Grab	ICP-MS(21)	1684 (HNO3 pH<2) (1)	OU6-SW-SP03	01/15/2025 00:50	

Sample(s) to be used for Lab QC: MJNLB5 Tag 1637, MJNLB9 Tag 1641, MJNLG3 Tag 1681	**Shipment for Case Complete? Y**
	Samples Transferred From Chain of Custody #
Analysis Key: TCLP-Metals=CLP TCLP Metals (As, Ba, Cd, Cr,Pb,Se,Ag, Hg)-Sed, ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Water, ICP-AES=CLP Metals (As, Ba, Cd, Cr,Pb,Se,Ag, Hg)-Water	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
15 containers	STEVE BRAND / Jacobs	14:00 / 1/16/25		0930 1-17-25	IR Gun #1
					Temp 3.0°C
					Temp blank present
					Custody Seal intact

USEPA CLP COC (LAB COPY)
DateShipped: 1/16/2025
CarrierName: FedEx
AirbillNo: 7714 8350 4498

CHAIN OF CUSTODY RECORD

Case #: 51956
Cooler #: 22

No: 10-011525-154228-0025
Lab: Alliance Technical Group LLC
Lab Contact: Mohammad Ahmed
Lab Phone: 908-728-3151

3

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MJNLA3	MJNLA3	Sediment/ SB	Grab	TCLP-Metals(21)	1615 (< 6 C), 1616 (< 6 C) (2)	OU6-IDW-SO-001	01/15/2025 14:10	
MJNLB3	MJNLB3	Water/ SB	Grab	ICP-MS(21)	1635 (HNO3 pH<2) (1)	OU6-SW-EB-001	01/15/2025 02:15	
MJNLB4	MJNLB4	Water Filtered/ SB	Grab	ICP-MS(21)	1636 (HNO3 pH<2) (1)	OU6-SW-EB-001	01/15/2025 02:15	
MJNLB5	MJNLB5	Water/ SB	Grab	ICP-MS(21)	1637 (HNO3 pH<2) (1)	OU6-SW-SP01	01/15/2025 01:20	
MJNLB6	MJNLB6	Water/ SB	Grab	ICP-MS(21)	1638 (HNO3 pH<2) (1)	OU6-SW-SP03-FD	01/15/2025 00:50	
MJNLB8	MJNLB8	Water/ SB	Grab	ICP-MS(21)	1640 (HNO3 pH<2) (1)	OU6-SW-SP03	01/15/2025 00:50	
MJNLB9	MJNLB9	Water/ SB	Grab	ICP-MS(21)	1641 (HNO3 pH<2) (1)	OU6-SW-SP04	01/15/2025 00:20	
MJNLC0	MJNLC0	Water/ SB	Grab	ICP-MS(21)	1642 (HNO3 pH<2) (1)	OU6-SW-SP05	01/14/2025 23:30	
MJNLE5	MJNLE5	Water/ SB	Grab	ICP-AES(21)	1667 (HNO3 pH<2) (1)	OU6-IDW-W-001	01/15/2025 14:50	
MJNLG3	MJNLG3	Water Filtered/ SB	Grab	ICP-MS(21)	1681 (HNO3 pH<2) (1)	OU6-SW-SP01	01/15/2025 01:20	
MJNLG4	MJNLG4	Water Filtered/ SB	Grab	ICP-MS(21)	1682 (HNO3 pH<2) (1)	OU6-SW-SP03-FD	01/15/2025 00:50	
MJNLG6	MJNLG6	Water Filtered/ SB	Grab	ICP-MS(21)	1684 (HNO3 pH<2) (1)	OU6-SW-SP03	01/15/2025 00:50	

Sample(s) to be used for Lab QC: MJNLB5 Tag 1637, MJNLB9 Tag 1641, MJNLG3 Tag 1681	**Shipment for Case Complete? Y**
	Samples Transferred From Chain of Custody #

Analysis Key: TCLP-Metals=CLP TCLP Metals (As, Ba, Cd, Cr,Pb,Se,Ag, Hg)-Sed, ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Water, ICP-AES=CLP Metals (As, Ba, Cd, Cr,Pb,Se,Ag, Hg)-Water

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Kodey Eley	1/16/2025	Dele	1/17/25	3.0 C
				9:30	

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 1
Received By (Print Name) Casanova Rena		Log-in Date 1/17/2025
Received By (Signature)		
Case Number 51956	SDG No. MJNLB3	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
5. Airbill No. and Shipping Container ID No.	771483504502 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	3.0 Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	01/17/2025
12.Time Received	09:30

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MJNLB3	1.0	1635	Q1127-01	Intact
2	MJNLB5	1.0	1637	Q1127-02	Intact
3	MJNLB5D	1.0	1637	Q1127-03	Intact
4	MJNLB5S	1.0	1637	Q1127-04	Intact
5	MJNLB6	1.0	1638	Q1127-05	Intact
6	MJNLB8	1.0	1640	Q1127-06	Intact
7	MJNLB9	1.0	1641	Q1127-07	Intact
8	MJNLC0	1.0	1642	Q1127-08	Intact
9	MJNLE5	1.0	1667	Q1127-09	Intact
10	MJNLE5D	1.0	1667	Q1127-10	Intact
11	MJNLE5S	1.0	1667	Q1127-11	Intact
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	1/17/25	Logbook Page No.	N/A

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

LAB NAME	**Alliance Technical Group, LLC**		
LAB CODE	**ACE**		
CONTRACT NO.	**68HERH20D0011**		
CASE NO.	**51956**	SDG NO.	**MJNLB3**
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	PAGE NOs: TO	CHECK LAB	CHECK REGION
1. SDG Cover Page	1	1	✓	
2. Traffic Report/Chain of Custody Record(s)	2	3	✓	
3. Sample Log-In Sheet (DC-1)	4	4	✓	
4. CSF Inventory Sheet (DC-2)	5	7	✓	
5. SDG Narrative	8	11	✓	
6. Communication Logs	12	22	✓	
7. Percent Solids Log	NA	NA	✓	
Analysis Forms and Data (ICP-AES)				
8. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	23	23	✓	
9. Instrument raw data by instrument in analysis order	24	303	✓	
Other Data				
10. Standard and Reagent Preparation Logs	304	447	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	448	449	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	450	458	✓	
13. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
14. Extraction Logs for TCLP and SPLP	NA	NA	✓	
15. Raw GPC Data	NA	NA	✓	
16. Raw Florisil Data	NA	NA	✓	
Analysis Forms and Data (ICP-MS)				
17. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	459	464	✓	
18. Instrument raw data by instrument in analysis order	465	858	✓	
Other Data				
19. Standard and Reagent Preparation Logs	859	994	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	995	996	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	997	1000	✓	
22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
23. Extraction Logs for TCLP and SPLP	NA	NA	✓	
24. Raw GPC Data	NA	NA	✓	
25. Raw Florisil Data	NA	NA	✓	
Analysis Forms and Data (Mercury)				
26. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	1001	1001	✓	
27. Instrument raw data by instrument in analysis order	1002	1003	✓	
Other Data				
28. Standard and Reagent Preparation Logs	1004	1030	✓	
29. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	1031	1032	✓	
30. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	1033	1034	✓	
31. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
32. Extraction Logs for TCLP and SPLP	NA	NA	✓	
33. Raw GPC Data	NA	NA	✓	
34. Raw Florisil Data	NA	NA	✓	
Analysis Forms and Data (Cyanide)				
35. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
36. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
37. Standard and Reagent Preparation Logs	NA	NA	✓	
38. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
39. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
40. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
41. Extraction Logs for TCLP and SPLP	NA	NA	✓	
42. Raw GPC Data	NA	NA	✓	
43. Raw Florisil Data	NA	NA	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
Additional				
44. EPA Shipping/Receiving Documents				
Airbill (No. of Shipments 1)	1035	1035	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	1036	1036	✓	
45. Misc. Shipping/Receiving Records (list all individual records)				
	NA	NA	✓	
46. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	1037	1039	✓	
47. Other Records and related Communication Logs (describe or list)				
	NA	NA	✓	

48. Comments:

Completed by:
(CLP Lab) _____ (Signature) Nimisha Pandya, Document Control Officer (Print Name & Title) _____ (Date)

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

284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MJNLB3
CASE # 51956
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # Q1127

A. Number of Samples and Date of Receipt

09 Water samples were delivered to the laboratory intact on 01/17/2025.

B. Parameter

Test requested for Metals CLP12= Arsenic, Barium, Cadmium, Lead, Selenium, Silver & Mercury.

Test requested for Metals CLP MS-CLP4 = Arsenic, Copper, Lead, Zinc.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 3.0^{o}C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue 1 : A "P" or "M" prefix was listed at the beginning of a CLP sample ID.

Issue 2: The COC indicates that these samples are for Case 51821, but this Case completed on 12/20/2024.

Issue 3: The laboratory requires one sample to be designated for QC per every twenty samples, but there are two samples (MJNLB5 and MJNLB9) listed on the COC for laboratory QC. The laboratory would like to proceed by performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9. Please advise on how the laboratory may proceed.

Issue 4: The laboratory has received two SDGs without samples designated for laboratory QC for ICP-AES, Hg, and TCLP ICP-AES. The laboratory has selected samples MJNLE5 and MJNLA3 for laboratory QC and confirms that these are not blanks, rinsates, or PT samples.

E. Corrective Action taken for above:

Resolution 1 : To maintain COC integrity, ASB requests no changes to the Sample IDs. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

Resolution 2: Per Region 10, the COC references the incorrect Case number and samples in this shipment are for Case 51956. A corrected COC will be provided once it is available. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Resolution 3: Per Region 10, the laboratory may proceed with performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Resolution 4: Per SFAM01.1 Exhibit A, Section 5.5.4.1., the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

F. Analytical Techniques:

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

Inter Element correction factors (IECs) are determined annually and correction factor are applied during ICP-AES analysis.

G. Calculation:

Calculation for ICP-AES Water Sample:

$$\text{Concentration or Result } (\mu g/L) = C \times \frac{Vf}{Vi} \times DF \times 1000$$

Where,

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

Example Calculation For Sample MJNLE5 For Arsenic:

If C = 0.0409909 ppm
Vf = 50 ml
Vi = 50 ml
DF = 1

Concentration or Result (µg/L) = $0.0409909 \times \frac{50}{50} \times 1 \times 1000$

= 40.9909 µg/L

= 41 µg/L (Reported Result with Signification)

Calculation for ICP-MS Water Sample:

Concentration or Result (µg/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 MJNLB5 For Arsenic:

If C = 15.20 ppb
Vf = 50 ml
Vi = 50 ml
DF = 1
Concentration or Result (µg/L) = $15.20 \times \frac{50}{50} \times 1$

= 15.20 µg/L

= 15 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 MJNLE5:

If C = 0.034 ppb
DF = 1

284 Sheffield Street
Mountainside, NJ 07092

Concentration or Result (µg/L) = 0.034 x 1

= 0.034 µg/L

= 0.034 µg/L (Reported Result with Signification)

H. 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.

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
Arsenic	89Y
Copper	45Sc
Lead	209Bi
Zinc	45Sc

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_____ Name: Nimisha Pandya

Date _____ Title: Document Control Officer

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 10:52 AM
To: Deepak Parmar; Sohil Jodhani; Mohammad Ahmed
Subject: RE: Region 10 | Case 51956 | Lab ACE | Issue Multiple

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning, Deepak,

Please see the below issue/resolution 3 from Region 10 regarding the Case number for this shipment. Please confirm if the laboratory is able to accept the below adjustments (mentioned in issues 1 and 2) for Case 51956.

Scheduling
Issue 1: Water samples JNLE5 & MJNLE5 were shipped for VOA, SVOA, ICP-AES 5-10 Metals (As, Ba, Cd, Cr, Pb, Se, Ag) and Hg analyses, but these analyses are not scheduled under Case 51956. Please confirm if the laboratory is able to accept the added analyses.

Issue 2: Case 51956 includes water samples scheduled for ICP-AES 1-4 Metals analysis, but the COC indicates that samples should be analyzed under ICP-MS 1-4 Metals analysis. The Region has confirmed that ICP-MS 1-4 Metals analysis should be performed for these samples. Please confirm if the laboratory is able to accept this adjustment.

Discrepancies with tags, jars, and/or COC
Issue 3: The COC indicates that these samples are for Case 51821, but this Case completed on 12/20/2024.
Resolution 3: Per Region 10, the COC references the incorrect Case number and samples in this shipment are for Case 51956. A corrected COC will be provided once it is available. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

T: (571) 454-2416
casey.shaeffer@gdit.com
15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com



Leave Alert: None

From: Deepak Parmar <Deepak.Parmar@alliancetg.com>
Sent: Friday, January 17, 2025 10:40 AM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>; Sohil Jodhani <Sohil.Jodhani@AllianceTG.com>; Mohammad Ahmed <mohammad.ahmed@alliancetg.com>
Subject: RE: Region 10 | Case 51956 | Lab ACE | Issue Scheduling

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Good morning,

Water samples JNLE5 & MJNLE5 received with case 51821 not for case 51956. So please conform the case number.

Thanks & Regards,

Deepak Parmar
QA/QC
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3154
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 10:01 AM
To: Deepak Parmar <Deepak.Parmar@alliancetg.com>; Sohil Jodhani <Sohil.Jodhani@AllianceTG.com>; Mohammad Ahmed <Mohammad.Ahmed@AllianceTG.com>
Subject: Region 10 | Case 51956 | Lab ACE | Issue Scheduling

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

Please note that Region 10 has shipped samples to the laboratory for delivery today, 01/17/2024. Please see the below issues 1 and 2 and confirm if the laboratory can accept the adjustments.

Issue 1: Water samples JNLE5 & MJNLE5 were shipped for VOA, SVOA, ICP-AES 5-10 Metals (As, Ba, Cd, Cr, Pb, Se, Ag) and Hg analyses, but these analyses are not scheduled under Case 51956. Please confirm if the laboratory is able to accept the added analyses.

Issue 2: Case 51956 includes water samples scheduled for ICP-AES 1-4 Metals analysis, but the COC indicates that samples should be analyzed under ICP-MS 1-4 Metals analysis. The Region has confirmed that ICP-MS 1-4 Metals analysis should be performed for these samples. Please confirm if the laboratory is able to accept this adjustment.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

T: (571) 454-2416
casey.shaeffer@gdit.com
15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com

Leave Alert: None

From: Dunn, Meghan (she/her/hers) dunn.meghan@epa.gov
Sent: Friday, January 17, 2025 9:53 AM
To: Shaeffer, Casey Casey.Shaeffer@gdit.com
Cc: Reece, Caitlin Reece.Caitlin@epa.gov
Subject: RE: Case 51821 - update and 1 unscheduled sample

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

Sure, there are in fact only 6 samples for each matrix.

Thank you!
-Meghan

Meghan Dunn
QA Chemist / RSCC
(Regional Sample Control Coordinator)
U.S. EPA, Region 10
Cell (206) 330-6743
Office (206) 553-8561

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 6:52 AM
To: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>

Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Thank you, Meghan! Would the Region please confirm if six or ten samples should be scheduled? The ASR reflects that ten ICP-MS samples are included in this Case, but the email below discloses six.

Kind Regards,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

T: (571) 454-2416
casey.shaeffer@gdit.com
15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com



Leave Alert: None

From: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Sent: Friday, January 17, 2025 9:49 AM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Hi Casey, yes the ICP-AES for 4 metals can be cancelled once ICP-MS is assigned.

Thank you!

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 6:39 AM
To: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Thank you, Meghan! Would the Region please confirm if the ICP-AES analyses under this Case should be cancelled once the ICP-MS analyses are finalized and assigned to the laboratory?

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
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Chantilly, VA 20151
www.gdit.com



Leave Alert: None

From: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Sent: Friday, January 17, 2025 9:36 AM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

I'm also noticing that the 6 total and 6 dissolved metals were scheduled for ICP-AES but should have been scheduled for ICP-MS analysis. The COC is correct for these. I updated the ASR to include ICP-MS just now.

6 water samples for Total Metals (As, Cu, Pb, Zn)
6 water samples for Dissolved Metals (As, Cu, Pb, Zn)

Apologies for all the errors on this one.

Thanks,
Meghan

Meghan Dunn
QA Chemist / RSCC
(Regional Sample Control Coordinator)
U.S. EPA, Region 10
Cell (206) 330-6743
Office (206) 553-8561

From: Dunn, Meghan (she/her/hers)
Sent: Friday, January 17, 2025 6:19 AM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

Hi Casey,

Yes, sorry, this is in fact for case 51956. I see the COC shows Case 51821 – I will get a corrected COC pdf and xml from the sampling contractor.

Thanks,
Meghan

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 6:14 AM
To: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Case 51821 - update and 1 unscheduled sample

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good morning, Meghan,

Thank you for the update. Would the Region please confirm the Case number for these samples? It appears that Case 51956 was updated, but the COC submission and email below refer to Case 51821, which completed shipping on 12/20/2024.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
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Chantilly, VA 20151
www.gdit.com

GENERAL DYNAMICS
information technology

Leave Alert: None

From: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Sent: Thursday, January 16, 2025 5:57 PM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Cc: Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: Case 51821 - update and 1 unscheduled sample

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

Case 51821 shipped samples today, summarized below. Please note that one sample submitted for 4 analyses was not included in the ASR. The analyses highlighted yellow were not included on the ASR. Thank you and apologies for that sample getting shipped without scheduled analyses. If it's not possible for the lab to accept it, please let us know.

Date shipped: 1/16/2025
Date to arrive at lab: 1/17/2025
Number of samples per matrix and per analysis:
1 IDW Sediment sample for TCLP Metals (As, Ba, Cd, Cr, Pb, Se, Ag, and Hg), TCLP SVOC, TCLP VOC, PAHs
6 water samples for Total Metals (As, Cu, Pb, Zn)
6 water samples for Dissolved Metals (As, Cu, Pb, Zn).
Sample ID JNLE5 & MJNLE5 - 1 IDW water sample for SVOCs, VOCs, ICP-AES Metals (As, Ba, Cd, Cr, Pb, Se, Ag) and Hg. The COC states PAH analysis as well, though the sampler indicated no PAH SIM is necessary so the request can be for SVOA only. I added the four analyses to the ASR just now.

Thank you,
Meghan

Meghan Dunn
QA Chemist / RSCC
(Regional Sample Control Coordinator)
U.S. EPA, Region 10
Cell (206) 330-6743
Office (206) 553-8561

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 4:40 PM
To: Deepak Parmar; Sohil Jodhani; Mohammad Ahmed
Cc: Johnson, Matthew; Bauer, Heather E; Dunn, Meghan (she/her/hers); Reece, Caitlin
Subject: Region 10 | Case 51956 | Lab ACE | Issue Insufficient/inappropriate designation of laboratory QC | FINAL

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good afternoon,

Please see the below resolutions.

Issue 1: The laboratory requires one sample to be designated for QC per every twenty samples, but there are two samples (MJNLB5 and MJNLB9) listed on the COC for laboratory QC. The laboratory would like to proceed by performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9. Please advise on how the laboratory may proceed.
Resolution 2: Per Region 10, the laboratory may proceed with performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 2: The laboratory has received two SDGs without samples designated for laboratory QC for ICP-AES, Hg, and TCLP ICP-AES. The laboratory has selected samples MJNLE5 and MJNLA3 for laboratory QC and confirms that these are not blanks, rinsates, or PT samples.
Resolution 2: Per SFAM01.1 Exhibit A, Section 5.5.4.1., the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

Please note that the laboratory may contact the appropriate CLP PM should any defects need to be waived for this issue.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

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www.gdit.com

Leave Alert: None

From: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>
Sent: Friday, January 17, 2025 4:05 PM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>; Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: RE: Region 10 | Case 51956 | Lab ACE | Issue Insufficient/inappropriate designation of laboratory QC

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Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

For Issue 1: it's acceptable for the lab to proceed by performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9 as requested.

Thank you,
Meghan

Meghan Dunn
QA Chemist / RSCC
(Regional Sample Control Coordinator)
U.S. EPA, Region 10
Cell (206) 330-6743
Office (206) 553-8561

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Friday, January 17, 2025 12:33 PM
To: Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>; Reece, Caitlin <Reece.Caitlin@epa.gov>
Subject: Region 10 | Case 51956 | Lab ACE | Issue Insufficient/inappropriate designation of laboratory QC

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good afternoon,

Please see the below issue from ACE. Please note that issue 2 has been resolved using an SOW resolution.

Issue 1: The laboratory requires one sample to be designated for QC per every twenty samples, but there are two samples (MJNLB5 and MJNLB9) listed on the COC for laboratory QC. The laboratory would like to proceed by performing laboratory QC on sample MJNLB5 and regular analysis for sample MJNLB9. Please advise on how the laboratory may proceed.

Issue 2: The laboratory has received two SDGs without samples designated for laboratory QC for ICP-AES, Hg, and TCLP ICP-AES. The laboratory has selected samples MJNLE5 and MJNLA3 for laboratory QC and confirms that these are not blanks, rinsates, or PE samples.
Resolution 2: Per SFAM01.1 Exhibit A, Section 5.5.4.1., the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
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15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com



Leave Alert: None

From: Deepak Parmar <Deepak.Parmar@alliancetg.com>
Sent: Friday, January 17, 2025 3:16 PM
To: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Cc: Sohil Jodhani <Sohil.Jodhani@AllianceTG.com>
Subject: RE: Region 10 | Case 51956 | Lab ACE | Issue Multiple | FINAL

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Please use caution with links, attachments, and any requests for credentials.

Good afternoon,

Issue 1 :Two SDGs open without lab QC for ICP-AES,HG and TCLP- Metals analysis However, a sample was not designated for Laboratory QC. Lab like to use samples MJNLE5 and MJNLA3 for Lab QC.. these samples are not blanks, rinsates or PE samples.
Issue 2: One QC sample need for each 20 samples SDG however, two QC samples mention on COC. So Lab like to use sample MJNLB5 for QC and other sample MJNLB9 as regular analysis. Case is complete.

Please see attachment for your reference.

Thanks & Regards,

Deepak Parmar
QA/QC
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3154
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

EPA SAMPLE NO.

MJNLE5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-09

% Solids: Date Received: 01/17/2025

Analytical Method: ICP_AES

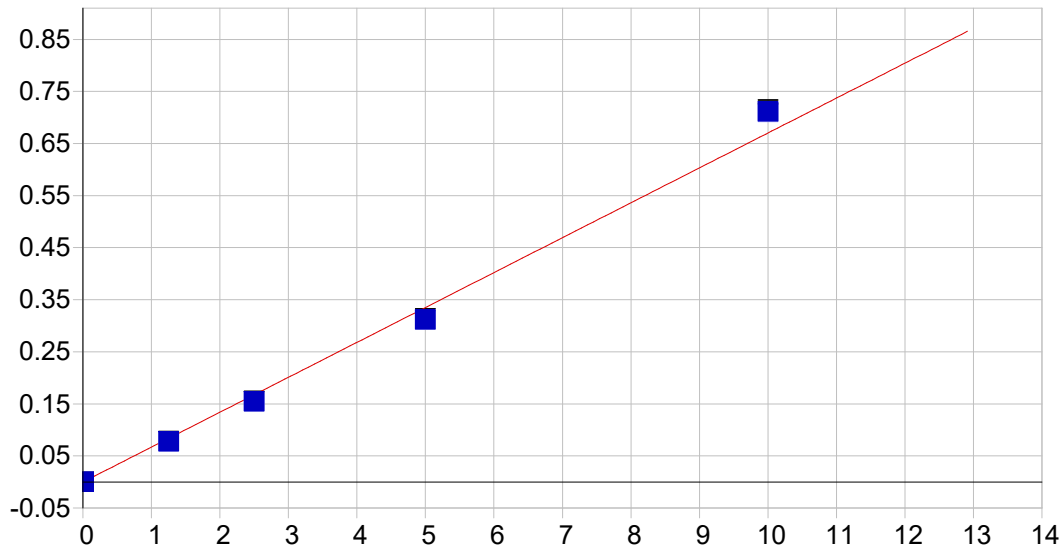
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	41		01/24/2025	1926
7440-39-3	Barium	12	J	01/24/2025	1926
7440-43-9	Cadmium	5.0	U	01/24/2025	1926
7440-47-3	Chromium	10	U	01/24/2025	1926
7439-92-1	Lead	3.0	J	01/24/2025	1926
7782-49-2	Selenium	35	U	01/24/2025	1926
7440-22-4	Silver	0.40	J	01/24/2025	1926

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

Comments:

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

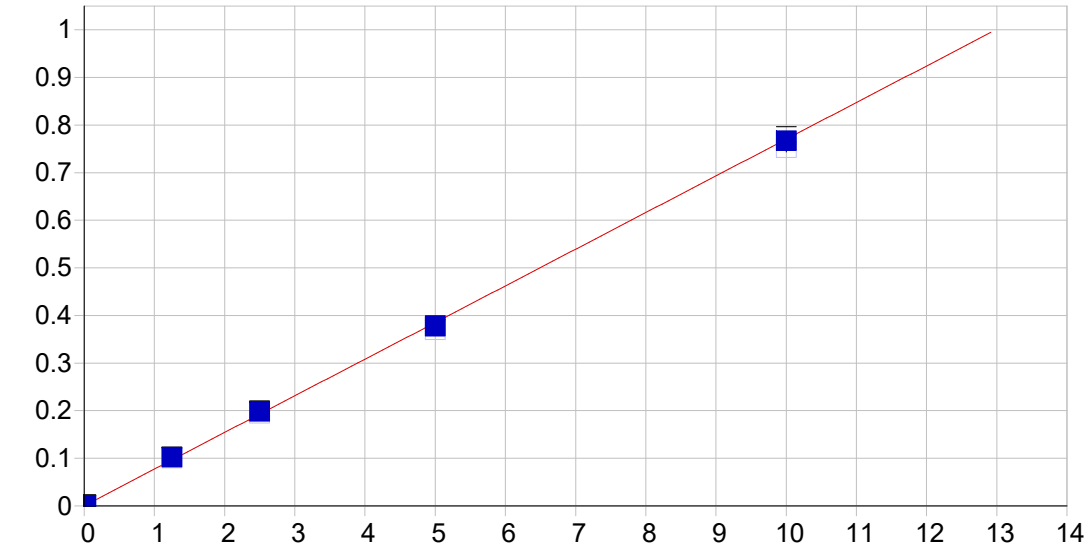


As 189.042 {479}

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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997810	Status:	OK.
Std Error of Est:	0.000074		
Predicted MDL:	0.002598		
Predicted MQL:	0.008660		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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S1	.01000	.01208	.002	20.8	.00069	.000	1
S3	2.5000	2.3130	-.187	-7.48	.15463	.000	1
S4	5.0000	4.6579	-.342	-6.84	.31151	.002	1
S5	10.000	10.616	.616	6.16	.71031	.004	1
S2	1.2500	1.1609	-.089	-7.13	.07755	.001	1



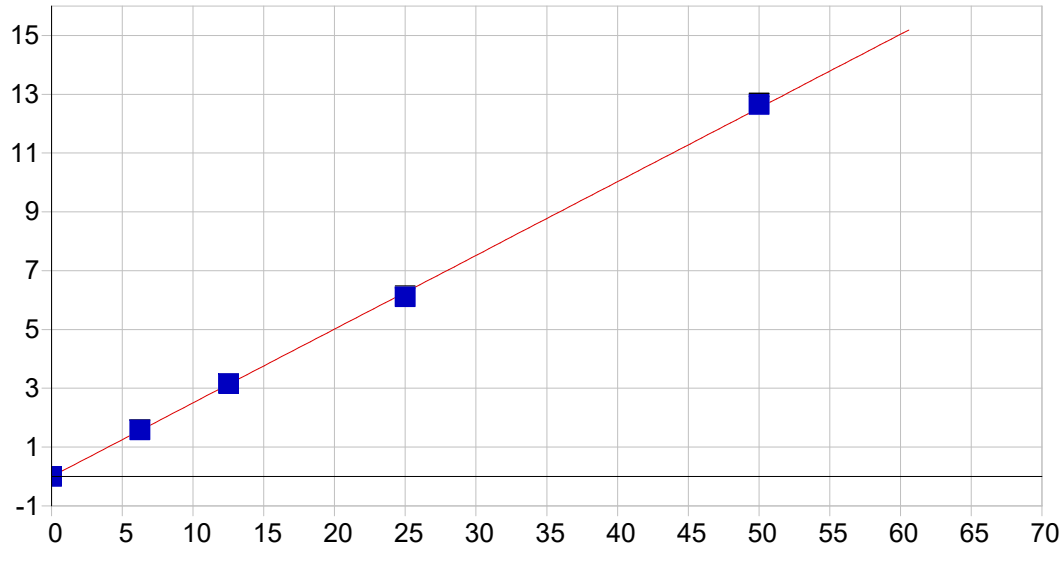
Tl 190.856 {477}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000251	Re-Slope:	1.000000
A1 (Gain):	0.077000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999759	Status:	OK.
Std Error of Est:	0.000044		
Predicted MDL:	0.002042		
Predicted MQL:	0.006807		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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S1	.02500	.02632	.001	5.29	.00220	.000	1
S3	2.5000	2.5708	.071	2.83	.19448	.002	1
S4	5.0000	4.8958	-.104	-2.08	.36979	.002	1
S5	10.000	9.9589	-.041	-.411	.75220	.008	1
S2	1.2500	1.3232	.073	5.85	.10027	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



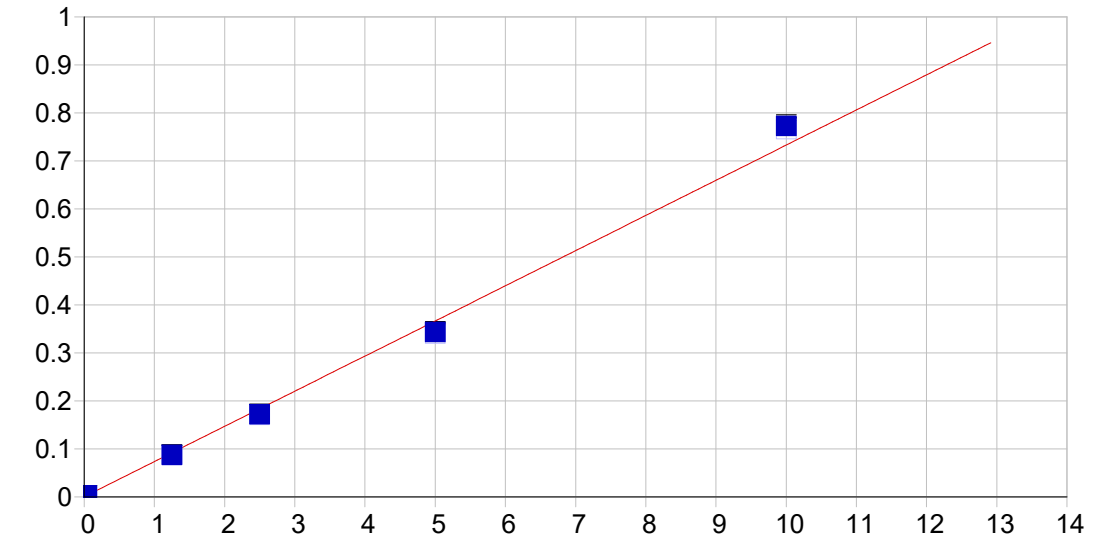
Pb 220.353 {453}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999887	Status:	OK.
Std Error of Est:	0.000141		
Predicted MDL:	0.001573		
Predicted MQL:	0.005244		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00002	.000	1
S1	.01000	.00884	-.001	-11.6	.00222	.000	1
S3	12.500	12.591	.091	.730	3.1534	.002	1
S4	25.000	24.381	-.619	-2.48	6.1058	.032	1
S5	50.000	50.460	.460	.920	12.637	.055	1
S2	6.2500	6.3196	.070	1.11	1.5827	.003	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



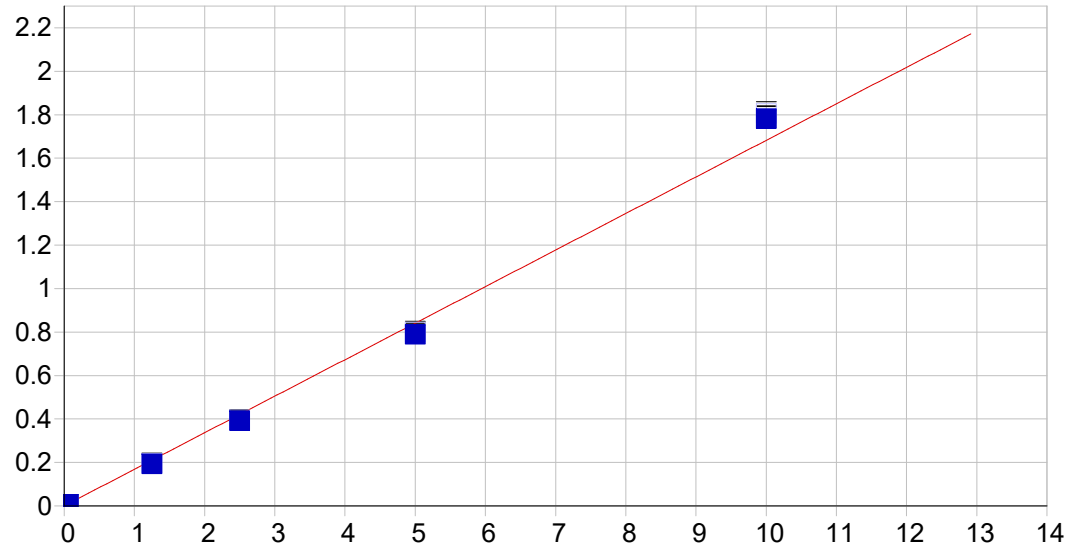
Se 196.090 {472}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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A1 (Gain):	0.073234	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998297	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	0.002980		
Predicted MQL:	0.009933		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00046	.000	1
S1	.03500	.03081	-.004	-12.0	.00271	.000	1
S3	2.5000	2.3430	-.157	-6.28	.17036	.000	1
S4	5.0000	4.6814	-.319	-6.37	.33992	.002	1
S5	10.000	10.541	.541	5.41	.76569	.003	1
S2	1.2500	1.1885	-.061	-4.92	.08666	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

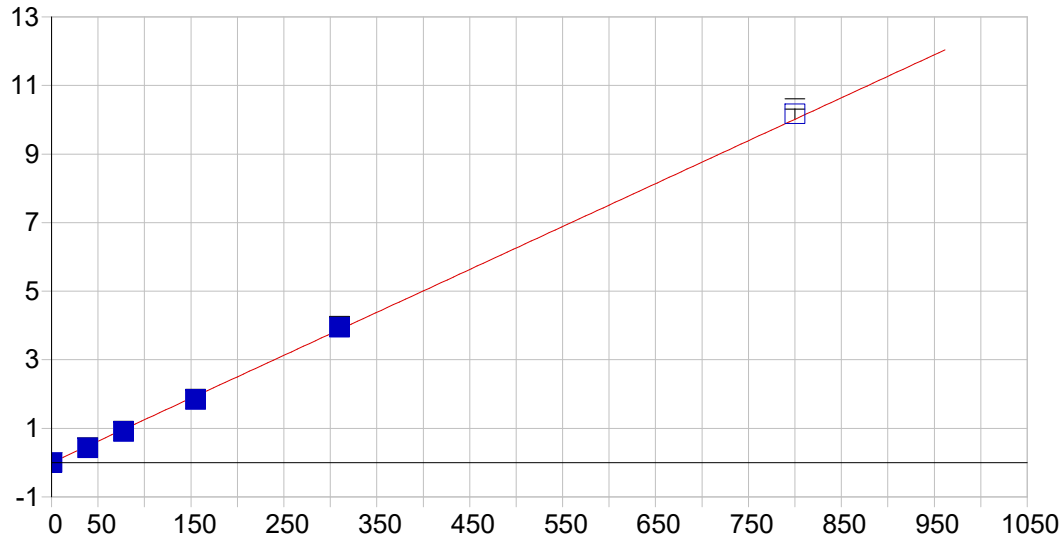


Sb 206.833 {463}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998011	Status:	OK.
Std Error of Est:	0.000443		
Predicted MDL:	0.001646		
Predicted MQL:	0.005486		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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S1	.06000	.05240	-.008	-12.7	.00903	.000	1
S3	2.5000	2.3242	-.176	-7.03	.39667	.001	1
S4	5.0000	4.6895	-.311	-6.21	.80003	.004	1
S5	10.000	10.598	.598	5.98	1.8048	.010	1
S2	1.2500	1.1458	-.104	-8.33	.19572	.001	1



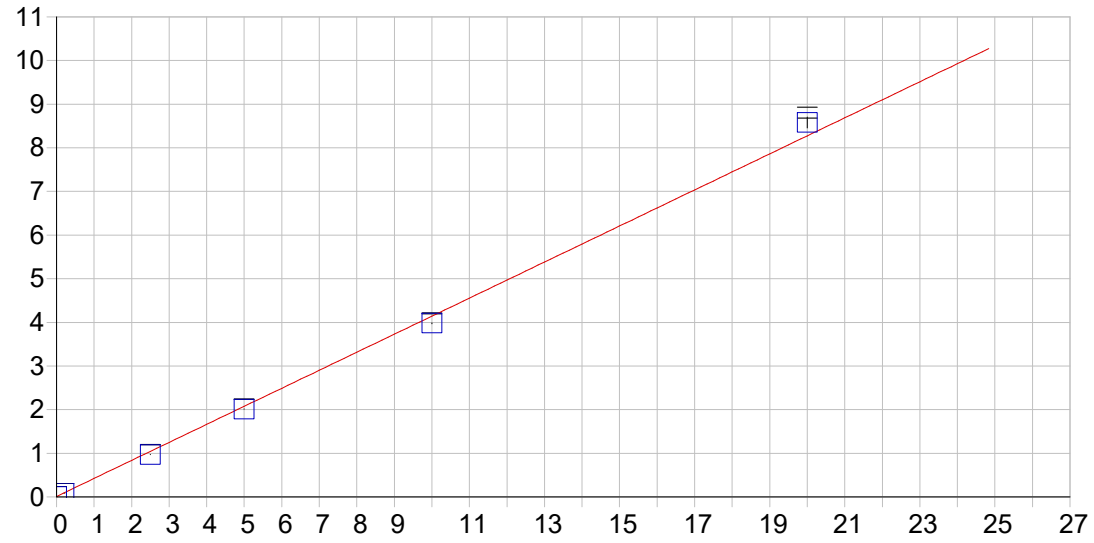
Al 396.152 { 85}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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A1 (Gain):	0.012519	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999440	Status:	OK.
Std Error of Est:	0.000261		
Predicted MDL:	0.009836		
Predicted MQL:	0.032786		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	.00001	.000	1
S1	.20000	.18622	-.014	-6.89	.00234	.000	1
S3	77.500	72.460	-5.04	-6.50	.90825	.003	1
S4	155.00	146.71	-8.29	-5.35	1.8389	.007	1
S5	310.00	315.06	5.06	1.63	3.9487	.029	1
S2	38.750	34.377	-4.37	-11.3	.43093	.002	1
S6	800.00	812.67	12.7	1.58	10.174	.147	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



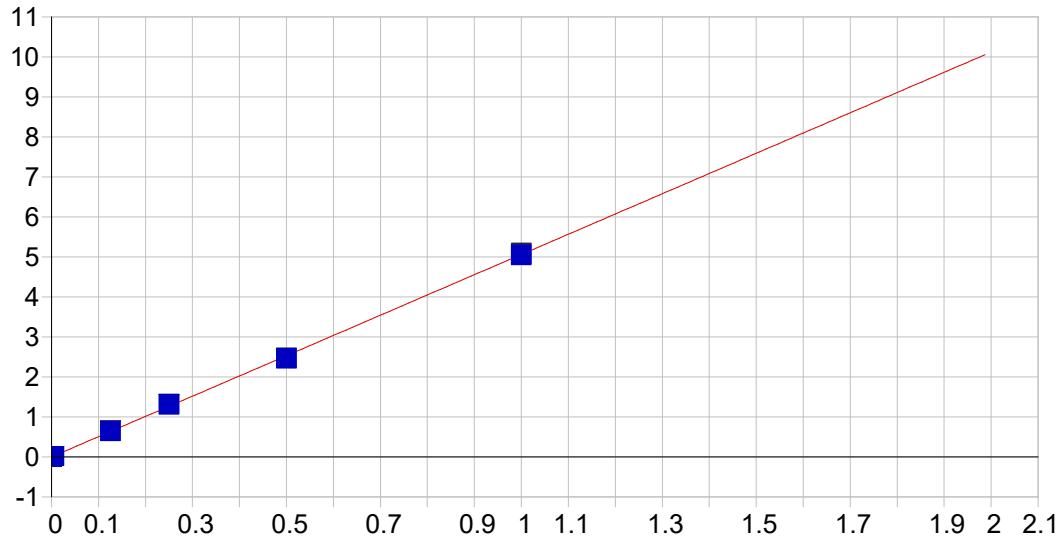
Ba 493.409 { 68}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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A1 (Gain):	0.413204	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999177	Status:	OK.
Std Error of Est:	0.001782		
Predicted MDL:	0.000985		
Predicted MQL:	0.003282		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00004	.000	.000	.01042	.000	1
S1	.20000	.18075	-.019	-9.63	.08509	.000	1
S3	5.0000	4.8460	-.154	-3.08	2.0128	.007	1
S4	10.000	9.6068	-.393	-3.93	3.9800	.011	1
S5	20.000	20.743	.743	3.71	8.5814	.126	1
S2	2.5000	2.3236	-.176	-7.05	.97055	.004	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



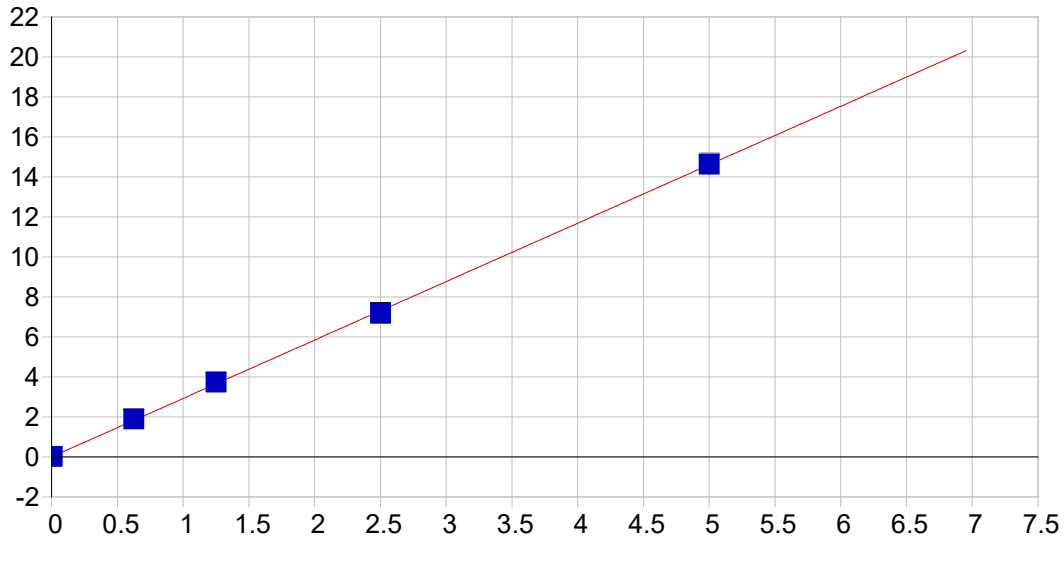
Be 234.861 {144}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	5.060700	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999779	Status:	OK.
Std Error of Est:	0.000397		
Predicted MDL:	0.000076		
Predicted MQL:	0.000254		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00000	.000	1
S1	.00500	.00533	.000	6.69	.02697	.001	1
S3	.25000	.25950	.009	3.80	1.3075	.005	1
S4	.50000	.48723	-.013	-2.55	2.4543	.004	1
S5	1.0000	.99920	-.001	-.080	5.0339	.038	1
S2	.12500	.12874	.004	3.00	.64870	.005	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



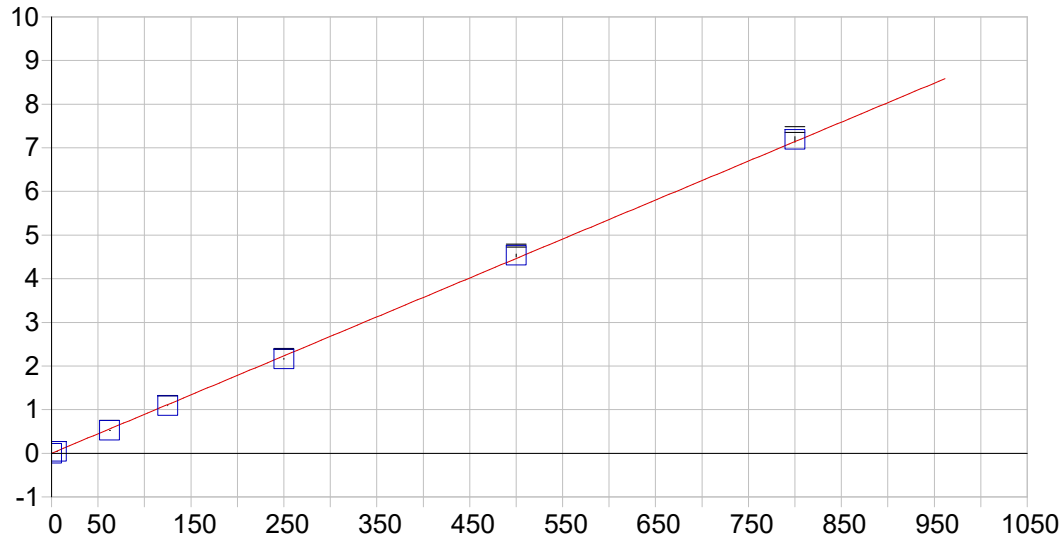
Cd 214.438 {457}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	2.922093	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.000368		
Predicted MDL:	0.000085		
Predicted MQL:	0.000282		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00002	.000	1
S1	.00500	.00503	.000	.622	.01469	.000	1
S3	1.2500	1.2767	.027	2.13	3.7378	.008	1
S4	2.5000	2.4508	-.049	-1.97	7.1758	.040	1
S5	5.0000	5.0036	.004	.071	14.650	.044	1
S2	.62500	.64395	.019	3.03	1.8853	.005	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



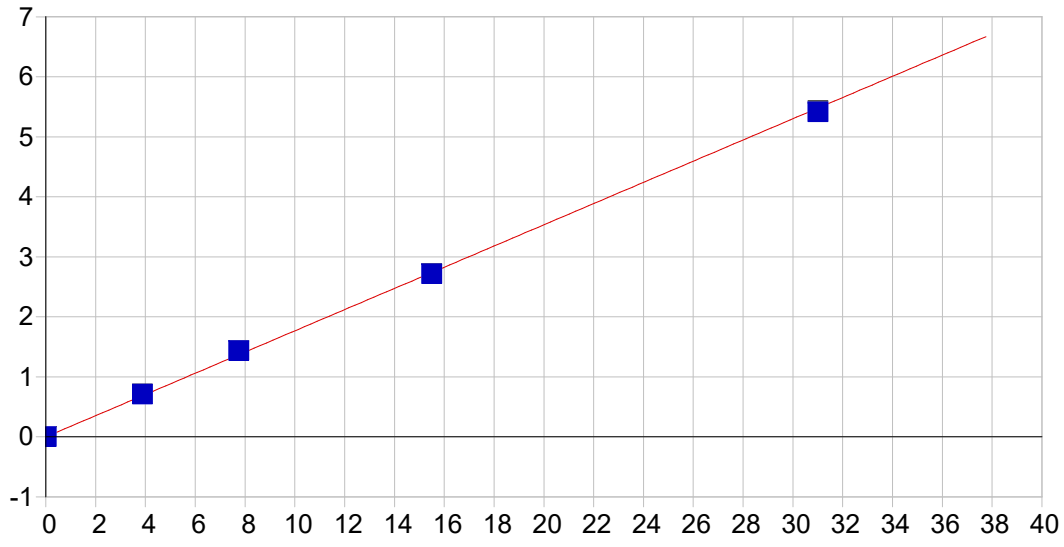
Ca 373.690 { 90}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000035	Re-Slope:	1.000000
A1 (Gain):	0.008927	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999808	Status:	OK.
Std Error of Est:	0.000610		
Predicted MDL:	0.010719		
Predicted MQL:	0.035731		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00068	.001	.000	.00004	.000	1
S2	62.500	58.971	-3.53	-5.65	.52649	.002	1
S3	125.00	122.49	-2.51	-2.01	1.0936	.002	1
S4	250.00	242.39	-7.61	-3.04	2.1640	.008	1
S5	500.00	508.07	8.07	1.61	4.5358	.032	1
S1	5.0000	4.7379	-.262	-5.24	.04233	.000	1
S6	800.00	805.84	5.84	.729	7.1941	.067	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



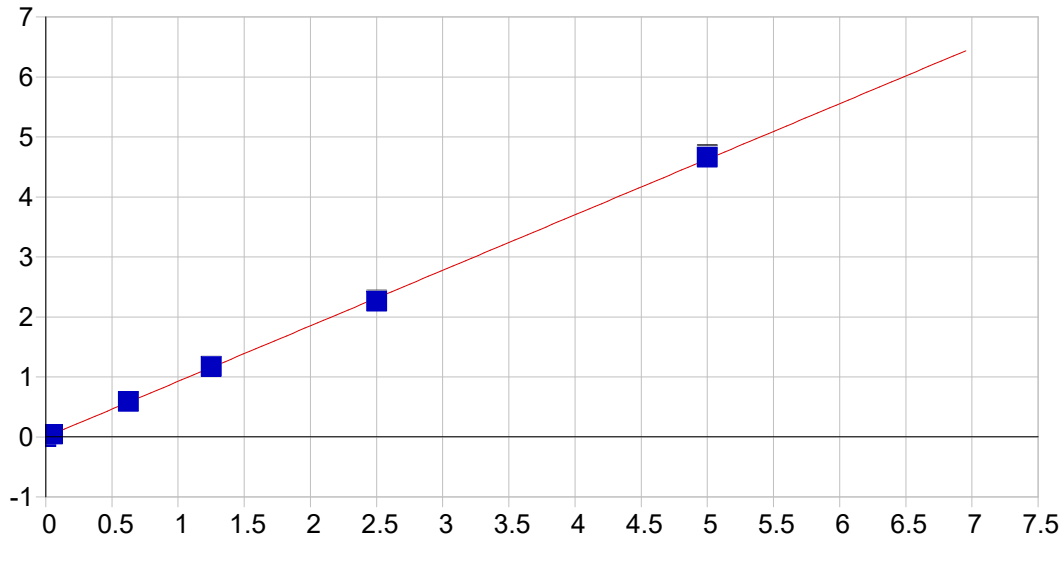
Cr 267.716 {126}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000041	Re-Slope:	1.000000
A1 (Gain):	0.176694	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999757	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	0.000451		
Predicted MQL:	0.001505		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00004	.000	1
S1	.01000	.01101	.001	10.1	.00191	.000	1
S3	7.7500	8.1193	.369	4.77	1.4349	.003	1
S4	15.500	15.361	-.139	-.898	2.7148	.006	1
S5	31.000	30.631	-.369	-1.19	5.4136	.017	1
S2	3.8750	4.0129	.138	3.56	.70919	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



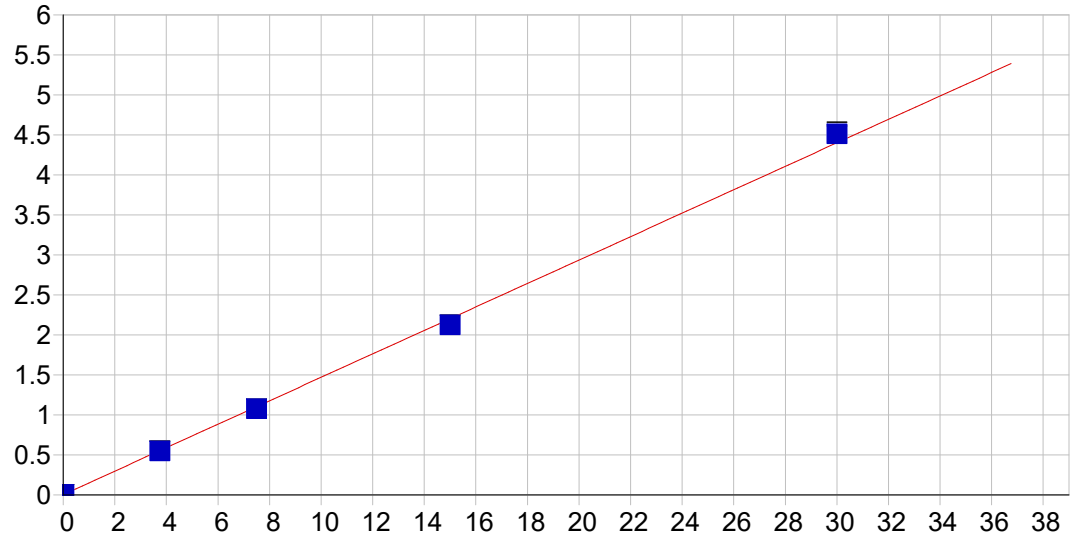
Co 228.616 {448}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000081	Re-Slope:	1.000000
A1 (Gain):	0.925586	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.000361		
Predicted MDL:	0.000296		
Predicted MQL:	0.000985		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.000	1
S1	.05000	.04888	-.001	-2.25	.04533	.000	1
S3	1.2500	1.2649	.015	1.19	1.1751	.002	1
S4	2.5000	2.4405	-.059	-2.38	2.2676	.011	1
S5	5.0000	5.0360	.036	.721	4.6788	.022	1
S2	.62500	.63473	.010	1.56	.58961	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



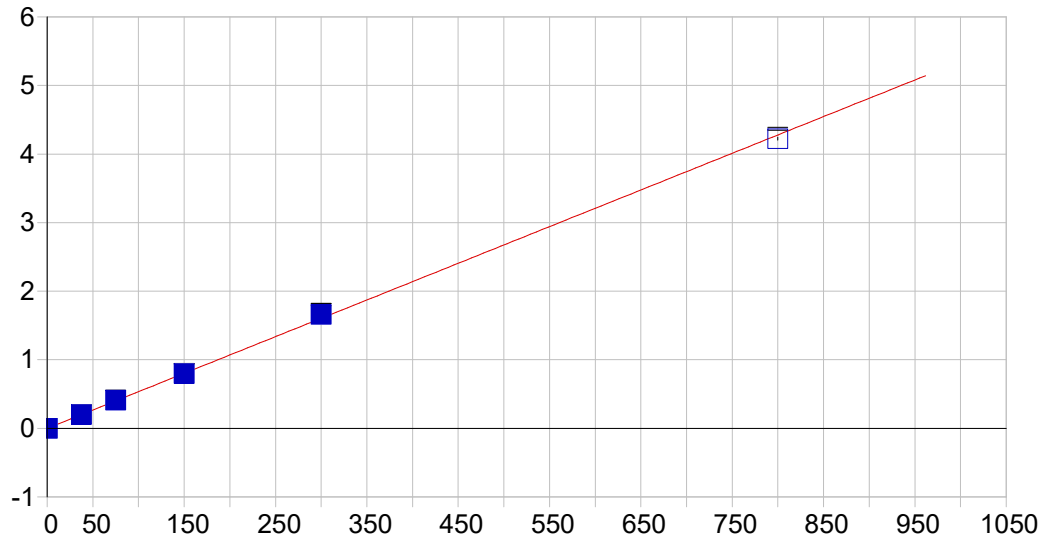
Cu 324.754 {104}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004396	Re-Slope:	1.000000
A1 (Gain):	0.146548	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999617	Status:	OK.
Std Error of Est:	0.000186		
Predicted MDL:	0.002889		
Predicted MQL:	0.009630		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00440	.000	1
S1	.02500	.02470	-.000	-1.21	.00802	.000	1
S3	7.5000	7.3249	-.175	-2.33	1.0777	.001	1
S4	15.000	14.458	-.542	-3.62	2.1229	.006	1
S5	30.000	30.756	.756	2.52	4.5112	.023	1
S2	3.7500	3.7116	-.038	-1.02	.54827	.002	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



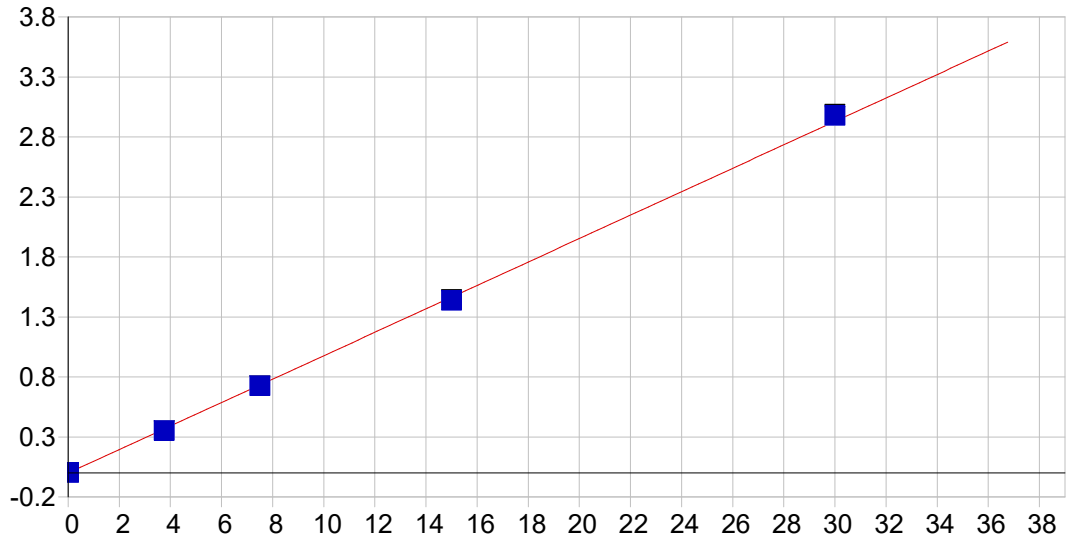
Fe 259.837 {130}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.005348	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999804	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.007495		
Predicted MQL:	0.024985		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00001	.000	1
S1	.10000	.09590	-.004	-4.10	.00050	.000	1
S3	75.000	76.204	1.20	1.60	.40714	.001	1
S4	150.00	149.14	-.863	-.575	.79679	.003	1
S5	300.00	310.53	10.5	3.51	1.6592	.016	1
S2	37.500	36.995	-.505	-1.35	.19765	.001	1
S6	800.00	789.65	-10.4	-1.29	4.2232	.022	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



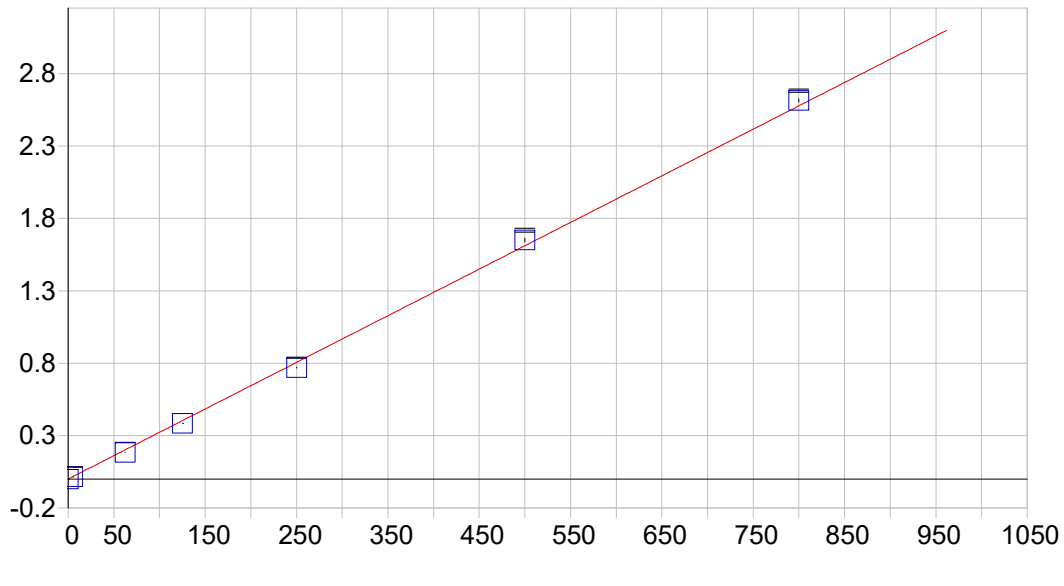
Mn 257.610 {131}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000027	Re-Slope:	1.000000
A1 (Gain):	0.097646	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000067		
Predicted MDL:	0.000390		
Predicted MQL:	0.001300		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00003	.000	1
S1	.01500	.01425	-.001	-4.98	.00142	.000	1
S3	7.5000	7.4260	-.074	-.987	.72464	.001	1
S4	15.000	14.717	-.283	-1.88	1.4361	.006	1
S5	30.000	30.510	.510	1.70	2.9772	.010	1
S2	3.7500	3.5977	-.152	-4.06	.35107	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



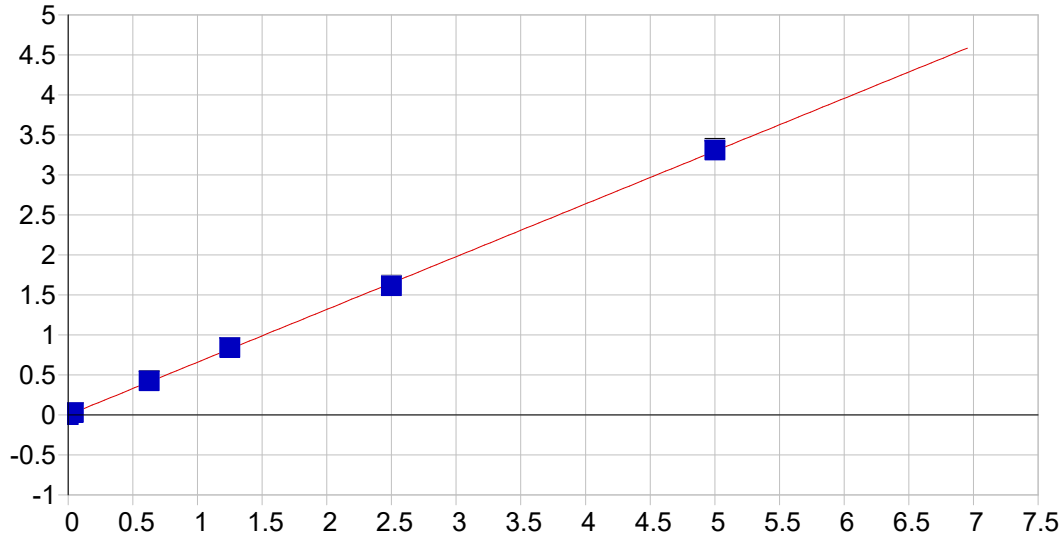
Mg 279.079 {121}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.003222	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999465	Status:	OK.
Std Error of Est:	0.000368		
Predicted MDL:	0.016099		
Predicted MQL:	0.053664		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00141	.001	.000	.00001	.000	1
S2	62.500	56.813	-5.69	-9.10	.18307	.001	1
S3	125.00	119.05	-5.95	-4.76	.38360	.000	1
S4	250.00	238.70	-11.3	-4.52	.76914	.004	1
S5	500.00	512.15	12.1	2.43	1.6503	.013	1
S1	5.0000	4.3146	-.685	-13.7	.01391	.000	1
S6	800.00	811.48	11.5	1.43	2.6147	.012	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



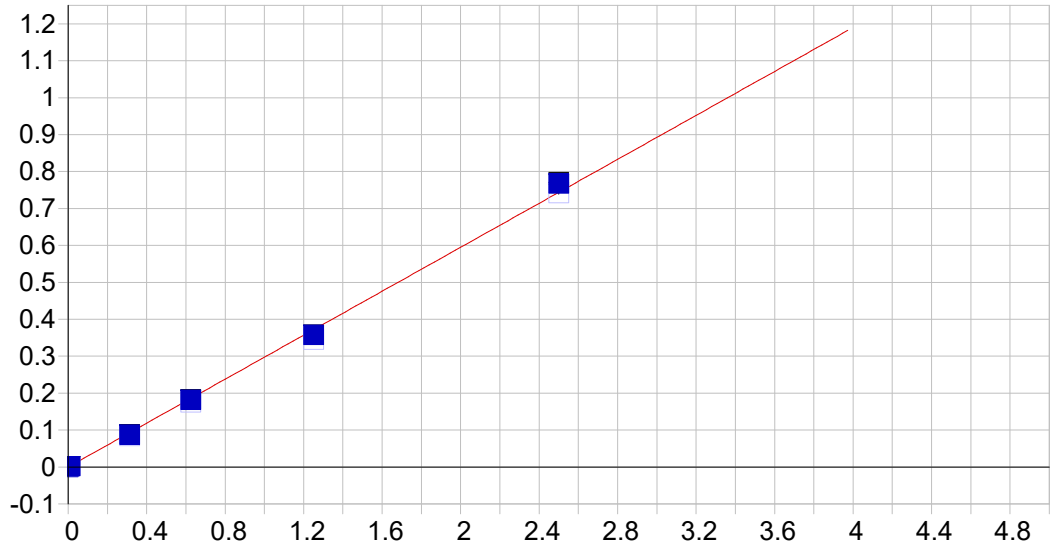
Ni 231.604 {446}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000319	Re-Slope:	1.000000
A1 (Gain):	0.659446	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999879	Status:	OK.
Std Error of Est:	0.000245		
Predicted MDL:	0.000463		
Predicted MQL:	0.001543		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00032	.000	1
S1	.04000	.03999	-.000	-.022	.02608	.000	1
S3	1.2500	1.2717	.022	1.73	.84021	.001	1
S4	2.5000	2.4425	-.058	-2.30	1.6142	.008	1
S5	5.0000	5.0175	.018	.351	3.3162	.015	1
S2	.62500	.64330	.018	2.93	.42487	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



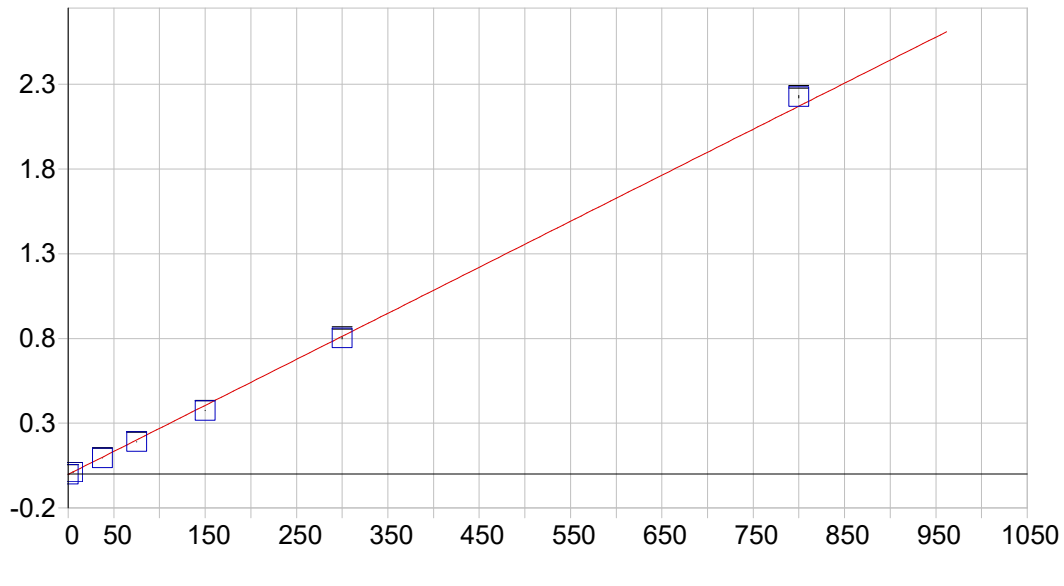
Ag 328.068 {103}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000285	Re-Slope:	1.000000
A1 (Gain):	0.297588	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999328	Status:	OK.
Std Error of Est:	0.000088		
Predicted MDL:	0.000431		
Predicted MQL:	0.001438		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00028	.000	1
S1	.01000	.00962	-.000	-3.75	.00256	.000	1
S3	.62500	.61116	-.014	-2.21	.17503	.001	1
S4	1.2500	1.2013	-.049	-3.89	.34411	.000	1
S5	2.5000	2.5810	.081	3.24	.74156	.003	1
S2	.31250	.29442	-.018	-5.79	.08405	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



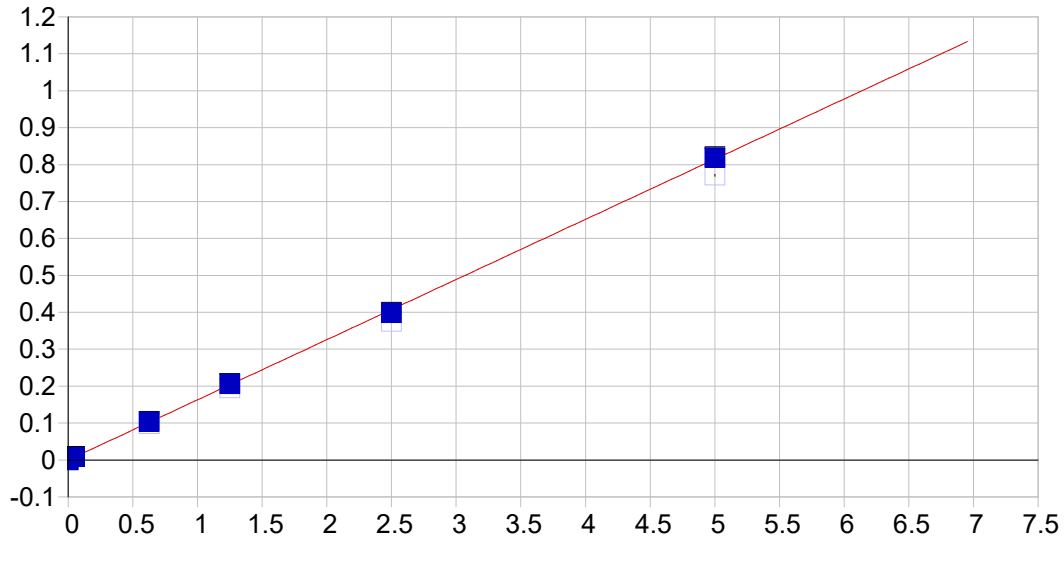
Na 818.326 { 41}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002328	Re-Slope:	1.000000
A1 (Gain):	0.002717	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999371	Status:	OK.
Std Error of Est:	0.000298		
Predicted MDL:	0.460897		
Predicted MQL:	1.536325		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00080	.001	.000	-.00233	.001	1
S2	37.500	36.017	-1.48	-3.95	.09552	.000	1
S3	75.000	70.854	-4.15	-5.53	.19015	.002	1
S4	150.00	138.64	-11.4	-7.57	.37431	.001	1
S5	300.00	296.42	-3.58	-1.19	.80293	.007	1
S1	5.0000	4.9824	-.018	-.351	.01121	.000	1
S6	800.00	820.58	20.6	2.57	2.2269	.008	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



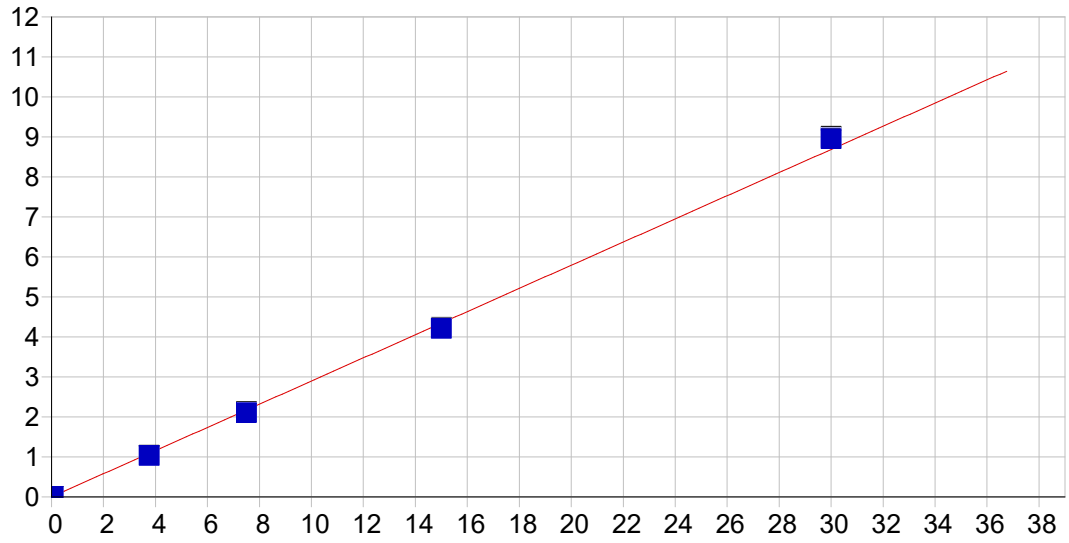
V 292.402 {115}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000082	Re-Slope:	1.000000
A1 (Gain):	0.162948	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999885	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.002254		
Predicted MQL:	0.007513		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00008	.000	1
S1	.05000	.05263	.003	5.26	.00848	.000	1
S3	1.2500	1.2666	.017	1.33	.19440	.001	1
S4	2.5000	2.4451	-.055	-2.19	.37453	.002	1
S5	5.0000	5.0230	.023	.460	.77076	.003	1
S2	.62500	.63747	.012	2.00	.09784	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



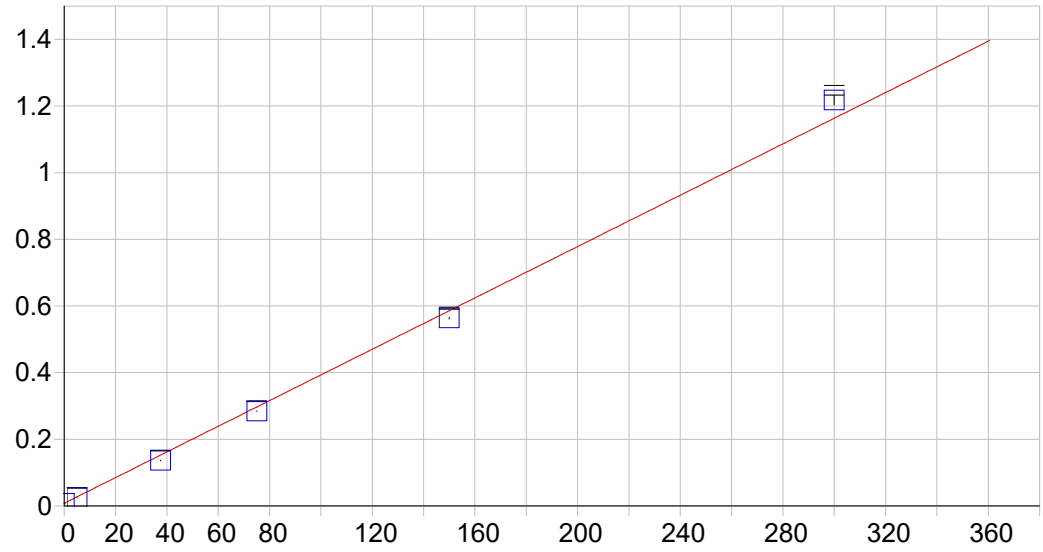
Zn 213.856 {158}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000605	Re-Slope:	1.000000
A1 (Gain):	0.289570	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999456	Status:	OK.
Std Error of Est:	0.000682		
Predicted MDL:	0.001857		
Predicted MQL:	0.006191		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00061	.000	1
S1	.06000	.05663	-.003	-5.61	.01711	.000	1
S3	7.5000	7.2651	-.235	-3.13	2.1125	.014	1
S4	15.000	14.522	-.478	-3.19	4.2220	.016	1
S5	30.000	30.918	.918	3.06	8.9863	.031	1
S2	3.7500	3.5485	-.201	-5.37	1.0322	.008	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



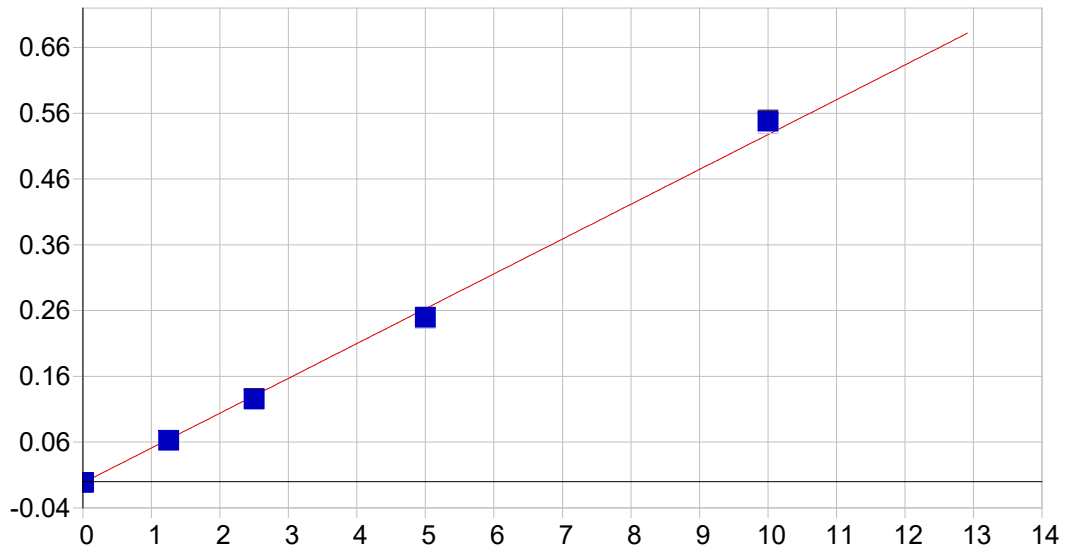
K 769.896 { 44}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008091	Re-Slope:	1.000000
A1 (Gain):	0.003851	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998606	Status:	OK.
Std Error of Est:	0.000420		
Predicted MDL:	0.059530		
Predicted MQL:	0.198432		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00146	.001	.000	.00810	.000	1
S2	37.500	33.374	-4.13	-11.0	.13663	.001	1
S3	75.000	71.602	-3.40	-4.53	.28386	.001	1
S4	150.00	144.25	-5.75	-3.83	.56368	.003	1
S5	300.00	313.99	14.0	4.66	1.2174	.015	1
S1	5.0000	4.2772	-.723	-14.5	.02456	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



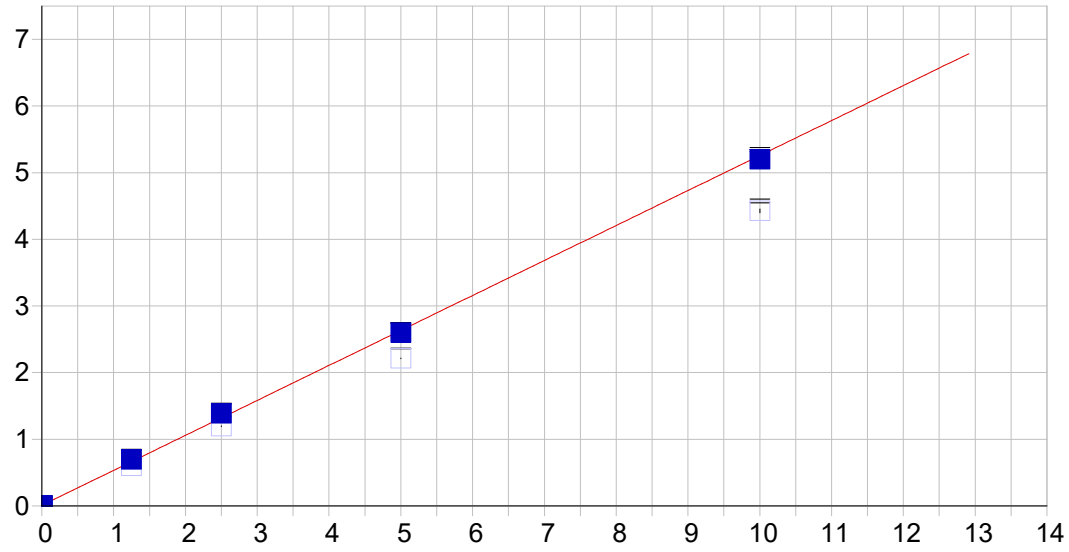
P 177.495 {490}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001840	Re-Slope:	1.000000
A1 (Gain):	0.052943	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999136	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.002412		
Predicted MQL:	0.008041		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00184	.000	1
S1	.01000	.01060	.001	5.96	-.00128	.000	1
S3	2.5000	2.4064	-.094	-3.74	.12462	.000	1
S4	5.0000	4.7445	-.256	-5.11	.24746	.001	1
S5	10.000	10.381	.381	3.81	.54399	.002	1
S2	1.2500	1.2173	-.033	-2.61	.06214	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



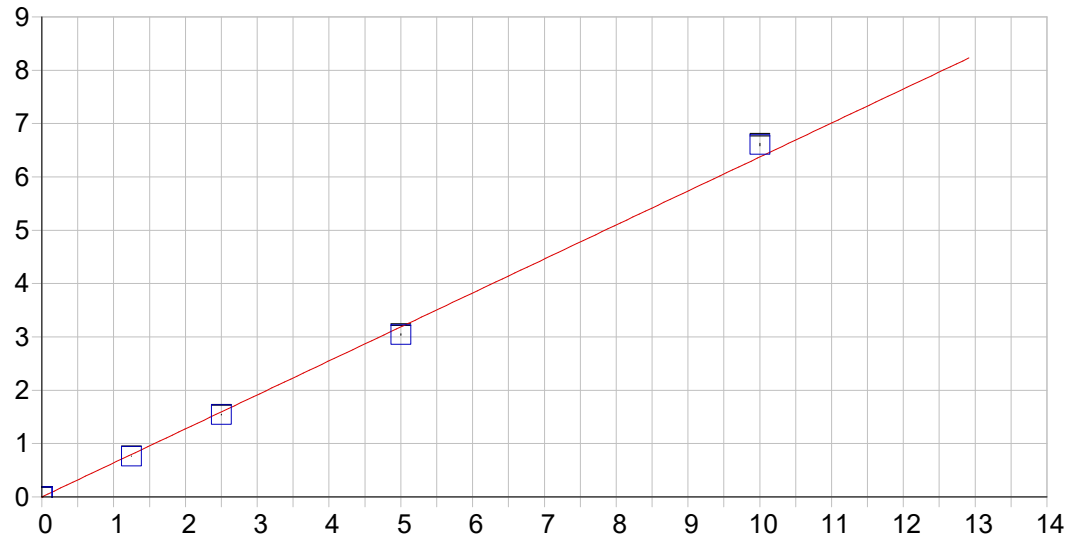
B 249.678 {135}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008330	Re-Slope:	1.000000
A1 (Gain):	0.524895	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999031	Status:	OK.
Std Error of Est:	0.000331		
Predicted MDL:	0.000782		
Predicted MQL:	0.002607		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00834	.000	1
S1	.01000	-.00227	-.012	-123.	.00687	.000	1
S3	2.5000	2.6288	.129	5.15	1.1951	.005	1
S4	5.0000	4.9363	-.064	-1.27	2.2133	.004	1
S5	10.000	9.8899	-.110	-1.10	4.4274	.028	1
S2	1.2500	1.3087	.059	4.69	.59874	.005	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



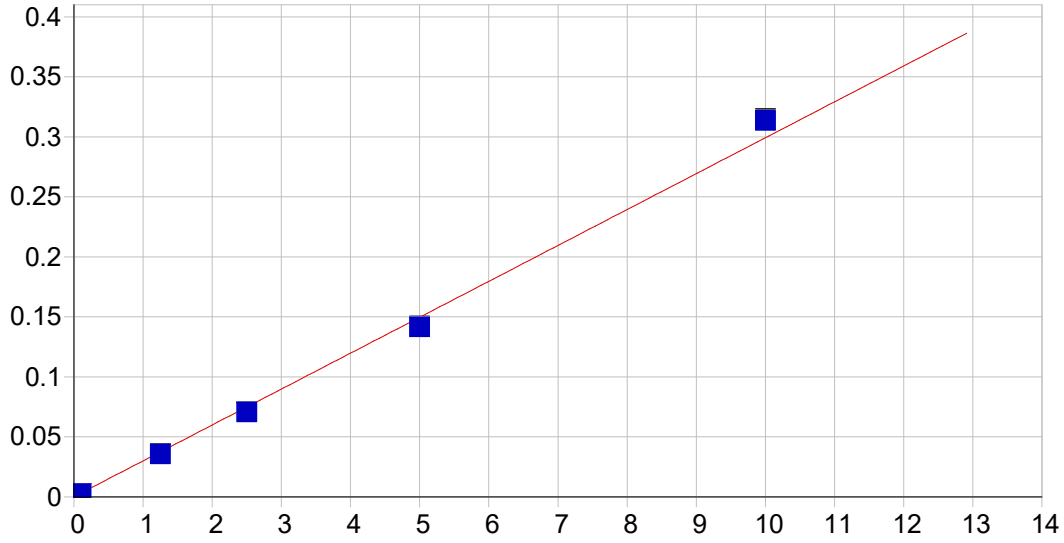
Mo 202.030 {467}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000464	Re-Slope:	1.000000
A1 (Gain):	0.637279	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999249	Status:	OK.
Std Error of Est:	0.000414		
Predicted MDL:	0.000367		
Predicted MQL:	0.001225		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00046	.000	1
S1	.01000	.00935	-.001	-6.51	.00642	.000	1
S3	2.5000	2.4176	-.082	-3.30	1.5412	.004	1
S4	5.0000	4.7750	-.225	-4.50	3.0435	.015	1
S5	10.000	10.361	.361	3.61	6.6034	.024	1
S2	1.2500	1.1968	-.053	-4.25	.76318	.002	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



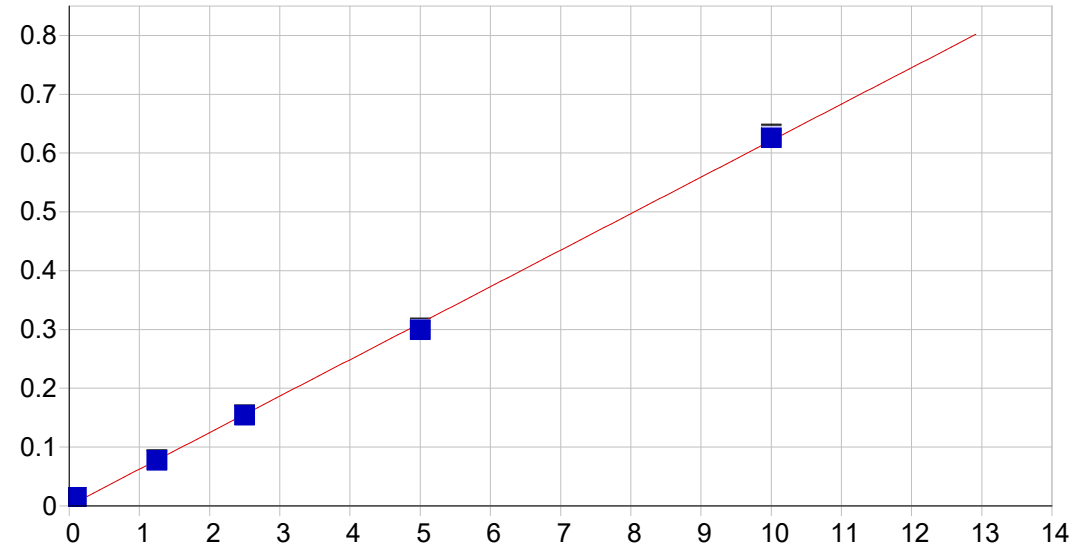
S 182.034 {485}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000125	Re-Slope:	1.000000
A1 (Gain):	0.029906	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998680	Status:	OK.
Std Error of Est:	0.000082		
Predicted MDL:	0.004263		
Predicted MQL:	0.014211		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00013	.000	1
S1	.10000	.08672	-.013	-13.3	.00272	.000	1
S3	2.5000	2.3603	-.140	-5.59	.07081	.000	1
S4	5.0000	4.7328	-.267	-5.34	.14185	.000	1
S5	10.000	10.481	.481	4.81	.31396	.001	1
S2	1.2500	1.1891	-.061	-4.88	.03573	.000	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

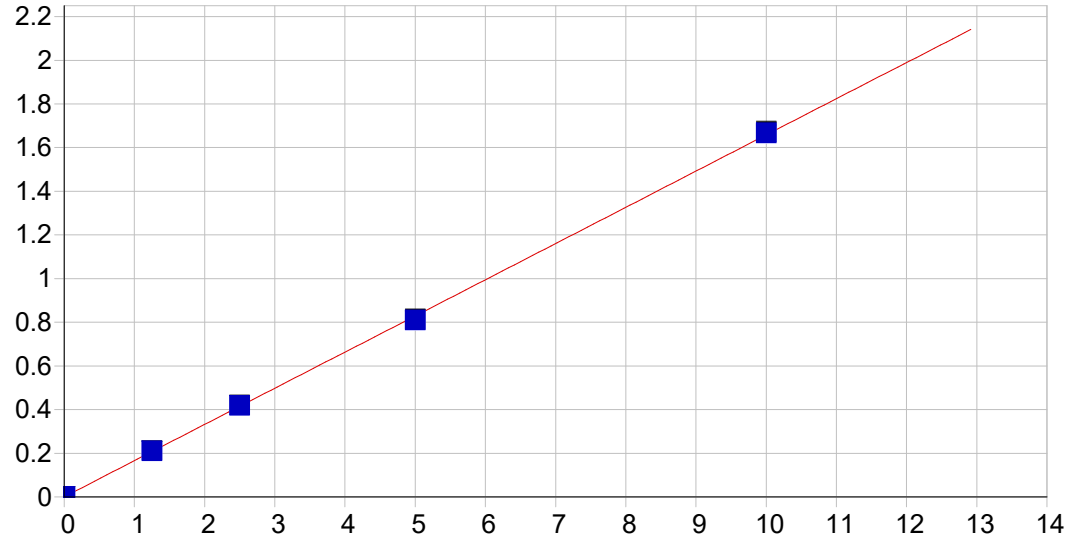


Si 251.611 {134}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000430	Re-Slope:	1.000000
A1 (Gain):	0.062062	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994843	Status:	OK.
Std Error of Est:	0.000337		
Predicted MDL:	0.003676		
Predicted MQL:	0.012252		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.00042	.000	1
S1	.10000	.23752	.138	138.	.01517	.000	1
S3	2.5000	2.4749	-.025	-1.00	.15449	.001	1
S4	5.0000	4.8150	-.185	-3.70	.30019	.002	1
S5	10.000	10.081	.081	.806	.62791	.004	1
S2	1.2500	1.2424	-.008	-.609	.07777	.001	1

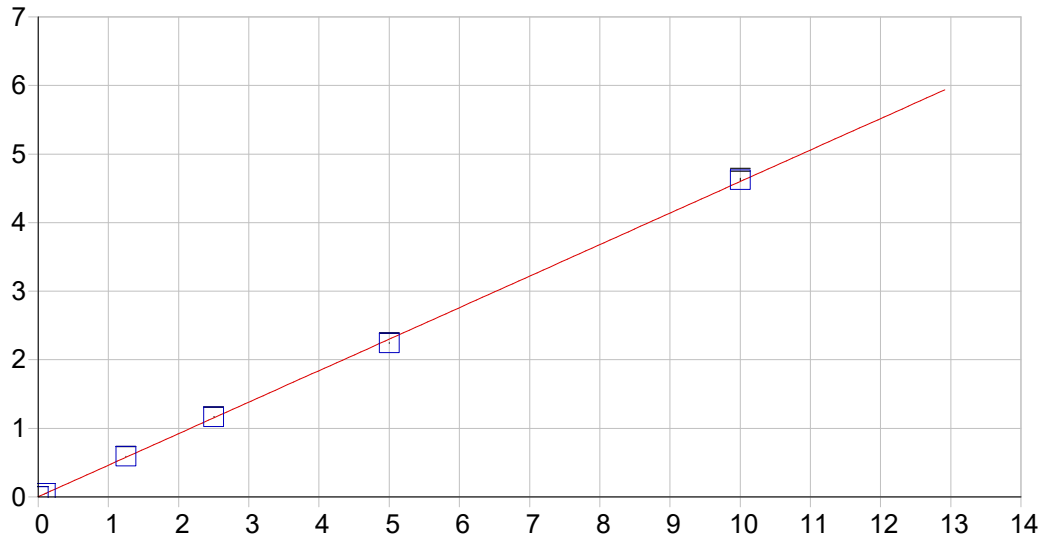


Sn 189.989 {478}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000121	Re-Slope:	1.000000
A1 (Gain):	0.165786	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.000892		
Predicted MQL:	0.002974		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00012	.000	1
S1	.00700	.00687	-.000	-1.91	.00121	.000	1
S3	2.5000	2.5302	.030	1.21	.41831	.001	1
S4	5.0000	4.8901	-.110	-2.20	.80826	.004	1
S5	10.000	10.062	.062	.617	1.6631	.007	1
S2	1.2500	1.2681	.018	1.45	.20971	.000	1



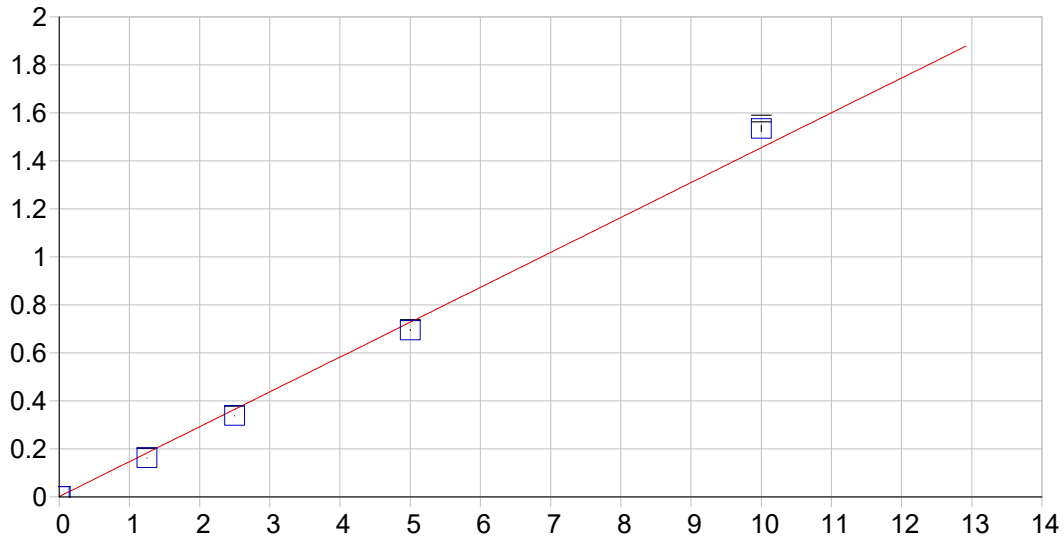
Ti 336.121 {100}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002861	Re-Slope:	1.000000
A1 (Gain):	0.459536	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000386		
Predicted MDL:	0.001064		
Predicted MQL:	0.003545		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00286	.000	1
S1	.10000	.10467	.005	4.67	.05096	.000	1
S3	2.5000	2.5295	.029	1.18	1.1652	.001	1
S4	5.0000	4.8759	-.124	-2.48	2.2435	.005	1
S5	10.000	10.060	.060	.603	4.6259	.021	1
S2	1.2500	1.2796	.030	2.37	.59088	.002	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



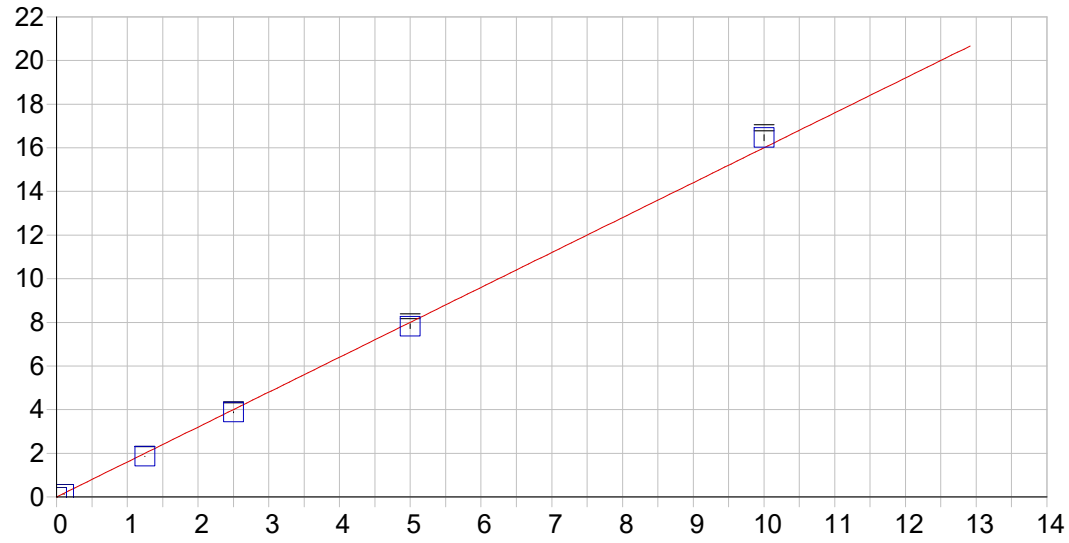
Li 670.784 { 50}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001420	Re-Slope:	1.000000
A1 (Gain):	0.145332	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998111	Status:	OK.
Std Error of Est:	0.000184		
Predicted MDL:	0.001581		
Predicted MQL:	0.005271		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00142	.000	1
S5	10.000	10.554	.554	5.54	1.5353	.014	1
S4	5.0000	4.7745	-.225	-4.51	.69531	.003	1
S3	2.5000	2.3168	-.183	-7.33	.33812	.001	1
S1	.01500	.01337	-.002	-10.9	.00336	.000	1
S2	1.2500	1.1060	-.144	-11.5	.16216	.001	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



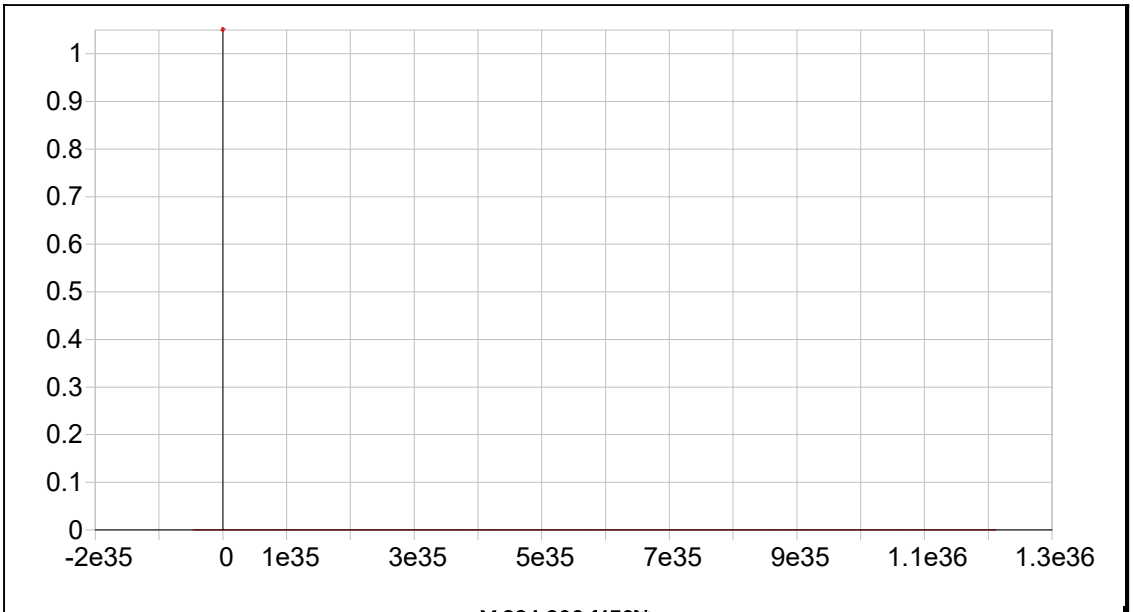
Sr 407.771 { 83}

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000034	Re-Slope:	1.000000
A1 (Gain):	1.600215	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999425	Status:	OK.
Std Error of Est:	0.002885		
Predicted MDL:	0.000077		
Predicted MQL:	0.000256		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00007	.000	1
S1	.10000	.08369	-.016	-16.3	.13395	.001	1
S3	2.5000	2.4256	-.074	-2.98	3.8815	.026	1
S4	5.0000	4.8897	-.110	-2.21	7.8246	.108	1
S5	10.000	10.288	.288	2.88	16.463	.143	1
S2	1.2500	1.1629	-.087	-6.97	1.8609	.008	1

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

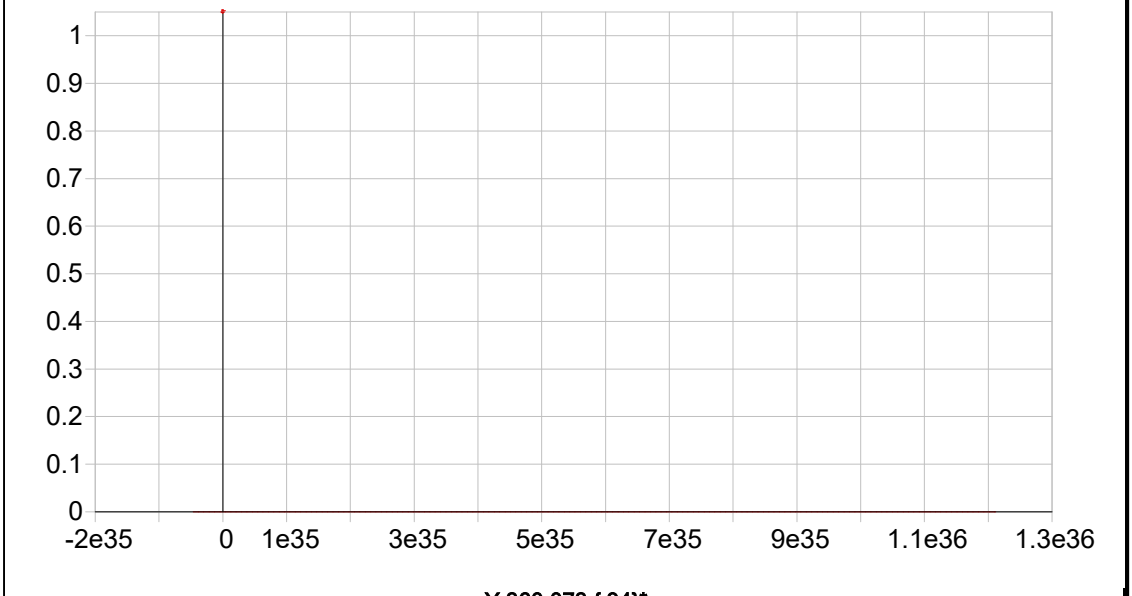


Y 224.306 {450}*

Date of Fit:	1/24/2025 17:06:08	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

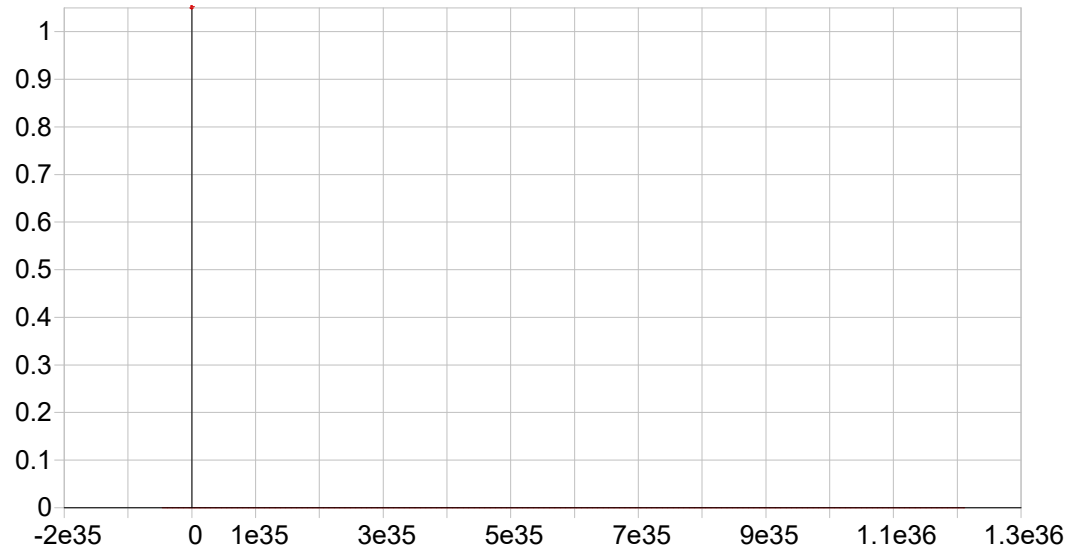
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

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

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



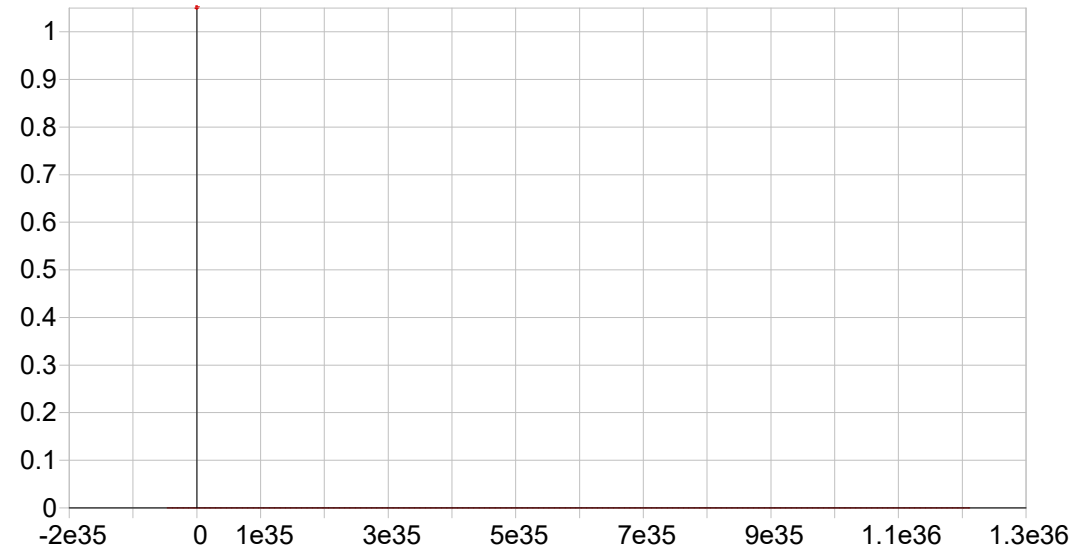
Y 371.030 { 91}*

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

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

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

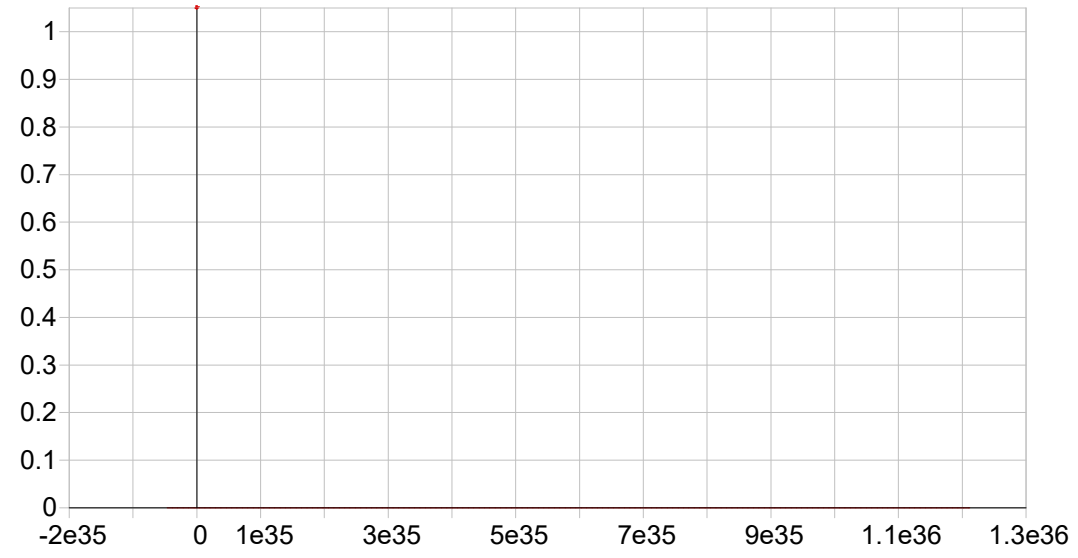
Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4



Y 224.306 {150}*

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

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



In 230.606 {446}*

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

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

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

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/24/2025 11:36:24 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00012**	**.00025**	**.00002**	**.00046**	**.00025**	**.00001**	**.01042**	**.00000**
Stddev	.00008	.00017	.00005	.00013	.00011	.00010	.00014	.00025
%RSD	68.509	68.809	239.56	28.469	44.698	1395.7	1.3380	7129.6
#1	-.00018	.00009	.00002	.00043	.00015	-.00008	.01043	.00030
#2	-.00016	.00023	.00007	.00060	.00037	.00011	.01028	-.00014
#3	-.00003	.00043	-.00003	.00035	.00021	-.00001	.01056	-.00015

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**.00004**	**-.00004**	**-.00008**	**.00440**	**-.00001**	**.00003**	**.00001**
Stddev	.00015	.00005	.00003	.00017	.00024	.00002	.00004	.00002
%RSD	799.33	110.79	83.935	216.38	5.4839	343.85	129.81	204.18
#1	.00012	.00001	-.00000	-.00002	.00467	-.00001	.00006	.00000
#2	-.00018	.00002	-.00006	-.00028	.00429	.00002	.00004	.00004
#3	-.00000	.00009	-.00006	.00005	.00422	-.00002	-.00001	-.00001

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00032**	**-.00028**	**-.00233**	**-.00008**	**.00061**	**.00810**	**-.00184**	**.00834**
Stddev	.00033	.00010	.00098	.00019	.00047	.00013	.00004	.00016
%RSD	102.81	35.879	42.164	226.08	77.504	1.6272	2.0434	1.9753
#1	-.00041	-.00021	-.00139	-.00024	.00028	.00798	-.00180	.00832
#2	-.00059	-.00040	-.00334	-.00013	.00115	.00824	-.00184	.00851
#3	.00005	-.00024	-.00225	.00012	.00039	.00807	-.00188	.00818

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00046**	**.00013**	**.00042**	**.00012**	**.00286**	**.00142**	**.00007**
Stddev	.00015	.00006	.00013	.00009	.00032	.00011	.00006
%RSD	32.264	44.565	31.486	77.582	11.027	7.7941	76.093
#1	.00054	.00010	.00033	.00003	.00321	.00136	.00006
#2	.00029	.00019	.00036	.00022	.00275	.00136	.00003
#3	.00056	.00009	.00057	.00011	.00261	.00155	.00014

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/24/2025 11:36:24 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3257.9	66907.	9712.2	2362.3	3947.1
Stddev	1.5	59.	60.8	8.6	2.9
%RSD	.04703	.08886	.62602	.36263	.07375
#1	3258.4	66847.	9691.0	2360.7	3945.1
#2	3259.1	66966.	9780.7	2371.6	3950.4
#3	3256.2	66908.	9664.7	2354.7	3945.7

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/24/2025 11:40:39 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00069**	**.00220**	**.00222**	**.00271**	**.00903**	**.00234**	**.08509**	**.02697**
Stddev	.00004	.00008	.00012	.00006	.00007	.00011	.00047	.00073
%RSD	5.8270	3.7527	5.5418	2.0291	.82921	4.7598	.54753	2.6926
#1	.00066	.00226	.00208	.00275	.00912	.00236	.08537	.02626
#2	.00073	.00223	.00231	.00265	.00900	.00245	.08536	.02771
#3	.00068	.00210	.00228	.00274	.00898	.00222	.08455	.02694

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01469**	**.04233**	**.00191**	**.04533**	**.00802**	**.00050**	**.00142**	**.01391**
Stddev	.00008	.00017	.00009	.00005	.00015	.00002	.00002	.00006
%RSD	.51172	.41155	4.5339	.12103	1.9025	3.2508	1.7446	.40996
#1	.01476	.04250	.00194	.04530	.00808	.00052	.00144	.01395
#2	.01471	.04235	.00197	.04540	.00784	.00049	.00143	.01393
#3	.01461	.04215	.00181	.04531	.00812	.00049	.00139	.01385

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02608**	**.00256**	**.01121**	**.00848**	**.01711**	**.02456**	**-.00128**	**.00687**
Stddev	.00012	.00005	.00022	.00029	.00015	.00018	.00008	.00032
%RSD	.45369	2.0611	1.9616	3.4703	.87110	.72685	5.9867	4.6480
#1	.02621	.00261	.01107	.00814	.01725	.02442	-.00122	.00661
#2	.02599	.00251	.01146	.00866	.01695	.02476	-.00126	.00722
#3	.02605	.00256	.01109	.00863	.01712	.02451	-.00137	.00678

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00642**	**.00272**	**.01517**	**.00121**	**.05096**	**.00336**	**.13395**
Stddev	.00015	.00009	.00000	.00000	.00038	.00008	.00080
%RSD	2.3023	3.1749	.02588	.39133	.74301	2.4816	.59637
#1	.00651	.00263	.01517	.00120	.05135	.00335	.13458
#2	.00625	.00273	.01518	.00121	.05060	.00345	.13422
#3	.00650	.00280	.01517	.00121	.05093	.00329	.13305

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/24/2025 11:40:39 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3369.5	67749.	9722.3	2386.0	4100.4
Stddev	2.0	226.	58.5	17.1	1.3
%RSD	.05921	.33314	.60174	.71665	.03125
#1	3367.3	67833.	9760.1	2390.0	4099.0
#2	3370.1	67494.	9654.9	2367.3	4100.8
#3	3371.1	67921.	9751.8	2400.8	4101.5

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/24/2025 11:44:51 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.07755**	**.10027**	**1.5827**	**.08666**	**.19572**	**.43093**	**.97055**	**.64870**
Stddev	.00051	.00074	.0026	.00027	.00088	.00197	.00363	.00466
%RSD	.65941	.73459	.16503	.30959	.44856	.45732	.37418	.71839
#1	.07734	.10089	1.5809	.08697	.19552	.42915	.96762	.65202
#2	.07717	.09946	1.5816	.08649	.19496	.43305	.97461	.64337
#3	.07813	.10047	1.5857	.08651	.19668	.43060	.96941	.65070

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8853**	**.52649**	**.70919**	**.58961**	**.54827**	**.19765**	**.35107**	**.18307**
Stddev	.0051	.00223	.00092	.00134	.00245	.00082	.00130	.00065
%RSD	.26959	.42419	.12914	.22795	.44669	.41394	.36903	.35607
#1	1.8884	.52519	.70963	.58908	.55019	.19683	.35063	.18271
#2	1.8794	.52907	.70813	.58862	.54551	.19846	.35253	.18382
#3	1.8881	.52522	.70980	.59114	.54911	.19766	.35006	.18267

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.42487**	**.08405**	**.09552**	**.09784**	**1.0322**	**.13663**	**.06214**	**.59874**
Stddev	.00021	.00002	.00046	.00083	.0079	.00080	.00014	.00469
%RSD	.04866	.02090	.48084	.84631	.76635	.58306	.21910	.78393
#1	.42492	.08403	.09543	.09818	1.0342	.13573	.06226	.60164
#2	.42464	.08406	.09510	.09689	1.0390	.13725	.06199	.59332
#3	.42504	.08407	.09601	.09844	1.0235	.13691	.06216	.60125

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.76318**	**.03573**	**.07777**	**.20971**	**.59088**	**.16216**	**1.8609**
Stddev	.00197	.00013	.00058	.00009	.00202	.00074	.0076
%RSD	.25872	.37161	.74548	.04420	.34271	.45706	.40627
#1	.76215	.03585	.07762	.20963	.59055	.16155	1.8680
#2	.76193	.03559	.07728	.20968	.58905	.16298	1.8530
#3	.76546	.03575	.07841	.20981	.59305	.16194	1.8616

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/24/2025 11:44:51 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3061.2	64764.	9667.8	2264.3	3581.5
Stddev	7.3	32.	44.4	3.3	4.7
%RSD	.23979	.04952	.45906	.14480	.13204
#1	3062.8	64796.	9642.8	2260.9	3579.5
#2	3067.6	64732.	9719.0	2264.5	3587.0
#3	3053.2	64763.	9641.5	2267.4	3578.2

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/24/2025 11:48:56 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.15463**	**.19448**	**3.1534**	**.17036**	**.39667**	**.90825**	**2.0128**	**1.3075**
Stddev	.00046	.00172	.0023	.00037	.00113	.00267	.0069	.0047
%RSD	.30048	.88646	.07353	.21905	.28577	.29374	.34267	.36292
#1	.15446	.19301	3.1529	.17018	.39547	.90891	2.0161	1.3028
#2	.15426	.19404	3.1514	.17012	.39772	.90532	2.0049	1.3123
#3	.15515	.19638	3.1559	.17079	.39683	.91053	2.0174	1.3075

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.7378**	**1.0936**	**1.4349**	**1.1751**	**1.0777**	**.40714**	**.72464**	**.38360**
Stddev	.0085	.0015	.0027	.0015	.0008	.00055	.00092	.00022
%RSD	.22652	.14128	.18938	.13027	.07837	.13400	.12754	.05776
#1	3.7331	1.0946	1.4321	1.1740	1.0776	.40715	.72510	.38343
#2	3.7327	1.0918	1.4375	1.1744	1.0770	.40659	.72358	.38351
#3	3.7476	1.0944	1.4352	1.1768	1.0787	.40768	.72525	.38385

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.84021**	**.17503**	**.19015**	**.19440**	**2.1125**	**.28386**	**.12462**	**1.1951**
Stddev	.00057	.00060	.00157	.00068	.0143	.00089	.00014	.0051
%RSD	.06750	.34374	.82774	.35091	.67800	.31459	.11047	.42541
#1	.83956	.17443	.19129	.19400	2.1179	.28460	.12453	1.1899
#2	.84053	.17563	.18836	.19401	2.0963	.28287	.12455	1.2001
#3	.84055	.17504	.19081	.19518	2.1234	.28412	.12478	1.1954

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.5412**	**.07081**	**.15449**	**.41831**	**1.1652**	**.33812**	**3.8815**
Stddev	.0039	.00019	.00051	.00088	.0009	.00111	.0263
%RSD	.25184	.26515	.32904	.20986	.07753	.32823	.67886
#1	1.5378	.07063	.15391	.41751	1.1642	.33929	3.8906
#2	1.5403	.07079	.15474	.41818	1.1659	.33708	3.9020
#3	1.5454	.07100	.15482	.41925	1.1656	.33801	3.8517

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/24/2025 11:48:56 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3035.2	61460.	9580.2	2172.7	3547.2
Stddev	3.0	122.	36.6	5.8	2.4
%RSD	.09780	.19843	.38237	.26690	.06793
#1	3038.5	61555.	9610.6	2170.8	3547.2
#2	3034.4	61322.	9539.6	2179.2	3549.6
#3	3032.8	61502.	9590.5	2168.1	3544.7

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/24/2025 11:52:54 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.31151**	**.36979**	**6.1058**	**.33992**	**.80003**	**1.8389**	**3.9800**	**2.4543**
Stddev	.00201	.00150	.0323	.00163	.00351	.0074	.0107	.0038
%RSD	.64574	.40652	.52866	.47912	.43836	.40291	.26803	.15529
#1	.31032	.36940	6.0898	.33881	.79850	1.8306	3.9906	2.4505
#2	.31038	.36851	6.0846	.33917	.79754	1.8417	3.9693	2.4581
#3	.31383	.37144	6.1429	.34179	.80404	1.8446	3.9800	2.4544

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.1758**	**2.1640**	**2.7148**	**2.2676**	**2.1229**	**.79679**	**1.4361**	**.76914**
Stddev	.0404	.0082	.0063	.0111	.0059	.00288	.0060	.00370
%RSD	.56309	.37814	.23287	.48711	.27744	.36177	.41840	.48043
#1	7.1683	2.1546	2.7092	2.2624	2.1190	.79353	1.4294	.76501
#2	7.1397	2.1674	2.7135	2.2601	2.1297	.79787	1.4378	.77027
#3	7.2194	2.1699	2.7217	2.2803	2.1201	.79898	1.4411	.77214

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.6142**	**.34411**	**.37431**	**.37453**	**4.2220**	**.56368**	**.24746**	**2.2133**
Stddev	.0077	.00034	.00102	.00162	.0158	.00264	.00070	.0042
%RSD	.47959	.09938	.27340	.43136	.37493	.46790	.28311	.19032
#1	1.6095	.34384	.37348	.37268	4.2177	.56066	.24753	2.2111
#2	1.6100	.34400	.37545	.37569	4.2395	.56484	.24672	2.2182
#3	1.6232	.34449	.37399	.37521	4.2087	.56554	.24811	2.2106

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.0435**	**.14185**	**.30019**	**.80826**	**2.2435**	**.69531**	**7.8246**
Stddev	.0145	.00038	.00212	.00352	.0054	.00257	.1082
%RSD	.47732	.26791	.70689	.43511	.23877	.36937	1.3826
#1	3.0377	.14170	.29782	.80677	2.2378	.69250	7.7379
#2	3.0327	.14158	.30193	.80574	2.2483	.69590	7.7900
#3	3.0600	.14229	.30081	.81228	2.2445	.69753	7.9458

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/24/2025 11:52:54 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2801.7	59191.	9538.7	2065.0	3310.2
Stddev	12.2	47.	14.6	9.1	13.3
%RSD	.43674	.08022	.15294	.44118	.40087
#1	2804.9	59236.	9531.1	2058.4	3317.0
#2	2812.0	59197.	9529.6	2061.1	3318.6
#3	2788.1	59141.	9555.6	2075.4	3294.9

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/24/2025 11:56:56 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.71031**	**.75220**	**12.637**	**.76569**	**1.8048**	**3.9487**	**8.5814**	**5.0339**
Stddev	.00363	.00845	.055	.00267	.0098	.0293	.1257	.0376
%RSD	.51045	1.1233	.43672	.34922	.54194	.74299	1.4647	.74638
#1	.71344	.74247	12.676	.76852	1.8138	3.9788	8.5435	5.0260
#2	.71116	.75770	12.662	.76532	1.8062	3.9473	8.4790	5.0008
#3	.70634	.75644	12.574	.76321	1.7944	3.9202	8.7217	5.0747

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**14.650**	**4.5358**	**5.4136**	**4.6788**	**4.5112**	**1.6592**	**2.9772**	**1.6503**
Stddev	.044	.0322	.0175	.0218	.0229	.0162	.0096	.0132
%RSD	.30223	.71036	.32248	.46669	.50806	.97674	.32233	.79702
#1	14.658	4.5725	5.4321	4.6967	4.5251	1.6740	2.9791	1.6622
#2	14.690	4.5226	5.3974	4.6852	4.4848	1.6615	2.9668	1.6524
#3	14.602	4.5123	5.4114	4.6545	4.5238	1.6419	2.9857	1.6362

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.3162**	**.74156**	**.80293**	**.77076**	**8.9863**	**1.2174**	**.54399**	**4.4274**
Stddev	.0154	.00277	.00655	.00251	.0306	.0145	.00172	.0276
%RSD	.46397	.37301	.81575	.32605	.34026	1.1941	.31572	.62388
#1	3.3286	.74473	.80140	.77273	8.9830	1.2295	.54236	4.4226
#2	3.3210	.74031	.79728	.76793	9.0184	1.2214	.54579	4.4025
#3	3.2990	.73964	.81011	.77162	8.9576	1.2013	.54382	4.4571

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.6034**	**.31396**	**.62791**	**1.6631**	**4.6259**	**1.5353**	**16.463**
Stddev	.0242	.00104	.00445	.0069	.0205	.0140	.143
%RSD	.36672	.33070	.70872	.41207	.44335	.91082	.86836
#1	6.6251	.31440	.62848	1.6663	4.6422	1.5494	16.595
#2	6.6080	.31470	.62321	1.6677	4.6029	1.5351	16.312
#3	6.5773	.31277	.63205	1.6552	4.6328	1.5214	16.483

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/24/2025 11:56:56 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2365.6	54783.	9109.2	1900.2	2925.1
Stddev	13.3	213.	65.4	6.8	13.7
%RSD	.56389	.38941	.71782	.35583	.46785
#1	2353.3	54542.	9119.1	1904.3	2914.2
#2	2363.7	54863.	9169.0	1892.4	2920.6
#3	2379.8	54945.	9039.4	1903.9	2940.5

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: S6 Acquired: 1/24/2025 12:01:34 Type: Cal
Method: EPA SFAM01.0(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**10.174**	**7.1941**	**4.2232**	**2.6147**	**2.2269**
Stddev	.147	.0667	.0217	.0116	.0078
%RSD	1.4444	.92684	.51374	.44366	.34866
#1	10.336	7.2614	4.2401	2.6130	2.2358
#2	10.135	7.1928	4.1987	2.6041	2.2213
#3	10.050	7.1280	4.2307	2.6271	2.2235

Int. Std.	Y_3600	Y_3710
Units	Cts/S	Cts/S
Avg	**52672.**	**8914.9**
Stddev	97.	57.5
%RSD	.18373	.64482
#1	52584.	8866.3
#2	52776.	8900.0
#3	52657.	8978.3

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICV002 Acquired: 1/24/2025 12:18:05 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9966276**	**1.041310**	**.9806952**	**1.074974**	**.9533085**	**2.536008**
Stddev	.0030505	.008283	.0018632	.001886	.0018634	.002215
%RSD	.3060852	.7954310	.1899904	.1754027	.1954671	.0873455
#1	.9978758	1.033761	.9785459	1.072804	.9554095	2.538487
#2	.9931509	1.050170	.9818530	1.075900	.9518559	2.535318
#3	.9988561	1.040000	.9816867	1.076218	.9526600	2.534221

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5473226**	**.4879251**	**.4922237**	**10.40321**	**.5343735**	**.4780483**
Stddev	.0023518	.0023403	.0020869	.02219	.0013399	.0012368
%RSD	.4296902	.4796509	.4239721	.2133408	.2507443	.2587276
#1	.5499644	.4901384	.4901620	10.41887	.5358250	.4771735
#2	.5454569	.4881612	.4921740	10.37781	.5341116	.4775081
#3	.5465466	.4854756	.4943349	10.41296	.5331839	.4794634

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4659737**	**9.844701**	**.5540937**	**5.845494**	**.4937488**	**.2510338**
Stddev	.0011549	.010330	.0015653	.010044	.0014849	.0010678
%RSD	.2478364	.1049256	.2824874	.1718239	.3007385	.4253693
#1	.4668941	9.836984	.5556670	5.850130	.4924924	.2522455
#2	.4663490	9.856436	.5525367	5.833969	.4933667	.2506256
#3	.4646778	9.840684	.5540774	5.852382	.4953875	.2502303

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.04263**	**.4979457**	**.9352282**	**9.280138**	**4.980286**	F **.0423791**
Stddev	.15852	.0028277	.0019450	.056937	.007424	.0004494
%RSD	1.578464	.5678655	.2079648	.6135367	.1490594	1.060516
#1	9.88696	.4972589	.9351507	9.339302	4.971714	.0419448
#2	10.20385	.4955246	.9333231	9.225726	4.984536	.0428422
#3	10.03707	.5010534	.9372107	9.275386	4.984608	.0423502

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICV002 Acquired: 1/24/2025 12:18:05 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV002 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.206735**	**4.845099**	F **.0090548**	**5.451312**	F **5.549189**	F **3.643030**
Stddev	.003455	.017333	.0024338	.019351	.015104	.011660
%RSD	.0663600	.3577431	26.87814	.3549711	.2721768	.3200661
#1	5.202767	4.825146	.0070720	5.431909	5.566335	3.655425
#2	5.209075	4.853720	.0117709	5.451416	5.543377	3.632279
#3	5.208364	4.856432	.0083216	5.470610	5.537854	3.641387

Elem	Sr4077
Units	ppm
Avg	**5.101864**
Stddev	.031380
%RSD	.6150649
#1	5.138004
#2	5.086050
#3	5.081537

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3207.635**	**64644.29**	**9904.828**	**2260.576**	**3822.334**
Stddev	5.770	113.55	38.528	2.584	6.302
%RSD	.1798918	.1756591	.3889854	.1142961	.1648623
#1	3201.525	64513.68	9862.562	2257.957	3821.066
#2	3212.992	64699.57	9913.936	2263.123	3829.173
#3	3208.388	64719.62	9937.987	2260.648	3816.763

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICB002 Acquired: 1/24/2025 12:23:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007547**	**.0009411**	**-.000847**	**-.000564**	**-.000052**	**-.007351**	**-.004572**
Stddev	.0005386	.0014525	.001318	.001964	.001672	.012831	.000158
%RSD	71.36058	154.3382	155.7042	348.3569	3222.198	174.5412	3.455521
#1	.0013731	-.000674	.000533	.001587	.001389	-.004419	-.004390
#2	.0005024	.002141	-.002093	-.001017	.000341	.003759	-.004667
#3	.0003886	.001357	-.000980	-.002261	-.001886	-.021394	-.004659

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000040**	**.0000232**	**.0006320**	**.0001370**	**.0000643**	**.0006233**	**.0006540**
Stddev	.000052	.0000234	.0004608	.0001293	.0002953	.0005218	.0045196
%RSD	128.7651	101.0579	72.90490	94.36978	459.2197	83.72161	691.0382
#1	-.000092	.0000395	.0011415	.0002551	.0002524	.0006914	-.000251
#2	-.000040	-.000004	.0002444	-.000001	-.000276	.0011076	.005558
#3	.000012	.000034	.0005102	.000157	.000217	.0000707	-.003344

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000585**	**-.020872**	**-.000056**	**.0003540**	**-.001341**	**.0006618**	**-.001001**
Stddev	.000284	.016322	.000145	.0002776	.546538	.0009796	.001509
%RSD	48.53978	78.19962	258.6347	78.42743	40755.99	148.0244	150.7172
#1	-.000517	-.012265	-.000059	.0000818	.318564	.0011253	.000543
#2	-.000896	-.039697	.000090	.0003433	.309822	.0013236	-.002471
#3	-.000341	-.010656	-.000200	.0006368	-.632409	-.000464	-.001075

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.393331**	**.0038874**	**-.008046**	**-.000540**	**.0003852**	**.0000070**	**.0002572**
Stddev	.058310	.0012919	.000571	.000157	.0028319	.0022215	.0001268
%RSD	14.82461	33.23203	7.097147	28.99508	735.1462	31970.20	49.30425
#1	-.410675	.0048397	-.007857	-.000589	-.002732	.0025279	.0001239
#2	-.441002	.0024169	-.008687	-.000667	.002799	-.001664	.0003763
#3	-.328317	.0044056	-.007593	-.000365	.001089	-.000843	.0002713

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICB002 Acquired: 1/24/2025 12:23:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB002 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000317	-.002641	.0000141
Stddev	.001110	.000195	.0000425
%RSD	350.5903	7.385761	301.3899
#1	-.000461	-.002865	.0000629
#2	-.001347	-.002515	-.000016
#3	.000859	-.002542	-.000005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3251.152	65705.12	9468.311	2321.034	3956.199
Stddev	12.748	150.09	15.857	11.946	9.352
%RSD	.3921201	.2284298	.1674700	.5146861	.2363984
#1	3236.580	65815.48	9456.350	2318.905	3945.493
#2	3260.246	65765.65	9486.297	2333.902	3962.782
#3	3256.629	65534.21	9462.286	2310.296	3960.321

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICSA002 Acquired: 1/24/2025 12:29:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000429**	**.0062674**	**.0040018**	**.0252494**	**.0091597**	**237.1890**
Stddev	.000252	.0038480	.0019703	.0039669	.0013016	1.2825
%RSD	58.62761	61.39724	49.23653	15.71102	14.21005	.5407135
#1	-.000682	.0104393	.0059524	.0207953	.0076818	235.8225
#2	-.000427	.0055057	.0020123	.0284023	.0096621	237.3779
#3	-.000178	.0028572	.0040406	.0265507	.0101353	238.3666

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044300**	**-.000678**	**.0009962**	**245.7077**	**.0605852**	**.0005121**
Stddev	.0008910	.000093	.0000451	1.1285	.0001605	.0001054
%RSD	20.11250	13.78225	4.530206	.4592921	.2649081	20.58326
#1	.0044805	-.000579	.0010384	244.4841	.0605218	.0006162
#2	.0035149	-.000688	.0010017	245.9314	.0607678	.0004055
#3	.0052948	-.000765	.0009486	246.7076	.0604662	.0005145

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011455**	**102.9336**	**.0115855**	**239.6872**	**.0040969**	**.0023232**
Stddev	.001933	.4747	.0005099	1.0119	.0004813	.0002494
%RSD	16.87593	.4612005	4.401364	.4221625	11.74908	10.73422
#1	-.011000	102.4294	.0118602	238.5968	.0046324	.0024288
#2	-.013575	102.9995	.0109971	239.8691	.0039578	.0020384
#3	-.009790	103.3720	.0118991	240.5959	.0037004	.0025024

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.309396**	**-.006623**	**-.008607**	**-.271386**	F **.0109329**	F **.4105869**
Stddev	.194735	.001016	.000525	.051472	.0007355	.0029084
%RSD	62.94028	15.34656	6.098283	18.96623	6.727707	.7083485
#1	-.422561	-.005672	-.008308	-.307978	.0105093	.4074802
#2	-.084537	-.007694	-.008300	-.293650	.0117822	.4110357
#3	-.421091	-.006502	-.009213	-.212530	.0105072	.4132448

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICSA002 Acquired: 1/24/2025 12:29:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA002 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000618**	**.0258201**	**.0034923**	**-.003752**	**-.004487**	**.0025734**
Stddev	.000360	.0055944	.0029981	.001711	.001149	.0015562
%RSD	58.26566	21.66697	85.84822	45.60260	25.60391	60.47072
#1	-.000982	.0263933	.0001741	-.002242	-.003478	.0037456
#2	-.000609	.0199611	.0060062	-.005610	-.004246	.0008079
#3	-.000263	.0311058	.0042966	-.003403	-.005738	.0031668

Elem	Sr4077
Units	ppm
Avg	**.0913368**
Stddev	.0005890
%RSD	.6449118
#1	.0906606
#2	.0916117
#3	.0917382

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2938.485**	**60079.32**	**9757.011**	**2105.406**	**3371.718**
Stddev	4.450	45.66	62.350	8.244	3.331
%RSD	.1514387	.0760050	.6390266	.3915552	.0987883
#1	2934.692	60124.34	9686.426	2097.739	3368.642
#2	2937.379	60080.59	9780.020	2114.126	3375.255
#3	2943.384	60033.04	9804.586	2104.352	3371.255

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICSAB002 Acquired: 1/24/2025 12:36:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0896507**	**.1081835**	**.0517403**	**.0628739**	**.5276967**	**228.8166**
Stddev	.0005218	.0012122	.0007957	.0068561	.0025742	1.0292
%RSD	.5820678	1.120493	1.537818	10.90460	.4878188	.4497830
#1	.0897269	.1077513	.0526546	.0674179	.5247501	229.1681
#2	.0901302	.1072466	.0513616	.0662163	.5295088	229.6239
#3	.0890949	.1095525	.0512047	.0549876	.5288311	227.6577

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4842400**	**.4993522**	**.9752857**	**237.7066**	**.5916392**	**.4884768**
Stddev	.0018124	.0011896	.0024666	.9412	.0010912	.0012862
%RSD	.3742755	.2382231	.2529155	.3959674	.1844334	.2632998
#1	.4857621	.4989061	.9740644	238.0667	.5906912	.4870362
#2	.4847228	.4984501	.9736680	238.4146	.5928319	.4888843
#3	.4822351	.5007003	.9781247	236.6385	.5913944	.4895098

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4781363**	**99.48291**	**.4969822**	**232.5402**	**.9730475**	**.1991859**
Stddev	.0020682	.46640	.0043141	.8184	.0022059	.0004653
%RSD	.4325489	.4688260	.8680627	.3519324	.2266979	.2335982
#1	.4769018	99.63866	.4994463	232.9287	.9725117	.1995526
#2	.4769831	99.85151	.4994994	233.0921	.9711589	.1993427
#3	.4805240	98.95857	.4920007	231.6000	.9754720	.1986625

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.673263**	**.4770608**	**.9429909**	**-.561161**	**.0096169**	F **.3952662**
Stddev	.376044	.0021956	.0041172	.061693	.0020150	.0021913
%RSD	55.85398	.4602365	.4366124	10.99377	20.95219	.5543913
#1	-.725692	.4785835	.9434431	-.601512	.0075110	.3963480
#2	-.273756	.4745440	.9468634	-.591828	.0115265	.3967063
#3	-1.02034	.4780550	.9386663	-.490144	.0098132	.3927444

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: ICSAB002 Acquired: 1/24/2025 12:36:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB002 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000636	.0194518	-.000572	-.002565	-.004923	.0038155
Stddev	.000299	.0054258	.003835	.000560	.000148	.0008277
%RSD	47.05908	27.89363	670.8217	21.85320	3.000188	21.69242
#1	-.000758	.0171026	.000987	-.003064	-.005081	.0034878
#2	-.000295	.0155963	-.004941	-.002671	-.004900	.0032018
#3	-.000855	.0256563	.002238	-.001959	-.004789	.0047568

Elem	Sr4077
Units	ppm
Avg	.0880316
Stddev	.0004165
%RSD	.4731243
#1	.0882847
#2	.0882592
#3	.0875509

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3084.422	60513.73	9599.081	2144.908	3534.829
Stddev	8.618	150.71	31.297	10.466	7.721
%RSD	.2793927	.2490522	.3260380	.4879435	.2184263
#1	3084.932	60498.19	9608.446	2135.929	3537.815
#2	3092.774	60371.39	9624.626	2142.394	3540.612
#3	3075.561	60671.60	9564.171	2156.402	3526.061

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV013 Acquired: 1/24/2025 12:59:28 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV013 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.799458**	**4.889542**	**24.34375**	**4.827917**	**4.896973**	**413.8373**
Stddev	.012764	.013054	.04565	.025597	.010091	3.4974
%RSD	.2659422	.2669743	.1875409	.5301842	.2060597	.8451220
#1	4.811692	4.874636	24.29511	4.855718	4.908502	410.2965
#2	4.786223	4.898936	24.35049	4.805325	4.889750	413.9257
#3	4.800459	4.895053	24.38567	4.822709	4.892666	417.2897

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.26619**	**.4928787**	**2.451198**	**408.2126**	**15.66501**	**2.468511**
Stddev	.07321	.0033259	.002760	1.2242	.05621	.002682
%RSD	.7131268	.6747823	.1125854	.2999006	.3588135	.1086651
#1	10.21870	.4894877	2.448028	408.8913	15.61834	2.467051
#2	10.22937	.4961354	2.453066	408.9470	15.64928	2.466876
#3	10.35050	.4930129	2.452498	406.7993	15.72741	2.471607

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.56736**	**416.5925**	**15.17785**	**406.5020**	**2.462587**	**1.292287**
Stddev	.04449	1.5895	.03368	1.2777	.004270	.005387
%RSD	.3053827	.3815418	.2218755	.3143219	.1733847	.4168543
#1	14.55943	417.7573	15.21010	407.4844	2.458989	1.288468
#2	14.61529	414.7818	15.14291	405.0575	2.461466	1.289944
#3	14.52738	417.2386	15.18054	406.9641	2.467305	1.298449

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**378.3988**	**2.437730**	**15.36183**	**158.0573**	**4.847789**	F **5.945155**
Stddev	1.8796	.008266	.01045	.8607	.015981	.017163
%RSD	.4967313	.3390896	.0680128	.5445367	.3296515	.2886942
#1	377.3879	2.432443	15.35042	158.5516	4.842277	5.926081
#2	380.5676	2.447255	15.37092	157.0635	4.835293	5.959353
#3	377.2411	2.433490	15.36415	158.5569	4.865795	5.950031

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV013 Acquired: 1/24/2025 12:59:28 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV013 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.847361**	**4.893366**	**4.881066**	**4.909556**	**4.888829**	**5.100450**
Stddev	.010036	.009948	.028502	.007623	.016650	.022349
%RSD	.2070349	.2033003	.5839218	.1552675	.3405814	.4381830
#1	4.858826	4.895544	4.863965	4.902686	4.883026	5.116030
#2	4.843088	4.882510	4.913968	4.908226	4.907605	5.074843
#3	4.840168	4.902045	4.865264	4.917757	4.875857	5.110477

Elem	Sr4077
Units	ppm
Avg	**5.113641**
Stddev	.026043
%RSD	.5092920
#1	5.125011
#2	5.083846
#3	5.132067

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2644.481**	**55453.41**	**9302.795**	**1898.907**	**3094.580**
Stddev	5.920	121.23	48.096	3.226	5.826
%RSD	.2238801	.2186142	.5170048	.1698691	.1882554
#1	2638.018	55424.56	9335.553	1902.529	3098.837
#2	2649.642	55586.46	9247.578	1897.847	3096.963
#3	2645.785	55349.21	9325.255	1896.345	3087.941

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB013 Acquired: 1/24/2025 13:03:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB013 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008690**	**.0001167**	**-.000688**	**.0021413**	**.0001988**	**.0039748**	**-.001063**
Stddev	.0012820	.0005825	.001616	.0012983	.0015530	.0080644	.000337
%RSD	147.5347	499.2337	234.8041	60.63099	781.0892	202.8892	31.66779
#1	.0002066	-.000312	.000477	.0032236	.0019276	.0006391	-.000805
#2	.0000536	-.000118	-.002533	.0024987	-.000253	.0131719	-.001444
#3	.0023467	.000780	-.000009	.0007018	-.001078	-.001887	-.000939

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000046**	**.0000238**	**.0098034**	**.0001818**	**-.000097**	**-.000664**	**.0064566**
Stddev	.000053	.0000429	.0031082	.0002425	.000106	.001802	.0010930
%RSD	114.9420	180.5863	31.70549	133.3758	109.9946	271.3959	16.92770
#1	-.000009	.0000728	.0103203	.0000461	-.000215	.001390	.0076578
#2	-.000023	.0000052	.0064691	.0000375	-.000067	-.001402	.0061912
#3	-.000107	-.000007	.0126208	.0004618	-.000008	-.001979	.0055208

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000374**	**-.018990**	**.0000293**	**.0003575**	**.0954402**	**-.000347**	**-.001021**
Stddev	.000159	.011269	.0003072	.0004815	.5782305	.002968	.001124
%RSD	42.58747	59.34433	1046.771	134.6998	605.8566	854.3332	110.0435
#1	-.000214	-.016154	-.000036	.0002056	-.401849	.000693	-.001770
#2	-.000376	-.031406	-.000240	-.000030	.729932	-.003695	.000271
#3	-.000532	-.009409	.000364	.000897	-.041763	.001960	-.001565

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.096187**	**.0023009**	**-.007074**	**-.000038**	**.0014979**	**.0020355**	**.0002003**
Stddev	.025617	.0004050	.000150	.000202	.0026773	.0015618	.0009009
%RSD	26.63279	17.60019	2.116286	536.9078	178.7356	76.72544	449.7411
#1	-.094815	.0018333	-.006902	.000177	.0039773	.0024399	-.000583
#2	-.122464	.0025300	-.007179	-.000223	.0018574	.0033553	-.000001
#3	-.071284	.0025393	-.007140	-.000067	-.001341	.0003113	.001185

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB013 Acquired: 1/24/2025 13:03:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB013 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000289**	**-.001644**	**.0000148**
Stddev	.000825	.001664	.0000642
%RSD	285.5973	101.2641	434.9331
#1	-.000200	-.002928	.0000537
#2	-.001155	-.002239	-.000059
#3	.000488	.000237	.000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3348.360**	**65821.41**	**9941.540**	**2303.330**	**4136.717**
Stddev	4.099	218.33	32.723	1.812	3.950
%RSD	.1224040	.3316960	.3291525	.0786566	.0954817
#1	3344.575	65607.14	9910.558	2301.246	4132.270
#2	3352.713	66043.58	9938.299	2304.209	4139.816
#3	3347.792	65813.51	9975.762	2304.533	4138.065

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-02 Acquired: 1/24/2025 13:07:57 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0573330**	**-.005106**	**.4750989**	**.0243353**	**.0131743**	**54.56193**
Stddev	.0026194	.003187	.0080168	.0004876	.0003523	.16386
%RSD	4.568729	62.41483	1.687390	2.003634	2.674427	.3003238
#1	.0571945	-.003404	.4813255	.0240957	.0127879	54.46454
#2	.0547855	-.008782	.4779177	.0248963	.0134778	54.47013
#3	.0600188	-.003131	.4660534	.0240138	.0132571	54.75111

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.691399**	**.0054136**	**.0037801**	**23.75668**	**.1296995**	**.1582291**
Stddev	.061576	.0001054	.0001633	.01002	.0001022	.0020237
%RSD	.9202281	1.946825	4.320509	.0421767	.0788032	1.278976
#1	6.670202	.0053580	.0038844	23.75299	.1296329	.1596772
#2	6.760774	.0053477	.0038640	23.74903	.1296484	.1590933
#3	6.643221	.0055352	.0035918	23.76802	.1298171	.1559167

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0535494**	**116.0647**	**11.42611**	**13.00305**	**.0763035**	**.0052673**
Stddev	.0014319	.3470	.01640	.04657	.0007552	.0001380
%RSD	2.673905	.2989411	.1435506	.3581848	.9897977	2.620746
#1	.0519880	115.8678	11.42220	12.96046	.0766072	.0054086
#2	.0538594	115.8610	11.41202	12.99591	.0768596	.0052605
#3	.0548010	116.4653	11.44412	13.05278	.0754437	.0051328

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.439030**	**.2012400**	**.6036005**	**5.475468**	**3.138436**	**.4742831**
Stddev	.267386	.0024996	.0040500	.055961	.034431	.0015789
%RSD	60.90377	1.242118	.6709725	1.022036	1.097081	.3329063
#1	-.661935	.1998290	.6027253	5.536198	3.157365	.4734933
#2	-.142563	.2041261	.6080166	5.425984	3.159250	.4732548
#3	-.512592	.1997649	.6000597	5.464223	3.098694	.4761010

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-02 Acquired: 1/24/2025 13:07:57 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057737	2.766542	F 13.03254	.0080480	1.181889	.0339307
Stddev	.0005242	.043570	.07449	.0008908	.003243	.0006639
%RSD	9.078744	1.574887	.5715700	11.06898	.2744059	1.956651
#1	.0063325	2.783446	13.03099	.0078895	1.181101	.0332737
#2	.0056956	2.799126	13.10780	.0072471	1.185454	.0339170
#3	.0052929	2.717053	12.95884	.0090075	1.179113	.0346013

Elem	Sr4077
Units	ppm
Avg	.1049843
Stddev	.0001193
%RSD	.1136382
#1	.1049321
#2	.1048999
#3	.1051208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3492.347	69331.51	10733.19	2440.553	3929.430
Stddev	35.038	32.49	66.30	6.891	45.460
%RSD	1.003266	.0468661	.6177345	.2823419	1.156923
#1	3470.452	69351.91	10749.55	2446.405	3898.662
#2	3473.832	69294.04	10660.23	2432.958	3907.981
#3	3532.758	69348.59	10789.77	2442.296	3981.647

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-03 Acquired: 1/24/2025 13:12:02 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0571768**	**-.002318**	**.4739614**	**.0257886**	**.0125279**	**54.05123**
Stddev	.0004549	.002978	.0013432	.0028206	.0006571	.38244
%RSD	.7956775	128.4900	.2834034	10.93730	5.245306	.7075513
#1	.0575623	.001070	.4753879	.0235266	.0130414	54.41396
#2	.0566750	-.004521	.4727209	.0289490	.0117873	54.08801
#3	.0572930	-.003503	.4737755	.0248903	.0127549	53.65174

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.726653**	**.0053378**	**.0038234**	**23.62202**	**.1289183**	**.1580247**
Stddev	.005211	.0000277	.0000638	.12317	.0001886	.0000284
%RSD	.0774663	.5188514	1.668015	.5214235	.1462688	.0179789
#1	6.721473	.0053131	.0037499	23.73462	.1291140	.1580347
#2	6.731894	.0053677	.0038560	23.64096	.1289031	.1580469
#3	6.726590	.0053327	.0038643	23.49047	.1287377	.1579927

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0465937**	**115.0868**	**11.49801**	**12.90118**	**.0762422**	**.0052506**
Stddev	.0009780	.7778	.07832	.04974	.0005575	.0001446
%RSD	2.098949	.6758046	.6811492	.3855815	.7312178	2.754387
#1	.0455282	115.7470	11.58049	12.95416	.0763647	.0053202
#2	.0468024	115.2840	11.48890	12.89391	.0756336	.0050843
#3	.0474504	114.2295	11.42465	12.85547	.0767282	.0053473

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3145432**	**.2043929**	**.6056765**	**5.395994**	**3.116140**	**.4680369**
Stddev	.0452542	.0031330	.0047234	.044937	.010236	.0047301
%RSD	14.38728	1.532827	.7798540	.8327894	.3284887	1.010622
#1	.2653051	.2079606	.6087414	5.437726	3.104563	.4713269
#2	.3240079	.2031280	.6080511	5.348422	3.119863	.4701676
#3	.3543166	.2020902	.6002370	5.401834	3.123993	.4626163

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-03 Acquired: 1/24/2025 13:12:02 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055349	2.727362	F 13.36545	.0082151	1.203856	.0345642
Stddev	.0002137	.009227	.11350	.0011366	.009240	.0013543
%RSD	3.861055	.3383120	.8491910	13.83507	.7675180	3.918281
#1	.0057592	2.723436	13.48810	.0071728	1.214390	.0348201
#2	.0055118	2.737902	13.26412	.0080455	1.200052	.0357724
#3	.0053337	2.720747	13.34414	.0094269	1.197125	.0331002

Elem	Sr4077
Units	ppm
Avg	.1057138
Stddev	.0010033
%RSD	.9490653
#1	.1067235
#2	.1057010
#3	.1047170

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3517.233	70064.76	10662.71	2470.582	3957.282
Stddev	8.276	203.97	45.54	7.435	11.340
%RSD	.2353008	.2911169	.4270669	.3009356	.2865654
#1	3521.454	69831.70	10627.17	2462.035	3961.698
#2	3522.548	70151.88	10714.04	2474.160	3965.750
#3	3507.697	70210.70	10646.92	2475.552	3944.398

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-02LX5 Acquired: 1/24/2025 13:16:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0125668	-.001003	.0992332	.0042980	.0036773	11.23297	1.359957
Stddev	.0013091	.002848	.0007644	.0014506	.0004811	.05872	.008536
%RSD	10.41675	284.0437	.7703609	33.75028	13.08246	.5227330	.6276643
#1	.0116862	.000993	.0984203	.0056150	.0041477	11.17896	1.351317
#2	.0140710	-.004265	.0993418	.0027432	.0031862	11.22446	1.360168
#3	.0119430	.000264	.0999376	.0045358	.0036980	11.29547	1.368386

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012316	.0007199	4.929966	.0276086	.0323964	.0090009	24.32331
Stddev	.0000679	.0000303	.029179	.0003396	.0001324	.0005715	.06296
%RSD	5.514894	4.210421	.5918639	1.230116	.4085852	6.349323	.2588516
#1	.0012675	.0007486	4.900062	.0279353	.0322892	.0083523	24.26412
#2	.0011532	.0007230	4.931475	.0272574	.0323557	.0094303	24.31635
#3	.0012740	.0006882	4.958361	.0276330	.0325443	.0092202	24.38946

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.342099	2.715204	.0159733	.0011846	.1321576	.0427441	.1251158
Stddev	.012138	.019063	.0002466	.0002729	.2440815	.0011682	.0008618
%RSD	.5182622	.7020981	1.543735	23.03396	184.6897	2.733073	.6888186
#1	2.329726	2.734797	.0157233	.0008790	.2945335	.0440375	.1249463
#2	2.342583	2.714096	.0162164	.0014036	.2504724	.0417657	.1243514
#3	2.353988	2.696718	.0159801	.0012713	-.148533	.0424291	.1260498

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9588837	.6472112	.0890593	.0006151	.5685790	2.764113	.0017982
Stddev	.0296141	.0013204	.0003910	.0003666	.0031505	.021002	.0005348
%RSD	3.088391	.2040170	.4390310	59.61228	.5540971	.7598065	29.74074
#1	.9417577	.6480777	.0891068	.0008362	.5655230	2.774490	.0022428
#2	.9418144	.6456915	.0886467	.0008171	.5683979	2.739943	.0012048
#3	.9930791	.6478644	.0894244	.0001918	.5718161	2.777908	.0019471

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-02LX5 Acquired: 1/24/2025 13:16:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2479836	.0053287	.0215412
Stddev	.0015881	.0009426	.0000966
%RSD	.6404212	17.68974	.4484776
#1	.2470727	.0042403	.0214477
#2	.2470606	.0058630	.0215353
#3	.2498174	.0058828	.0216406

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3342.896	67317.20	10115.44	2354.317	4007.813
Stddev	4.362	263.84	90.37	8.857	8.359
%RSD	.1304855	.3919326	.8934227	.3761980	.2085609
#1	3345.541	67405.32	10099.40	2353.172	4016.055
#2	3345.285	67525.70	10212.76	2363.691	4008.042
#3	3337.861	67020.58	10034.16	2346.088	3999.342

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-04 Acquired: 1/24/2025 13:20:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1257284**	**.0980075**	**.5131529**	**.1863441**	**.1717234**	**57.90667**
Stddev	.0018827	.0027510	.0029819	.0042842	.0031876	.33168
%RSD	1.497467	2.806888	.5810884	2.299078	1.856235	.5727755
#1	.1237508	.0948360	.5110209	.1814039	.1710076	58.10331
#2	.1259353	.0994387	.5118774	.1885913	.1752081	58.09296
#3	.1274992	.0997477	.5165604	.1890373	.1689546	57.52373

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.16699**	**.0947493**	**.0994492**	**23.63004**	**.5353712**	**1.114422**
Stddev	.18409	.0004171	.0005926	.11396	.0024254	.005171
%RSD	1.810683	.4401697	.5958721	.4822521	.4530369	.4640171
#1	10.18124	.0944929	.0993188	23.74582	.5357233	1.111018
#2	10.34354	.0945245	.0989326	23.62631	.5376013	1.111875
#3	9.97619	.0952305	.1000961	23.51800	.5327889	1.120372

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5017242**	**118.1491**	**12.17455**	**12.97815**	**1.042605**	**.0737325**
Stddev	.0035154	.7004	.04942	.06384	.005092	.0004820
%RSD	.7006552	.5927784	.4059546	.4918836	.4883460	.6537887
#1	.5041418	118.4622	12.21671	13.03208	1.039087	.0734678
#2	.4976915	118.6383	12.18678	12.99470	1.040285	.0742889
#3	.5033392	117.3468	12.12016	12.90767	1.048444	.0734408

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.108023**	**1.113209**	**1.457819**	**5.491271**	**3.130206**	**.4843569**
Stddev	.150258	.004186	.012913	.046781	.014326	.0034118
%RSD	139.0981	.3760569	.8857617	.8519155	.4576667	.7043996
#1	-.179255	1.110782	1.466190	5.545113	3.117439	.4859925
#2	.064604	1.110803	1.464320	5.460584	3.127479	.4866429
#3	-.209417	1.118043	1.442948	5.468114	3.145699	.4804352

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-04 Acquired: 1/24/2025 13:20:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ19S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051848	2.785394	F 12.71519	.0080063	1.154695	.0336717
Stddev	.0002635	.021039	.06176	.0008320	.002265	.0008037
%RSD	5.082496	.7553398	.4857289	10.39204	.1961769	2.386793
#1	.0051270	2.764181	12.72207	.0076345	1.154433	.0341018
#2	.0049550	2.785746	12.65028	.0074250	1.152572	.0327445
#3	.0054724	2.806255	12.77323	.0089594	1.157079	.0341688

Elem	Sr4077
Units	ppm
Avg	.1039886
Stddev	.0005061
%RSD	.4867109
#1	.1045475
#2	.1038573
#3	.1035611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3439.788	68920.82	10829.57	2405.367	3886.493
Stddev	7.226	226.39	43.06	12.829	15.681
%RSD	.2100676	.3284817	.3975768	.5333377	.4034776
#1	3443.663	68859.01	10855.57	2399.023	3895.384
#2	3444.250	68731.75	10853.27	2396.946	3895.709
#3	3431.451	69171.70	10779.87	2420.131	3868.387

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-07DLX2 Acquired: 1/24/2025 13:24:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0460770**	**-.005114**	**6.939383**	**.0156349**	**.0139244**	**11.52744**
Stddev	.0012992	.002239	.011613	.0016580	.0019160	.00842
%RSD	2.819659	43.77414	.1673534	10.60464	13.75993	.0730136
#1	.0446795	-.003001	6.932895	.0165331	.0161233	11.51940
#2	.0472482	-.007460	6.932463	.0166501	.0126138	11.52675
#3	.0463032	-.004882	6.952790	.0137216	.0130360	11.53619

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.91051**	**.0022775**	**.0765698**	**347.0709**	**.0866723**	**.0726679**
Stddev	.05650	.0000676	.0001342	.9236	.0000519	.0004316
%RSD	.3340851	2.967990	.1751977	.2661149	.0598466	.5938704
#1	16.91459	.0022011	.0765733	346.1462	.0866155	.0721938
#2	16.96486	.0023020	.0764340	347.0732	.0866844	.0727721
#3	16.85209	.0023295	.0767022	347.9934	.0867171	.0730379

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2157282**	**107.8727**	**6.602221**	**170.6348**	**.0801557**	**.0091560**
Stddev	.0020604	.1038	.009004	.2894	.0001314	.0002430
%RSD	.9550988	.0961966	.1363789	.1695906	.1639514	2.654202
#1	.2174666	107.7923	6.607425	170.3120	.0800193	.0089087
#2	.2162658	107.8360	6.607413	170.8712	.0801664	.0093945
#3	.2134523	107.9898	6.591824	170.7211	.0802814	.0091649

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.096421**	**.1020463**	**5.999016**	**.8457412**	**1.742387**	**.4541007**
Stddev	.258479	.0010175	.010127	.0501342	.005211	.0014622
%RSD	268.0747	.9970490	.1688163	5.927839	.2990860	.3219957
#1	-.302306	.1028176	5.997519	.8179703	1.746723	.4540567
#2	-.180614	.1024281	5.989721	.8156379	1.736606	.4526610
#3	.193658	.1008932	6.009809	.9036156	1.743834	.4555844

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-07DLX2 Acquired: 1/24/2025 13:24:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019654	F 10.13803	5.755046	.0048788	.2961572	.0144606
Stddev	.0005301	.01355	.018356	.0006988	.0049268	.0003228
%RSD	26.97270	.1336853	.3189539	14.32358	1.663582	2.232188
#1	.0020404	10.14973	5.740746	.0046153	.2930348	.0146224
#2	.0024540	10.12318	5.748648	.0043500	.2935999	.0140889
#3	.0014017	10.14117	5.775745	.0056710	.3018368	.0146704

Elem	Sr4077
Units	ppm
Avg	.2142044
Stddev	.0002453
%RSD	.1145121
#1	.2143935
#2	.2139273
#3	.2142926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3194.827	63903.82	10306.70	2188.555	3511.245
Stddev	7.693	113.70	42.59	6.614	4.470
%RSD	.2408039	.1779256	.4132538	.3022086	.1273039
#1	3202.311	64016.99	10346.45	2193.642	3515.668
#2	3186.940	63904.89	10311.90	2190.945	3506.729
#3	3195.231	63789.59	10261.74	2181.078	3511.338

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-08DLX2 Acquired: 1/24/2025 13:28:25 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0480064**	**-.004004**	**6.968257**	**.0155757**	**.0148210**	**11.19199**
Stddev	.0012735	.001467	.069848	.0000383	.0003968	.01804
%RSD	2.652738	36.64131	1.002372	.2457555	2.677132	.1612286
#1	.0471274	-.005640	6.888060	.0155763	.0152452	11.17119
#2	.0494669	-.003570	7.000936	.0155372	.0144591	11.20134
#3	.0474251	-.002803	7.015775	.0156137	.0147586	11.20345

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.17925**	**.0024125**	**.0771857**	**335.4094**	**.0852964**	**.0725108**
Stddev	.32278	.0000508	.0009524	3.7742	.0002444	.0009449
%RSD	1.995055	2.105374	1.233948	1.125253	.2865318	1.303131
#1	16.18111	.0024563	.0760870	333.5014	.0850863	.0714597
#2	16.50109	.0023568	.0777762	339.7567	.0855646	.0727828
#3	15.85553	.0024244	.0776941	332.9702	.0852383	.0732899

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2131473**	**104.7113**	**6.411931**	**165.2809**	**.0810938**	**.0089491**
Stddev	.0016614	.2562	.010303	.2966	.0010212	.0001627
%RSD	.7794478	.2446924	.1606808	.1794728	1.259299	1.818305
#1	.2121366	104.7717	6.411438	165.4343	.0799146	.0087690
#2	.2150647	104.9320	6.422471	165.4694	.0816842	.0089928
#3	.2122406	104.4303	6.401883	164.9390	.0816825	.0090855

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0357246**	**.0982129**	**5.846487**	**.8219926**	**1.769807**	**.4395188**
Stddev	.2313996	.0011381	.018829	.0173796	.021346	.0018561
%RSD	647.7317	1.158842	.3220529	2.114327	1.206137	.4223060
#1	-.185573	.0982778	5.838795	.8333455	1.745202	.4403529
#2	.276051	.0970437	5.867944	.8306475	1.783378	.4408115
#3	.016695	.0993172	5.832722	.8019849	1.780842	.4373919

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-08DLX2 Acquired: 1/24/2025 13:28:25 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019101	F 10.33623	5.635043	.0049009	.2888815	.0132924
Stddev	.0000104	.11333	.024496	.0005227	.0022807	.0010122
%RSD	.5439605	1.096464	.4347114	10.66595	.7895071	7.614709
#1	.0019103	10.20538	5.648212	.0048345	.2895014	.0121995
#2	.0018996	10.40360	5.606779	.0044145	.2863549	.0134802
#3	.0019204	10.39970	5.650137	.0054536	.2907882	.0141975

Elem	Sr4077
Units	ppm
Avg	.2081197
Stddev	.0006006
%RSD	.2886089
#1	.2078544
#2	.2088073
#3	.2076973

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.356	64413.78	10313.06	2202.038	3439.257
Stddev	31.595	113.98	52.95	7.884	33.926
%RSD	1.008679	.1769477	.5134278	.3580365	.9864398
#1	3168.101	64362.36	10252.50	2204.735	3478.427
#2	3120.807	64334.57	10350.62	2193.160	3420.185
#3	3108.160	64544.41	10336.06	2208.221	3419.158

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-07LDLX10 Acquired: 1/24/2025 13:32:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063101**	**-.001434**	**1.381605**	**.0035660**	**.0024204**	**2.913730**	**3.329283**
Stddev	.0007032	.001213	.004414	.0028508	.0003942	.018474	.036947
%RSD	11.14389	84.59765	.3194590	79.94243	16.28801	.6340460	1.109751
#1	.0059626	-.002833	1.378020	.0068540	.0025867	2.892427	3.290497
#2	.0071194	-.000764	1.380261	.0020598	.0019702	2.923404	3.333286
#3	.0058484	-.000703	1.386535	.0017843	.0027042	2.925358	3.364064

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005460**	**.0151357**	**69.08276**	**.0186758**	**.0141316**	**.0435380**	**22.05202**
Stddev	.0000381	.0000207	.33009	.0002650	.0001129	.0011836	.12400
%RSD	6.982412	.1365236	.4778147	1.419072	.7988745	2.718456	.5623108
#1	.0005898	.0151456	68.73631	.0184411	.0141169	.0425039	21.92760
#2	.0005201	.0151120	69.11836	.0186229	.0142510	.0448289	22.05286
#3	.0005282	.0151496	69.39360	.0189632	.0140267	.0432812	22.17560

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.334921**	**33.47097**	**.0163621**	**.0023108**	**-.335557**	**.0219267**	**1.195602**
Stddev	.007990	.10432	.0001987	.0001189	.335734	.0004232	.009313
%RSD	.5985257	.3116758	1.214385	5.145548	100.0528	1.929827	.7789172
#1	1.325907	33.37401	.0161338	.0024212	-.145564	.0217946	1.191069
#2	1.337727	33.45754	.0164962	.0023262	-.723203	.0215854	1.189423
#3	1.341129	33.58135	.0164563	.0021849	-.137902	.0224002	1.206313

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3780445**	**.3386425**	**.0833561**	**.0002167**	**1.956360**	**2.374675**	**-.000053**
Stddev	.0114994	.0029468	.0009220	.0005051	.002388	.019923	.000334
%RSD	3.041803	.8701747	1.106150	233.0502	.1220403	.8389663	631.6114
#1	.3899709	.3370458	.0822936	-.000341	1.953606	2.358367	-.000264
#2	.3670260	.3420431	.0838289	.000348	1.957847	2.368777	.000332
#3	.3771364	.3368388	.0839459	.000643	1.957628	2.396881	-.000226

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-07LDLX10 Acquired: 1/24/2025 13:32:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1225964	.0015576	.0432379
Stddev	.0165359	.0012197	.0005376
%RSD	13.48804	78.30684	1.243373
#1	.1115474	.0008951	.0430948
#2	.1146348	.0029652	.0427862
#3	.1416070	.0008125	.0438325

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3281.001	65644.90	10101.59	2284.678	3876.832
Stddev	7.312	163.92	84.95	8.140	7.827
%RSD	.2228481	.2497056	.8409247	.3562938	.2018948
#1	3272.558	65570.87	10003.87	2288.533	3869.226
#2	3285.211	65832.78	10143.05	2290.174	3884.863
#3	3285.233	65531.06	10157.84	2275.327	3876.406

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-09DLX2 Acquired: 1/24/2025 13:36:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0853303**	**.0458003**	**7.022687**	**.1038563**	**.1010042**	**13.31074**
Stddev	.0015836	.0023289	.010240	.0014859	.0022640	.11319
%RSD	1.855823	5.084881	.1458118	1.430738	2.241534	.8503696
#1	.0835350	.0483647	7.024234	.1049893	.1020045	13.36161
#2	.0865283	.0452191	7.011761	.1021739	.0984123	13.38958
#3	.0859277	.0438170	7.032065	.1044057	.1025958	13.18104

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.75551**	**.0486801**	**.1268602**	**346.3221**	**.2884737**	**.5697790**
Stddev	.19769	.0002894	.0003655	3.9476	.0002324	.0009786
%RSD	1.054027	.5944843	.2881258	1.139852	.0805704	.1717500
#1	18.75118	.0483894	.1264503	347.3012	.2882079	.5707199
#2	18.95533	.0486828	.1269780	349.6879	.2886385	.5687666
#3	18.56002	.0489682	.1271523	341.9771	.2885748	.5698507

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4490477**	**108.1034**	**7.087470**	**169.0274**	**.5789129**	**.0456783**
Stddev	.0009415	.8515	.068125	1.1749	.0010568	.0005050
%RSD	.2096577	.7876259	.9612015	.6950687	.1825480	1.105528
#1	.4494873	108.5478	7.124724	169.5049	.5797347	.0459102
#2	.4496890	108.6408	7.128844	169.8884	.5792832	.0460257
#3	.4479669	107.1217	7.008842	167.6890	.5777208	.0450990

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000201**	**.5706245**	**6.448473**	**.9307377**	**1.792923**	**.4548878**
Stddev	.140311	.0016758	.029393	.0292484	.004323	.0042675
%RSD	69807.90	.2936819	.4558157	3.142498	.2411141	.9381414
#1	.157082	.5689390	6.465159	.9208990	1.788383	.4564765
#2	-.045171	.5706442	6.465726	.9076772	1.793397	.4581330
#3	-.112513	.5722904	6.414535	.9636368	1.796990	.4500538

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-09DLX2 Acquired: 1/24/2025 13:36:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013867	F 10.52568	5.818582	.0060283	.2964495	.0140869
Stddev	.0002950	.01688	.027945	.0007005	.0008936	.0006573
%RSD	21.27450	.1603399	.4802685	11.62013	.3014524	4.665835
#1	.0012597	10.54202	5.795701	.0065586	.2973799	.0139278
#2	.0017240	10.50831	5.810320	.0062922	.2963707	.0148091
#3	.0011765	10.52671	5.849727	.0052342	.2955979	.0135238

Elem	Sr4077
Units	ppm
Avg	.2148856
Stddev	.0022119
%RSD	1.029334
#1	.2161442
#2	.2161810
#3	.2123316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3113.318	64176.38	10380.74	2211.610	3411.584
Stddev	8.748	256.40	69.13	8.017	9.366
%RSD	.2809810	.3995309	.6659241	.3624920	.2745426
#1	3116.336	64169.38	10444.68	2219.541	3410.498
#2	3120.156	63923.54	10390.16	2203.510	3421.446
#3	3103.460	64436.21	10307.39	2211.779	3402.808

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1039-10DLX2 Acquired: 1/24/2025 13:40:50 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0211999**	**-.003072**	**.7708813**	**-.006575**	**.0056053**	**7.067962**
Stddev	.0018565	.002552	.0022617	.001249	.0010708	.031824
%RSD	8.757162	83.07232	.2933871	18.99894	19.10414	.4502616
#1	.0228636	-.000156	.7702318	-.006786	.0044541	7.049324
#2	.0191973	-.004900	.7690155	-.007706	.0065718	7.104708
#3	.0215388	-.004159	.7733967	-.005234	.0057899	7.049854

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.58198**	**.0011315**	**.0079132**	F **929.0462**	**.0332981**	**.0197801**
Stddev	.02847	.0000387	.0000207	2.6352	.0001194	.0002290
%RSD	.1952194	3.421881	.2615434	.2836489	.3586245	1.157636
#1	14.55280	.0011632	.0079263	927.2731	.0333385	.0200335
#2	14.58348	.0010883	.0079240	927.7912	.0333920	.0197190
#3	14.60967	.0011429	.0078894	932.0744	.0331637	.0195879

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0577803**	**34.86386**	**2.130950**	**513.6329**	**.0303951**	**.0000325**
Stddev	.0025809	.15551	.005543	2.0516	.0008821	.0003944
%RSD	4.466676	.4460594	.2600992	.3994296	2.902209	1212.638
#1	.0578137	34.73988	2.126368	512.0939	.0300101	-.000423
#2	.0603443	35.03835	2.137111	515.9621	.0297710	.000270
#3	.0551829	34.81335	2.129372	512.8428	.0314043	.000250

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.142493**	**.0745891**	**1.570444**	**.4579162**	**1.167993**	**.1554446**
Stddev	.118363	.0010783	.019969	.0323789	.002894	.0005863
%RSD	83.06568	1.445713	1.271577	7.070924	.2477534	.3771713
#1	-.269375	.0737667	1.564579	.4323367	1.170761	.1556230
#2	-.035058	.0741905	1.592689	.4470910	1.164988	.1559210
#3	-.123046	.0758099	1.554064	.4943208	1.168229	.1547899

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1039-10DLX2 Acquired: 1/24/2025 13:40:50 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069365	8.530658	3.114760	-.001940	.1523673	.0254844
Stddev	.0003571	.005269	.004045	.000577	.0006461	.0014194
%RSD	5.147745	.0617694	.1298620	29.75159	.4240547	5.569825
#1	.0068178	8.536374	3.111772	-.001399	.1530960	.0270466
#2	.0066539	8.529606	3.113146	-.002547	.1518642	.0242740
#3	.0073379	8.525994	3.119363	-.001873	.1521417	.0251326

Elem	Sr4077
Units	ppm
Avg	.4304905
Stddev	.0004676
%RSD	.1086304
#1	.4303150
#2	.4310205
#3	.4301360

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2901.224	59320.40	9097.057	2021.251	3187.947
Stddev	8.323	238.23	7.781	19.526	6.581
%RSD	.2868845	.4016034	.0855360	.9660500	.2064293
#1	2894.190	59588.05	9090.664	2029.190	3182.049
#2	2899.070	59131.56	9105.721	1999.005	3186.748
#3	2910.413	59241.58	9094.787	2035.557	3195.045

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1042-09DLX2 Acquired: 1/24/2025 13:45:08 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147171	-.002362	.1765125	.0093916	.0056044	19.03164	12.28765
Stddev	.0042365	.000756	.0010954	.0033066	.0019238	.03906	.07924
%RSD	28.78650	32.01616	.6205988	35.20791	34.32692	.2052448	.6448844
#1	.0165395	-.002341	.1777745	.0055764	.0046485	19.05749	12.36110
#2	.0177374	-.001616	.1758064	.0114281	.0078189	19.05073	12.29818
#3	.0098743	-.003128	.1759568	.0111703	.0043458	18.98671	12.20367

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017918	.0028449	96.19571	.0422226	.0237143	.0419859	44.49756
Stddev	.0000633	.0000685	.32802	.0001841	.0002654	.0023897	.08928
%RSD	3.530026	2.409728	.3409958	.4361071	1.118938	5.691544	.2006306
#1	.0017424	.0027930	96.24850	.0424047	.0240031	.0397099	44.52763
#2	.0017700	.0028191	96.49414	.0420365	.0234812	.0444749	44.56792
#3	.0018631	.0029226	95.84449	.0422265	.0236587	.0417730	44.39713

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.073140	45.46986	.0267878	.0010498	.0853840	.0775011	.5753447
Stddev	.018523	.02817	.0003784	.0002483	.4704826	.0008740	.0036624
%RSD	.6027491	.0619423	1.412494	23.65408	551.0196	1.127744	.6365634
#1	3.069187	45.49897	.0271154	.0013271	.2353252	.0779570	.5773280
#2	3.093321	45.46788	.0263736	.0009746	-.441795	.0764934	.5775879
#3	3.056912	45.44274	.0268743	.0008478	.462621	.0780530	.5711184

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.262812	1.497086	.1783448	.0022437	4.120981	5.387460	.0011891
Stddev	.063676	.003565	.0002007	.0002081	.004484	.008162	.0001946
%RSD	5.042404	.2381395	.1125495	9.274338	.1088186	.1514931	16.36522
#1	1.213484	1.494204	.1781732	.0021324	4.123952	5.379937	.0012122
#2	1.334695	1.495982	.1782956	.0024837	4.123168	5.396137	.0009840
#3	1.240256	1.501073	.1785655	.0021148	4.115822	5.386305	.0013711

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1042-09DLX2 Acquired: 1/24/2025 13:45:08 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4430108	.0082116	.1665771
Stddev	.0015692	.0005235	.0009828
%RSD	.3542179	6.375450	.5899980
#1	.4429413	.0086824	.1669282
#2	.4446136	.0076478	.1673362
#3	.4414775	.0083047	.1654670

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3239.155	66238.70	10059.56	2342.570	3752.875
Stddev	8.729	154.04	17.03	6.282	9.533
%RSD	.2694757	.2325454	.1692496	.2681693	.2540097
#1	3239.425	66142.25	10071.53	2336.080	3750.696
#2	3247.745	66157.51	10067.09	2343.010	3763.309
#3	3230.294	66416.35	10040.07	2348.621	3744.621

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-13DLX2 Acquired: 1/24/2025 13:49:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0240433**	**-.002788**	**.2046766**	**.0016202**	**.0094266**	**15.80429**
Stddev	.0032706	.001372	.0017365	.0006211	.0021260	.06857
%RSD	13.60288	49.21988	.8484097	38.33420	22.55360	.4338381
#1	.0207573	-.001216	.2066690	.0014916	.0074319	15.73566
#2	.0272982	-.003404	.2038758	.0022954	.0116633	15.80441
#3	.0240746	-.003744	.2034850	.0010734	.0091846	15.87279

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.99195**	**.0010076**	**.0100760**	**666.6509**	**.0511646**	**.0220838**
Stddev	.06629	.0000677	.0000536	2.3609	.0003289	.0003161
%RSD	.5527671	6.719928	.5317986	.3541490	.6428864	1.431370
#1	11.91832	.0009612	.0100769	663.9659	.0507930	.0218539
#2	12.01065	.0010853	.0101292	668.4021	.0514185	.0219533
#3	12.04688	.0009762	.0100220	667.5848	.0512823	.0224443

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0574598**	**49.16158**	**1.750014**	**370.5853**	**.0329621**	**.0011817**
Stddev	.0012873	.18611	.003320	1.1537	.0006245	.0004149
%RSD	2.240404	.3785663	.1897275	.3113219	1.894748	35.10991
#1	.0587616	48.97913	1.746905	369.3976	.0334008	.0008765
#2	.0561875	49.15448	1.749623	370.6568	.0322470	.0016541
#3	.0574303	49.35114	1.753512	371.7017	.0332385	.0010145

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.159234**	**.0855088**	**4.509894**	**.6061289**	**.5240334**	**.1993531**
Stddev	.190056	.0014063	.001601	.0243111	.0047149	.0008547
%RSD	119.3566	1.644617	.0354937	4.010886	.8997355	.4287504
#1	-.314026	.0841760	4.509975	.5828140	.5231977	.1998210
#2	.052887	.0853719	4.508254	.6042459	.5197921	.1983666
#3	-.216563	.0869786	4.511453	.6313268	.5291102	.1998717

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-13DLX2 Acquired: 1/24/2025 13:49:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008013	F 14.78523	5.974605	-.002331	.3723217	.0237521
Stddev	.0009057	.08457	.016998	.000462	.0009508	.0026353
%RSD	113.0255	.5719686	.2845007	19.82318	.2553741	11.09488
#1	.0011800	14.70741	5.986035	-.001809	.3719872	.0256343
#2	-.000232	14.77306	5.982708	-.002495	.3715834	.0248816
#3	.001456	14.87522	5.955072	-.002688	.3733946	.0207403

Elem	Sr4077
Units	ppm
Avg	.3073997
Stddev	.0009829
%RSD	.3197336
#1	.3071509
#2	.3065652
#3	.3084831

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2883.390	59587.45	9598.217	2037.111	3212.705
Stddev	5.763	130.00	21.124	5.972	6.931
%RSD	.1998761	.2181642	.2200846	.2931695	.2157242
#1	2883.715	59696.46	9581.198	2040.598	3212.867
#2	2888.984	59622.31	9591.593	2040.520	3219.553
#3	2877.471	59443.57	9621.859	2030.215	3205.695

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-16DLX2 Acquired: 1/24/2025 13:53:36 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0409298	-.003356	1.216186	.0200043	.0114461	35.71789	13.68781
Stddev	.0024659	.001892	.018254	.0014528	.0002656	.64368	.31360
%RSD	6.024686	56.38172	1.500920	7.262427	2.320597	1.802122	2.291069
#1	.0399709	-.001409	1.236926	.0189040	.0115352	35.45488	13.51273
#2	.0390874	-.003472	1.202559	.0216511	.0111475	35.24736	13.50085
#3	.0437311	-.005188	1.209074	.0194577	.0116558	36.45143	14.04986

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036095	.0051301	65.41358	.0873021	.0855251	.0682668	97.38777
Stddev	.0000649	.0001357	1.09343	.0020772	.0010605	.0013134	1.70730
%RSD	1.798193	2.645732	1.671566	2.379297	1.240048	1.923877	1.753095
#1	.0035695	.0052766	64.87732	.0862011	.0867497	.0668028	96.62282
#2	.0036844	.0050086	64.69180	.0860072	.0849005	.0693416	96.19671
#3	.0035746	.0051051	66.67161	.0896980	.0849252	.0686559	99.34378

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.370371	32.81889	.0699966	.0031481	-.029454	.1519132	.9725670
Stddev	.107833	.53502	.0007226	.0006492	.337709	.0023906	.0148644
%RSD	1.692734	1.630233	1.032322	20.62242	1146.557	1.573688	1.528364
#1	6.322287	32.53654	.0708264	.0032870	.330015	.1539885	.9669160
#2	6.294944	32.48419	.0695062	.0024407	-.078294	.1524520	.9613569
#3	6.493882	33.43594	.0696572	.0037166	-.340083	.1492992	.9894281

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.973838	1.922533	.3948551	.0036113	4.749151	6.570675	.0044184
Stddev	.130156	.034385	.0075366	.0004780	.085919	.010871	.0004914
%RSD	4.376691	1.788550	1.908687	13.23515	1.809148	.1654476	11.12171
#1	2.913798	1.960878	.3917838	.0035058	4.843615	6.570033	.0040821
#2	2.884541	1.894439	.3893391	.0031948	4.675660	6.581853	.0049824
#3	3.123177	1.912281	.4034423	.0041332	4.728177	6.560139	.0041908

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-16DLX2 Acquired: 1/24/2025 13:53:36 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7661364	.0193288	.1486659
Stddev	.0010914	.0009634	.0026913
%RSD	.1424492	4.984473	1.810315
#1	.7655130	.0183685	.1477262
#2	.7654996	.0193225	.1465704
#3	.7673966	.0202953	.1517011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3345.244	66879.65	10566.53	2343.321	3792.459
Stddev	44.156	1045.45	17.42	30.087	54.311
%RSD	1.319954	1.563187	.1649019	1.283957	1.432078
#1	3295.134	67405.59	10575.90	2356.655	3731.422
#2	3378.452	67557.69	10546.43	2364.437	3835.449
#3	3362.145	65675.66	10577.27	2308.871	3810.506

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-18DLX2 Acquired: 1/24/2025 13:57:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0509839	-.005290	4.725718	.0148490	.0104272	16.59179	15.77550
Stddev	.0030612	.003481	.009781	.0034423	.0023896	.08491	.14354
%RSD	6.004187	65.80363	.2069691	23.18217	22.91746	.5117483	.9098923
#1	.0539577	-.003380	4.722542	.0167983	.0077111	16.56520	15.61266
#2	.0478423	-.009309	4.717920	.0168742	.0122068	16.68681	15.88366
#3	.0511517	-.003182	4.736692	.0108744	.0113637	16.52336	15.83019

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027201	.0354102	181.8783	.0861177	.1170252	.1408648	90.43477
Stddev	.0000600	.0000837	.7094	.0002704	.0002045	.0028481	.35524
%RSD	2.204307	.2363488	.3900564	.3140105	.1747436	2.021863	.3928094
#1	.0027687	.0354317	181.6498	.0863742	.1171295	.1429094	90.41235
#2	.0026531	.0353178	182.6738	.0858352	.1167896	.1420732	90.80069
#3	.0027384	.0354809	181.3113	.0861438	.1171566	.1376117	90.09128

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.028144	88.27713	.0798022	.0078971	-.052393	.1026921	3.381665
Stddev	.026076	.24258	.0002439	.0001212	.198116	.0006367	.026395
%RSD	.4325780	.2747989	.3056915	1.534461	378.1365	.6199564	.7805404
#1	6.015156	88.09762	.0796013	.0079690	-.279748	.1033081	3.374397
#2	6.058163	88.55311	.0800737	.0079651	.039325	.1020367	3.410933
#3	6.011112	88.18066	.0797317	.0077572	.083245	.1027315	3.359665

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.429399	1.522660	.3681648	.0018994	8.144389	5.559432	.0026779
Stddev	.076979	.007194	.0023033	.0004515	.008858	.006950	.0011877
%RSD	5.385399	.4724613	.6256185	23.76784	.1087673	.1250197	44.35068
#1	1.390526	1.515662	.3666767	.0020840	8.137139	5.555641	.0032245
#2	1.518062	1.522285	.3708179	.0013849	8.154263	5.555201	.0013154
#3	1.379608	1.530035	.3669997	.0022294	8.141766	5.567453	.0034939

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-18DLX2 Acquired: 1/24/2025 13:57:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4884440	.0119231	.1655097
Stddev	.0013377	.0002836	.0011076
%RSD	.2738788	2.378591	.6691841
#1	.4877128	.0122273	.1653368
#2	.4876313	.0116660	.1666936
#3	.4899880	.0118760	.1644989

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3393.849	67317.49	10481.30	2307.752	3780.878
Stddev	6.236	188.72	38.98	13.423	8.058
%RSD	.1837517	.2803448	.3718625	.5816455	.2131329
#1	3392.087	67240.83	10452.94	2307.637	3779.357
#2	3400.776	67179.16	10525.75	2294.387	3789.588
#3	3388.683	67532.48	10465.22	2321.232	3773.688

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-19DLX2 Acquired: 1/24/2025 14:01:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0416632	-.000900	.9077298	.0187695	.0108595	35.43597	16.42896
Stddev	.0029609	.000933	.0011876	.0023987	.0008000	.04684	.12526
%RSD	7.106728	103.7741	.1308379	12.78000	7.366571	.1321771	.7624481
#1	.0397721	-.001291	.9065703	.0208405	.0100149	35.43338	16.31885
#2	.0401421	-.001573	.9089438	.0161411	.0116057	35.39049	16.40281
#3	.0450755	.000166	.9076755	.0193270	.0109579	35.48405	16.56524

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032631	.0040580	16.79695	.0779869	.0805780	.0732453	95.12184
Stddev	.0000434	.0000335	.02382	.0001789	.0005615	.0033712	.06855
%RSD	1.330570	.8263497	.1418104	.2293913	.6967800	4.602594	.0720659
#1	.0033056	.0040574	16.79091	.0780837	.0802356	.0719598	95.04950
#2	.0032648	.0040919	16.77673	.0777804	.0802725	.0707060	95.13020
#3	.0032189	.0040249	16.82320	.0780965	.0812260	.0770701	95.18583

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.093038	8.503829	.0715275	.0030724	-.073620	.1451083	.8361181
Stddev	.007089	.019793	.0001868	.0000282	.073705	.0006278	.0050440
%RSD	.1391818	.2327515	.2611594	.9163509	100.1155	.4326654	.6032632
#1	5.099704	8.481103	.0716321	.0030400	-.124241	.1446351	.8303282
#2	5.085591	8.517293	.0713118	.0030855	.010941	.1458205	.8384655
#3	5.093817	8.513090	.0716385	.0030916	-.107561	.1448692	.8395606

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.976094	1.866568	.3799016	.0027327	4.148713	6.912493	.0055253
Stddev	.037845	.004981	.0005656	.0001840	.001184	.040102	.0012086
%RSD	1.271627	.2668661	.1488697	6.732122	.0285411	.5801419	21.87331
#1	2.947913	1.861061	.3792490	.0029429	4.150080	6.950593	.0065996
#2	3.019109	1.867882	.3802495	.0026010	4.148012	6.916235	.0057597
#3	2.961260	1.870760	.3802063	.0026541	4.148046	6.870650	.0042167

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-19DLX2 Acquired: 1/24/2025 14:01:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8638461	.0156860	.1282610
Stddev	.0027843	.0006015	.0002548
%RSD	.3223095	3.834510	.1986390
#1	.8668582	.0163748	.1284728
#2	.8633135	.0154187	.1279783
#3	.8613666	.0152645	.1283318

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3509.700	68300.88	10494.32	2383.110	4039.987
Stddev	2.720	161.95	57.82	15.949	2.693
%RSD	.0775088	.2371155	.5509264	.6692332	.0666498
#1	3512.788	68323.66	10459.65	2401.523	4037.390
#2	3508.654	68128.75	10462.25	2374.173	4039.805
#3	3507.658	68450.24	10561.06	2373.633	4042.766

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-20DLX2 Acquired: 1/24/2025 14:05:49 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0399553	-.003285	.6871140	.0158793	.0097044	28.67224	17.10507
Stddev	.0012734	.001345	.0040085	.0010967	.0008663	.08279	.01469
%RSD	3.187118	40.94326	.5833826	6.906608	8.926628	.2887341	.0858666
#1	.0391210	-.001794	.6825677	.0168685	.0090555	28.58320	17.10595
#2	.0393238	-.003654	.6901396	.0146999	.0093697	28.74689	17.11929
#3	.0414211	-.004407	.6886349	.0160693	.0106882	28.68662	17.08996

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038946	.0043978	34.83606	.0766156	.0928000	.1070950	77.65363
Stddev	.0000466	.0000808	.10516	.0003439	.0005033	.0017371	.14716
%RSD	1.196227	1.836744	.3018684	.4488396	.5423582	1.621975	.1895114
#1	.0039480	.0043075	34.72998	.0764686	.0923921	.1074325	77.51051
#2	.0038737	.0044633	34.94027	.0770085	.0933625	.1052140	77.80453
#3	.0038622	.0044225	34.83793	.0763696	.0926455	.1086386	77.64584

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.850359	7.486500	.0742187	.0031629	-.025592	.1117627	1.013849
Stddev	.026626	.040263	.0008264	.0001395	.176613	.0009632	.004185
%RSD	.3391709	.5378028	1.113513	4.411428	690.0972	.8617926	.4127379
#1	7.829419	7.440404	.0737634	.0030546	-.091613	.1124217	1.010473
#2	7.880325	7.514792	.0751727	.0031137	.174519	.1122090	1.018531
#3	7.841335	7.504303	.0737200	.0033203	-.159684	.1106573	1.012543

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.170516	3.654397	.3235693	.0029069	5.185200	6.209520	.0068443
Stddev	.031592	.020484	.0010370	.0004294	.025734	.007719	.0002113
%RSD	.7574974	.5605422	.3204796	14.76974	.4963030	.1243089	3.087498
#1	4.134132	3.631367	.3246632	.0024149	5.156689	6.218429	.0070856
#2	4.190983	3.661238	.3234442	.0032057	5.206707	6.204825	.0067552
#3	4.186434	3.670585	.3226006	.0031001	5.192205	6.205306	.0066922

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-20DLX2 Acquired: 1/24/2025 14:05:49 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7766013	.0140900	.2153920
Stddev	.0014149	.0013083	.0006823
%RSD	.1821927	9.285442	.3167574
#1	.7770195	.0139430	.2146812
#2	.7750244	.0154656	.2160416
#3	.7777599	.0128614	.2154531

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3477.352	68859.46	10665.81	2406.394	3956.906
Stddev	7.819	200.28	67.92	7.867	10.836
%RSD	.2248664	.2908494	.6367566	.3269354	.2738441
#1	3486.354	68658.29	10601.29	2406.094	3966.988
#2	3472.247	69058.83	10736.68	2398.682	3945.448
#3	3473.455	68861.27	10659.47	2414.408	3958.283

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-21DLX2 Acquired: 1/24/2025 14:09:55 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0470992	-.003267	2.162137	.0178036	.0118128	22.26627	19.53919
Stddev	.0024798	.001689	.001687	.0014364	.0012798	.04125	.11818
%RSD	5.265114	51.70841	.0780258	8.067920	10.83423	.1852794	.6048235
#1	.0442958	-.001318	2.160242	.0192280	.0106921	22.27117	19.50275
#2	.0490063	-.004180	2.162696	.0178273	.0132074	22.30485	19.67130
#3	.0479953	-.004304	2.163474	.0163555	.0115390	22.22278	19.44352

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034690	.0200109	66.11299	.0936969	.0879095	.2466442	94.28186
Stddev	.0000411	.0000205	.03596	.0004186	.0004745	.0035654	.14095
%RSD	1.186096	.1023821	.0543915	.4467819	.5397861	1.445568	.1495028
#1	.0034723	.0200243	66.07507	.0936063	.0873896	.2479888	94.33877
#2	.0034263	.0199873	66.11730	.0933310	.0883193	.2493418	94.38546
#3	.0035084	.0200211	66.14660	.0941534	.0880197	.2426020	94.12135

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.851874	28.29950	.0771640	.0030780	-.239320	.1189701	4.765091
Stddev	.019256	.09228	.0003802	.0003566	.137841	.0029749	.023390
%RSD	.2810396	.3260900	.4927189	11.58459	57.59715	2.500555	.4908633
#1	6.830763	28.30117	.0768095	.0027005	-.266903	.1170640	4.741288
#2	6.868475	28.20640	.0775655	.0031244	-.089772	.1223981	4.765940
#3	6.856383	28.39094	.0771168	.0034090	-.361283	.1174483	4.788046

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.358116	2.903048	.3881560	.0037391	6.546789	5.725057	.0324774
Stddev	.013208	.003696	.0002287	.0002239	.010907	.060503	.0002154
%RSD	.5601007	.1273225	.0589281	5.986890	.1665963	1.056807	.6630937
#1	2.344397	2.903658	.3879319	.0035386	6.536433	5.733189	.0325206
#2	2.359207	2.906401	.3883891	.0039806	6.558173	5.781082	.0326679
#3	2.370745	2.899084	.3881471	.0036981	6.545762	5.660899	.0322437

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1044-21DLX2 Acquired: 1/24/2025 14:09:55 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6480756	.0098247	.1864579
Stddev	.0095499	.0008639	.0006652
%RSD	1.473583	8.793315	.3567504
#1	.6498330	.0106542	.1858242
#2	.6566247	.0089301	.1871506
#3	.6377690	.0098896	.1863989

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3495.484	68069.89	10422.94	2399.333	3997.167
Stddev	4.385	94.93	111.01	5.581	4.906
%RSD	.1254588	.1394604	1.065057	.2326103	.1227375
#1	3494.403	67968.34	10366.00	2396.923	4000.876
#2	3491.740	68156.40	10351.96	2405.714	3991.604
#3	3500.309	68084.94	10550.87	2395.362	3999.022

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-01DLX2 Acquired: 1/24/2025 14:14:00 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0300085	-.002200	.5039149	.0042354	.0081499	19.38592
Stddev	.0062323	.003023	.0010984	.0013986	.0006772	.09766
%RSD	20.76861	137.3839	.2179808	33.02126	8.309807	.5037877
#1	.0265201	-.005184	.5026793	.0032667	.0076423	19.32670
#2	.0372038	-.002279	.5042844	.0036006	.0089188	19.49864
#3	.0263015	.000861	.5047809	.0058387	.0078884	19.33241

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.68860	.0024048	.0088251	427.8904	.0594164	.0563052
Stddev	.10941	.0000252	.0000346	2.2254	.0003785	.0001303
%RSD	.7992503	1.047528	.3918603	.5200803	.6370986	.2313525
#1	13.71484	.0023766	.0088129	425.3289	.0590584	.0561893
#2	13.78249	.0024251	.0087982	429.3476	.0598126	.0562800
#3	13.56845	.0024126	.0088641	428.9948	.0593782	.0564462

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0625348	57.30229	4.828089	232.6469	.0588015	.0014326
Stddev	.0039082	.24388	.007715	.9846	.0007920	.0001759
%RSD	6.249587	.4256097	.1597910	.4232078	1.346935	12.27599
#1	.0666390	57.14959	4.824535	232.0856	.0579584	.0015712
#2	.0588577	57.58356	4.836941	233.7838	.0589164	.0014919
#3	.0621078	57.17373	4.822792	232.0714	.0595299	.0012347

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.558214	.0985107	3.785759	1.482605	1.466728	.2323135
Stddev	.260323	.0033333	.013159	.039323	.004948	.0015126
%RSD	46.63504	3.383722	.3475826	2.652280	.3373354	.6510856
#1	-.322858	.0979692	3.782225	1.525557	1.467635	.2328949
#2	-.513954	.1020815	3.800324	1.448377	1.461389	.2334491
#3	-.837830	.0954812	3.774728	1.473881	1.471159	.2305965

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-01DLX2 Acquired: 1/24/2025 14:14:00 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015848	F 10.77037	5.754596	.0019025	.5251496	.0201143
Stddev	.0005631	.04243	.029931	.0006821	.0030402	.0014595
%RSD	35.52909	.3939415	.5201224	35.85273	.5789132	7.256013
#1	.0021921	10.73665	5.786231	.0026577	.5279621	.0199994
#2	.0010801	10.75645	5.750831	.0017187	.5219240	.0216278
#3	.0014820	10.81801	5.726726	.0013311	.5255626	.0187156

Elem	Sr4077
Units	ppm
Avg	.3318939
Stddev	.0010756
%RSD	.3240876
#1	.3317373
#2	.3330393
#3	.3309052

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3061.149	61865.02	9681.532	2168.290	3387.045
Stddev	17.810	115.21	53.624	3.172	14.558
%RSD	.5818066	.1862204	.5538792	.1463029	.4298158
#1	3058.396	61820.29	9628.449	2167.526	3385.844
#2	3080.176	61778.89	9735.681	2165.570	3402.166
#3	3044.876	61995.88	9680.467	2171.775	3373.124

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-03DLX2 Acquired: 1/24/2025 14:18:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ00 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0619661	-.002954	7.361340	.0265968	.0134240	34.35029	14.50233
Stddev	.0010947	.002040	.033842	.0013351	.0002138	.16732	.05202
%RSD	1.766530	69.04953	.4597258	5.019708	1.592972	.4870916	.3586840
#1	.0609358	-.001509	7.350851	.0250867	.0136340	34.21615	14.54152
#2	.0618471	-.002066	7.333983	.0270834	.0132065	34.53777	14.44331
#3	.0631154	-.005287	7.399184	.0276203	.0134315	34.29694	14.52215

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046460	.0140970	34.29943	.1019812	.1015626	.1593115	131.2447
Stddev	.0000340	.0001568	.19982	.0007000	.0004071	.0021162	.5654
%RSD	.7308997	1.111997	.5825740	.6864008	.4008788	1.328356	.4308180
#1	.0046672	.0142183	34.11958	.1015885	.1017007	.1580621	130.7286
#2	.0046640	.0139200	34.51453	.1027893	.1011043	.1581175	131.8491
#3	.0046069	.0141528	34.26418	.1015656	.1018827	.1617549	131.1563

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.225860	14.92420	.1073539	.0038013	.3709870	.1851258	3.227239
Stddev	.030814	.05863	.0009064	.0004213	.2940522	.0010987	.030007
%RSD	.4264374	.3928290	.8443283	11.08227	79.26213	.5934911	.9297995
#1	7.209449	14.86920	.1073236	.0036999	.2212954	.1847584	3.193115
#2	7.261406	14.98589	.1064630	.0034399	.7097665	.1863611	3.249506
#3	7.206725	14.91753	.1082751	.0042640	.1818990	.1842579	3.239096

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.244717	1.672682	.5259588	.0019931	4.368094	6.322605	.0073526
Stddev	.059488	.007462	.0032498	.0001479	.014988	.018109	.0006613
%RSD	1.833375	.4461373	.6178827	7.421248	.3431266	.2864183	8.994271
#1	3.184898	1.676058	.5229449	.0018433	4.371147	6.314355	.0080803
#2	3.245386	1.664128	.5294019	.0019969	4.351815	6.310089	.0067882
#3	3.303868	1.677859	.5255295	.0021391	4.381321	6.343370	.0071892

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-03DLX2 Acquired: 1/24/2025 14:18:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ00 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8211207	.0141833	.1138846
Stddev	.0018196	.0008412	.0005797
%RSD	.2216036	5.931180	.5089822
#1	.8206138	.0141557	.1136808
#2	.8196084	.0133562	.1145386
#3	.8231401	.0150380	.1134343

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3456.024	70904.57	10529.26	2449.334	3873.226
Stddev	8.628	186.19	40.13	18.791	12.540
%RSD	.2496580	.2625955	.3811087	.7671798	.3237715
#1	3453.188	71019.77	10528.22	2470.428	3870.467
#2	3465.713	70689.76	10569.90	2443.189	3886.917
#3	3449.171	71004.17	10489.66	2434.386	3862.296

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-04DLX2 Acquired: 1/24/2025 14:22:21 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0447038	-.002299	.8987979	.0189022	.0111200	31.58163	17.78352
Stddev	.0021076	.001471	.0012745	.0008820	.0013470	.20829	.16263
%RSD	4.714645	64.01064	.1417985	4.666033	12.11365	.6595433	.9144923
#1	.0470054	-.001069	.8974543	.0182039	.0118730	31.35229	17.59649
#2	.0442378	-.003928	.8989496	.0198934	.0095648	31.75906	17.89168
#3	.0428682	-.001898	.8999897	.0186094	.0119221	31.63354	17.86238

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029684	.0034133	25.71998	.0783118	.0681268	.0863642	94.73456
Stddev	.0001004	.0000288	.15377	.0005546	.0003405	.0020026	.58463
%RSD	3.382187	.8440288	.5978453	.7081359	.4997372	2.318829	.6171260
#1	.0029992	.0033981	25.54664	.0779095	.0681253	.0863948	94.08463
#2	.0028562	.0033954	25.83996	.0780815	.0677871	.0883513	95.21760
#3	.0030498	.0034466	25.77332	.0789444	.0684680	.0843464	94.90144

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.445895	10.19748	.0654378	.0032146	.3954670	.1364268	.8777889
Stddev	.026694	.04604	.0006010	.0003202	.4229258	.0023403	.0083026
%RSD	.6004165	.4514667	.9184886	9.961788	106.9434	1.715416	.9458564
#1	4.415678	10.14732	.0652415	.0034149	.8459640	.1380686	.8690313
#2	4.466274	10.23781	.0649594	.0028453	.0069531	.1337471	.8855458
#3	4.455733	10.20730	.0661124	.0033837	.3334839	.1374647	.8787896

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.970557	1.937115	.3811823	.0032900	4.786647	6.425309	.0059362
Stddev	.083260	.005085	.0035548	.0002876	.005527	.017948	.0008977
%RSD	2.802828	.2624992	.9325714	8.741208	.1154724	.2793358	15.12216
#1	2.874623	1.932432	.3770815	.0029624	4.791639	6.407201	.0049689
#2	3.013070	1.936389	.3830753	.0034063	4.780707	6.443093	.0060971
#3	3.023977	1.942523	.3833899	.0035012	4.787595	6.425632	.0067425

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-04DLX2 Acquired: 1/24/2025 14:22:21 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8471996	.0159923	.1421892
Stddev	.0030243	.0005085	.0008765
%RSD	.3569817	3.179476	.6164382
#1	.8437699	.0154083	.1411847
#2	.8483444	.0163372	.1427987
#3	.8494844	.0162313	.1425841

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3368.994	67468.41	10541.18	2352.883	3867.516
Stddev	4.786	118.22	29.51	12.759	1.464
%RSD	.1420743	.1752296	.2799723	.5422708	.0378573
#1	3366.876	67598.59	10508.05	2367.601	3869.038
#2	3365.631	67367.72	10564.64	2344.949	3866.117
#3	3374.473	67438.93	10550.87	2346.100	3867.393

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-05DLX2 Acquired: 1/24/2025 14:26:27 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0190890**	**-.002517**	**.3615007**	**-.008920**	**.0053190**	**1.706860**
Stddev	.0015508	.001478	.0047196	.005135	.0026575	.019540
%RSD	8.124173	58.74820	1.305551	57.56120	49.96285	1.144814
#1	.0181236	-.003398	.3615523	-.013615	.0023342	1.727110
#2	.0208779	-.000810	.3661943	-.003437	.0074285	1.688116
#3	.0182656	-.003342	.3567556	-.009710	.0061942	1.705353

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.97059**	**.0003858**	**.0114738**	F **1029.106**	**.0305123**	**.0125689**
Stddev	.13407	.0000356	.0000867	6.026	.0000764	.0001149
%RSD	1.119997	9.238942	.7560469	.5855599	.2502736	.9139927
#1	11.82512	.0003479	.0113869	1027.343	.0305095	.0124503
#2	11.99744	.0003909	.0115604	1024.159	.0305901	.0126797
#3	12.08920	.0004186	.0114742	1035.817	.0304374	.0125767

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0742833**	**23.81369**	**.8585918**	**582.7631**	**.0362985**	**.0001660**
Stddev	.0011496	.06477	.0041993	2.2958	.0002864	.0007560
%RSD	1.547523	.2719733	.4890890	.3939570	.7890757	455.3835
#1	.0748649	23.79351	.8582584	581.8275	.0361154	.0005473
#2	.0750259	23.76142	.8545692	581.0829	.0361515	.0006555
#3	.0729592	23.88615	.8629479	585.3790	.0366286	-.000705

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.914979**	**.0546666**	**4.713886**	**-.254451**	**.4541823**	**.1077276**
Stddev	.353178	.0011086	.008035	.006446	.0003906	.0014400
%RSD	38.59958	2.027968	.1704538	2.533170	.0859998	1.336692
#1	-1.29706	.0544568	4.711152	-.250653	.4546331	.1067883
#2	-.60046	.0558651	4.722931	-.250806	.4539452	.1070090
#3	-.84743	.0536779	4.707574	-.261893	.4539685	.1093854

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-05DLX2 Acquired: 1/24/2025 14:26:27 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ02 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029514	F 19.38843	.9761523	-.004196	.0198859	.0269563
Stddev	.0005543	.02605	.0045979	.000407	.0014485	.0007045
%RSD	18.78091	.1343813	.4710249	9.691113	7.283882	2.613459
#1	.0025182	19.41851	.9720863	-.004396	.0183656	.0261757
#2	.0035760	19.37258	.9752287	-.003728	.0212499	.0271482
#3	.0027598	19.37422	.9811420	-.004464	.0200422	.0275449

Elem	Sr4077
Units	ppm
Avg	.4250500
Stddev	.0006462
%RSD	.1520211
#1	.4253339
#2	.4243105
#3	.4255056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.009	56657.06	9199.988	1905.582	3080.319
Stddev	11.188	171.83	18.668	1.611	9.075
%RSD	.4054927	.3032830	.2029159	.0845165	.2946201
#1	2746.987	56672.18	9210.000	1904.325	3074.404
#2	2760.925	56820.84	9211.515	1907.398	3075.785
#3	2769.114	56478.17	9178.450	1905.024	3090.768

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV014 Acquired: 1/24/2025 14:30:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV014 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.795527**	**4.903983**	**24.30697**	**4.828828**	**4.883459**	**396.3679**
Stddev	.013337	.020518	.02938	.006178	.014419	2.4117
%RSD	.2781044	.4183909	.1208755	.1279475	.2952580	.6084431
#1	4.793347	4.924730	24.29914	4.835100	4.893747	394.2697
#2	4.783415	4.883703	24.28230	4.822747	4.866978	399.0026
#3	4.809819	4.903516	24.33948	4.828637	4.889651	395.8314

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.754595**	**.4909105**	**2.453180**	**391.1941**	**15.45378**	**2.454630**
Stddev	.125614	.0026574	.002112	2.5189	.02250	.003899
%RSD	1.287738	.5413258	.0860729	.6438965	.1456040	.1588280
#1	9.609940	.4920691	2.453983	394.0739	15.43112	2.451976
#2	9.817706	.4927920	2.450785	390.1076	15.47612	2.452808
#3	9.836140	.4878705	2.454773	389.4008	15.45411	2.459106

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.23948**	**401.9973**	**14.48294**	**391.9465**	**2.452165**	**1.264049**
Stddev	.03978	1.7277	.04501	1.4210	.002803	.003185
%RSD	.2793300	.4297813	.3107715	.3625525	.1143209	.2519751
#1	14.27227	400.0088	14.44304	390.3057	2.453691	1.262094
#2	14.25094	403.1305	14.47406	392.7552	2.448930	1.267724
#3	14.19523	402.8526	14.53173	392.7786	2.453875	1.262328

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**368.6671**	**2.413424**	**14.87305**	**152.0711**	**4.921743**	F **5.859397**
Stddev	1.6085	.009068	.04663	.7476	.010727	.022051
%RSD	.4363028	.3757139	.3135183	.4916072	.2179452	.3763276
#1	370.3514	2.402971	14.85440	151.2080	4.917779	5.867237
#2	368.5029	2.419174	14.83864	152.4904	4.913563	5.876456
#3	367.1469	2.418127	14.92612	152.5150	4.933888	5.834498

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV014 Acquired: 1/24/2025 14:30:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV014 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.820248**	**4.931645**	**4.779837**	**4.941196**	**4.803072**	**4.852992**
Stddev	.007774	.021784	.023357	.005132	.014680	.014586
%RSD	.1612873	.4417094	.4886513	.1038546	.3056431	.3005666
#1	4.823054	4.936738	4.778318	4.940929	4.812674	4.838055
#2	4.811460	4.907766	4.803916	4.936203	4.810370	4.853719
#3	4.826229	4.950430	4.757277	4.946456	4.786173	4.867201

Elem	Sr4077
Units	ppm
Avg	**4.903969**
Stddev	.013892
%RSD	.2832796
#1	4.907038
#2	4.916070
#3	4.888800

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2661.272**	**56981.34**	**9311.265**	**1937.989**	**3105.353**
Stddev	6.323	128.00	57.570	2.744	4.775
%RSD	.2375946	.2246343	.6182785	.1415830	.1537722
#1	2659.348	57096.97	9284.016	1941.158	3104.425
#2	2668.334	56843.80	9272.378	1936.371	3110.524
#3	2656.135	57003.26	9377.400	1936.440	3101.109

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB014 Acquired: 1/24/2025 14:35:04 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB014 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008825**	**.0007542**	**-.000785**	**-.001957**	**.0008117**	**.0061884**	**-.000214**
Stddev	.0013514	.0010129	.000952	.001886	.0010700	.0060767	.000861
%RSD	153.1248	134.2932	121.2627	96.36510	131.8229	98.19454	403.0722
#1	.0012899	.0019044	-.000829	-.000015	.0019214	.0040724	.000414
#2	.0019834	.0003628	-.001715	-.002075	-.000214	.0014526	.000140
#3	-.000626	-.000005	.000188	-.003780	.000727	.0130402	-.001195

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000010**	**-.000003**	**.1062897**	**.0001975**	**.0000678**	**-.002222**	**.0079960**
Stddev	.000086	.000044	.0055930	.0002912	.0001745	.001900	.0095238
%RSD	852.9495	1405.682	5.262086	147.4911	257.4039	85.49281	119.1072
#1	.000063	.000019	.1127200	.0005083	-.000133	-.001145	.0011617
#2	-.000105	-.000054	.1025547	-.000069	.000185	-.004415	.0039518
#3	.000012	.000025	.1035943	.000153	.000151	-.001106	.0188745

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000195**	**-.010912**	**.0000861**	**.0000410**	**.0516453**	**.0010076**	**.0055202**
Stddev	.000302	.007783	.0001899	.0001123	.3696146	.0007688	.0010552
%RSD	154.8494	71.32395	220.5088	273.9530	715.6788	76.29680	19.11529
#1	-.000181	-.016223	.0001500	-.000061	.2666070	.0001237	.0043218
#2	.000099	-.014536	-.000127	.000022	.2634740	.0013789	.0063099
#3	-.000503	-.001978	.000236	.000161	-.375145	.0015202	.0059289

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.187276**	**.0026401**	**-.007415**	**-.000067**	**.0018115**	**.0016302**	**.0002782**
Stddev	.084683	.0014092	.000361	.000242	.0028259	.0024088	.0010882
%RSD	45.21856	53.37849	4.866760	361.7477	156.0010	147.7662	391.1625
#1	-.090806	.0040027	-.007229	-.000326	.0046385	-.000703	-.000245
#2	-.221674	.0011885	-.007186	.000152	.0018091	.001485	.001529
#3	-.249347	.0027290	-.007831	-.000027	-.001013	.004108	-.000450

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB014 Acquired: 1/24/2025 14:35:04 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB014 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000405**	**-.003740**	**.0001022**
Stddev	.000972	.000056	.0000246
%RSD	239.9917	1.500436	24.03355
#1	-.000285	-.003798	.0000784
#2	-.001431	-.003736	.0001007
#3	.000501	-.003686	.0001274

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3286.702**	**66906.16**	**9868.178**	**2369.848**	**3989.360**
Stddev	6.180	150.54	67.073	7.829	4.629
%RSD	.1880331	.2250049	.6796881	.3303663	.1160446
#1	3293.380	66742.65	9897.075	2363.878	3994.447
#2	3281.185	66936.82	9791.501	2366.953	3985.394
#3	3285.540	67039.01	9915.960	2378.712	3988.240

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-10DLX2 Acquired: 1/24/2025 14:39:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0515802	-.001597	1.030612	.0215023	.0133385	31.57449
Stddev	.0040001	.000997	.002197	.0018863	.0010164	.15252
%RSD	7.755171	62.41290	.2131828	8.772557	7.619909	.4830622
#1	.0554684	-.002132	1.028240	.0196338	.0127342	31.47169
#2	.0474768	-.002212	1.031019	.0214671	.0145119	31.74974
#3	.0517953	-.000447	1.032577	.0234059	.0127693	31.50206

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.11644	.0040832	.0031814	16.90257	.1152768	.0980127
Stddev	.29200	.0001499	.0001098	.10855	.0002421	.0002003
%RSD	1.382824	3.671536	3.452099	.6422366	.2100520	.2043257
#1	21.09058	.0042340	.0030557	16.87246	.1152288	.0981877
#2	21.42051	.0040815	.0032589	17.02301	.1155394	.0980561
#3	20.83822	.0039341	.0032295	16.81226	.1150623	.0977943

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491257	102.2583	7.752820	7.119448	.0589090	.0033622
Stddev	.0018486	.5782	.048041	.036961	.0003120	.0001565
%RSD	3.762995	.5654462	.6196525	.5191595	.5296329	4.654819
#1	.0493486	102.0887	7.752201	7.095948	.0588926	.0032390
#2	.0508528	102.9023	7.801166	7.162052	.0586055	.0035383
#3	.0471758	101.7838	7.705091	7.100345	.0592289	.0033094

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2545934	.1933676	.8644028	2.338076	1.898560	.4128843
Stddev	.5380535	.0039718	.0036996	.053267	.004976	.0025512
%RSD	211.3384	2.054005	.4279913	2.278229	.2620923	.6179000
#1	-.142119	.1979448	.8676520	2.291427	1.897723	.4122252
#2	.867034	.1913273	.8651799	2.396117	1.903902	.4157004
#3	.038865	.1908306	.8603764	2.326684	1.894056	.4107273

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-10DLX2 Acquired: 1/24/2025 14:39:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032434	5.242000	6.334293	.0058777	.7454509	.0127184
Stddev	.0002472	.012300	.036577	.0005303	.0017941	.0009845
%RSD	7.621433	.2346352	.5774383	9.022381	.2406720	7.740770
#1	.0029619	5.254782	6.376524	.0064887	.7474417	.0122989
#2	.0034251	5.240970	6.313715	.0055373	.7449518	.0138432
#3	.0033433	5.230248	6.312641	.0056071	.7439592	.0120132

Elem	Sr4077
Units	ppm
Avg	.2012369
Stddev	.0010969
%RSD	.5450676
#1	.2010333
#2	.2024213
#3	.2002561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3447.374	68514.03	10381.57	2440.302	3974.217
Stddev	6.903	283.58	59.33	3.884	6.258
%RSD	.2002254	.4139036	.5715413	.1591794	.1574557
#1	3454.326	68500.68	10314.68	2438.251	3981.422
#2	3447.273	68237.36	10427.86	2437.872	3970.143
#3	3440.522	68804.05	10402.18	2444.782	3971.085

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-11DLX2 Acquired: 1/24/2025 14:43:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0442266	-.002856	.6429420	.0182872	.0463088	35.71839	17.93404
Stddev	.0003559	.001530	.0018966	.0019904	.0013661	.31118	.12791
%RSD	.8048171	53.59013	.2949949	10.88409	2.949884	.8712113	.7132108
#1	.0445061	-.002451	.6418638	.0202537	.0473302	36.04491	18.08173
#2	.0438259	-.001569	.6418302	.0183342	.0447572	35.68503	17.86049
#3	.0443478	-.004548	.6451320	.0162737	.0468391	35.42524	17.85990

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027873	.0022368	7.676545	.1179363	.0556305	.0397085	91.90259
Stddev	.0000747	.0000120	.078016	.0002936	.0002920	.0024397	.71691
%RSD	2.680535	.5383260	1.016292	.2489780	.5249283	6.143971	.7800775
#1	.0028452	.0022507	7.739700	.1179692	.0553970	.0419736	92.62571
#2	.0027030	.0022304	7.700601	.1182121	.0555365	.0371254	91.89001
#3	.0028139	.0022293	7.589334	.1176276	.0559579	.0400264	91.19205

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.083105	6.379619	.0469040	.0025048	.2214676	.1615912	.5085854
Stddev	.040720	.068564	.0004081	.0003083	.3703436	.0035695	.0069777
%RSD	.9972826	1.074735	.8700520	12.30802	167.2225	2.208972	1.371978
#1	4.122363	6.422623	.0464711	.0021513	-.115318	.1645980	.5129895
#2	4.085885	6.415686	.0469595	.0027178	.618084	.1576463	.5122264
#3	4.041066	6.300550	.0472816	.0026454	.161637	.1625292	.5005403

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.866522	1.232398	.3651372	.0035102	4.154307	5.954377	.0046141
Stddev	.038379	.004601	.0028945	.0000402	.013806	.171520	.0004923
%RSD	2.056196	.3733641	.7927170	1.143696	.3323231	2.880574	10.67024
#1	1.905537	1.230719	.3671876	.0034651	4.151246	6.113607	.0044409
#2	1.865218	1.228871	.3663978	.0035233	4.142288	5.772765	.0051697
#3	1.828811	1.237603	.3618261	.0035421	4.169386	5.976760	.0042318

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-11DLX2 Acquired: 1/24/2025 14:43:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ06 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6995391	.0162817	.1528711
Stddev	.0213936	.0008345	.0017686
%RSD	3.058237	5.125373	1.156909
#1	.7161418	.0172075	.1546467
#2	.6753964	.0160499	.1528569
#3	.7070791	.0155875	.1511096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3419.231	68146.17	10420.35	2417.821	3967.037
Stddev	5.304	365.04	281.65	17.110	5.109
%RSD	.1551115	.5356729	2.702931	.7076776	.1287900
#1	3421.055	67921.79	10200.21	2408.438	3964.025
#2	3423.383	67949.35	10737.74	2407.454	3972.936
#3	3413.257	68567.39	10323.11	2437.570	3964.149

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-13DLX2 Acquired: 1/24/2025 14:47:28 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0470816	-.003844	.6524399	.0191385	.0109256	36.89588	14.61938
Stddev	.0012664	.000561	.0025238	.0022186	.0003550	.21965	.07874
%RSD	2.689784	14.58652	.3868232	11.59235	3.249271	.5953135	.5386107
#1	.0456411	-.003198	.6539261	.0175782	.0111552	36.97391	14.63596
#2	.0480200	-.004123	.6538678	.0181589	.0111049	36.64787	14.53367
#3	.0475837	-.004210	.6495259	.0216783	.0105167	37.06586	14.68851

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042177	.0029300	15.55881	.0992494	.1301949	.0724561	97.94050
Stddev	.0001163	.0000442	.04791	.0001125	.0004211	.0017353	.42977
%RSD	2.756980	1.510173	.3079393	.1133919	.3234566	2.394944	.4388106
#1	.0042672	.0029718	15.56557	.0991284	.1306457	.0722461	97.92254
#2	.0043010	.0029345	15.50788	.0993509	.1301275	.0742869	97.51999
#3	.0040848	.0028836	15.60299	.0992689	.1298116	.0708354	98.37897

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.620560	7.479181	.0689722	.0035438	.0832933	.1799854	.5331315
Stddev	.024250	.028524	.0007023	.0000361	.3949197	.0012848	.0023667
%RSD	.2520633	.3813735	1.018185	1.018295	474.1312	.7138619	.4439233
#1	9.638185	7.496553	.0681670	.0035792	.5360672	.1814368	.5348622
#2	9.592904	7.446262	.0694576	.0035070	-.096099	.1795264	.5304345
#3	9.630589	7.494729	.0692922	.0035451	-.190088	.1789931	.5340977

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.528820	1.878053	.3934310	.0039714	4.190560	6.491252	.0050298
Stddev	.014892	.004529	.0021425	.0003020	.006409	.029927	.0007583
%RSD	.5888779	.2411371	.5445591	7.604822	.1529309	.4610306	15.07515
#1	2.537528	1.881785	.3937492	.0037138	4.186092	6.501141	.0041586
#2	2.511625	1.873015	.3911472	.0038966	4.187685	6.514983	.0055404
#3	2.537307	1.879358	.3953965	.0043038	4.197902	6.457633	.0053906

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-13DLX2 Acquired: 1/24/2025 14:47:28 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ08 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7836106	.0175455	.1632429
Stddev	.0040064	.0003010	.0009159
%RSD	.5112771	1.715759	.5610810
#1	.7846051	.0177115	.1638713
#2	.7870262	.0171980	.1621920
#3	.7792007	.0177270	.1636654

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3541.167	69866.33	10487.70	2437.729	4065.869
Stddev	2.617	35.97	77.38	2.740	5.887
%RSD	.0739068	.0514802	.7378603	.1124151	.1447867
#1	3544.181	69883.05	10503.02	2437.224	4059.165
#2	3539.464	69825.04	10403.80	2440.686	4070.193
#3	3539.858	69890.89	10556.28	2435.276	4068.249

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-16DLX2 Acquired: 1/24/2025 14:51:34 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0380643	-.002679	.6781167	.0136309	.0087652	26.72425	17.11210
Stddev	.0012813	.000050	.0036542	.0001899	.0017874	.25022	.21532
%RSD	3.366000	1.868233	.5388705	1.393238	20.39142	.9362894	1.258287
#1	.0366568	-.002649	.6797661	.0138373	.0095609	26.98125	17.17067
#2	.0383735	-.002737	.6739286	.0134635	.0100166	26.71008	17.29209
#3	.0391627	-.002651	.6806554	.0135918	.0067182	26.48142	16.87356

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039989	.0027830	12.25593	.0672712	.1135392	.0752583	70.80068
Stddev	.0000668	.0000657	.09646	.0001117	.0007831	.0023216	.56089
%RSD	1.670649	2.359551	.7870368	.1660496	.6897480	3.084788	.7922122
#1	.0040760	.0028177	12.34243	.0673797	.1135792	.0777944	71.40036
#2	.0039598	.0027073	12.27346	.0672772	.1127369	.0732381	70.71272
#3	.0039609	.0028240	12.15192	.0671566	.1143017	.0747423	70.28897

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.380630	5.098006	.0492546	.0031818	-.214197	.1312407	.4630960
Stddev	.086064	.037756	.0005923	.0001781	.056062	.0036366	.0020262
%RSD	1.026935	.7406107	1.202545	5.598804	26.17318	2.770955	.4375309
#1	8.459114	5.141596	.0495678	.0032655	-.278464	.1353977	.4629779
#2	8.394182	5.076931	.0485714	.0029772	-.188791	.1286478	.4651786
#3	8.288595	5.075492	.0496244	.0033026	-.175335	.1296766	.4611314

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.993229	1.707534	.2802242	.0029523	4.385952	5.890481	.0049916
Stddev	.030176	.006659	.0012211	.0000427	.021290	.246179	.0020577
%RSD	1.513912	.3899621	.4357571	1.444716	.4854113	4.179276	41.22446
#1	2.003505	1.706372	.2813603	.0029865	4.390927	6.173652	.0067530
#2	1.959257	1.701533	.2803795	.0029660	4.362615	5.770463	.0054919
#3	2.016925	1.714698	.2789329	.0029045	4.404314	5.727328	.0027298

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-16DLX2 Acquired: 1/24/2025 14:51:34 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ11 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6687407	.0106989	.1599296
Stddev	.0277040	.0007649	.0020061
%RSD	4.142711	7.148909	1.254392
#1	.7007241	.0099826	.1618254
#2	.6533046	.0106096	.1601347
#3	.6521934	.0115045	.1578288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3359.669	68626.54	10152.81	2401.531	3878.137
Stddev	13.528	107.43	322.34	8.914	16.528
%RSD	.4026577	.1565388	3.174911	.3711765	.4261933
#1	3365.102	68750.16	9783.73	2411.398	3878.193
#2	3369.636	68573.67	10379.09	2394.060	3894.637
#3	3344.269	68555.80	10295.60	2399.135	3861.580

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-18DLX2 Acquired: 1/24/2025 14:55:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ13 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0376893	-.000751	.6752176	.0150732	.0104125	29.07389	18.71342
Stddev	.0024206	.001497	.0026724	.0034541	.0007119	.18380	.05418
%RSD	6.422624	199.2588	.3957808	22.91512	6.837188	.6321863	.2895162
#1	.0388818	.000299	.6748959	.0179770	.0109607	29.27462	18.67491
#2	.0392824	-.000087	.6727206	.0112535	.0096079	28.91383	18.77537
#3	.0349038	-.002465	.6780363	.0159891	.0106689	29.03322	18.68997

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030983	.0022763	11.73129	.0684832	.0912920	.0572679	74.11077
Stddev	.0000296	.0000545	.07292	.0003705	.0003649	.0025787	.48564
%RSD	.9567092	2.393313	.6215554	.5410174	.3996656	4.502931	.6552891
#1	.0030989	.0022390	11.81346	.0687510	.0909273	.0569082	74.64546
#2	.0030683	.0022510	11.70614	.0680604	.0912916	.0548879	73.69706
#3	.0031276	.0023388	11.67428	.0686382	.0916570	.0600076	73.98979

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.348714	5.647236	.0466639	.0031191	.0143942	.1311545	.5712938
Stddev	.033853	.020266	.0001849	.0002757	.0690656	.0002121	.0055295
%RSD	.4606712	.3588625	.3962895	8.839451	479.8145	.1617092	.9678854
#1	7.387722	5.662629	.0466471	.0032974	.0900275	.1310071	.5775712
#2	7.331416	5.624275	.0464880	.0028016	-.045326	.1310589	.5671451
#3	7.327005	5.654805	.0468567	.0032584	-.001519	.1313976	.5691650

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017654	1.581615	.2956351	.0029173	4.599330	5.597399	.0050491
Stddev	.045043	.008191	.0028145	.0000456	.016869	.016660	.0003529
%RSD	2.232457	.5179066	.9520252	1.561214	.3667741	.2976360	6.988738
#1	2.039164	1.582115	.2986390	.0029673	4.596620	5.590986	.0048378
#2	1.965889	1.573185	.2930589	.0029065	4.583979	5.616312	.0054565
#3	2.047911	1.589545	.2952073	.0028781	4.617389	5.584898	.0048531

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-18DLX2 Acquired: 1/24/2025 14:55:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ13 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6812542	.0135371	.1713069
Stddev	.0012319	.0011047	.0010855
%RSD	.1808347	8.160686	.6336823
#1	.6826536	.0129303	.1725385
#2	.6803335	.0128688	.1708931
#3	.6807755	.0148122	.1704892

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3373.847	67959.60	10389.86	2380.810	3920.181
Stddev	4.538	312.80	12.11	14.584	10.828
%RSD	.1344973	.4602669	.1165207	.6125582	.2762115
#1	3377.502	67623.65	10403.40	2364.153	3918.824
#2	3375.269	68242.44	10380.07	2391.285	3931.624
#3	3368.768	68012.70	10386.11	2386.992	3910.095

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-20DLX2 Acquired: 1/24/2025 14:59:48 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ15 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0362134	-.002784	1.052426	.0155865	.0087905	26.00579	19.97553
Stddev	.0032960	.001054	.003172	.0015026	.0009640	.17702	.07645
%RSD	9.101615	37.87423	.3014207	9.640464	10.96625	.6806819	.3827010
#1	.0324086	-.001824	1.055085	.0161889	.0093541	25.81206	19.91763
#2	.0380379	-.003912	1.048915	.0138762	.0076775	26.15911	19.94677
#3	.0381938	-.002616	1.053278	.0166945	.0093401	26.04621	20.06218

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034782	.0061160	39.45274	.0699122	.0768520	.1856163	66.59161
Stddev	.0000570	.0000898	.23011	.0001966	.0003293	.0010343	.37848
%RSD	1.638022	1.468603	.5832528	.2812724	.4284773	.5572159	.5683621
#1	.0034744	.0061115	39.22277	.0698506	.0764723	.1863500	66.19932
#2	.0035370	.0062080	39.68299	.0697537	.0770245	.1860656	66.95458
#3	.0034233	.0060285	39.45245	.0701322	.0770591	.1844334	66.62093

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.973120	7.954463	.0587736	.0026691	.0576491	.1145727	.8517213
Stddev	.065802	.035891	.0005141	.0003079	.1244684	.0013514	.0097609
%RSD	.7333249	.4512073	.8746468	11.53520	215.9068	1.179505	1.146018
#1	8.908496	7.923674	.0589144	.0029739	.0918030	.1131724	.8410299
#2	9.040040	7.993883	.0582038	.0026753	.1614751	.1146766	.8601565
#3	8.970823	7.945833	.0592026	.0023582	-.080331	.1158692	.8539776

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.083384	3.113937	.2694131	.0029941	6.668561	5.925905	.0045061
Stddev	.070465	.007662	.0019546	.0002115	.008049	.011495	.0009778
%RSD	2.285302	.2460419	.7255187	7.065696	.1207015	.1939838	21.69851
#1	3.016932	3.121938	.2673147	.0028089	6.664934	5.936553	.0033793
#2	3.075948	3.106668	.2711821	.0032246	6.662964	5.913718	.0051301
#3	3.157272	3.113205	.2697427	.0029487	6.677785	5.927444	.0050089

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-20DLX2 Acquired: 1/24/2025 14:59:48 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ15 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6124619	.0107835	.2798191
Stddev	.0020386	.0008037	.0025405
%RSD	.3328482	7.452700	.9079189
#1	.6145409	.0102916	.2775764
#2	.6123784	.0117110	.2825781
#3	.6104664	.0103480	.2793026

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3344.289	67102.74	10078.59	2339.472	3926.879
Stddev	4.132	320.02	51.52	17.935	3.029
%RSD	.1235480	.4769127	.5111912	.7666173	.0771277
#1	3343.964	67467.45	10043.41	2360.159	3924.072
#2	3348.574	66971.88	10137.73	2329.956	3926.477
#3	3340.329	66868.88	10054.63	2328.301	3930.089

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-22DLX2 Acquired: 1/24/2025 15:03:55 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0392791	-.003805	2.246292	.0099932	.0119972	10.61287
Stddev	.0020338	.001861	.013461	.0016896	.0007400	.01766
%RSD	5.177697	48.89916	.5992591	16.90764	6.167951	.1663609
#1	.0391603	-.005516	2.252268	.0089624	.0112130	10.59262
#2	.0373074	-.004075	2.230877	.0090741	.0126831	10.62101
#3	.0413697	-.001824	2.255730	.0119431	.0120955	10.62500

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.98295	.0016822	.0062024	391.3497	.0989562	.0238858
Stddev	.07463	.0001012	.0000245	1.2104	.0007395	.0001120
%RSD	.2987251	6.014248	.3956049	.3092793	.7473393	.4686714
#1	24.89939	.0015997	.0062170	390.8281	.0988984	.0238492
#2	25.00648	.0016517	.0061741	390.4875	.0982473	.0237967
#3	25.04298	.0017951	.0062162	392.7334	.0997230	.0240114

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0593663	77.91611	3.471597	156.9085	.0387304	.0014805
Stddev	.0019974	.29918	.019409	.7264	.0002067	.0002017
%RSD	3.364535	.3839827	.5590888	.4629667	.5336012	13.62245
#1	.0605918	77.59779	3.450112	156.1809	.0387527	.0012527
#2	.0604457	77.95902	3.476816	156.9108	.0389250	.0016363
#3	.0570615	78.19153	3.487864	157.6337	.0385135	.0015525

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3677357	.1054645	2.161306	.9692898	2.539542	.3587923
Stddev	.4703702	.0021263	.011210	.0700016	.017005	.0018186
%RSD	127.9098	2.016175	.5186800	7.221949	.6695998	.5068575
#1	.7851276	.1037456	2.149182	.9484659	2.534349	.3566926
#2	-.141935	.1048056	2.163441	.9120629	2.525739	.3598643
#3	.460015	.1078423	2.171295	1.047340	2.558537	.3598202

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-22DLX2 Acquired: 1/24/2025 15:03:55 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030661	7.373911	4.082034	-.001046	.2710590	.0111420
Stddev	.0002143	.055852	.027901	.000592	.0028443	.0015596
%RSD	6.988242	.7574289	.6835113	56.58858	1.049346	13.99710
#1	.0028327	7.389107	4.056673	-.000865	.2712934	.0114587
#2	.0031116	7.312033	4.111922	-.001708	.2737789	.0125190
#3	.0032539	7.420592	4.077507	-.000566	.2681047	.0094485

Elem	Sr4077
Units	ppm
Avg	.3925054
Stddev	.0020705
%RSD	.5274974
#1	.3901542
#2	.3933059
#3	.3940561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3128.146	61592.76	9681.663	2158.260	3524.975
Stddev	13.632	323.52	20.612	12.276	21.453
%RSD	.4357878	.5252625	.2128992	.5688108	.6086107
#1	3125.981	61692.65	9685.558	2160.141	3519.144
#2	3142.731	61854.56	9659.381	2169.487	3548.741
#3	3115.726	61231.07	9700.050	2145.151	3507.039

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-01DLX2 Acquired: 1/24/2025 15:08:10 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ18 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0621817**	**-.002841**	**4.396223**	**.0266805**	**.0207867**	**17.20780**
Stddev	.0038838	.004276	.013189	.0025962	.0009627	.09604
%RSD	6.245909	150.5150	.3000087	9.730823	4.631252	.5580983
#1	.0584715	-.006307	4.381807	.0294182	.0197009	17.21529
#2	.0662186	-.004153	4.399177	.0263696	.0211235	17.29988
#3	.0618551	.001937	4.407684	.0242538	.0215358	17.10824

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **20.49277**	**.0024554**	**.0096251**	**34.34786**	**.2063702**	**.0429910**
Stddev	.27592	.0001008	.0000232	.13390	.0007445	.0002801
%RSD	1.346433	4.103731	.2415197	.3898310	.3607712	.6515572
#1	20.79790	.0023606	.0096215	34.37662	.2070674	.0432224
#2	20.26081	.0024443	.0096039	34.46504	.2064571	.0430710
#3	20.41960	.0025612	.0096500	34.20192	.2055860	.0426796

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2061868**	**133.4026**	**2.454582**	**15.04185**	**.0633542**	**.0012074**
Stddev	.0062041	.5624	.006076	.08334	.0009243	.0002314
%RSD	3.008979	.4216174	.2475368	.5540295	1.458964	19.16421
#1	.1996729	133.6508	2.448995	15.03909	.0628521	.0011884
#2	.2120259	133.7983	2.461051	15.12654	.0627897	.0014477
#3	.2068615	132.7588	2.453702	14.95994	.0644209	.0009861

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.034494**	**.1704877**	**3.052986**	**1.159203**	**1.982428**	**.5337932**
Stddev	.140237	.0029735	.011020	.032373	.010092	.0038055
%RSD	406.5599	1.744139	.3609681	2.792689	.5090529	.7129186
#1	-.092557	.1674299	3.062348	1.121951	1.973679	.5366191
#2	.125450	.1706642	3.055770	1.180517	1.980138	.5352944
#3	-.136374	.1733691	3.040841	1.175141	1.993468	.5294660

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-01DLX2 Acquired: 1/24/2025 15:08:10 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ18 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046200	6.857678	5.644853	.0053613	.4625737	.0050809
Stddev	.0004545	.015922	.107366	.0010571	.0076138	.0002882
%RSD	9.837296	.2321817	1.902020	19.71650	1.645965	5.673099
#1	.0045879	6.851065	5.523176	.0045271	.4537827	.0050022
#2	.0041824	6.846129	5.685109	.0050069	.4670659	.0048401
#3	.0050897	6.875842	5.726273	.0065501	.4668724	.0054003

Elem	Sr4077
Units	ppm
Avg	.1707663
Stddev	.0003000
%RSD	.1756836
#1	.1709308
#2	.1709481
#3	.1704200

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3304.462	66739.53	9877.580	2383.639	3844.877
Stddev	3.989	345.92	155.295	19.760	2.985
%RSD	.1207199	.5183098	1.572194	.8289723	.0776331
#1	3305.002	66379.48	10054.85	2362.558	3844.859
#2	3308.153	66769.79	9812.36	2386.618	3847.870
#3	3300.230	67069.32	9765.53	2401.739	3841.900

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-10DLX2 Acquired: 1/24/2025 15:12:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ25 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0236471	-.004307	.9186670	-.005434	.0100177	6.097425
Stddev	.0014699	.002351	.0357718	.000929	.0012289	.044680
%RSD	6.215957	54.58152	3.893884	17.09218	12.26744	.7327666
#1	.0248896	-.006431	.8786437	-.005126	.0087518	6.072068
#2	.0220245	-.004707	.9298340	-.006478	.0100953	6.149015
#3	.0240273	-.001782	.9475232	-.004699	.0112059	6.071193

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.94823	.0012286	.0162233	F 1095.770	.0314465	.0277398
Stddev	.14615	.0000684	.0006956	3.843	.0001319	.0011255
%RSD	.8623245	5.564896	4.287564	.3506880	.4193226	4.057345
#1	16.88477	.0011497	.0154885	1093.404	.0315681	.0264404
#2	17.11538	.0012645	.0163098	1100.204	.0314652	.0284121
#3	16.84454	.0012715	.0168716	1093.701	.0313063	.0283668

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0552829	43.33324	3.028317	604.6813	.0288321	.0002179
Stddev	.0008988	.28892	.018632	4.1551	.0009633	.0003185
%RSD	1.625783	.6667410	.6152515	.6871605	3.341197	146.1851
#1	.0542566	43.04479	3.013449	600.3593	.0277803	.0005081
#2	.0556623	43.62262	3.049218	608.6466	.0290444	-.000123
#3	.0559298	43.33232	3.022284	605.0381	.0296716	.000268

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.382373	.0706776	5.151817	.4510689	.9889880	.1925807
Stddev	.263538	.0025590	.010041	.0223579	.0398669	.0017231
%RSD	68.92165	3.620663	.1948956	4.956657	4.031085	.8947658
#1	-.239788	.0681040	5.144209	.4329783	.9468808	.1909041
#2	-.220847	.0732218	5.148044	.4760649	.9939292	.1943469
#3	-.686483	.0707069	5.163198	.4441636	1.026154	.1924911

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-10DLX2 Acquired: 1/24/2025 15:12:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ25 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046280	F 11.33499	3.051480	-.001779	.1492568	.0284556
Stddev	.0001267	.43439	.006942	.000290	.0018140	.0008065
%RSD	2.737912	3.832333	.2275071	16.31936	1.215351	2.834149
#1	.0046329	10.85616	3.052885	-.002110	.1512003	.0275552
#2	.0047522	11.44504	3.043943	-.001661	.1476085	.0291116
#3	.0044989	11.70378	3.057612	-.001567	.1489615	.0287001

Elem	Sr4077
Units	ppm
Avg	.5139716
Stddev	.0043184
%RSD	.8402119
#1	.5110018
#2	.5189256
#3	.5119875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2829.996	56601.59	8885.337	1937.479	3117.107
Stddev	94.718	250.95	52.753	9.742	109.157
%RSD	3.346925	.4433649	.5937100	.5028350	3.501882
#1	2936.725	56887.97	8856.438	1939.983	3240.129
#2	2797.320	56496.69	8946.225	1945.726	3079.360
#3	2755.942	56420.10	8853.349	1926.730	3031.834

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-11DLX2 Acquired: 1/24/2025 15:16:31 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ26 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0265792	-.003662	.9535520	-.005287	.0072157	6.472617
Stddev	.0025413	.001208	.0041689	.004552	.0002893	.053337
%RSD	9.561122	32.98848	.4371985	86.09852	4.008632	.8240358
#1	.0239372	-.005009	.9490355	-.003594	.0073976	6.506294
#2	.0267942	-.002674	.9572527	-.010443	.0073672	6.411123
#3	.0290061	-.003303	.9543678	-.001824	.0068821	6.500436

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.47809	.0008907	.0112414	F 1088.985	.0376022	.0147250
Stddev	.17384	.0000572	.0001624	3.271	.0000539	.0003414
%RSD	.8093746	6.418329	1.444713	.3003287	.1434754	2.318836
#1	21.63504	.0008448	.0111392	1085.218	.0375690	.0150820
#2	21.29124	.0009547	.0111563	1090.624	.0375732	.0146916
#3	21.50797	.0008725	.0114286	1091.111	.0376645	.0144015

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0483664	39.11390	1.517682	520.7445	.0349099	.0004297
Stddev	.0021220	.32889	.013779	4.1661	.0006490	.0002065
%RSD	4.387261	.8408601	.9078793	.8000262	1.858916	48.06050
#1	.0467130	39.38892	1.531714	523.8435	.0341625	.0002210
#2	.0476271	38.74958	1.504172	516.0085	.0353303	.0006339
#3	.0507591	39.20322	1.517159	522.3814	.0352369	.0004343

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.345516	.0635254	2.222856	.1339093	1.136692	.1737082
Stddev	.202024	.0004845	.016029	.0289647	.001901	.0023623
%RSD	58.47026	.7626735	.7211117	21.63007	.1672091	1.359902
#1	-.321593	.0639739	2.231830	.1508501	1.136341	.1732603
#2	-.558437	.0630115	2.204350	.1004647	1.134992	.1716020
#3	-.156519	.0635908	2.232389	.1504131	1.138744	.1762624

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-11DLX2 Acquired: 1/24/2025 15:16:31 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ26 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117469	7.817725	3.250662	.0040056	.1301125	.0293352
Stddev	.0004308	.043595	.005859	.0010434	.0011548	.0004120
%RSD	3.667767	.5576450	.1802367	26.04798	.8875001	1.404272
#1	.0120114	7.793034	3.246006	.0028642	.1299856	.0292226
#2	.0112497	7.792079	3.248740	.0049103	.1290264	.0297917
#3	.0119795	7.868061	3.257241	.0042422	.1313254	.0289912

Elem	Sr4077
Units	ppm
Avg	.6231101
Stddev	.0064435
%RSD	1.034083
#1	.6295306
#2	.6166439
#3	.6231557

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2790.458	58082.99	9155.526	1954.011	3077.702
Stddev	10.087	309.01	39.012	12.965	10.004
%RSD	.3614676	.5320088	.4261012	.6635200	.3250513
#1	2797.940	57804.51	9200.420	1952.895	3084.838
#2	2794.446	58415.42	9129.863	1967.499	3082.001
#3	2778.987	58029.02	9136.296	1941.641	3066.267

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-07DLX2 Acquired: 1/24/2025 15:20:48 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0324572**	**-.002815**	**4.357772**	**.0031771**	**.0115546**	**9.367333**
Stddev	.0022929	.002007	.002018	.0043621	.0005044	.032127
%RSD	7.064389	71.30141	.0463080	137.2974	4.365587	.3429661
#1	.0298400	-.002483	4.356858	.0070572	.0116002	9.353885
#2	.0341124	-.000995	4.356371	-.001544	.0110289	9.403999
#3	.0334191	-.004968	4.360085	.004019	.0120346	9.344116

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.78208**	**.0026652**	**.0509250**	**557.3576**	**.0519588**	**.0541005**
Stddev	.20890	.0000759	.0001636	1.6006	.0004789	.0002386
%RSD	1.323653	2.849273	.3212619	.2871712	.9217547	.4409322
#1	15.89942	.0027483	.0507368	556.8992	.0514528	.0539501
#2	15.54089	.0025993	.0510057	559.1373	.0524050	.0539759
#3	15.90593	.0026481	.0510327	556.0362	.0520187	.0543756

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1097486**	**84.06782**	**6.720455**	**251.9758**	**.0657736**	**.0044951**
Stddev	.0005428	.17967	.029192	1.0027	.0007697	.0003122
%RSD	.4946274	.2137167	.4343762	.3979271	1.170185	6.944402
#1	.1092319	83.86078	6.686957	250.8241	.0649377	.0046252
#2	.1103142	84.18275	6.733948	252.6545	.0659301	.0041389
#3	.1096997	84.15994	6.740459	252.4486	.0664530	.0047212

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.073605**	**.0756562**	**6.262796**	**.4866884**	**1.843092**	**.3464581**
Stddev	.245508	.0009781	.072299	.0396414	.005293	.0006940
%RSD	333.5463	1.292842	1.154415	8.145123	.2871590	.2003061
#1	-.286020	.0760771	6.187558	.4711276	1.841349	.3457667
#2	-.129984	.0763534	6.269084	.5317493	1.838891	.3471547
#3	.195188	.0745381	6.331745	.4571884	1.849036	.3464529

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-07DLX2 Acquired: 1/24/2025 15:20:48 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ42 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030841	F 10.24356	3.789614	-.000197	.3316682	.0189452
Stddev	.0003141	.02849	.005827	.001418	.0020048	.0012800
%RSD	10.18570	.2781309	.1537504	720.1589	.6044645	6.756182
#1	.0033934	10.23273	3.783723	.001425	.3315267	.0181563
#2	.0030936	10.22208	3.789745	-.000813	.3297379	.0204221
#3	.0027654	10.27588	3.795374	-.001203	.3337400	.0182573

Elem	Sr4077
Units	ppm
Avg	.2820223
Stddev	.0012263
%RSD	.4348185
#1	.2806065
#2	.2827113
#3	.2827491

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3085.159	63258.40	9871.330	2156.356	3323.265
Stddev	3.814	171.66	2.612	12.830	1.773
%RSD	.1236262	.2713682	.0264644	.5949780	.0533587
#1	3085.950	63382.88	9869.389	2171.167	3321.349
#2	3088.516	63062.57	9874.300	2149.234	3324.849
#3	3081.012	63329.76	9870.302	2148.667	3323.597

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-08DLX2 Acquired: 1/24/2025 15:25:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0560498	-.003992	3.979338	.0257708	.0199161	37.40072	16.52888
Stddev	.0011464	.001051	.011835	.0028543	.0015005	.25471	.40413
%RSD	2.045356	26.33161	.2974062	11.07588	7.534104	.6810326	2.445001
#1	.0567060	-.003758	3.973286	.0228197	.0192002	37.52752	16.95297
#2	.0547261	-.003078	3.971753	.0259753	.0189076	37.10750	16.14822
#3	.0567174	-.005141	3.992975	.0285174	.0216404	37.56715	16.48544

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052959	.0400039	148.8349	.1191433	.0806449	.2875025	142.2900
Stddev	.0001028	.0000616	1.0600	.0008924	.0001558	.0010961	1.0717
%RSD	1.941227	.1540475	.7121960	.7490135	.1931815	.3812517	.7531545
#1	.0051821	.0399614	149.1810	.1198705	.0807275	.2876909	142.7268
#2	.0053237	.0399757	147.6451	.1181474	.0804652	.2884923	141.0689
#3	.0053820	.0400746	149.6786	.1194119	.0807419	.2863244	143.0743

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.28389	13.99568	.1485196	.0058648	-.117991	.1823760	10.49437
Stddev	.07024	.12596	.0001041	.0002745	.203899	.0018256	.07569
%RSD	.6830257	.9000064	.0700999	4.680453	172.8094	1.001030	.7212674
#1	10.31814	14.02646	.1484153	.0061389	-.066120	.1820245	10.52593
#2	10.20309	13.85718	.1485199	.0058655	-.342816	.1807516	10.40801
#3	10.33042	14.10340	.1486235	.0055900	.054963	.1843518	10.54919

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.107991	7.404599	.6174365	.0030186	7.944232	6.807345	.0226873
Stddev	.067617	.015554	.0050146	.0002873	.011171	.021450	.0002392
%RSD	2.175577	.2100623	.8121683	9.517376	.1406234	.3150994	1.054441
#1	3.080270	7.394251	.6195069	.0030769	7.931345	6.785499	.0224336
#2	3.058641	7.397060	.6117182	.0032723	7.950184	6.808160	.0227193
#3	3.185063	7.422486	.6210845	.0027066	7.951168	6.828375	.0229088

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-08DLX2 Acquired: 1/24/2025 15:25:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ43 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6183802	.0163210	.5733425
Stddev	.0034039	.0007098	.0031890
%RSD	.5504520	4.348773	.5562159
#1	.6144999	.0155684	.5756421
#2	.6197785	.0169782	.5697020
#3	.6208623	.0164163	.5746834

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3441.216	68492.47	10673.39	2389.872	3799.242
Stddev	6.372	521.53	58.74	17.099	7.375
%RSD	.1851692	.7614405	.5503342	.7154907	.1941149
#1	3445.390	68354.87	10733.43	2385.432	3803.971
#2	3444.375	69069.01	10670.68	2408.753	3803.012
#3	3433.881	68053.54	10616.05	2375.430	3790.745

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-09DLX2 Acquired: 1/24/2025 15:29:06 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ44 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0587550	-.002258	3.577485	.0187378	.0132646	29.12399	15.03904
Stddev	.0029315	.001197	.006453	.0023930	.0013743	.07074	.21485
%RSD	4.989300	52.99456	.1803767	12.77115	10.36089	.2429061	1.428629
#1	.0570392	-.001136	3.580596	.0176328	.0147373	29.08451	15.15966
#2	.0570859	-.003518	3.570066	.0170968	.0130400	29.20566	15.16648
#3	.0621398	-.002121	3.581793	.0214836	.0120163	29.08180	14.79098

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043494	.0251753	42.73905	.1030008	.0850943	.1936812	102.2590
Stddev	.0001010	.0001240	.06079	.0002358	.0002458	.0012363	.1693
%RSD	2.321488	.4925758	.1422365	.2288881	.2888819	.6383067	.1655397
#1	.0042387	.0253041	42.71745	.1032730	.0849092	.1950945	102.1344
#2	.0043729	.0250567	42.80770	.1028611	.0850005	.1931487	102.4518
#3	.0044365	.0251652	42.69201	.1028684	.0853732	.1928004	102.1909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.689001	12.12204	.0810708	.0022543	.3519997	.1878858	9.792036
Stddev	.005365	.02480	.0006087	.0004055	.1649950	.0016336	.050180
%RSD	.0942962	.2045693	.7508272	17.98795	46.87363	.8694616	.5124536
#1	5.686197	12.11230	.0809237	.0023940	.4792470	.1876255	9.818458
#2	5.695187	12.10359	.0805492	.0025715	.1655776	.1896339	9.823484
#3	5.685621	12.15023	.0817396	.0017974	.4111743	.1863979	9.734166

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.555349	9.555958	.4124045	.0025247	6.093728	5.363562	.0110571
Stddev	.026319	.022234	.0019986	.0002763	.006580	.011009	.0004399
%RSD	.5777674	.2326765	.4846120	10.94307	.1079773	.2052626	3.978429
#1	4.527808	9.549330	.4102475	.0025624	6.095489	5.374247	.0109904
#2	4.580247	9.537792	.4141935	.0027803	6.086447	5.352255	.0106544
#3	4.557992	9.580753	.4127726	.0022316	6.099249	5.364186	.0115266

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-09DLX2 Acquired: 1/24/2025 15:29:06 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ44 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5643910	.0088265	.1140064
Stddev	.0022263	.0009632	.0001888
%RSD	.3944624	10.91255	.1655890
#1	.5668106	.0098542	.1138666
#2	.5639331	.0086809	.1142211
#3	.5624292	.0079444	.1139313

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3527.974	69180.38	10292.01	2416.649	3977.057
Stddev	9.170	63.69	21.08	11.940	10.438
%RSD	.2599133	.0920606	.2048579	.4940536	.2624620
#1	3522.425	69212.43	10270.81	2411.838	3970.114
#2	3538.558	69107.04	10312.97	2407.865	3989.061
#3	3522.939	69221.69	10292.24	2430.243	3971.996

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-10DLX2 Acquired: 1/24/2025 15:33:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ45 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1105888**	**-.003996**	**4.232780**	**.0311465**	**.0251801**	**45.58239**
Stddev	.0017058	.001224	.003215	.0040143	.0009041	.29595
%RSD	1.542438	30.62183	.0759596	12.88839	3.590577	.6492647
#1	.1094338	-.003696	4.229566	.0283035	.0261523	45.25067
#2	.1125480	-.002951	4.232777	.0357386	.0250234	45.67713
#3	.1097845	-.005342	4.235996	.0293974	.0243645	45.81936

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.99603**	**.0055166**	**.0682762**	**105.6726**	**.1863726**	**.1056703**
Stddev	.37097	.0000071	.0001512	.9840	.0025219	.0003476
%RSD	1.952887	.1285727	.2214380	.9311606	1.353144	.3289178
#1	18.65788	.0055125	.0681089	104.6062	.1837964	.1053405
#2	18.93738	.0055124	.0683168	105.8661	.1864849	.1060332
#3	19.39284	.0055248	.0684030	106.5454	.1888364	.1056373

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4308797**	**159.6734**	**5.349536**	**45.82005**	**.1059656**	**.0030777**
Stddev	.0036928	1.2175	.045497	.42412	.0008775	.0003516
%RSD	.8570416	.7624856	.8504865	.9256146	.8280659	11.42410
#1	.4347210	158.3123	5.302252	45.38047	.1055628	.0029063
#2	.4273559	160.0492	5.353350	45.85287	.1069721	.0034821
#3	.4305621	160.6586	5.393006	46.22680	.1053618	.0028447

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.050552**	**.3319686**	F **36.03767**	**4.073501**	**4.205235**	**.6546947**
Stddev	.299957	.0011377	.45434	.078074	.007541	.0063498
%RSD	593.3653	.3427074	1.260729	1.916642	.1793203	.9698933
#1	-.301464	.3309071	35.60971	3.988815	4.196977	.6475255
#2	.281681	.3318292	35.98885	4.142616	4.206973	.6569476
#3	-.131873	.3331696	36.51444	4.089074	4.211755	.6596108

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-10DLX2 Acquired: 1/24/2025 15:33:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ45 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002187**	**7.628501**	**7.015109**	**.0238288**	**.7026720**	**.0165502**
Stddev	.000312	.015392	.016978	.0009689	.0023157	.0010637
%RSD	14.24375	.2017673	.2420219	4.066121	.3295576	6.426992
#1	-.002391	7.611025	7.007827	.0231730	.7008121	.0154089
#2	-.001829	7.640044	7.002986	.0233718	.7019382	.0175139
#3	-.002342	7.634433	7.034513	.0249417	.7052657	.0167277

Elem	Sr4077
Units	ppm
Avg	**.1641962**
Stddev	.0013823
%RSD	.8418308
#1	.1627034
#2	.1644535
#3	.1654317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3352.545**	**68860.63**	**10655.41**	**2422.728**	**3649.860**
Stddev	10.330	738.63	32.43	33.132	3.653
%RSD	.3081256	1.072645	.3043960	1.367567	.1000936
#1	3342.371	69497.89	10672.05	2451.553	3646.046
#2	3352.241	69032.92	10676.15	2430.102	3650.206
#3	3363.024	68051.09	10618.03	2386.530	3653.328

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-11DLX2 Acquired: 1/24/2025 15:37:12 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ46 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0777350	-.002692	1.993246	.0262536	.0184452	36.16230	15.94239
Stddev	.0020891	.000567	.004259	.0011958	.0010808	.19834	.13201
%RSD	2.687439	21.06485	.2136875	4.554955	5.859339	.5484755	.8280222
#1	.0764468	-.003218	1.990196	.0261118	.0180014	36.11171	15.99321
#2	.0766127	-.002767	1.991428	.0275140	.0176570	35.99416	15.79253
#3	.0801453	-.002091	1.998112	.0251349	.0196772	36.38104	16.04143

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046661	.0240408	60.09733	.1155111	.0699623	.3186326	122.6227
Stddev	.0000789	.0000929	.36738	.0008217	.0002429	.0028849	.6501
%RSD	1.692094	.3863608	.6113165	.7113841	.3471603	.9053953	.5301758
#1	.0047056	.0240804	60.05935	.1148812	.0698886	.3208773	122.5717
#2	.0045752	.0239347	59.75041	.1152115	.0702335	.3153787	121.9996
#3	.0047175	.0241074	60.48223	.1164406	.0697648	.3196419	123.2968

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.262454	10.59404	.0852943	.0015879	.0836229	.2425174	12.11553
Stddev	.030369	.05880	.0001721	.0004557	.2620252	.0040194	.05498
%RSD	.7124822	.5550195	.2017090	28.70170	313.3416	1.657356	.4537590
#1	4.256590	10.57416	.0852351	.0020950	-.050064	.2456548	12.09639
#2	4.235445	10.54776	.0854882	.0014562	-.084594	.2379868	12.07269
#3	4.295328	10.66020	.0851597	.0012125	.385526	.2439106	12.17752

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.609020	5.976611	.5190690	.0014328	7.206069	6.768420	.0105627
Stddev	.045782	.009803	.0034707	.0003764	.031829	.088799	.0003978
%RSD	1.268531	.1640154	.6686301	26.27224	.4416936	1.311965	3.766531
#1	3.576228	5.975912	.5179810	.0018185	7.221989	6.796517	.0102812
#2	3.589508	5.967176	.5162727	.0014135	7.169421	6.668971	.0103889
#3	3.661326	5.986744	.5229533	.0010663	7.226797	6.839772	.0110178

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-11DLX2 Acquired: 1/24/2025 15:37:12 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ46 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6597888	.0111360	.1757442
Stddev	.0063428	.0012771	.0010017
%RSD	.9613452	11.46866	.5699999
#1	.6630795	.0123780	.1758230
#2	.6524769	.0112035	.1747055
#3	.6638101	.0098264	.1767043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3454.149	70250.43	10254.20	2475.004	3866.525
Stddev	14.460	508.38	115.59	13.501	9.382
%RSD	.4186361	.7236615	1.127256	.5455000	.2426450
#1	3458.422	70561.23	10238.73	2486.408	3866.253
#2	3465.991	70526.29	10376.75	2478.506	3876.039
#3	3438.034	69663.75	10147.12	2460.096	3857.282

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-22DL2X5 Acquired: 1/24/2025 15:41:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0132228	-.000088	.9169695	.0029358	.0035319	3.997076	9.358812
Stddev	.0012503	.002356	.0018482	.0022511	.0016996	.036046	.072752
%RSD	9.455644	2682.177	.2015522	76.67989	48.12163	.9018203	.7773667
#1	.0136679	-.002231	.9148375	.0004331	.0048766	4.027120	9.330311
#2	.0118109	-.000468	.9181164	.0035786	.0016216	3.957107	9.304626
#3	.0141897	.002435	.9179547	.0047955	.0040975	4.007002	9.441500

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007855	.0025031	148.0144	.0406556	.0095880	.0218470	30.12451
Stddev	.0000693	.0001159	1.2611	.0007100	.0003139	.0035493	.26112
%RSD	8.823270	4.628309	.8520113	1.746316	3.273706	16.24604	.8667963
#1	.0008643	.0023705	148.9962	.0410917	.0094309	.0247570	30.32909
#2	.0007340	.0025546	146.5921	.0398364	.0093837	.0178927	29.83040
#3	.0007582	.0025843	148.4548	.0410388	.0099494	.0228911	30.21403

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.319307	59.04160	.0153196	.0006718	.0971369	.0425816	.8218208
Stddev	.015660	.49356	.0002860	.0004103	.3917374	.0003010	.0185813
%RSD	1.186993	.8359557	1.867138	61.07190	403.2840	.7068606	2.260990
#1	1.329304	59.35806	.0154230	.0004048	-.187118	.0428829	.8336880
#2	1.301259	58.47289	.0149962	.0011443	.543990	.0425808	.8004068
#3	1.327358	59.29384	.0155396	.0004664	-.065461	.0422809	.8313675

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1102419	.9992060	.1298918	.0009074	2.886106	1.590912	-.001949
Stddev	.0096746	.0050505	.0002285	.0001234	.002659	.013936	.000788
%RSD	8.775813	.5054541	.1759014	13.60296	.0921164	.8759911	40.41268
#1	.1096990	1.005026	.1299996	.0010140	2.888455	1.604468	-.001157
#2	.1008502	.996616	.1296294	.0007722	2.883220	1.591645	-.001958
#3	.1201766	.995976	.1300465	.0009360	2.886643	1.576624	-.002732

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-22DL2X5 Acquired: 1/24/2025 15:41:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1046467	.0009569	.1447503
Stddev	.0001001	.0008411	.0015218
%RSD	.0956813	87.89823	1.051314
#1	.1046663	.0000655	.1460596
#2	.1047356	.0010686	.1430807
#3	.1045383	.0017366	.1451105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3166.480	63623.78	9616.952	2212.991	3700.892
Stddev	7.159	386.57	52.637	20.967	4.322
%RSD	.2261011	.6075861	.5473407	.9474301	.1167841
#1	3170.689	63308.51	9642.069	2202.498	3703.339
#2	3170.537	64055.07	9556.461	2237.133	3703.435
#3	3158.213	63507.75	9652.326	2199.343	3695.901

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-10DL2X5 Acquired: 1/24/2025 15:45:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0224472	-.001135	.4176185	.0091771	.0056948	13.86575	9.029191
Stddev	.0001061	.001239	.0023946	.0022698	.0011971	1.54530	.950008
%RSD	.4724666	109.2299	.5733918	24.73370	21.02061	11.14471	10.52152
#1	.0224232	.000285	.4160784	.0066000	.0043980	12.84257	8.469775
#2	.0225631	-.001685	.4163998	.0100518	.0067576	13.11134	8.491706
#3	.0223551	-.002004	.4203773	.0108794	.0059287	15.64335	10.12609

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016636	.0011383	7.404618	.0526331	.0392595	.0200729	45.18609
Stddev	.0000123	.0001428	.813824	.0066262	.0003402	.0007656	5.01844
%RSD	.7380446	12.54632	10.99076	12.58950	.8664466	3.814052	11.10616
#1	.0016625	.0012286	6.885162	.0482223	.0388981	.0203771	41.91720
#2	.0016519	.0012125	6.986162	.0494242	.0393069	.0192020	42.67681
#3	.0016764	.0009736	8.342530	.0602529	.0395735	.0206396	50.96427

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.291488	3.103998	.0235607	.0014113	.2233694	.0758519	.3730638
Stddev	.372282	.350640	.0006867	.0004779	.3931777	.0007859	.0435360
%RSD	11.31046	11.29641	2.914364	33.86470	176.0213	1.036112	11.66984
#1	3.057246	2.903640	.0232027	.0018866	.5714128	.0758361	.3472023
#2	3.096452	2.899477	.0243524	.0014164	.3018116	.0750740	.3486614
#3	3.720767	3.508875	.0231271	.0009308	-.203116	.0766455	.4233278

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9368658	.7474020	.1746898	.0012189	2.091089	2.493378	.0017672
Stddev	.2905768	.0016031	.0236474	.0001325	.007179	.008257	.0004297
%RSD	31.01584	.2144939	13.53678	10.86841	.3432946	.3311383	24.31604
#1	.7984809	.7461000	.1601584	.0012434	2.083039	2.495442	.0016186
#2	.7413469	.7491926	.1619349	.0010759	2.093402	2.484285	.0022515
#3	1.270770	.7469135	.2019761	.0013374	2.096826	2.500407	.0014316

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1045-10DL2X5 Acquired: 1/24/2025 15:45:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2927951	.0027823	.0853020
Stddev	.0022352	.0023971	.0095126
%RSD	.7633849	86.15661	11.15168
#1	.2938732	.0015272	.0791234
#2	.2902252	.0012732	.0805262
#3	.2942867	.0055463	.0962563

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3416.457	62087.75	10130.73	2189.447	4079.041
Stddev	11.998	6457.10	32.63	220.427	12.996
%RSD	.3511729	10.39996	.3220974	10.06771	.3185982
#1	3426.944	66309.55	10109.00	2320.074	4092.725
#2	3419.053	65299.10	10168.25	2313.317	4077.533
#3	3403.373	54654.59	10114.93	1934.949	4066.865

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-01DL2X5 Acquired: 1/24/2025 15:49:37 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ18 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0238473**	**-.001536**	**1.811434**	**.0103812**	**.0080294**	**7.232178**	**8.363448**
Stddev	.0013908	.000644	.002036	.0008739	.0006300	.025699	.100676
%RSD	5.832202	41.91782	.1123746	8.418194	7.845597	.3553492	1.203760
#1	.0231826	-.001110	1.812499	.0112664	.0083086	7.251351	8.479422
#2	.0229136	-.002277	1.809087	.0095190	.0073081	7.242206	8.312407
#3	.0254458	-.001221	1.812717	.0103584	.0084715	7.202976	8.298515

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009723**	**.0037803**	**14.33455**	**.0867598**	**.0171791**	**.0850341**	**56.42766**
Stddev	.0000372	.0000717	.06412	.0003058	.0002554	.0005445	.24871
%RSD	3.830843	1.896213	.4473065	.3525147	1.486680	.6402754	.4407618
#1	.0009363	.0037881	14.40851	.0870742	.0173161	.0844064	56.69042
#2	.0010107	.0037050	14.30054	.0867418	.0168845	.0853780	56.39666
#3	.0009698	.0038478	14.29461	.0864633	.0173368	.0853180	56.19591

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.010793**	**6.281908**	**.0253665**	**.0010491**	**.4881198**	**.0694941**	**1.264963**
Stddev	.000858	.028161	.0000863	.0003711	.2768539	.0016923	.006152
%RSD	.0848598	.4482800	.3403139	35.37217	56.71843	2.435196	.4863624
#1	1.011573	6.313820	.0253584	.0012635	.7933814	.0675697	1.271663
#2	1.009874	6.271361	.0254567	.0012631	.4177056	.0707501	1.263659
#3	1.010931	6.260544	.0252846	.0006206	.2532724	.0701626	1.259568

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2461913**	**.7749732**	**.2175878**	**.0015111**	**2.728815**	**2.314662**	**.0015998**
Stddev	.0085824	.0014292	.0012829	.0001464	.011109	.002376	.0004042
%RSD	3.486078	.1844240	.5896186	9.685962	.4070870	.1026531	25.26629
#1	.2559621	.7764195	.2190354	.0013602	2.735111	2.311919	.0014647
#2	.2398716	.7735616	.2171367	.0016525	2.715988	2.315988	.0012804
#3	.2427403	.7749384	.2165914	.0015206	2.735344	2.316080	.0020542

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-01DL2X5 Acquired: 1/24/2025 15:49:37 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ18 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1912582	-.001552	.0693300
Stddev	.0024403	.001743	.0002885
%RSD	1.275917	112.2910	.4161146
#1	.1890904	-.003306	.0695825
#2	.1939011	-.001532	.0693919
#3	.1907832	.000181	.0690156

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3334.245	65612.84	9703.711	2301.869	3992.927
Stddev	6.103	490.75	30.541	17.836	12.815
%RSD	.1830351	.7479431	.3147380	.7748630	.3209392
#1	3328.426	65132.36	9684.931	2281.755	3981.051
#2	3340.597	65592.93	9687.250	2308.089	4006.510
#3	3333.711	66113.24	9738.952	2315.762	3991.221

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-11DL2X5 Acquired: 1/24/2025 15:53:46 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ26 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0126586	-.000666	.3888923	-.001505	.0025327	2.387693	7.731807
Stddev	.0014814	.001441	.0018169	.001847	.0006155	.013854	.046270
%RSD	11.70270	216.4981	.4672077	122.7552	24.29997	.5802399	.5984387
#1	.0126361	.000638	.3883382	-.003598	.0028709	2.372114	7.680979
#2	.0141511	-.002213	.3874169	-.000812	.0018223	2.392335	7.742961
#3	.0111886	-.000422	.3909218	-.000104	.0029049	2.398631	7.771480

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004149	.0045363	413.7272	.0155934	.0060282	.0207271	15.30383
Stddev	.0000673	.0000255	2.3717	.0006285	.0003650	.0037680	.01547
%RSD	16.22414	.5630675	.5732470	4.030358	6.055293	18.17902	.1010982
#1	.0003386	.0045150	415.9973	.0160266	.0058121	.0207921	15.31693
#2	.0004400	.0045646	413.9186	.0158811	.0064496	.0169271	15.28676
#3	.0004660	.0045293	411.2656	.0148726	.0058227	.0244622	15.30779

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5797926	193.9977	.0136799	-.000119	-.037482	.0264772	.8233599
Stddev	.0031102	.2998	.0001398	.000253	.244587	.0013769	.0030311
%RSD	.5364284	.1545533	1.021714	213.3838	652.5381	5.200470	.3681336
#1	.5766031	194.1104	.0135583	.000146	-.319066	.0267041	.8252501
#2	.5828168	193.6579	.0138326	-.000143	.084455	.0250009	.8198638
#3	.5799578	194.2249	.0136487	-.000359	.122164	.0277266	.8249657

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.266389	.4432528	.0605059	.0049877	3.053063	1.258464	-.000395
Stddev	.018608	.0035918	.0001310	.0001387	.009637	.004709	.001466
%RSD	6.985108	.8103239	.2165924	2.781279	.3156543	.3741567	371.2897
#1	-.280901	.4400587	.0603611	.0050878	3.044469	1.253634	-.000791
#2	-.245411	.4471410	.0606165	.0048294	3.051237	1.263041	.001229
#3	-.272854	.4425588	.0605400	.0050460	3.063482	1.258716	-.001622

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1046-11DL2X5 Acquired: 1/24/2025 15:53:46 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ26 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0510285	.0070694	.2266109
Stddev	.0007294	.0009475	.0002312
%RSD	1.429373	13.40329	.1020232
#1	.0515124	.0068638	.2263448
#2	.0501896	.0062416	.2267251
#3	.0513836	.0081029	.2267628

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2940.534	60180.77	9051.807	2065.242	3338.682
Stddev	7.149	255.68	50.701	5.657	8.996
%RSD	.2431283	.4248603	.5601224	.2739309	.2694572
#1	2945.811	59933.37	9056.950	2062.729	3341.687
#2	2943.393	60164.93	8998.730	2061.277	3345.792
#3	2932.397	60444.00	9099.740	2071.721	3328.568

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-12DLX2 Acquired: 1/24/2025 15:58:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ47 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0522118**	**-.002046**	**2.245832**	**.0204384**	**.0126493**	**32.23088**
Stddev	.0018456	.000561	.001085	.0025734	.0009899	.10704
%RSD	3.534863	27.41866	.0483114	12.59092	7.825583	.3320888
#1	.0510266	-.002694	2.246547	.0220562	.0130878	32.34564
#2	.0512706	-.001718	2.246366	.0217880	.0133441	32.13377
#3	.0543383	-.001727	2.244584	.0174709	.0115159	32.21321

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.07441**	**.0046526**	**.0047721**	**59.01462**	**.1291302**	**.1012453**
Stddev	.06954	.0000783	.0000528	.08108	.0006563	.0001249
%RSD	.4941197	1.682631	1.106636	.1373833	.5082315	.1233388
#1	14.14364	.0045705	.0047588	59.10147	.1287412	.1011899
#2	14.00456	.0047264	.0048303	58.94093	.1298879	.1013883
#3	14.07502	.0046609	.0047272	59.00145	.1287615	.1011577

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1369860**	**109.6025**	**6.710786**	**9.968756**	**.0706393**	**.0020697**
Stddev	.0014836	.2976	.008442	.016495	.0004191	.0001187
%RSD	1.083048	.2714966	.1258040	.1654622	.5932281	5.732852
#1	.1367247	109.9062	6.719658	9.957356	.0702174	.0019416
#2	.1385830	109.3115	6.709851	9.961244	.0710555	.0020915
#3	.1356504	109.5897	6.702851	9.987670	.0706448	.0021759

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6444118**	**.1899753**	**1.639539**	**3.250908**	F **19.29164**	**.4366346**
Stddev	.1767125	.0016082	.009124	.046166	.04285	.0013918
%RSD	27.42229	.8465249	.5564978	1.420108	.2221272	.3187650
#1	.6229292	.1916326	1.649982	3.199769	19.33722	.4377479
#2	.4794228	.1898723	1.635524	3.263441	19.25217	.4350741
#3	.8308835	.1884212	1.633111	3.289514	19.28554	.4370818

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-12DLX2 Acquired: 1/24/2025 15:58:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ47 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042433	8.361390	6.649211	.0044079	.6237945	.0076631
Stddev	.0001697	.024365	.017395	.0006137	.0010322	.0014412
%RSD	3.999526	.2914035	.2616153	13.92175	.1654780	18.80705
#1	.0041939	8.381530	6.660193	.0040927	.6247657	.0067437
#2	.0041038	8.334306	6.658286	.0051151	.6239072	.0069214
#3	.0044322	8.368332	6.629155	.0040159	.6227105	.0093240

Elem	Sr4077
Units	ppm
Avg	.1422124
Stddev	.0002547
%RSD	.1790977
#1	.1425065
#2	.1420624
#3	.1420683

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3460.007	69293.16	10262.88	2420.121	3870.193
Stddev	1.513	48.66	24.27	12.097	5.988
%RSD	.0437247	.0702290	.2365319	.4998375	.1547188
#1	3460.848	69237.61	10266.09	2407.253	3869.092
#2	3458.261	69313.63	10237.16	2421.847	3876.655
#3	3460.914	69328.25	10285.39	2431.261	3864.832

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV015 Acquired: 1/24/2025 16:02:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV015 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.676805**	**4.818937**	**24.05417**	**4.677554**	**4.752173**	**378.9722**
Stddev	.014370	.027492	.05002	.021454	.014636	4.8637
%RSD	.3072566	.5705054	.2079566	.4586558	.3079930	1.283404
#1	4.665789	4.809072	23.99750	4.653671	4.735272	382.0426
#2	4.671568	4.797739	24.07286	4.683796	4.760661	381.5096
#3	4.693059	4.850001	24.09216	4.695194	4.760586	373.3645

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.375435**	**.5101516**	**2.437254**	**375.4028**	**15.33464**	**2.432188**
Stddev	.131527	.0038493	.006641	1.5963	.03893	.005336
%RSD	1.402895	.7545374	.2724810	.4252317	.2538734	.2193742
#1	9.315182	.5109483	2.429760	377.2461	15.33491	2.426035
#2	9.284827	.5059664	2.439597	374.4920	15.29558	2.434988
#3	9.526295	.5135403	2.442407	374.4705	15.37344	2.435540

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.01313**	**383.4309**	**13.97666**	**375.1466**	**2.426431**	**1.256694**
Stddev	.02181	.5072	.02008	.3210	.005790	.003770
%RSD	.1556609	.1322667	.1436447	.0855687	.2386158	.2999814
#1	14.02031	383.8666	13.99174	375.3766	2.419767	1.256554
#2	13.98863	383.5519	13.98437	375.2834	2.429301	1.252996
#3	14.03044	382.8742	13.95387	374.7799	2.430225	1.260532

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**363.8501**	**2.378882**	**14.18812**	**146.1536**	**4.955663**	F **5.932318**
Stddev	1.6098	.006371	.04262	.2781	.016094	.032252
%RSD	.4424388	.2678290	.3004252	.1903086	.3247514	.5436631
#1	363.4984	2.379659	14.23361	146.2496	4.937181	5.931127
#2	362.4453	2.372158	14.14910	146.3710	4.966587	5.900678
#3	365.6067	2.384829	14.18166	145.8401	4.963219	5.965148

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV015 Acquired: 1/24/2025 16:02:11 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV015 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.743954**	**4.843807**	**4.767802**	**4.891813**	**4.738033**	**4.611217**
Stddev	.014371	.018724	.022355	.008580	.016876	.015441
%RSD	.3029385	.3865493	.4688713	.1754005	.3561845	.3348674
#1	4.727383	4.823925	4.775728	4.881906	4.753463	4.619811
#2	4.753002	4.846392	4.742564	4.896879	4.720011	4.620450
#3	4.751477	4.861104	4.785113	4.896653	4.740626	4.593391

Elem	Sr4077
Units	ppm
Avg	**4.659530**
Stddev	.052946
%RSD	1.136294
#1	4.676614
#2	4.600151
#3	4.701825

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2705.887**	**56691.88**	**8974.290**	**1977.584**	**3138.016**
Stddev	7.290	173.70	66.505	9.372	6.277
%RSD	.2694157	.3064017	.7410624	.4739268	.2000248
#1	2712.871	56718.02	8978.113	1973.601	3143.771
#2	2698.325	56851.03	9038.802	1988.290	3131.323
#3	2706.465	56506.58	8905.956	1970.860	3138.956

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB015 Acquired: 1/24/2025 16:06:29 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB015 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027193	.0009813	.0001432	-.000859	.0002457	.0077208	-.004576
Stddev	.0022030	.0008443	.0010212	.002336	.0005611	.0066805	.000743
%RSD	81.01181	86.04268	713.1860	272.0152	228.3153	86.52617	16.23107
#1	.0028686	.0011184	.0008615	.001304	.0000265	.0001239	-.005431
#2	.0004455	.0017486	-.001026	-.000544	-.000173	.0126789	-.004089
#3	.0048438	.0000768	.000594	-.003336	.000883	.0103596	-.004209

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000011	.0000128	.0137953	.0003166	.0001881	.0000800	.0126694
Stddev	.000065	.0000083	.0074684	.0002348	.0001250	.0023217	.0050401
%RSD	593.8172	64.36429	54.13726	74.14756	66.46124	2903.711	39.78141
#1	.000043	.0000223	.0056751	.0005277	.0002882	.0022614	.0086242
#2	.000008	.0000069	.0203701	.0000638	.0002282	.0003388	.0110686
#3	-.000084	.0000093	.0153408	.0003584	.0000480	-.002360	.0183155

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000155	-.013255	.0001448	.0001342	-.104795	.0017186	-.001345
Stddev	.000230	.020536	.0001034	.0005113	.218928	.0035317	.002246
%RSD	148.7028	154.9379	71.37126	381.0540	208.9107	205.5036	166.9240
#1	-.000419	-.027072	.0002575	.0004926	.147646	-.001041	-.000016
#2	-.000049	.010344	.0000543	-.000451	-.242615	.005699	-.003938
#3	.000003	-.023036	.0001227	.000361	-.219416	.000498	-.000082

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.415351	.0021145	-.006999	-.000484	.0018431	.0020462	.0000708
Stddev	.023355	.0006315	.000775	.000118	.0027578	.0013390	.0002517
%RSD	5.622926	29.86467	11.06873	24.31187	149.6278	65.43864	355.6367
#1	-.394322	.0027632	-.006222	-.000619	.0008178	.0035767	-.000182
#2	-.440487	.0020784	-.007771	-.000404	.0049667	.0014702	.000074
#3	-.411244	.0015018	-.007005	-.000430	-.000255	.0010916	.000321

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB015 Acquired: 1/24/2025 16:06:29 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB015 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000404**	**-.003671**	**.0000942**
Stddev	.000413	.000668	.0000486
%RSD	102.1954	18.20805	51.60652
#1	-.000102	-.003099	.0000437
#2	-.000236	-.003508	.0001407
#3	-.000875	-.004406	.0000981

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3418.432**	**67550.64**	**9415.703**	**2399.743**	**4201.912**
Stddev	3.821	114.96	12.968	10.331	3.820
%RSD	.1117869	.1701836	.1377294	.4304994	.0909051
#1	3422.258	67663.97	9420.684	2411.116	4198.084
#2	3414.615	67434.12	9400.983	2397.172	4201.928
#3	3418.423	67553.84	9425.443	2390.940	4205.723

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-21 Acquired: 1/24/2025 16:10:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ56 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.637110**	**1.900970**	**1.545395**	**.8538515**	**1.064951**	**47.57231**
Stddev	.004027	.028907	.007693	.0063646	.006256	.36410
%RSD	.2459960	1.520642	.4978321	.7453972	.5874798	.7653586
#1	1.632669	1.868135	1.536954	.8468732	1.058600	47.98573
#2	1.638136	1.912192	1.547215	.8593371	1.065146	47.29941
#3	1.640525	1.922584	1.552015	.8553441	1.071108	47.43179

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.348571**	F **1.513988**	**1.105004**	**52.22986**	**2.556951**	**1.773693**
Stddev	.023792	.010477	.006875	.34864	.005551	.006868
%RSD	.7105084	.6920325	.6221937	.6675108	.2170781	.3872199
#1	3.375864	1.501891	1.097085	52.60336	2.559366	1.765804
#2	3.332211	1.519964	1.108475	51.91302	2.550602	1.776943
#3	3.337639	1.520111	1.109452	52.17319	2.560886	1.778333

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.208012**	**67.30403**	**3.984116**	**15.17705**	**1.160294**	**.4581630**
Stddev	.003945	.49040	.022652	.07824	.005124	.0003637
%RSD	.3265386	.7286405	.5685557	.5155299	.4415851	.0793941
#1	1.204418	67.85481	4.009807	15.26610	1.154417	.4584916
#2	1.207386	66.91472	3.967014	15.14570	1.162639	.4577722
#3	1.212233	67.14256	3.975529	15.11933	1.163825	.4582253

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.330445**	**1.169800**	**3.561073**	**10.96092**	**2.217731**	**2.300769**
Stddev	.297397	.005761	.026663	.09041	.010629	.012527
%RSD	6.867589	.4924615	.7487480	.8248797	.4792661	.5444862
#1	4.020589	1.163189	3.588221	11.06522	2.206352	2.286655
#2	4.613580	1.173749	3.534922	10.90483	2.219439	2.310571
#3	4.357166	1.172461	3.560076	10.91271	2.227403	2.305081

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-21 Acquired: 1/24/2025 16:10:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ56 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4908485	.5181324	5.401004	1.042590	2.537792	1.077317
Stddev	.0014008	.0030285	.012879	.003029	.003847	.004050
%RSD	.2853807	.5845090	.2384641	.2905205	.1515698	.3759016
#1	.4895824	.5178838	5.414046	1.039329	2.536830	1.081769
#2	.4906098	.5152358	5.388294	1.043124	2.542028	1.073853
#3	.4923533	.5212776	5.400673	1.045316	2.534518	1.076328

Elem	Sr4077
Units	ppm
Avg	1.918414
Stddev	.017090
%RSD	.8908162
#1	1.919970
#2	1.900599
#3	1.934672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3501.500	69470.77	10747.46	2418.271	3921.678
Stddev	8.404	136.27	74.31	5.640	14.656
%RSD	.2400191	.1961543	.6914302	.2332377	.3737120
#1	3510.440	69347.81	10833.25	2415.547	3938.165
#2	3500.298	69617.28	10706.10	2424.756	3916.738
#3	3493.761	69447.23	10703.03	2414.510	3910.130

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1043-15 Acquired: 1/24/2025 16:14:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.490352**	**1.383322**	**2.361093**	**2.732982**	**.9515214**	**35.19442**
Stddev	.007765	.007974	.005001	.010452	.0036190	.31922
%RSD	.3117839	.5764610	.2117987	.3824346	.3803336	.9070308
#1	2.484621	1.385732	2.356312	2.728434	.9495297	35.52096
#2	2.487245	1.389814	2.360678	2.725574	.9493357	34.88306
#3	2.499188	1.374421	2.366288	2.744937	.9556987	35.17923

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.113044**	F **1.799288**	**1.021020**	**56.91297**	**2.639977**	**1.666612**
Stddev	.028316	.019809	.001419	.44881	.000812	.005647
%RSD	.9095894	1.100930	.1389699	.7885847	.0307593	.3388457
#1	3.141250	1.778639	1.019985	57.41577	2.639608	1.661615
#2	3.084620	1.818134	1.020439	56.55285	2.640909	1.665482
#3	3.113262	1.801091	1.022638	56.77027	2.639416	1.672738

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.141244**	**59.94129**	**3.040649**	**14.63747**	**3.635338**	**.8281432**
Stddev	.009114	.54231	.023802	.10019	.010432	.0013526
%RSD	.4256436	.9047348	.7827914	.6844546	.2869511	.1633339
#1	2.130796	60.52474	3.065515	14.74630	3.626589	.8266472
#2	2.147560	59.45262	3.018077	14.54907	3.632543	.8292800
#3	2.145376	59.84651	3.038355	14.61703	3.646883	.8285024

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.088435**	**1.873442**	**2.547677**	**16.34733**	**2.269229**	**1.702103**
Stddev	.378336	.006692	.021848	.14887	.002334	.008602
%RSD	9.253801	.3571769	.8575746	.9106658	.1028697	.5053837
#1	4.198491	1.871549	2.563109	16.51301	2.266670	1.692405
#2	4.399539	1.880876	2.522677	16.22481	2.271243	1.708813
#3	3.667273	1.867900	2.557245	16.30418	2.269774	1.705090

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1043-15 Acquired: 1/24/2025 16:14:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.001709	.4570423	2.123928	1.056086	1.173323	.9641793
Stddev	.003217	.0011227	.005437	.004323	.003829	.0075984
%RSD	.3211079	.2456372	.2559979	.4093060	.3263424	.7880647
#1	.998728	.4558663	2.126587	1.052948	1.171507	.9727969
#2	1.001279	.4571579	2.127524	1.061017	1.170740	.9584432
#3	1.005118	.4581027	2.117673	1.054295	1.177723	.9612977

Elem	Sr4077
Units	ppm
Avg	.8793968
Stddev	.0085207
%RSD	.9689232
#1	.8878856
#2	.8708446
#3	.8794602

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3463.019	69149.46	10760.85	2405.670	3868.403
Stddev	9.950	192.38	85.73	5.561	12.540
%RSD	.2873268	.2782120	.7967116	.2311482	.3241546
#1	3473.213	68927.69	10846.02	2405.361	3881.539
#2	3462.512	69249.27	10674.56	2411.379	3867.108
#3	3453.332	69271.43	10761.98	2400.270	3856.561

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-13DLX2 Acquired: 1/24/2025 16:18:19 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0703712	-.002508	3.636223	.0266725	.0151649	43.10130	17.12742
Stddev	.0019611	.000715	.006732	.0017277	.0009826	.17066	.25841
%RSD	2.786794	28.51944	.1851415	6.477556	6.479419	.3959544	1.508749
#1	.0706330	-.001895	3.630119	.0280301	.0156211	43.24358	17.09440
#2	.0682923	-.002336	3.635108	.0272597	.0158365	43.14825	16.88710
#3	.0721882	-.003294	3.643444	.0247277	.0140372	42.91208	17.40075

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062042	.0249063	139.0216	.1283178	.0925346	.2532544	129.1864
Stddev	.0000867	.0000387	.4134	.0002499	.0003334	.0019527	.5209
%RSD	1.397699	.1553787	.2973979	.1947866	.3602567	.7710381	.4031926
#1	.0063014	.0248966	139.3239	.1284690	.0923161	.2543483	129.7088
#2	.0061346	.0248734	139.1904	.1280293	.0923695	.2544149	129.1833
#3	.0061768	.0249489	138.5504	.1284552	.0929183	.2509999	128.6671

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.497766	55.34729	.1194088	.0043218	.2635832	.2152148	3.736405
Stddev	.021046	.25356	.0003200	.0002341	.2383955	.0024278	.014856
%RSD	.2806908	.4581192	.2679488	5.415600	90.44410	1.128074	.3975942
#1	7.514464	55.51153	.1190653	.0041530	.5304774	.2138130	3.752891
#2	7.504708	55.47508	.1194629	.0042234	.1885142	.2180181	3.732268
#3	7.474127	55.05527	.1196983	.0045890	.0717579	.2138132	3.724056

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.269549	4.886556	.5511539	.0043622	7.243805	7.148416	.0177385
Stddev	.057355	.006598	.0022419	.0004041	.021193	.007859	.0004753
%RSD	1.343340	.1350268	.4067686	9.263049	.2925735	.1099437	2.679676
#1	4.335478	4.879027	.5533156	.0048187	7.219416	7.141019	.0182376
#2	4.231153	4.891331	.5513066	.0040503	7.257744	7.156667	.0172912
#3	4.242015	4.889310	.5488395	.0042176	7.254255	7.147560	.0176869

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-13DLX2 Acquired: 1/24/2025 16:18:19 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ48 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6386445	.0216713	.1644456
Stddev	.0033256	.0010632	.0009169
%RSD	.5207252	4.905837	.5575686
#1	.6358618	.0214943	.1651838
#2	.6423276	.0207077	.1647337
#3	.6377442	.0228118	.1634192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3384.955	67310.37	10635.52	2361.015	3697.719
Stddev	8.631	87.30	43.77	11.467	3.070
%RSD	.2549850	.1297036	.4115824	.4856977	.0830147
#1	3388.190	67236.51	10676.13	2348.470	3698.534
#2	3391.502	67406.72	10641.26	2363.618	3700.299
#3	3375.174	67287.88	10589.15	2370.957	3694.324

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-14DLX2 Acquired: 1/24/2025 16:22:22 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0738079	-.002970	1.974073	.0298902	.0208887	43.89409	17.07615
Stddev	.0015231	.002272	.011192	.0036770	.0014225	.23930	.14244
%RSD	2.063542	76.48959	.5669588	12.30153	6.809918	.5451764	.8341640
#1	.0749251	-.004429	1.969543	.0317025	.0196167	43.96164	17.20484
#2	.0744256	-.004129	1.965856	.0256589	.0224247	44.09235	17.10050
#3	.0720730	-.000353	1.986820	.0323092	.0206246	43.62827	16.92310

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043335	.0148801	186.8788	.1438407	.0804661	.2311172	161.7787
Stddev	.0000939	.0000710	.6054	.0008041	.0003220	.0006156	.7789
%RSD	2.166180	.4774240	.3239396	.5590459	.4001481	.2663595	.4814835
#1	.0043462	.0148460	187.0212	.1434359	.0801161	.2304979	161.8315
#2	.0042339	.0148325	187.4003	.1447668	.0805325	.2317290	162.5299
#3	.0044204	.0149617	186.2149	.1433194	.0807497	.2311247	160.9747

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.196838	91.00819	.1102107	.0047933	.0575652	.2402495	5.243570
Stddev	.015325	.27758	.0004741	.0001957	.3374285	.0004302	.016508
%RSD	.2948893	.3050043	.4301479	4.083082	586.1679	.1790468	.3148152
#1	5.206198	90.98754	.1097481	.0050088	-.191692	.2400623	5.225437
#2	5.205164	91.29552	.1101884	.0047445	.441541	.2399446	5.247548
#3	5.179153	90.74152	.1106955	.0046266	-.077153	.2407415	5.257725

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.367730	4.431640	.6760212	.0045957	6.050927	7.289373	.0794313
Stddev	.109661	.007080	.0029921	.0002649	.029143	.014873	.0001204
%RSD	2.042959	.1597686	.4426090	5.764230	.4816214	.2040400	.1515206
#1	5.380349	4.423559	.6771244	.0044439	6.028030	7.295463	.0795698
#2	5.470535	4.434607	.6783051	.0044417	6.041018	7.272421	.0793728
#3	5.252306	4.436754	.6726341	.0049016	6.083732	7.300235	.0793515

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-14DLX2 Acquired: 1/24/2025 16:22:22 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ49 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7343938	.0205674	.1793322
Stddev	.0010605	.0004719	.0006478
%RSD	.1443988	2.294263	.3612077
#1	.7331886	.0210679	.1796573
#2	.7348089	.0205036	.1797530
#3	.7351840	.0201306	.1785863

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3237.561	65530.56	10491.56	2287.398	3552.737
Stddev	8.030	44.91	43.77	1.742	11.170
%RSD	.2480178	.0685270	.4171661	.0761628	.3144140
#1	3232.223	65488.12	10496.11	2288.441	3559.600
#2	3246.795	65525.98	10532.87	2288.368	3558.763
#3	3233.665	65577.58	10445.69	2285.387	3539.848

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-15DLX2 Acquired: 1/24/2025 16:26:25 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ50 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0456302	-.004475	7.967059	.0186452	.0165171	12.82733
Stddev	.0008266	.000355	.012736	.0045081	.0010753	.03642
%RSD	1.811555	7.931080	.1598579	24.17852	6.510027	.2839185
#1	.0451133	-.004841	7.970707	.0230594	.0173047	12.80450
#2	.0451937	-.004132	7.952897	.0188277	.0169545	12.86933
#3	.0465835	-.004453	7.977573	.0140486	.0152920	12.80817

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.800097	.0041021	.1078435	506.7363	.0861390	.1189795
Stddev	.131758	.0001018	.0004182	1.2511	.0001094	.0002709
%RSD	1.344452	2.481915	.3877581	.2468878	.1269627	.2276472
#1	9.951148	.0039853	.1076914	505.9415	.0862029	.1188996
#2	9.708828	.0041482	.1075227	508.1784	.0860128	.1187577
#3	9.740317	.0041726	.1083164	506.0890	.0862014	.1192814

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5652450	130.7668	10.61120	226.2424	.1262113	.0115843
Stddev	.0048040	.3807	.04386	.7154	.0003598	.0001333
%RSD	.8499047	.2911086	.4133631	.3162186	.2851046	1.150482
#1	.5655991	130.8147	10.61132	226.2132	.1265160	.0117058
#2	.5602737	131.1213	10.65500	226.9720	.1258143	.0114417
#3	.5698622	130.3644	10.56728	225.5421	.1263036	.0116054

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.241920	.0865058	7.637454	1.072081	2.432768	.5462096
Stddev	.176684	.0028626	.035389	.015614	.012122	.0014215
%RSD	73.03428	3.309160	.4633640	1.456432	.4982664	.2602387
#1	-.093959	.0851627	7.606567	1.089805	2.419723	.5476186
#2	-.437547	.0845617	7.676068	1.066081	2.434896	.5462343
#3	-.194253	.0897930	7.629727	1.060356	2.443684	.5447760

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-15DLX2 Acquired: 1/24/2025 16:26:25 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ50 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018854	F 13.50762	4.877162	.0042926	.2887671	.0161490
Stddev	.0007243	.05700	.013623	.0006955	.0003193	.0024107
%RSD	38.41603	.4220144	.2793132	16.20329	.1105852	14.92771
#1	.0011251	13.48342	4.880437	.0050426	.2887848	.0178699
#2	.0025673	13.46671	4.862201	.0036689	.2884392	.0171834
#3	.0019637	13.57273	4.888849	.0041662	.2890771	.0133938

Elem	Sr4077
Units	ppm
Avg	.2192972
Stddev	.0011494
%RSD	.5241133
#1	.2194053
#2	.2203887
#3	.2180976

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3139.190	63170.46	10121.48	2184.134	3395.781
Stddev	3.438	176.02	31.23	6.929	6.774
%RSD	.1095075	.2786480	.3085407	.3172538	.1994693
#1	3137.013	63239.44	10151.45	2191.967	3394.588
#2	3143.153	62970.40	10123.85	2178.802	3403.072
#3	3137.404	63301.55	10089.13	2181.634	3389.683

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-17DLX2 Acquired: 1/24/2025 16:30:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ52 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0541440	-.004276	2.640388	.0186053	.0130887	31.87984	16.59315
Stddev	.0028275	.001363	.007386	.0040492	.0015689	.18329	.19509
%RSD	5.222278	31.87068	.2797440	21.76387	11.98663	.5749502	1.175738
#1	.0568310	-.005847	2.632671	.0210455	.0138391	32.08449	16.41596
#2	.0511942	-.003410	2.641102	.0139312	.0141414	31.82425	16.80222
#3	.0544068	-.003572	2.647392	.0208393	.0112855	31.73078	16.56128

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046819	.0212111	82.82945	.2645420	.0729339	.1686854	99.43321
Stddev	.0000267	.0000858	.30141	.0010356	.0001601	.0011087	.52008
%RSD	.5707100	.4046539	.3638923	.3914841	.2194640	.6572750	.5230432
#1	.0046693	.0211617	83.16188	.2657378	.0730461	.1676940	100.0215
#2	.0047126	.0211615	82.57399	.2639446	.0727506	.1698826	99.2434
#3	.0046637	.0213102	82.75247	.2639434	.0730050	.1684796	99.0347

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.809070	33.25965	.0943513	.0018824	.5594387	.1762220	2.138443
Stddev	.016232	.24170	.0003777	.0003157	.2247657	.0022855	.008317
%RSD	.3375276	.7266992	.4003416	16.77341	40.17700	1.296970	.3889135
#1	4.821023	33.53416	.0939950	.0015192	.3098170	.1761462	2.146269
#2	4.790591	33.16598	.0943115	.0020919	.7457829	.1739753	2.129710
#3	4.815596	33.07880	.0947473	.0020360	.6227160	.1785445	2.139349

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.182148	3.811515	.4121872	.0041474	6.820533	7.121133	.0394557
Stddev	.056741	.021125	.0023222	.0002405	.022629	.021374	.0011760
%RSD	1.783104	.5542412	.5633811	5.800009	.3317757	.3001419	2.980422
#1	3.244820	3.800505	.4148685	.0038774	6.844528	7.133271	.0395524
#2	3.167357	3.798169	.4108749	.0043391	6.799577	7.096454	.0382345
#3	3.134267	3.835871	.4108183	.0042256	6.817493	7.133674	.0405804

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-17DLX2 Acquired: 1/24/2025 16:30:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ52 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6254493	.0119251	.1271723
Stddev	.0014804	.0008158	.0003337
%RSD	.2366929	6.841261	.2623598
#1	.6268201	.0116057	.1275015
#2	.6238795	.0128523	.1268343
#3	.6256482	.0113173	.1271810

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3427.958	68819.18	10084.89	2449.433	3809.941
Stddev	5.621	244.90	16.54	8.508	4.064
%RSD	.1639640	.3558529	.1640075	.3473490	.1066699
#1	3422.354	68536.48	10065.82	2440.140	3810.994
#2	3433.595	68966.51	10093.63	2456.839	3805.454
#3	3427.924	68954.53	10095.24	2451.321	3813.374

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-18DLX2 Acquired: 1/24/2025 16:34:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ53 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0621058	-.001068	2.673122	.0251433	.0155752	36.06993	16.73101
Stddev	.0018442	.000718	.016280	.0053513	.0014520	.06318	.11742
%RSD	2.969497	67.21117	.6090100	21.28308	9.322496	.1751710	.7018091
#1	.0600192	-.001510	2.666527	.0268500	.0147327	36.11108	16.81297
#2	.0635178	-.001453	2.661174	.0294332	.0147411	35.99718	16.59649
#3	.0627803	-.000240	2.691664	.0191469	.0172518	36.10151	16.78357

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044664	.0164608	108.2246	.1299100	.0679644	.2503457	122.1549
Stddev	.0000329	.0000660	.2898	.0002452	.0005574	.0029520	.3620
%RSD	.7358135	.4011123	.2677783	.1887552	.8201550	1.179154	.2963275
#1	.0045042	.0165209	108.2929	.1301929	.0676158	.2536857	122.3331
#2	.0044503	.0164713	107.9067	.1297794	.0676701	.2480863	121.7384
#3	.0044448	.0163901	108.4741	.1297577	.0686072	.2492651	122.3932

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.827861	45.61613	.1194151	.0033129	.3901493	.1816072	4.184757
Stddev	.012029	.05604	.0003604	.0006483	.3624030	.0007631	.005266
%RSD	.2491582	.1228465	.3018306	19.57012	92.88827	.4202200	.1258371
#1	4.828330	45.61600	.1193202	.0034559	.7912412	.1808535	4.179634
#2	4.815604	45.56016	.1191117	.0026050	.2929468	.1823795	4.190155
#3	4.839649	45.67223	.1198135	.0038778	.0862600	.1815886	4.184480

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.756483	6.066346	.5190958	.0037313	6.401556	6.856431	.0195321
Stddev	.082374	.025820	.0011347	.0002781	.032225	.014059	.0008458
%RSD	2.192851	.4256296	.2185813	7.452770	.5033941	.2050426	4.330079
#1	3.822310	6.047072	.5197754	.0034920	6.380411	6.846404	.0199497
#2	3.783030	6.056283	.5177859	.0040363	6.385612	6.872501	.0185588
#3	3.664109	6.095682	.5197261	.0036655	6.438645	6.850388	.0200879

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-18DLX2 Acquired: 1/24/2025 16:34:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ53 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6742760	.0172117	.1725024
Stddev	.0014596	.0008482	.0006654
%RSD	.2164748	4.928253	.3857324
#1	.6727024	.0177533	.1724256
#2	.6755857	.0162341	.1718787
#3	.6745399	.0176476	.1732028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3364.395	67209.53	10392.81	2376.444	3745.746
Stddev	15.361	240.82	5.74	3.728	15.367
%RSD	.4565878	.3583130	.0552047	.1568628	.4102431
#1	3372.924	66990.28	10392.55	2373.405	3748.479
#2	3373.599	67467.29	10387.22	2380.604	3759.563
#3	3346.661	67171.03	10398.68	2375.324	3729.196

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-19DLX2 Acquired: 1/24/2025 16:38:42 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ54 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1056084	-.002802	3.720379	.0268507	.0179727	42.30559	17.38557
Stddev	.0015362	.002170	.014627	.0038486	.0009371	.26002	.04210
%RSD	1.454581	77.45259	.3931494	14.33312	5.213871	.6146290	.2421284
#1	.1038363	-.000296	3.711383	.0268482	.0190034	42.58145	17.33896
#2	.1065629	-.004065	3.712498	.0307005	.0177426	42.06500	17.42082
#3	.1064259	-.004046	3.737256	.0230034	.0171722	42.27033	17.39694

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045448	.0235641	105.3698	.1938491	.0779476	.7241574	132.9054
Stddev	.0001152	.0001606	.3936	.0003645	.0006086	.0094865	.7403
%RSD	2.534827	.6815822	.3735000	.1880081	.7808247	1.310009	.5570170
#1	.0044453	.0233787	105.8180	.1942534	.0774449	.7232020	133.7046
#2	.0046710	.0236600	105.0808	.1937479	.0777736	.7340855	132.2430
#3	.0045182	.0236536	105.2106	.1935459	.0786243	.7151848	132.7687

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.381449	41.82916	.1265439	.0111976	1.303030	.1881059	5.973053
Stddev	.020444	.18803	.0011404	.0000891	.215666	.0005828	.020747
%RSD	.3799011	.4495122	.9012000	.7956403	16.55115	.3098529	.3473450
#1	5.404498	42.00370	.1261457	.0112684	1.501549	.1887325	5.994974
#2	5.374343	41.63005	.1256561	.0110976	1.333980	.1875798	5.970462
#3	5.365507	41.85372	.1278301	.0112269	1.073560	.1880055	5.953723

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.678361	7.346560	.5608103	.0039359	7.117124	7.176235	.0345724
Stddev	.026846	.032425	.0036199	.0000457	.044323	.025780	.0006326
%RSD	.5738321	.4413583	.6454857	1.161598	.6227611	.3592400	1.829770
#1	4.674782	7.327591	.5649741	.0038843	7.077452	7.163062	.0349567
#2	4.706818	7.328089	.5584099	.0039712	7.108959	7.205940	.0349183
#3	4.653485	7.384000	.5590471	.0039523	7.164962	7.159703	.0338423

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-19DLX2 Acquired: 1/24/2025 16:38:42 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ54 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7912889	.0224795	.1771400
Stddev	.0040839	.0012012	.0008325
%RSD	.5161012	5.343653	.4699647
#1	.7897576	.0238433	.1781007
#2	.7959172	.0220163	.1766871
#3	.7881921	.0215788	.1766321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3416.825	67600.42	10670.04	2360.082	3796.778
Stddev	14.008	133.20	55.79	7.934	9.649
%RSD	.4099839	.1970443	.5228626	.3361820	.2541453
#1	3415.026	67451.04	10722.80	2352.588	3800.298
#2	3431.647	67706.86	10611.65	2368.393	3804.172
#3	3403.804	67643.35	10675.67	2359.264	3785.862

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-20DLX2 Acquired: 1/24/2025 16:42:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ55 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0744568	-.003786	2.346682	.0338391	.0169724	57.80353	15.28266
Stddev	.0019825	.001768	.007603	.0032865	.0012569	.38598	.12934
%RSD	2.662663	46.71215	.3239884	9.712032	7.405680	.6677460	.8463127
#1	.0722740	-.005068	2.339164	.0300776	.0161920	57.36125	15.22495
#2	.0749508	-.001768	2.346515	.0352853	.0163028	58.07234	15.43080
#3	.0761456	-.004521	2.354367	.0361545	.0184224	57.97699	15.19222

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058068	.0151938	138.1967	.1439016	.1013957	1.859653	150.1366
Stddev	.0000158	.0001530	.7224	.0006980	.0006397	.013320	.9381
%RSD	.2727919	1.006931	.5227263	.4850181	.6309153	.7162612	.6248040
#1	.0058251	.0152865	137.3632	.1431018	.1015203	1.845543	149.0575
#2	.0057979	.0150172	138.6419	.1443874	.1007028	1.872010	150.7575
#3	.0057975	.0152776	138.5850	.1442156	.1019639	1.861405	150.5946

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.755083	61.74267	.1363682	.0055790	.0375943	.2405016	2.776078
Stddev	.027955	.24649	.0001853	.0001316	.3037364	.0003189	.014448
%RSD	.4138351	.3992160	.1358761	2.358244	807.9332	.1326139	.5204594
#1	6.723576	61.46562	.1363548	.0055250	.3073924	.2401373	2.761361
#2	6.776915	61.82474	.1365598	.0054831	-.291373	.2407307	2.790242
#3	6.764759	61.93765	.1361899	.0057290	.096763	.2406366	2.776631

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.522795	7.497062	.6306334	.0054896	6.546747	7.067312	.0354412
Stddev	.070145	.008841	.0043427	.0005520	.010581	.040700	.0009332
%RSD	.8230296	.1179324	.6886190	10.05595	.1616199	.5758925	2.633189
#1	8.443064	7.487012	.6257850	.0061005	6.536400	7.020933	.0344092
#2	8.550310	7.500533	.6341659	.0050267	6.546295	7.097079	.0356886
#3	8.575012	7.503642	.6319492	.0053415	6.557547	7.083924	.0362258

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1047-20DLX2 Acquired: 1/24/2025 16:42:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ55 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8073480	.0286632	.1737993
Stddev	.0050239	.0002000	.0008765
%RSD	.6222732	.6975701	.5043352
#1	.8015496	.0288926	.1727873
#2	.8104011	.0285708	.1742899
#3	.8100933	.0285262	.1743208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3327.954	67782.74	10836.68	2364.364	3601.154
Stddev	.820	266.49	49.52	15.877	4.360
%RSD	.0246270	.3931560	.4569518	.6715239	.1210713
#1	3328.167	68089.65	10892.11	2382.291	3606.164
#2	3327.050	67610.00	10796.82	2352.076	3599.080
#3	3328.647	67648.57	10821.10	2358.725	3598.218

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163TB Acquired: 1/24/2025 16:46:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB163 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000803**	**.0004508**	**-.000778**	**-.001186**	**-.000277**	**.0269071**
Stddev	.001493	.0017617	.000506	.003562	.000585	.0040137
%RSD	185.8946	390.7508	65.07387	300.3131	211.0991	14.91678
#1	-.001576	.0002748	-.000240	-.002097	-.000104	.0226204
#2	.000918	.0022939	-.001245	-.004205	-.000930	.0305761
#3	-.001751	-.001216	-.000848	.002743	.000202	.0275248

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001600**	**-.000022**	**-.000001**	**.0336239**	**.0004756**	**.0004464**
Stddev	.000346	.000044	.000059	.0087216	.0003917	.0002188
%RSD	21.60522	195.9583	7277.382	25.93865	82.34565	49.01167
#1	-.001423	-.000066	-.000005	.0288866	.0001634	.0006152
#2	-.001999	.000021	-.000058	.0436889	.0003484	.0005248
#3	-.001380	-.000022	.000060	.0282961	.0009151	.0001992

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007175**	**.0251412**	**.0116566**	**-.003343**	**.0001329**	**.0001861**
Stddev	.0024941	.0036913	.0003496	.016878	.0004638	.0004103
%RSD	347.6051	14.68250	2.999064	504.9451	348.9471	220.4088
#1	-.001710	.0255031	.0120568	.015896	-.000379	-.000282
#2	.003273	.0212822	.0114107	-.010265	.000251	.000355
#3	.000590	.0286382	.0115022	-.015659	.000526	.000485

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1948037**	**.0005279**	**.0007587**	**-1.89117**	**.0036286**	F **-.013128**
Stddev	.1426035	.0010222	.0016974	.02499	.0012317	.000305
%RSD	73.20369	193.6359	223.7426	1.321551	33.94300	2.322163
#1	.3520224	-.000412	-.001180	-1.87223	.0022678	-.012813
#2	.0737980	.000380	.001979	-1.88178	.0039510	-.013422
#3	.1585906	.001616	.001477	-1.91950	.0046670	-.013147

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163TB Acquired: 1/24/2025 16:46:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB163 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000369	F 7.875364	.0129231	.0006484	-.000716	-.005726
Stddev	.000057	.012715	.0019751	.0006433	.001126	.000449
%RSD	15.32091	.1614567	15.28331	99.21361	157.4273	7.849177
#1	-.000317	7.870715	.0126397	.0009400	.000566	-.005920
#2	-.000361	7.889750	.0150245	-.000089	-.001549	-.006047
#3	-.000429	7.865628	.0111050	.001094	-.001164	-.005212

Elem	Sr4077
Units	ppm
Avg	.0001186
Stddev	.0000559
%RSD	47.11163
#1	.0000558
#2	.0001629
#3	.0001371

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3367.629	71700.68	10296.29	2468.663	4141.872
Stddev	4.411	203.33	68.28	9.922	7.562
%RSD	.1309689	.2835809	.6631101	.4019316	.1825753
#1	3372.299	71861.20	10374.90	2475.302	4149.946
#2	3367.056	71768.80	10262.21	2473.431	4140.716
#3	3363.534	71472.04	10251.77	2457.257	4134.955

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-01 Acquired: 1/24/2025 16:50:56 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011510**	**-.003466**	**.0045710**	**-.013901**	**.0043137**	**-.130133**
Stddev	.0024189	.001759	.0024653	.001770	.0016313	.013358
%RSD	210.1455	50.75014	53.93308	12.72930	37.81681	10.26457
#1	.0023921	-.001798	.0019807	-.015782	.0025693	-.143336
#2	.0026975	-.005303	.0048437	-.012270	.0058014	-.130436
#3	-.001636	-.003297	.0068887	-.013651	.0045703	-.116626

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2271972**	**.0000739**	**-.000085**	F **1054.702**	**.2467631**	**-.001476**
Stddev	.0008416	.0000128	.000046	5.587	.0013058	.000141
%RSD	.3704222	17.25111	54.16440	.5297174	.5291889	9.574118
#1	.2271202	.0000886	-.000036	1048.957	.2468015	-.001497
#2	.2280746	.0000651	-.000128	1060.117	.2480494	-.001606
#3	.2263967	.0000681	-.000091	1055.031	.2454386	-.001326

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050470**	**.0122005**	**.0007105**	**-.011276**	**-.000301**	**-.000690**
Stddev	.0009992	.0050565	.0003414	.018594	.000456	.000197
%RSD	19.79798	41.44541	48.05800	164.8978	151.3317	28.53863
#1	.0057351	.0179563	.0004603	.008228	-.000537	-.000488
#2	.0039009	.0084728	.0010995	-.013255	-.000591	-.000882
#3	.0055049	.0101725	.0005717	-.028802	.000224	-.000699

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.58528**	**.0030283**	**.0384489**	**120.4608**	**.0026577**	**.0329184**
Stddev	.25620	.0004470	.0015455	.5817	.0003128	.0006778
%RSD	1.042088	14.76233	4.019721	.4828569	11.76773	2.059003
#1	24.34192	.0026665	.0398317	119.8371	.0023081	.0322597
#2	24.85263	.0035280	.0387344	120.9884	.0029109	.0328818
#3	24.56128	.0028902	.0367805	120.5569	.0027542	.0336138

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-01 Acquired: 1/24/2025 16:50:56 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1806359	F 241.7760	.1653585	-.003793	-.035003	.2830010
Stddev	.0010659	.4119	.0015097	.000729	.000250	.0024763
%RSD	.5900990	.1703758	.9129839	19.23127	.7137279	.8750048
#1	.1795843	241.7048	.1655913	-.002957	-.035156	.2805874
#2	.1817156	242.2188	.1667383	-.004119	-.035138	.2855355
#3	.1806078	241.4042	.1637460	-.004303	-.034715	.2828803

Elem	Sr4077
Units	ppm
Avg	5.266404
Stddev	.017211
%RSD	.3268038
#1	5.251045
#2	5.263162
#3	5.285005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2957.172	59879.38	9493.715	2055.366	3380.130
Stddev	9.344	289.91	5.164	5.640	12.515
%RSD	.3159770	.4841527	.0543898	.2743831	.3702373
#1	2964.740	60148.65	9487.759	2056.963	3391.657
#2	2946.728	59572.51	9496.934	2049.100	3366.820
#3	2960.049	59917.00	9496.453	2060.035	3381.913

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-02 Acquired: 1/24/2025 16:55:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072201	-.002311	.0242184	.0224517	.0125614	58.72656
Stddev	.0009155	.001632	.0021620	.0023547	.0007884	.28529
%RSD	12.68001	70.62393	8.927175	10.48787	6.276309	.4857973
#1	.0081832	-.000434	.0249006	.0222179	.0133703	59.02213
#2	.0071159	-.003100	.0259570	.0202226	.0117953	58.45280
#3	.0063611	-.003398	.0217975	.0249145	.0125186	58.70475

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0735924	.0118842	.0094595	145.2845	.3512743	.5676092
Stddev	.0000990	.0002166	.0000330	.7883	.0020260	.0010318
%RSD	.1344901	1.822197	.3489499	.5426028	.5767600	.1817804
#1	.0737054	.0116651	.0094605	146.1945	.3534283	.5677640
#2	.0735210	.0118895	.0094260	144.8076	.3494067	.5665088
#3	.0735508	.0120981	.0094920	144.8515	.3509880	.5685549

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.079777	143.6247	F 30.79670	47.31184	.2158386	.0063419
Stddev	.002732	.5529	.42832	.22795	.0003322	.0001161
%RSD	.2530322	.3849907	1.390783	.4818126	.1539204	1.830300
#1	1.080304	144.2403	30.72531	47.56166	.2157594	.0064261
#2	1.082207	143.1702	30.40857	47.11512	.2155531	.0062095
#3	1.076819	143.4636	31.25623	47.25874	.2162032	.0063900

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.91991	.3727523	1.177866	8.227340	2.874931	1.108791
Stddev	.53444	.0015603	.004798	.052050	.003176	.000487
%RSD	3.839395	.4185889	.4073718	.6326488	.1104643	.0438990
#1	14.51363	.3711959	1.177727	8.286158	2.874111	1.108424
#2	13.76885	.3743165	1.182733	8.187228	2.878436	1.108605
#3	13.47726	.3727443	1.173139	8.208635	2.872245	1.109343

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-02 Acquired: 1/24/2025 16:55:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032236	F 376.4623	F 23.13947	-.001489	.0001586	.0558184
Stddev	.0001500	.1312	.02574	.001636	.0006046	.0006045
%RSD	4.652159	.0348595	.1112365	109.8974	381.3371	1.083009
#1	.0031808	376.3130	23.15122	.000350	.0006009	.0554971
#2	.0030997	376.5144	23.15724	-.002785	.0004052	.0554425
#3	.0033903	376.5594	23.10996	-.002031	-.000530	.0565158

Elem	Sr4077
Units	ppm
Avg	.9747889
Stddev	.0171508
%RSD	1.759439
#1	.9843203
#2	.9549895
#3	.9850571

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3984.562	80410.96	12537.09	2816.277	3759.631
Stddev	8.010	137.44	51.57	12.341	2.674
%RSD	.2010270	.1709168	.4113100	.4382174	.0711166
#1	3991.448	80379.29	12596.03	2815.432	3761.657
#2	3975.771	80561.47	12514.97	2804.380	3756.600
#3	3986.466	80292.13	12500.27	2829.019	3760.635

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-03 Acquired: 1/24/2025 16:59:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057132**	**-.001187**	**.0021779**	**-.008730**	**.0032686**	**-.113820**
Stddev	.0008365	.001407	.0004765	.000999	.0018924	.006667
%RSD	14.64086	118.6127	21.87808	11.44149	57.89628	5.857837
#1	.0062661	-.000162	.0017628	-.009227	.0035646	-.121454
#2	.0061226	-.002791	.0026981	-.007580	.0012457	-.110867
#3	.0047509	-.000607	.0020727	-.009383	.0049956	-.109139

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0945270**	**.0000167**	**-.000064**	**737.0155**	**.0633646**	**-.001078**
Stddev	.0010152	.0001022	.000097	5.7411	.0000884	.000140
%RSD	1.073987	611.5437	152.5855	.7789702	.1395043	13.00907
#1	.0950484	.0000226	-.000130	735.9743	.0633110	-.001062
#2	.0933570	.0001158	.000048	731.8663	.0634666	-.000947
#3	.0951755	-.000088	-.000110	743.2060	.0633162	-.001226

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010830**	**.0096184**	**.0029170**	**2.596422**	**-.000317**	**-.000644**
Stddev	.0011311	.0034100	.0002549	.004284	.000048	.000367
%RSD	104.4413	35.45262	8.737779	.1650118	15.21794	57.02784
#1	.0008958	.0065221	.0028100	2.598912	-.000364	-.000220
#2	.0000572	.0090600	.0032079	2.598879	-.000268	-.000870
#3	.0022960	.0132731	.0027330	2.591475	-.000319	-.000840

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.522633**	**.0511454**	**.0059326**	**3.270465**	**.0087614**	**.0788106**
Stddev	.360852	.0022816	.0014335	.045450	.0031442	.0006411
%RSD	6.534052	4.460920	24.16337	1.389710	35.88753	.8134747
#1	5.867617	.0498427	.0066912	3.299104	.0051501	.0795473
#2	5.552508	.0498136	.0042792	3.218059	.0102426	.0783791
#3	5.147772	.0537798	.0068274	3.294231	.0108915	.0785054

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-03 Acquired: 1/24/2025 16:59:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0783950	F 418.6172	8.446514	-.003317	-.025541	.0222142
Stddev	.0001660	.8696	.027138	.001284	.000498	.0009346
%RSD	.2117606	.2077290	.3212919	38.71361	1.949971	4.207098
#1	.0785358	417.6318	8.437209	-.004527	-.025276	.0215106
#2	.0782119	418.9432	8.425253	-.003454	-.025231	.0232746
#3	.0784372	419.2768	8.477081	-.001970	-.026115	.0218573

Elem	Sr4077
Units	ppm
Avg	1.161817
Stddev	.007844
%RSD	.6751850
#1	1.163909
#2	1.168404
#3	1.153139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3076.315	63792.33	9834.275	2209.605	3579.858
Stddev	4.424	109.79	9.600	8.713	6.246
%RSD	.1438161	.1721017	.0976166	.3943032	.1744799
#1	3079.458	63733.48	9830.368	2201.744	3573.989
#2	3078.232	63918.99	9827.244	2208.097	3586.423
#3	3071.256	63724.50	9845.212	2218.973	3579.164

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-04 Acquired: 1/24/2025 17:03:53 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011637**	**.0008036**	**.0010836**	**-.011083**	**.0016709**	**-.169763**
Stddev	.0031453	.0027810	.0004332	.002080	.0016883	.010065
%RSD	270.2751	346.0826	39.98261	18.76624	101.0391	5.928815
#1	-.002159	.0007385	.0009792	-.013396	.0002108	-.158994
#2	.004095	.0036166	.0007121	-.009366	.0012824	-.171362
#3	.001554	-.001944	.0015595	-.010488	.0035196	-.178932

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1000140**	**-.000006**	**-.000046**	**761.2774**	**.0622685**	**-.001038**
Stddev	.0005992	.000038	.000071	2.4166	.0002489	.000248
%RSD	.5990778	612.8133	156.2611	.3174461	.3996965	23.87976
#1	.1006315	.000036	-.000112	758.5445	.0621900	-.001212
#2	.0999755	-.000040	-.000055	763.1325	.0620683	-.000754
#3	.0994350	-.000015	.000030	762.1551	.0625471	-.001146

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023047**	**.0119117**	**.0023503**	**2.679664**	**-.000472**	**-.000564**
Stddev	.0013481	.0048333	.0004763	.020139	.000509	.000304
%RSD	58.49344	40.57600	20.26363	.7515342	107.8499	53.83788
#1	.0016715	.0173182	.0021876	2.671519	-.001043	-.000536
#2	.0013898	.0104074	.0028866	2.702599	-.000302	-.000880
#3	.0038528	.0080094	.0019767	2.664873	-.000069	-.000275

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.101400**	**.0496648**	**.0046025**	**3.464069**	**.0072691**	**.0733252**
Stddev	.387215	.0020398	.0019458	.051062	.0004742	.0011242
%RSD	7.590367	4.107172	42.27640	1.474057	6.524044	1.533222
#1	4.660814	.0520117	.0045871	3.460023	.0074386	.0745565
#2	5.255744	.0486648	.0065560	3.517034	.0076353	.0723533
#3	5.387639	.0483181	.0026645	3.415150	.0067334	.0730659

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-04 Acquired: 1/24/2025 17:03:53 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0788035	F 414.6406	8.367439	-.002586	-.025159	.0249074
Stddev	.0005474	.2827	.049816	.000737	.001195	.0009434
%RSD	.6946133	.0681682	.5953586	28.47651	4.749255	3.787531
#1	.0782054	414.4345	8.419696	-.003106	-.026348	.0241698
#2	.0789253	414.5244	8.362134	-.001744	-.025169	.0259704
#3	.0792797	414.9628	8.320488	-.002910	-.023959	.0245821

Elem	Sr4077
Units	ppm
Avg	1.249991
Stddev	.009342
%RSD	.7473758
#1	1.239276
#2	1.254267
#3	1.256431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3075.167	65190.38	10599.73	2194.607	3620.273
Stddev	9.061	25.34	82.65	5.405	5.804
%RSD	.2946381	.0388780	.7797317	.2462784	.1603227
#1	3082.881	65209.35	10511.39	2199.565	3626.933
#2	3077.431	65200.20	10612.61	2195.412	3617.592
#3	3065.189	65161.60	10675.18	2188.845	3616.294

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-03LX5 Acquired: 1/24/2025 17:08:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010777**	**-.000485**	**.0000878**	**-.001581**	**-.000345**	**-.077918**
Stddev	.0027257	.001277	.0012455	.001859	.002089	.009920
%RSD	252.9066	263.4310	1419.423	117.5781	604.7464	12.73135
#1	.0015973	.000983	-.000423	-.000820	-.000669	-.067344
#2	-.001870	-.001340	.001507	-.000223	-.002254	-.079391
#3	.003506	-.001096	-.000821	-.003699	.001887	-.087019

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135169**	**-.000042**	**-.000077**	**151.6705**	**.0125157**	**-.000177**
Stddev	.0012240	.000047	.000133	1.4554	.0004016	.000144
%RSD	9.055229	111.8370	172.2511	.9595611	3.208796	81.55761
#1	.0121444	-.000077	.000055	152.0689	.0123625	-.000318
#2	.0139113	-.000060	-.000212	150.0575	.0122133	-.000030
#3	.0144951	.000011	-.000075	152.8852	.0129714	-.000183

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003698**	**.0027763**	**.0001761**	**.5419344**	**.0000194**	**.0000378**
Stddev	.0021614	.0038967	.0001710	.0091303	.0001167	.0005090
%RSD	584.4775	140.3578	97.13884	1.684756	602.5275	1344.928
#1	.0027087	.0071601	-.000020	.5416344	-.000014	.0004227
#2	-.000045	-.000294	.000294	.5329578	.000149	-.000539
#3	-.001554	.001462	.000254	.5512109	-.000077	.000230

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.468581**	**.0112992**	**.0006894**	**.4826855**	**.0031262**	**.0044515**
Stddev	.311790	.0014920	.0022333	.0345723	.0014114	.0005323
%RSD	21.23066	13.20478	323.9510	7.162496	45.14822	11.95876
#1	1.363458	.0122977	.0027035	.5172631	.0043934	.0050650
#2	1.819345	.0095840	.0010770	.4826750	.0016050	.0041769
#3	1.222940	.0120159	-.001712	.4481185	.0033802	.0041124

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-03LX5 Acquired: 1/24/2025 17:08:15 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0157794	F 81.95716	1.619105	-.002418	-.005664	.0023511
Stddev	.0001200	.20422	.010676	.000569	.000219	.0015269
%RSD	.7603429	.2491748	.6593640	23.53134	3.873120	64.94281
#1	.0159179	82.04046	1.631152	-.001764	-.005494	.0009298
#2	.0157148	81.72446	1.610818	-.002796	-.005587	.0039652
#3	.0157056	82.10656	1.615345	-.002694	-.005912	.0021582

Elem	Sr4077
Units	ppm
Avg	.2436062
Stddev	.0033647
%RSD	1.381188
#1	.2453418
#2	.2397281
#3	.2457486

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3249.162	68190.70	10983.73	2282.743	3967.134
Stddev	6.625	316.84	63.81	9.585	4.953
%RSD	.2038962	.4646408	.5809191	.4198819	.1248460
#1	3243.249	68367.50	11039.64	2283.403	3961.534
#2	3256.322	68379.70	10914.22	2291.981	3970.937
#3	3247.916	67824.91	10997.33	2272.845	3968.933

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-05 Acquired: 1/24/2025 17:12:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0401873**	**.0484122**	**.0199628**	**.0859559**	**.0942744**	**1.700483**
Stddev	.0010687	.0011842	.0004511	.0015823	.0014578	.000881
%RSD	2.659348	2.446065	2.259878	1.840823	1.546357	.0517850
#1	.0393813	.0485027	.0199572	.0867789	.0925911	1.700201
#2	.0413996	.0471853	.0204167	.0869571	.0951283	1.701470
#3	.0397810	.0495485	.0195144	.0841317	.0951037	1.699778

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.074842**	**.0444321**	**.0460784**	**787.4305**	**.2635735**	**.4698827**
Stddev	.009114	.0001025	.0000874	2.4311	.0015546	.0004990
%RSD	.4392801	.2306129	.1896148	.3087434	.5898295	.1062024
#1	2.064459	.0443170	.0460455	785.3669	.2629792	.4703777
#2	2.078540	.0444659	.0461774	786.8142	.2624036	.4698908
#3	2.081525	.0445134	.0460122	790.1105	.2653376	.4693797

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2400453**	**1.050491**	**.4842637**	**2.745804**	**.4719421**	**.0364116**
Stddev	.0013763	.004860	.0019744	.019228	.0007754	.0005100
%RSD	.5733457	.4626353	.4077142	.7002766	.1643025	1.400801
#1	.2400748	1.045121	.4820070	2.739256	.4724125	.0369996
#2	.2414066	1.051767	.4851111	2.730705	.4710471	.0360886
#3	.2386544	1.054586	.4856729	2.767451	.4723667	.0361467

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.047995**	**.5209531**	**.5070098**	**3.690230**	**.0098522**	**.0750229**
Stddev	.052323	.0025090	.0019166	.027636	.0010515	.0003685
%RSD	1.036510	.4816214	.3780260	.7489081	10.67225	.4911310
#1	5.032612	.5182051	.5062120	3.658945	.0095003	.0753510
#2	5.106285	.5231218	.5091964	3.700418	.0110344	.0750934
#3	5.005088	.5215325	.5056209	3.711326	.0090218	.0746242

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-05 Acquired: 1/24/2025 17:12:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0784217	F 413.2365	8.227588	-.003614	-.024860	.0281472
Stddev	.0003143	1.0749	.036913	.000684	.001215	.0007447
%RSD	.4008328	.2601164	.4486449	18.92765	4.888415	2.645544
#1	.0780587	413.9734	8.226617	-.004099	-.024124	.0289519
#2	.0785987	412.0031	8.191169	-.002831	-.024194	.0274825
#3	.0786076	413.7330	8.264976	-.003911	-.026263	.0280072

Elem	Sr4077
Units	ppm
Avg	1.281866
Stddev	.008527
%RSD	.6651755
#1	1.276199
#2	1.277727
#3	1.291672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3079.339	64573.29	10836.57	2155.882	3628.109
Stddev	5.888	382.01	62.11	7.618	6.175
%RSD	.1912225	.5915970	.5731262	.3533552	.1701944
#1	3083.188	64782.82	10862.11	2159.565	3623.721
#2	3082.268	64804.69	10881.83	2160.958	3635.170
#3	3072.561	64132.36	10765.76	2147.122	3625.437

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-06 Acquired: 1/24/2025 17:16:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048609**	**-.000614**	**.0042283**	**.0061880**	**.0034904**	**46.24390**
Stddev	.0008736	.003270	.0009762	.0022963	.0005837	.18850
%RSD	17.97232	532.2438	23.08716	37.10866	16.72182	.4076125
#1	.0047767	-.001318	.0031046	.0085838	.0039349	46.16912
#2	.0040324	.002950	.0047128	.0059741	.0037069	46.10426
#3	.0057736	-.003476	.0048674	.0040062	.0028294	46.45831

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0817241**	**.0023475**	**.0015443**	**109.4723**	**.0471497**	**.1073712**
Stddev	.0003677	.0000606	.0000638	.3565	.0003229	.0001358
%RSD	.4499205	2.581894	4.132214	.3256415	.6848312	.1265145
#1	.0814034	.0022798	.0016177	109.1034	.0468803	.1072268
#2	.0816436	.0023969	.0015136	109.4985	.0475076	.1073903
#3	.0821254	.0023657	.0015017	109.8150	.0470610	.1074964

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1396670**	**52.93091**	**5.207138**	**59.55441**	**.0712587**	**.0019109**
Stddev	.0015123	.16842	.023761	.05747	.0002276	.0003634
%RSD	1.082790	.3181908	.4563137	.0964931	.3193633	19.01662
#1	.1396623	52.76097	5.180510	59.48880	.0711183	.0014913
#2	.1411817	52.93400	5.214726	59.57857	.0715212	.0021231
#3	.1381571	53.09777	5.226178	59.59585	.0711365	.0021184

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.948238**	**.0885514**	**1.073909**	**1.197513**	**3.031275**	**.6936952**
Stddev	.095083	.0004854	.011035	.043012	.006270	.0009972
%RSD	1.196279	.5481870	1.027583	3.591756	.2068476	.1437545
#1	7.989823	.0890743	1.061524	1.159026	3.027032	.6935191
#2	7.839446	.0881151	1.077508	1.189571	3.028316	.6947687
#3	8.015444	.0884649	1.082696	1.243942	3.038477	.6927977

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-06 Acquired: 1/24/2025 17:16:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000861	F 399.6421	F 20.49571	-.003124	.0154441	.0256593
Stddev	.000245	1.0746	.04726	.000996	.0007665	.0019888
%RSD	28.42003	.2689017	.2305799	31.87394	4.962863	7.750944
#1	-.000608	399.2487	20.45874	-.003851	.0153901	.0244127
#2	-.000880	398.8195	20.54895	-.001989	.0162362	.0246123
#3	-.001097	400.8580	20.47943	-.003531	.0147061	.0279529

Elem	Sr4077
Units	ppm
Avg	.3782035
Stddev	.0019714
%RSD	.5212437
#1	.3764426
#2	.3778347
#3	.3803332

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3739.155	79051.10	12932.28	2638.420	3906.958
Stddev	13.313	21.60	54.96	7.438	19.406
%RSD	.3560455	.0273266	.4249955	.2819217	.4967059
#1	3751.027	79074.81	12904.24	2645.308	3921.119
#2	3741.676	79032.54	12896.99	2639.419	3914.918
#3	3724.762	79045.95	12995.61	2630.533	3884.838

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-07 Acquired: 1/24/2025 17:20:31 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1321525**	**-.027686**	**.0129569**	**.1154277**	**.0543676**	**14.72764**
Stddev	.0038426	.002762	.0004762	.0031979	.0011743	.05913
%RSD	2.907683	9.974214	3.675054	2.770457	2.159909	.4014829
#1	.1358361	-.030870	.0124353	.1118760	.0545604	14.77099
#2	.1281686	-.026257	.0130671	.1180785	.0554335	14.66028
#3	.1324527	-.025933	.0133683	.1163285	.0531088	14.75163

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0911922**	**.0059134**	**.0134874**	**118.2468**	**.0847274**	**.6667246**
Stddev	.0008299	.0000495	.0001280	.4772	.0009155	.0003329
%RSD	.9100964	.8373551	.9487381	.4035630	1.080578	.0499318
#1	.0912097	.0058641	.0134371	118.5963	.0857333	.6663414
#2	.0903537	.0059631	.0133923	117.7031	.0839428	.6668897
#3	.0920133	.0059129	.0136329	118.4410	.0845060	.6669427

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.040820**	**581.1636**	F **35.26567**	**32.99236**	**.1805042**	**.0215851**
Stddev	.000342	2.8234	.15135	.10189	.0001933	.0003648
%RSD	.8386403	.4858184	.4291679	.3088201	.1071004	1.690185
#1	-.041020	583.5470	35.31411	33.09125	.1806056	.0219620
#2	-.041015	581.8983	35.38687	32.88772	.1806258	.0212337
#3	-.040424	578.0454	35.09603	32.99812	.1802813	.0215594

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.123240**	**.7078363**	**.9394010**	**5.297789**	**.6115477**	**2.830616**
Stddev	.310552	.0027623	.0075232	.038031	.0012619	.014399
%RSD	4.359694	.3902483	.8008450	.7178677	.2063430	.5086746
#1	7.101234	.7088301	.9447338	5.265905	.6108783	2.843597
#2	7.444209	.7099642	.9307959	5.287580	.6107617	2.833121
#3	6.824277	.7047146	.9426734	5.339883	.6130033	2.815129

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-07 Acquired: 1/24/2025 17:20:31 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007737	F 361.0648	7.992040	.0017731	-.001972	.0036226
Stddev	.000142	.6892	.029780	.0008691	.000011	.0003490
%RSD	1.832726	.1908855	.3726146	49.01625	.5478616	9.634491
#1	-.007753	361.4772	8.017070	.0025396	-.001965	.0032277
#2	-.007870	360.2691	7.959106	.0008288	-.001967	.0038898
#3	-.007588	361.4480	7.999944	.0019509	-.001985	.0037502

Elem	Sr4077
Units	ppm
Avg	1.006574
Stddev	.009848
%RSD	.9783417
#1	.995335
#2	1.010699
#3	1.013689

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3636.117	76418.59	12777.01	2566.543	3879.396
Stddev	7.497	150.38	37.10	5.851	9.589
%RSD	.2061866	.1967893	.2903798	.2279617	.2471883
#1	3635.219	76270.03	12770.21	2559.885	3886.403
#2	3644.022	76570.73	12743.78	2570.864	3883.318
#3	3629.108	76415.02	12817.04	2568.879	3868.468

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-08 Acquired: 1/24/2025 17:24:52 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4342927**	**-.021909**	**.0081270**	**.1562036**	**.0739017**	**-.027119**
Stddev	.0017403	.001298	.0011825	.0026508	.0014550	.005534
%RSD	.4007107	5.923115	14.54991	1.697039	1.968843	20.40758
#1	.4360065	-.021338	.0077289	.1544026	.0744122	-.030249
#2	.4343446	-.020994	.0094572	.1592475	.0722602	-.020729
#3	.4325271	-.023394	.0071950	.1549606	.0750327	-.030380

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1168679**	**-.003074**	**.0113700**	**189.5895**	**-.005932**	**.1498445**
Stddev	.0002877	.000163	.0002402	.9458	.000743	.0000940
%RSD	.2461802	5.290934	2.112195	.4988755	12.51830	.0627075
#1	.1165581	-.003070	.0113381	190.5824	-.006649	.1499334
#2	.1169189	-.003238	.0111475	189.4870	-.005167	.1497462
#3	.1171267	-.002913	.0116246	188.6992	-.005980	.1498539

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.094086**	**788.4934**	**24.65136**	**62.44591**	**.0621881**	**.0188341**
Stddev	.003585	5.8078	.32720	.40050	.0004150	.0023500
%RSD	3.810331	.7365733	1.327293	.6413473	.6673826	12.47719
#1	-.093975	789.2725	24.62479	62.89368	.0618920	.0178563
#2	-.090558	793.8723	24.33825	62.32213	.0620098	.0215151
#3	-.097725	782.3353	24.99103	62.12191	.0626625	.0171309

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.36286**	**-.069634**	**1.144130**	**2.284950**	**.0273152**	**4.047847**
Stddev	.11471	.002325	.006675	.046487	.0023097	.028107
%RSD	.7010533	3.339307	.5834337	2.034501	8.455675	.6943733
#1	16.31903	-.069688	1.146791	2.333639	.0261034	4.056650
#2	16.49302	-.071932	1.149064	2.241033	.0258636	4.070500
#3	16.27652	-.067282	1.136535	2.280177	.0299786	4.016392

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-08 Acquired: 1/24/2025 17:24:52 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009493	F 427.8185	4.122575	.0027951	-.006744	.0003577
Stddev	.000349	.7413	.011898	.0004103	.001073	.0001589
%RSD	3.674541	.1732770	.2886171	14.67894	15.90247	44.41642
#1	-.009094	427.7211	4.116220	.0032685	-.005517	.0004881
#2	-.009738	427.1306	4.115203	.0025735	-.007501	.0001807
#3	-.009647	428.6036	4.136301	.0025432	-.007214	.0004042

Elem	Sr4077
Units	ppm
Avg	2.829223
Stddev	.012937
%RSD	.4572683
#1	2.820484
#2	2.844085
#3	2.823101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3182.426	66139.15	10933.27	2226.850	3880.052
Stddev	1.379	102.91	61.56	.992	7.764
%RSD	.0433374	.1555957	.5630928	.0445526	.2001116
#1	3182.631	66032.19	10977.93	2227.475	3886.208
#2	3180.955	66237.47	10958.83	2227.370	3882.619
#3	3183.691	66147.79	10863.04	2225.706	3871.330

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-09 Acquired: 1/24/2025 17:29:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4261511**	**-.015933**	**.0281633**	**.0595525**	**.0332890**	**34.77627**
Stddev	.0007441	.001884	.0015344	.0015901	.0009746	.22965
%RSD	.1745998	11.82704	5.448066	2.669992	2.927704	.6603771
#1	.4259026	-.014855	.0274626	.0611732	.0340834	34.75749
#2	.4269876	-.018109	.0271044	.0594893	.0335821	34.55658
#3	.4255631	-.014835	.0299229	.0579950	.0322015	35.01473

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0631185**	**.0100699**	**.0235272**	**92.54140**	**.0484334**	**.9131872**
Stddev	.0008838	.0000773	.0000795	.52129	.0002022	.0031688
%RSD	1.400181	.7676372	.3380228	.5633021	.4175092	.3470072
#1	.0623811	.0100045	.0234905	92.51612	.0482001	.9129411
#2	.0628763	.0101552	.0234727	92.03321	.0485588	.9101487
#3	.0640981	.0100501	.0236185	93.07486	.0485412	.9164720

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.361267**	**332.9156**	**4.548168**	**62.81545**	**1.674446**	**.0045287**
Stddev	.003402	.9548	.029167	.21423	.003935	.0004955
%RSD	.1440795	.2867878	.6412976	.3410400	.2350103	10.94116
#1	2.361332	333.9445	4.541061	62.76732	1.675621	.0046082
#2	2.364635	332.7442	4.523211	62.62937	1.670057	.0049796
#3	2.357832	332.0582	4.580232	63.04964	1.677659	.0039982

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.50017**	**.6943088**	**16.72973**	**9.013751**	**1.219535**	**1.799119**
Stddev	.30379	.0007065	.15610	.077955	.003691	.003826
%RSD	2.893208	.1017507	.9330926	.8648487	.3026825	.2126502
#1	10.25161	.6934993	16.83999	9.012521	1.215286	1.803061
#2	10.83882	.6946263	16.55111	8.936418	1.221371	1.798874
#3	10.41008	.6948009	16.79809	9.092315	1.221948	1.795421

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-09 Acquired: 1/24/2025 17:29:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008196	F 373.9158	F 17.46153	-.000490	-.001873	.0244303
Stddev	.000371	.6072	.02990	.000446	.000556	.0007535
%RSD	4.527184	.1623797	.1712465	91.15096	29.70293	3.084442
#1	-.008042	374.0586	17.42899	-.000746	-.001376	.0246657
#2	-.007927	373.2500	17.48780	-.000748	-.002474	.0235872
#3	-.008620	374.4389	17.46781	.000026	-.001769	.0250381

Elem	Sr4077
Units	ppm
Avg	1.387288
Stddev	.019244
%RSD	1.387157
#1	1.397782
#2	1.399003
#3	1.365078

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4308.202	89188.96	14157.75	3017.484	3975.359
Stddev	12.037	140.42	68.46	20.103	8.466
%RSD	.2793884	.1574403	.4835513	.6662054	.2129718
#1	4302.781	89140.85	14161.51	2995.011	3971.397
#2	4321.996	89347.11	14087.49	3033.754	3985.080
#3	4299.830	89078.92	14224.25	3023.687	3969.600

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV016 Acquired: 1/24/2025 17:42:12 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV016 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.894018**	**4.791908**	**23.88833**	**4.977031**	**5.048841**	**409.8568**
Stddev	.106973	.099505	.41283	.110030	.118751	3.9266
%RSD	2.185787	2.076529	1.728159	2.210762	2.352040	.9580396
#1	4.796333	4.695477	23.51308	4.889771	4.943603	407.7059
#2	4.877391	4.786021	23.82138	4.940685	5.025332	407.4757
#3	5.008331	4.894227	24.33055	5.100635	5.177588	414.3889

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.15338**	**.4529913**	**2.371790**	**395.6088**	**14.80133**	**2.437658**
Stddev	.21454	.0004700	.041446	3.7951	.05578	.044261
%RSD	2.112944	.1037574	1.747452	.9593052	.3768840	1.815710
#1	10.21548	.4534325	2.332933	391.9587	14.73702	2.397362
#2	9.91464	.4524970	2.367024	395.3338	14.83021	2.430582
#3	10.33001	.4530445	2.415413	399.5339	14.83675	2.485031

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.21940**	**405.2310**	**14.72757**	**390.0977**	**2.428556**	**1.245227**
Stddev	.06711	2.6753	.10815	2.1309	.046038	.004636
%RSD	.4719403	.6601861	.7343401	.5462364	1.895695	.3723146
#1	14.15187	402.2783	14.60641	387.6819	2.386883	1.240069
#2	14.22025	405.9210	14.76195	390.9015	2.420807	1.246564
#3	14.28608	407.4937	14.81436	391.7098	2.477976	1.249047

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**366.0317**	**2.348930**	**15.39187**	**155.5963**	**4.819363**	F **5.610673**
Stddev	.1392	.009615	.06758	1.1700	.096977	.018539
%RSD	.0380291	.4093415	.4390617	.7519506	2.012236	.3304226
#1	365.8721	2.338110	15.31625	154.3122	4.730902	5.593848
#2	366.0947	2.356496	15.41300	155.8747	4.804132	5.607625
#3	366.1282	2.352183	15.44636	156.6019	4.923054	5.630548

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV016 Acquired: 1/24/2025 17:42:12 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV016 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.869141**	**4.942784**	**4.672270**	**4.831558**	**4.751369**	**5.085736**
Stddev	.105637	.095140	.009712	.086890	.008851	.035759
%RSD	2.169525	1.924829	.2078700	1.798392	.1862808	.7031269
#1	4.774229	4.857889	4.665743	4.751144	4.741373	5.045548
#2	4.850242	4.924848	4.683431	4.819801	4.754527	5.097617
#3	4.982952	5.045616	4.667635	4.923728	4.758209	5.114042

Elem	Sr4077
Units	ppm
Avg	**5.043433**
Stddev	.014989
%RSD	.2972043
#1	5.046479
#2	5.027155
#3	5.056666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2681.011**	**60338.93**	**10284.48**	**1981.125**	**3171.942**
Stddev	46.632	170.67	18.66	2.067	48.412
%RSD	1.739345	.2828456	.1814466	.1043154	1.526242
#1	2724.131	60534.14	10262.95	1979.378	3217.355
#2	2687.381	60264.67	10296.05	1983.407	3177.467
#3	2631.521	60217.97	10294.44	1980.592	3121.006

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB016 Acquired: 1/24/2025 17:46:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB016 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004784**	**-.000945**	**.0000296**	**-.000710**	**-.000274**	**.0119322**	**-.007471**
Stddev	.0018372	.001685	.0011451	.001711	.000688	.0046454	.000247
%RSD	383.9956	178.3123	3869.536	241.0420	251.1232	38.93176	3.311831
#1	-.001632	-.002890	.0012713	-.000942	-.000365	.0111754	-.007187
#2	.001351	.000026	-.000198	-.002292	-.000912	.0169095	-.007583
#3	.001717	.000030	-.000985	.001105	.000455	.0077116	-.007643

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000082**	**.0000238**	**.0052836**	**.0005894**	**.0001222**	**.0021546**	**.0147737**
Stddev	.0000344	.0000643	.0047396	.0001488	.0001956	.0022090	.0054046
%RSD	417.7766	269.6174	89.70504	25.23600	160.0478	102.5216	36.58284
#1	.0000302	.0000646	.0085999	.0006047	.0000222	-.000261	.0086449
#2	.0000259	.0000572	.0073957	.0004336	.0003476	.002652	.0168191
#3	-.000031	-.000050	-.000145	.0007300	-.000003	.004073	.0188572

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000158**	**-.004630**	**-.000019**	**-.000087**	**-.102240**	**.0006872**	**-.000713**
Stddev	.000105	.005487	.000180	.000135	.379512	.0008225	.002415
%RSD	66.57641	118.5022	934.8393	154.2193	371.1978	119.6955	338.8621
#1	-.000040	.001334	.000165	-.000122	.167445	.0003463	-.001605
#2	-.000192	-.009464	-.000028	.000061	-.536217	.0016253	.002021
#3	-.000242	-.005760	-.000194	-.000202	.062053	.0000899	-.002554

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.135114**	**.0034128**	**-.006243**	**-.000185**	**.0179839**	**.0004980**	**.0010319**
Stddev	.031874	.0007036	.000606	.000449	.0022023	.0003658	.0004000
%RSD	23.59071	20.61685	9.705959	243.0415	12.24613	73.46089	38.76558
#1	-.098490	.0040827	-.006921	.000332	.0205264	.0006533	.0007882
#2	-.156589	.0026797	-.006050	-.000404	.0166683	.0007605	.0014936
#3	-.150263	.0034760	-.005756	-.000481	.0167569	.0000801	.0008140

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB016 Acquired: 1/24/2025 17:46:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB016 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000168	-.002906	.0001828
Stddev	.000275	.001275	.0001064
%RSD	163.4071	43.88476	58.19193
#1	-.000446	-.004194	.0001268
#2	-.000165	-.001644	.0003054
#3	.000105	-.002880	.0001161

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3434.752	70739.36	11020.44	2413.557	4258.063
Stddev	5.478	383.19	47.54	16.976	4.899
%RSD	.1594755	.5416919	.4313489	.7033578	.1150537
#1	3432.792	70340.61	10965.56	2395.971	4252.548
#2	3440.940	70772.63	11049.02	2429.848	4261.913
#3	3430.524	71104.82	11046.73	2414.853	4259.727

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-10 Acquired: 1/24/2025 17:50:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016427	-.001544	.0023738	-.009807	.0010844	2.289355
Stddev	.0026325	.001226	.0011332	.001698	.0003809	.005966
%RSD	160.2610	79.38689	47.73969	17.31079	35.12137	.2606180
#1	-.000637	-.002954	.0023151	-.010566	.0006537	2.282467
#2	.001041	-.000734	.0035353	-.010993	.0012229	2.292670
#3	.004524	-.000944	.0012710	-.007862	.0013766	2.292928

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0688990	.0007173	.0020967	711.9091	.0110069	.0193360
Stddev	.0003662	.0000404	.0000500	2.6996	.0000977	.0001064
%RSD	.5315657	5.636682	2.385567	.3792104	.8879976	.5504890
#1	.0687209	.0007142	.0021541	710.2948	.0110962	.0194132
#2	.0693203	.0006786	.0020728	710.4067	.0109025	.0193803
#3	.0686560	.0007592	.0020630	715.0257	.0110220	.0192146

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079030	.1640593	1.837748	22.73651	.0909661	-.000238
Stddev	.0004403	.0023687	.010622	.03460	.0009056	.000465
%RSD	5.571003	1.443792	.5779779	.1521906	.9955407	195.4620
#1	.0083200	.1667718	1.825835	22.69909	.0913575	.000215
#2	.0074427	.1623993	1.841174	22.76734	.0899307	-.000215
#3	.0079464	.1630068	1.846233	22.74312	.0916103	-.000714

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.363916	.0046010	.4888578	.6907341	.0081696	.2820787
Stddev	.084628	.0013222	.0049539	.0207748	.0006599	.0013666
%RSD	1.011827	28.73582	1.013352	3.007637	8.077072	.4844717
#1	8.303128	.0061274	.4843693	.6687099	.0086948	.2836107
#2	8.328048	.0038653	.4880313	.6935126	.0074290	.2816407
#3	8.460571	.0038104	.4941730	.7099798	.0083851	.2809849

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-10 Acquired: 1/24/2025 17:50:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005699	F 452.3746	8.116803	-.002888	-.022212	.0124717
Stddev	.0003664	1.6696	.007559	.000911	.000658	.0010237
%RSD	64.29465	.3690677	.0931285	31.56360	2.963158	8.208479
#1	.0002709	453.0575	8.111856	-.002395	-.021760	.0114003
#2	.0004601	450.4718	8.125505	-.002328	-.021910	.0134400
#3	.0009786	453.5945	8.113050	-.003940	-.022967	.0125750

Elem	Sr4077
Units	ppm
Avg	1.213460
Stddev	.011221
%RSD	.9246966
#1	1.201086
#2	1.222975
#3	1.216320

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3335.448	71064.23	11736.41	2367.219	3621.981
Stddev	10.966	126.99	40.34	7.362	11.542
%RSD	.3287601	.1786995	.3437248	.3109856	.3186665
#1	3340.191	71210.83	11695.75	2372.112	3628.730
#2	3343.244	70993.69	11737.06	2358.752	3628.559
#3	3322.910	70988.17	11776.43	2370.791	3608.653

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-11 Acquired: 1/24/2025 17:54:57 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4942766**	**-.016973**	**.0165252**	**.0731794**	**.0337622**	**43.29696**
Stddev	.0001880	.001376	.0024156	.0043092	.0007867	.18160
%RSD	.0380358	8.109803	14.61750	5.888615	2.330047	.4194362
#1	.4942002	-.016145	.0158491	.0689685	.0330587	43.44592
#2	.4941389	-.018562	.0192068	.0729889	.0336163	43.35030
#3	.4944908	-.016212	.0145198	.0775807	.0346116	43.09466

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0602506**	**.0096569**	**.0151545**	**91.23357**	**.1109931**	**.8130278**
Stddev	.0003830	.0001299	.0002216	.21345	.0007127	.0012448
%RSD	.6357478	1.345267	1.462271	.2339546	.6421247	.1531042
#1	.0598776	.0097362	.0152771	91.41065	.1105795	.8135305
#2	.0606429	.0097275	.0148987	91.29350	.1105836	.8116103
#3	.0602312	.0095069	.0152878	90.99657	.1118160	.8139426

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8457935**	**365.8647**	**4.446877**	**81.42089**	**.5576574**	**.0102206**
Stddev	.0009146	3.1060	.014248	.15336	.0004466	.0009826
%RSD	.1081314	.8489439	.3204056	.1883492	.0800885	9.613861
#1	.8466466	362.3091	4.461440	81.55267	.5579942	.0091743
#2	.8459060	368.0493	4.446226	81.45743	.5571508	.0111237
#3	.8448279	367.2358	4.432966	81.25256	.5578271	.0103637

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.701678**	**1.011997**	**3.255072**	**4.807895**	**.6232748**	**1.940081**
Stddev	.298370	.002494	.003075	.035924	.0039771	.014094
%RSD	3.075451	.2464755	.0944683	.7471804	.6381014	.7264582
#1	10.04175	1.010050	3.251548	4.838238	.6264663	1.923844
#2	9.48380	1.011133	3.256458	4.817217	.6188193	1.949158
#3	9.57949	1.014808	3.257211	4.768229	.6245389	1.947240

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-11 Acquired: 1/24/2025 17:54:57 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005584	F 400.8836	F 23.01329	-.000078	.0004103	.0378616
Stddev	.000236	1.4118	.00500	.001035	.0003142	.0008320
%RSD	4.221050	.3521666	.0217376	1329.429	76.58982	2.197520
#1	-.005792	402.0264	23.01467	.000659	.0007702	.0384157
#2	-.005328	399.3054	23.00774	-.001261	.0002697	.0382641
#3	-.005632	401.3190	23.01746	.000368	.0001908	.0369048

Elem	Sr4077
Units	ppm
Avg	1.388638
Stddev	.006489
%RSD	.4672858
#1	1.395863
#2	1.386747
#3	1.383305

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3971.279	85649.83	14223.69	2860.283	3827.754
Stddev	8.498	55.70	48.33	11.497	8.351
%RSD	.2139928	.0650350	.3397963	.4019411	.2181682
#1	3968.125	85587.15	14244.46	2854.867	3826.704
#2	3980.903	85693.68	14258.16	2873.487	3836.580
#3	3964.809	85668.66	14168.44	2852.495	3819.977

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-12 Acquired: 1/24/2025 17:59:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089102	.0047048	.0102341	.0039128	.0017809	61.00366
Stddev	.0003853	.0018522	.0004954	.0034648	.0004279	.04636
%RSD	4.323892	39.36764	4.840947	88.54931	24.02635	.0759994
#1	.0093353	.0046150	.0108041	-.000081	.0022002	61.05342
#2	.0085840	.0066002	.0099916	.005705	.0017974	60.96167
#3	.0088113	.0028992	.0099067	.006115	.0013450	60.99590

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0606525	.0156937	.0080506	205.1899	.0383943	.7195668
Stddev	.0001234	.0000828	.0001615	.4295	.0001768	.0104537
%RSD	.2035155	.5274176	2.006220	.2093245	.4604515	1.452772
#1	.0605362	.0157704	.0079801	205.6853	.0385554	.7141273
#2	.0606394	.0157047	.0079364	204.9216	.0382052	.7129545
#3	.0607820	.0156060	.0082354	204.9628	.0384224	.7316187

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.339306	61.24574	F 47.70017	50.01139	.2015688	.0082475
Stddev	.003103	.06958	.24845	.07346	.0030288	.0001855
%RSD	.2317045	.1136034	.5208644	.1468870	1.502613	2.249572
#1	1.342830	61.32603	47.93539	50.08807	.1999441	.0081887
#2	1.338103	61.20807	47.44032	49.94165	.1996989	.0080984
#3	1.336983	61.20312	47.72480	50.00445	.2050633	.0084553

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.34672	.2418770	1.965966	21.81673	9.232152	.6753996
Stddev	.27015	.0021951	.006447	.04871	.133502	.0007377
%RSD	1.208886	.9075240	.3279310	.2232773	1.446060	.1092195
#1	22.59859	.2443096	1.969907	21.84568	9.163511	.6746094
#2	22.06141	.2400441	1.969465	21.76049	9.146935	.6755193
#3	22.38017	.2412774	1.958526	21.84403	9.386010	.6760701

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-12 Acquired: 1/24/2025 17:59:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002761	F 421.9902	F 26.77015	-.002465	-.005922	.0484049
Stddev	.000238	6.0694	.05114	.000344	.000193	.0007788
%RSD	8.603528	1.438287	.1910343	13.94300	3.265088	1.608864
#1	-.002803	419.0428	26.82867	-.002086	-.005823	.0492389
#2	-.002505	417.9572	26.73403	-.002551	-.006144	.0482792
#3	-.002975	428.9704	26.74775	-.002756	-.005798	.0476967

Elem	Sr4077
Units	ppm
Avg	1.167393
Stddev	.013260
%RSD	1.135903
#1	1.159069
#2	1.160424
#3	1.182684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4235.043	90208.02	14553.90	3020.227	3703.828
Stddev	37.433	218.12	24.41	7.944	48.180
%RSD	.8838886	.2417926	.1677007	.2630206	1.300824
#1	4260.187	90236.44	14560.16	3029.045	3731.814
#2	4252.918	90410.53	14574.56	3013.629	3731.476
#3	4192.023	89977.09	14526.97	3018.008	3648.194

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-13 Acquired: 1/24/2025 18:03:21 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8F6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0276073**	**-.003603**	**.0133895**	**-.003989**	**-.001125**	**36.51420**
Stddev	.0010257	.001422	.0007591	.000908	.001257	.22501
%RSD	3.715461	39.47904	5.669506	22.75858	111.7717	.6162144
#1	.0287745	-.002807	.0141321	-.003444	-.001076	36.27748
#2	.0268497	-.002756	.0134215	-.003485	-.002406	36.53980
#3	.0271976	-.005245	.0126149	-.005037	.000107	36.72531

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0870308**	**.0054171**	**.0185571**	**283.0250**	**.0348456**	**.7450936**
Stddev	.0005716	.0000333	.0000478	1.1179	.0000631	.0017251
%RSD	.6568206	.6148617	.2578453	.3949991	.1810685	.2315220
#1	.0871467	.0054480	.0185019	282.7464	.0347941	.7452083
#2	.0864101	.0053818	.0185853	284.2559	.0348266	.7433140
#3	.0875357	.0054214	.0185842	282.0727	.0349160	.7467584

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5273506**	**19.96850**	**17.38735**	**51.88607**	**.9263132**	**.0025392**
Stddev	.0014552	.07446	.09876	.12685	.0017767	.0002191
%RSD	.2759540	.3729024	.5679728	.2444832	.1918055	8.627799
#1	.5286010	19.89334	17.28711	51.73960	.9260854	.0022866
#2	.5257532	19.96991	17.39038	51.95797	.9246614	.0026782
#3	.5276976	20.04225	17.48455	51.96064	.9281928	.0026527

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.954257**	**.0804122**	**1.334104**	**4.836457**	**2.577599**	**.5764640**
Stddev	.157122	.0010562	.005178	.032524	.002211	.0022463
%RSD	2.638813	1.313434	.3881231	.6724671	.0857765	.3896762
#1	6.091732	.0811374	1.328137	4.798925	2.578279	.5790426
#2	5.988052	.0808987	1.336754	4.856376	2.579390	.5754177
#3	5.782988	.0792005	1.337420	4.854069	2.575128	.5749317

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-13 Acquired: 1/24/2025 18:03:21 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8F6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000505**	F **339.5002**	F **14.49062**	**-.002764**	**-.006681**	**.0418848**
Stddev	.000436	.4886	.04117	.001188	.001047	.0005400
%RSD	86.36013	.1439172	.2840831	42.97270	15.67419	1.289194
#1	-.000206	339.4342	14.53522	-.003917	-.005489	.0413699
#2	-.001005	339.0480	14.48258	-.002832	-.007452	.0424467
#3	-.000303	340.0185	14.45407	-.001544	-.007102	.0418378

Elem	Sr4077
Units	ppm
Avg	**1.506852**
Stddev	.010512
%RSD	.6976392
#1	1.518675
#2	1.498560
#3	1.503320

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3767.806**	**80384.38**	**13068.42**	**2673.718**	**3755.526**
Stddev	7.843	220.61	83.54	13.293	2.206
%RSD	.2081617	.2744433	.6392292	.4971791	.0587501
#1	3774.618	80620.77	12992.28	2688.727	3756.619
#2	3759.232	80183.97	13055.22	2663.428	3756.972
#3	3769.567	80348.40	13157.78	2669.000	3752.986

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-14 Acquired: 1/24/2025 18:07:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8F9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067354**	**.0053616**	**.0047526**	**.0002302**	**-.000241**	**54.29221**
Stddev	.0010526	.0004985	.0004015	.0010392	.001170	.35098
%RSD	15.62834	9.297483	8.447642	451.4992	484.7314	.6464608
#1	.0064030	.0050678	.0043265	.0008892	.000849	53.98375
#2	.0058892	.0059372	.0048077	-.000968	-.001477	54.67409
#3	.0079142	.0050799	.0051238	.000769	-.000096	54.21878

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0624370**	**.0021897**	**.0041056**	**80.61874**	**.0313196**	**.3101203**
Stddev	.0003322	.0000513	.0000872	.35542	.0001752	.0003478
%RSD	.5320174	2.340946	2.124375	.4408633	.5594755	.1121614
#1	.0621413	.0022265	.0041321	80.36922	.0311457	.3099472
#2	.0627964	.0022115	.0041766	81.02569	.0313169	.3098930
#3	.0623732	.0021312	.0040083	80.46133	.0314961	.3105207

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1894008**	**24.39937**	**5.039472**	**35.53458**	**.2157865**	**.0006299**
Stddev	.0012903	.15386	.014163	.15707	.0000749	.0001154
%RSD	.6812689	.6305835	.2810407	.4420310	.0346876	18.32081
#1	.1904648	24.28109	5.032381	35.40847	.2157019	.0006758
#2	.1879656	24.57331	5.055780	35.71053	.2158440	.0007153
#3	.1897722	24.34371	5.030254	35.48476	.2158136	.0004986

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.650557**	**.0048080**	**.8345097**	**6.152318**	**.2278271**	**.4368764**
Stddev	.100434	.0011891	.0040929	.057200	.0013456	.0010545
%RSD	2.159607	24.73162	.4904561	.9297239	.5905995	.2413601
#1	4.549755	.0034354	.8378413	6.107951	.2270157	.4376183
#2	4.750618	.0055231	.8357468	6.216874	.2270854	.4356694
#3	4.651299	.0054656	.8299409	6.132128	.2293803	.4373416

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-14 Acquired: 1/24/2025 18:07:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8F9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001032	F 299.9502	F 18.81792	-.002426	.0122864	.0476890
Stddev	.000252	1.1855	.08461	.000517	.0002741	.0002473
%RSD	24.45310	.3952169	.4496347	21.30062	2.230911	.5185820
#1	-.001323	299.1274	18.90674	-.002147	.0119895	.0479626
#2	-.000879	299.4141	18.73825	-.002110	.0123399	.0476230
#3	-.000894	301.3090	18.80878	-.003023	.0125298	.0474813

Elem	Sr4077
Units	ppm
Avg	.4840809
Stddev	.0028975
%RSD	.5985605
#1	.4823959
#2	.4874266
#3	.4824201

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5344.657	114671.3	18540.73	3865.487	3903.664
Stddev	9.864	111.6	126.44	10.275	1.163
%RSD	.1845595	.0973021	.6819711	.2658151	.0297964
#1	5339.931	114783.2	18454.30	3855.947	3903.041
#2	5338.044	114670.6	18685.86	3876.366	3905.006
#3	5355.994	114560.1	18482.05	3864.147	3902.945

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-15 Acquired: 1/24/2025 18:11:32 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192912	-.001029	.0988136	.0386126	.0159314	119.2954
Stddev	.0034517	.002508	.0009012	.0025933	.0011680	.5228
%RSD	17.89260	243.7319	.9119747	6.716140	7.331508	.4382091
#1	.0178916	-.001751	.0988646	.0361971	.0168012	118.7094
#2	.0232229	.001761	.0978881	.0382878	.0146038	119.7138
#3	.0167592	-.003096	.0996882	.0413531	.0163891	119.4631

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0854518	.0052333	.0226570	81.96009	.1179462	.5275754
Stddev	.0007792	.0000966	.0001138	.24796	.0003732	.0013739
%RSD	.9118774	1.845374	.5022096	.3025425	.3164452	.2604089
#1	.0849956	.0053331	.0227785	81.71269	.1183526	.5283045
#2	.0863516	.0052264	.0225529	82.20862	.1176187	.5259907
#3	.0850083	.0051404	.0226396	81.95894	.1178674	.5284310

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.128435	185.8953	5.156511	57.46778	.3527343	.0058989
Stddev	.003046	.6680	.016837	.15107	.0011016	.0003617
%RSD	.2699140	.3593646	.3265181	.2628864	.3122906	6.131625
#1	1.131021	185.2334	5.140974	57.34450	.3526712	.0058701
#2	1.129207	186.5693	5.174401	57.63631	.3516657	.0062741
#3	1.125078	185.8834	5.154157	57.42252	.3538661	.0055525

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.689280	.2524434	1.620206	16.40529	F 13.29587	1.211270
Stddev	.127908	.0010399	.003851	.08444	.04272	.002287
%RSD	1.912130	.4119313	.2377052	.5146885	.3213170	.1888129
#1	6.553729	.2522005	1.624626	16.30794	13.33334	1.211043
#2	6.807848	.2515465	1.618426	16.45868	13.24935	1.213662
#3	6.706262	.2535833	1.617567	16.44924	13.30492	1.209105

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-15 Acquired: 1/24/2025 18:11:32 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001941	F 612.0184	F 40.13079	-.000660	.2104339	.1219649
Stddev	.000166	1.8130	.13448	.001243	.0013731	.0010586
%RSD	8.562059	.2962248	.3351125	188.2057	.6524979	.8679719
#1	-.001811	613.3605	40.25299	-.001849	.2119385	.1218006
#2	-.002128	609.9560	40.15268	.000630	.2101147	.1230961
#3	-.001882	612.7387	39.98671	-.000761	.2092485	.1209981

Elem	Sr4077
Units	ppm
Avg	.3508060
Stddev	.0013857
%RSD	.3950036
#1	.3492405
#2	.3518750
#3	.3513026

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3990.186	81916.63	13470.91	2818.363	3966.297
Stddev	10.388	310.61	27.94	5.350	7.217
%RSD	.2603296	.3791825	.2073965	.1898129	.1819665
#1	3978.372	82263.73	13448.52	2820.308	3961.213
#2	3997.891	81664.85	13461.99	2822.468	3974.558
#3	3994.293	81821.30	13502.22	2812.313	3963.121

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-16 Acquired: 1/24/2025 18:15:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002107**	**-.009854**	**.0057418**	**.0297751**	**.0180792**	**4.735958**
Stddev	.001045	.001823	.0007035	.0019342	.0005280	.028354
%RSD	49.60032	18.49933	12.25186	6.495899	2.920660	.5986883
#1	-.001849	-.010742	.0055170	.0290269	.0185547	4.722607
#2	-.001216	-.011062	.0051782	.0319716	.0175109	4.716744
#3	-.003258	-.007757	.0065302	.0283268	.0181718	4.768523

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0935409**	**.0025484**	**.0077545**	**419.8190**	**.0004857**	**.0248712**
Stddev	.0009148	.0000887	.0001222	1.6938	.0001439	.0001318
%RSD	.9779831	3.481258	1.576293	.4034581	29.61706	.5297116
#1	.0943999	.0025278	.0076146	417.9344	.0005453	.0247526
#2	.0925790	.0024718	.0078081	421.2144	.0003217	.0248480
#3	.0936439	.0026456	.0078408	420.3082	.0005902	.0250130

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.023382**	**190.9998**	**7.337250**	**48.41829**	**.0944861**	**.0053562**
Stddev	.000897	.7137	.037077	.19976	.0001188	.0001783
%RSD	3.836568	.3736771	.5053298	.4125783	.1257751	3.328681
#1	-.022769	191.0519	7.369841	48.52427	.0945133	.0051717
#2	-.022966	190.2615	7.296911	48.18787	.0943560	.0053693
#3	-.024412	191.6860	7.344997	48.54273	.0945890	.0055276

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.19436**	**-.013115**	**1.038489**	**49.68025**	**.0060133**	**1.276337**
Stddev	.19655	.000981	.010125	.27112	.0032965	.002561
%RSD	1.384683	7.481321	.9749451	.5457330	54.81961	.2006212
#1	14.20670	-.013537	1.046399	49.69176	.0023697	1.275461
#2	13.99194	-.013814	1.027079	49.40355	.0087889	1.274329
#3	14.38445	-.011993	1.041990	49.94543	.0068814	1.279221

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-16 Acquired: 1/24/2025 18:15:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002332**	F **369.0480**	F **17.02473**	**-.002100**	**-.014217**	**.0713711**
Stddev	.000086	1.1286	.07837	.001437	.000411	.0021277
%RSD	3.704186	.3058076	.4603325	68.41051	2.890083	2.981223
#1	-.002403	368.0034	17.10613	-.000465	-.013836	.0721593
#2	-.002236	368.8955	17.01827	-.003160	-.014161	.0689617
#3	-.002358	370.2451	16.94979	-.002675	-.014653	.0729922

Elem	Sr4077
Units	ppm
Avg	**1.021886**
Stddev	.008915
%RSD	.8723629
#1	1.025613
#2	1.028332
#3	1.011713

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3482.069**	**73962.91**	**11992.46**	**2471.372**	**3681.486**
Stddev	12.623	85.67	42.84	10.135	12.083
%RSD	.3625215	.1158226	.3572051	.4100779	.3282212
#1	3488.296	73998.62	11998.35	2463.092	3685.460
#2	3490.368	74024.95	11946.98	2482.674	3691.082
#3	3467.542	73865.17	12032.04	2468.349	3667.916

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-17 Acquired: 1/24/2025 18:19:42 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056346**	**.0027836**	**.0151358**	**.0010929**	**-.000491**	**61.34300**
Stddev	.0018959	.0014480	.0002269	.0028664	.001412	.13242
%RSD	33.64678	52.02042	1.499187	262.2668	287.8534	.2158739
#1	.0046256	.0028194	.0148752	-.002068	.000605	61.44911
#2	.0044566	.0013180	.0152897	.001824	.000007	61.19460
#3	.0078216	.0042134	.0152424	.003523	-.002084	61.38530

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0839125**	**.0076613**	**.0092967**	**89.18156**	**.0371663**	**.8643215**
Stddev	.0004886	.0000736	.0000469	.21254	.0003193	.0036728
%RSD	.5823042	.9609131	.5046108	.2383235	.8591962	.4249297
#1	.0843948	.0075780	.0093262	89.42026	.0372522	.8624185
#2	.0834178	.0077175	.0092426	89.01281	.0368128	.8619907
#3	.0839248	.0076885	.0093214	89.11162	.0374339	.8685552

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2290995**	**33.05441**	**22.09287**	**49.22096**	**2.037184**	**.0039416**
Stddev	.0014217	.08559	.00564	.12171	.008907	.0000507
%RSD	.6205479	.2589242	.0255229	.2472803	.4372056	1.286362
#1	.2300406	33.14374	22.08943	49.35830	2.031922	.0039075
#2	.2297937	32.97314	22.09938	49.12646	2.032162	.0039176
#3	.2274641	33.04635	22.08980	49.17812	2.047468	.0039999

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.332781**	**.0073576**	**1.587001**	**4.299298**	**1.488600**	**.5086817**
Stddev	.251575	.0006153	.006713	.042669	.006161	.0009394
%RSD	4.717527	8.362205	.4230207	.9924691	.4138631	.1846802
#1	5.609371	.0080607	1.590403	4.347260	1.493795	.5097584
#2	5.117587	.0069183	1.579268	4.285086	1.481794	.5082574
#3	5.271385	.0070936	1.591332	4.265549	1.490211	.5080292

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-17 Acquired: 1/24/2025 18:19:42 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001410	F 314.8233	F 21.82160	-.001487	.0057472	.1006393
Stddev	.000163	1.6850	.09190	.000483	.0006655	.0012212
%RSD	11.54695	.5352145	.4211261	32.46577	11.58002	1.213491
#1	-.001336	313.7856	21.92637	-.001312	.0049941	.1020486
#2	-.001596	313.9169	21.78377	-.001116	.0062563	.0998919
#3	-.001297	316.7675	21.75465	-.002033	.0059910	.0999773

Elem	Sr4077
Units	ppm
Avg	.4576007
Stddev	.0012441
%RSD	.2718795
#1	.4590060
#2	.4566396
#3	.4571567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4528.418	94604.57	15412.54	3184.334	3984.194
Stddev	8.510	292.57	20.39	9.772	14.855
%RSD	.1879189	.3092524	.1322708	.3068693	.3728394
#1	4528.700	94501.62	15407.04	3180.106	3990.014
#2	4536.783	94934.70	15435.12	3195.508	3995.257
#3	4519.771	94377.40	15395.47	3177.389	3967.310

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-18 Acquired: 1/24/2025 18:23:49 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040005**	**.0014764**	**.0036772**	**-.003824**	**-.001225**	**40.06976**
Stddev	.0006359	.0027604	.0008786	.001533	.001751	.17502
%RSD	15.89643	186.9621	23.89452	40.08352	142.9727	.4367905
#1	.0036601	-.001707	.0042750	-.003177	-.002699	39.94429
#2	.0036072	.003211	.0026684	-.005575	.000711	39.99529
#3	.0047342	.002925	.0040881	-.002721	-.001687	40.26970

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0913109**	**.0027195**	**.0069388**	**282.9395**	**.0299197**	**.2088162**
Stddev	.0002579	.0000215	.0000624	.7315	.0003308	.0002569
%RSD	.2824269	.7898959	.8991431	.2585405	1.105595	.1230149
#1	.0910879	.0027358	.0069822	282.1080	.0296449	.2088602
#2	.0912514	.0026951	.0068673	283.2265	.0298275	.2085401
#3	.0915933	.0027275	.0069669	283.4840	.0302869	.2090482

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2826458**	**9.679564**	**2.927350**	**65.26450**	**.4357389**	**.0003447**
Stddev	.0015463	.054614	.005865	.14489	.0023259	.0001232
%RSD	.5470640	.5642223	.2003405	.2220089	.5337911	35.73574
#1	.2817570	9.636794	2.925575	65.26320	.4353445	.0004349
#2	.2844313	9.660815	2.922578	65.12026	.4336354	.0003947
#3	.2817492	9.741084	2.933897	65.41003	.4382368	.0002044

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.133720**	**.0133244**	**1.364808**	**.8285762**	**.3849546**	**.6018152**
Stddev	.128988	.0004172	.006178	.0400276	.0030638	.0002766
%RSD	2.102938	3.131248	.4526707	4.830893	.7958796	.0459562
#1	6.131671	.0137839	1.370077	.8222053	.3864235	.6019172
#2	6.005768	.0129693	1.358008	.7921161	.3814329	.6020263
#3	6.263720	.0132199	1.366338	.8714072	.3870073	.6015021

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-18 Acquired: 1/24/2025 18:23:49 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000496	F 325.4159	F 23.77387	-.002686	.0005259	.0911831
Stddev	.000205	1.1128	.05682	.001225	.0003315	.0010201
%RSD	41.33868	.3419736	.2389974	45.62109	63.02320	1.118729
#1	-.000350	325.9300	23.83937	-.001537	.0004805	.0902823
#2	-.000730	324.1389	23.74431	-.002546	.0002195	.0909763
#3	-.000407	326.1787	23.73792	-.003975	.0008777	.0922908

Elem	Sr4077
Units	ppm
Avg	1.011419
Stddev	.013553
%RSD	1.340021
#1	1.022536
#2	.996321
#3	1.015399

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3878.935	81908.17	13603.27	2718.847	3826.795
Stddev	2.730	302.63	62.08	23.963	4.463
%RSD	.0703694	.3694757	.4563476	.8813798	.1166209
#1	3875.890	81729.06	13534.69	2702.360	3826.867
#2	3879.751	82257.59	13655.64	2746.336	3831.222
#3	3881.163	81737.88	13619.46	2707.846	3822.297

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-19 Acquired: 1/24/2025 18:28:04 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8J0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0217116**	**.0042453**	**.0105920**	**-.004022**	**-.001708**	**47.63948**
Stddev	.0005861	.0014969	.0013586	.001600	.000847	.34287
%RSD	2.699571	35.26068	12.82665	39.77284	49.59898	.7197275
#1	.0220272	.0025571	.0105265	-.003347	-.002005	48.03359
#2	.0210353	.0047681	.0092673	-.002870	-.000752	47.40963
#3	.0220724	.0054106	.0119821	-.005849	-.002366	47.47523

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0693494**	**.0050942**	**.0036762**	**173.0610**	**.0156981**	**.1846160**
Stddev	.0003680	.0000369	.0001066	.7955	.0001859	.0002277
%RSD	.5306658	.7235895	2.900768	.4596575	1.184503	.1233366
#1	.0695436	.0050862	.0035896	173.9732	.0158983	.1843942
#2	.0689250	.0050620	.0037953	172.5118	.0156653	.1846047
#3	.0695796	.0051344	.0036437	172.6979	.0155307	.1848491

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0656363**	**.7833716**	**7.708350**	**37.08333**	**.2750765**	**.0007284**
Stddev	.0007650	.0076008	.048747	.16389	.0002080	.0001554
%RSD	1.165517	.9702668	.6323929	.4419473	.0756226	21.33034
#1	.0660694	.7917681	7.763934	37.27236	.2749925	.0006992
#2	.0660866	.7769606	7.672867	36.99660	.2753134	.0008963
#3	.0647531	.7813862	7.688250	36.98104	.2749236	.0005897

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.336196**	**.0161243**	**1.066529**	**7.922794**	F **13.20090**	**.3914477**
Stddev	.297719	.0002807	.002220	.078382	.02388	.0033984
%RSD	6.865897	1.740946	.2081088	.9893199	.1808675	.8681733
#1	4.029923	.0164483	1.069041	7.992668	13.19492	.3876125
#2	4.624552	.0159519	1.064833	7.838038	13.18058	.3940848
#3	4.354113	.0159729	1.065712	7.937674	13.22720	.3926459

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-19 Acquired: 1/24/2025 18:28:04 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8J0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000438	F 308.6939	9.060932	-.001371	-.004121	.0141856
Stddev	.000130	.9260	.009041	.001047	.000247	.0007390
%RSD	29.79790	.2999613	.0997775	76.37686	5.985242	5.209770
#1	-.000360	307.9370	9.063996	-.000351	-.004404	.0138759
#2	-.000365	308.4184	9.050757	-.002444	-.004004	.0136518
#3	-.000588	309.7264	9.068042	-.001318	-.003954	.0150292

Elem	Sr4077
Units	ppm
Avg	1.040529
Stddev	.009675
%RSD	.9298187
#1	1.040693
#2	1.050121
#3	1.030773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4855.672	102087.3	16658.12	3408.665	3882.900
Stddev	14.924	135.3	111.65	5.759	9.796
%RSD	.3073482	.1325418	.6702265	.1689572	.2522835
#1	4869.310	101951.1	16785.34	3415.314	3893.649
#2	4857.976	102089.2	16576.45	3405.435	3880.576
#3	4839.731	102221.6	16612.57	3405.245	3874.475

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-20 Acquired: 1/24/2025 18:32:10 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8J1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046364**	**-.002954**	**.0113888**	**.0079642**	**.0025296**	**83.20164**
Stddev	.0005070	.002418	.0009412	.0020173	.0007132	.62055
%RSD	10.93442	81.86529	8.264594	25.32928	28.19430	.7458335
#1	.0045647	-.001544	.0111156	.0101409	.0026057	83.60566
#2	.0051754	-.001571	.0124364	.0061575	.0017814	82.48713
#3	.0041691	-.005746	.0106144	.0075943	.0032017	83.51213

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0787371**	**.0058951**	**.0134520**	**127.6965**	**.1017312**	**1.351965**
Stddev	.0011361	.0000643	.0001093	.7793	.0003341	.004473
%RSD	1.442935	1.091213	.8125800	.6102988	.3284438	.3308329
#1	.0798831	.0059373	.0133337	127.8850	.1018276	1.353997
#2	.0776111	.0058211	.0134733	126.8402	.1013595	1.346837
#3	.0787170	.0059270	.0135492	128.3644	.1020066	1.355062

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9238086**	**56.17627**	**15.62501**	**53.20586**	**1.105010**	**.0035295**
Stddev	.0050580	.34198	.10114	.26977	.003627	.0001289
%RSD	.5475166	.6087541	.6473192	.5070333	.3281951	3.653538
#1	.9206633	56.36048	15.63310	53.33934	1.107672	.0035394
#2	.9211194	55.78168	15.52007	52.89537	1.100880	.0036532
#3	.9296431	56.38665	15.72187	53.38287	1.106480	.0033959

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.978294**	**.1603141**	**1.316100**	**13.37095**	**2.136421**	**.6627891**
Stddev	.198670	.0005820	.010809	.14632	.003626	.0004097
%RSD	2.846971	.3630590	.8213180	1.094333	.1697110	.0618137
#1	6.759155	.1596422	1.308642	13.43219	2.132235	.6630865
#2	7.146629	.1606348	1.311162	13.20396	2.138442	.6623218
#3	7.029099	.1606652	1.328497	13.47670	2.138585	.6629590

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1106-20 Acquired: 1/24/2025 18:32:10 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8J1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001396	F 318.4632	F 31.31567	-.002640	.0026195	.1033136
Stddev	.000056	.9437	.03244	.000602	.0004334	.0012171
%RSD	4.043663	.2963258	.1035837	22.78486	16.54724	1.178093
#1	-.001430	318.3512	31.27822	-.002681	.0021983	.1029379
#2	-.001427	317.5806	31.33402	-.003220	.0030642	.1023286
#3	-.001331	319.4579	31.33477	-.002019	.0025959	.1046743

Elem	Sr4077
Units	ppm
Avg	.5639314
Stddev	.0042376
%RSD	.7514376
#1	.5651299
#2	.5592237
#3	.5674408

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4314.525	89873.90	14923.26	3016.321	3904.864
Stddev	18.235	542.22	61.81	20.059	13.597
%RSD	.4226310	.6033092	.4141805	.6650217	.3482002
#1	4334.901	90012.92	14994.44	3027.262	3909.970
#2	4308.932	90333.07	14883.08	3028.530	3915.170
#3	4299.742	89275.71	14892.27	2993.170	3889.454

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163BL Acquired: 1/24/2025 18:36:05 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW163 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016198**	**-.000773**	**-.000805**	**-.001041**	**-.000891**	**.0066851**
Stddev	.0010712	.000548	.001315	.001053	.002036	.0099511
%RSD	66.12752	70.84097	163.3725	101.1288	228.3432	148.8544
#1	.0011285	-.000143	.000624	.000067	-.002023	-.003828
#2	.0008825	-.001138	-.001074	-.002028	-.002110	.007925
#3	.0028485	-.001038	-.001964	-.001162	.001458	.015958

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008600**	**-.000052**	**-.000041**	**.0101705**	**.0004032**	**-.000143**
Stddev	.000639	.000053	.000004	.0046174	.0002902	.000059
%RSD	7.428421	101.4601	8.581141	45.39955	71.98800	41.45039
#1	-.008151	-.000054	-.000041	.0153794	.0007073	-.000211
#2	-.009331	.000002	-.000037	.0065806	.0003730	-.000110
#3	-.008316	-.000105	-.000044	.0085516	.0001292	-.000107

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000424**	**.0070675**	**-.000228**	**-.014578**	**-.000052**	**.0005106**
Stddev	.000601	.0010841	.000185	.013144	.000338	.0002261
%RSD	141.8030	15.33978	80.88734	90.16075	645.0359	44.27841
#1	.000205	.0063231	-.000307	-.001446	.000135	.0006953
#2	-.000993	.0083113	-.000361	-.014554	-.000442	.0002585
#3	-.000484	.0065680	-.000017	-.027733	.000150	.0005780

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4565594**	**-.000068**	**.0000199**	**-.275464**	**.0046143**	F **-.011013**
Stddev	.0953692	.001116	.0007182	.063690	.0016274	.000747
%RSD	20.88868	1648.480	3605.892	23.12094	35.26873	6.785794
#1	.5528651	-.001274	.0008141	-.296884	.0063873	-.010201
#2	.3621551	.000145	-.000584	-.325682	.0042673	-.011673
#3	.4546579	.000927	-.000171	-.203825	.0031884	-.011164

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163BL Acquired: 1/24/2025 18:36:05 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW163 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000644	.0589315	.0032688	-.000381	.0000182	-.002737
Stddev	.000178	.0064938	.0004176	.000258	.0001304	.000889
%RSD	27.63478	11.01915	12.77622	67.60851	717.4525	32.48870
#1	-.000444	.0663588	.0029220	-.000565	.0001471	-.003382
#2	-.000701	.0561094	.0031519	-.000087	.0000210	-.001723
#3	-.000786	.0543263	.0037324	-.000491	-.000114	-.003106

Elem	Sr4077
Units	ppm
Avg	-.000003
Stddev	.000069
%RSD	2627.637
#1	-.000078
#2	.000057
#3	.000013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3485.940	71552.05	11249.28	2409.973	4375.492
Stddev	3.094	55.56	93.30	2.607	3.169
%RSD	.0887619	.0776567	.8293452	.1081675	.0724178
#1	3484.874	71517.56	11147.98	2407.918	4377.873
#2	3489.427	71522.45	11331.67	2409.097	4376.707
#3	3483.520	71616.15	11268.20	2412.905	4371.895

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163BS Acquired: 1/24/2025 18:40:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS163 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0194735**	**.0480730**	**.0184952**	**.0628865**	**.1064445**	**.3671088**	**.3499020**
Stddev	.0018416	.0007903	.0005394	.0019037	.0014892	.0061794	.0016416
%RSD	9.456862	1.644063	2.916522	3.027225	1.399076	1.683262	.4691557
#1	.0175014	.0486379	.0183282	.0641359	.1063023	.3710480	.3514390
#2	.0211484	.0484112	.0180590	.0606955	.1050314	.3599868	.3481727
#3	.0197708	.0471698	.0190984	.0638280	.1079997	.3702916	.3500943

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0093082**	**.0094500**	**9.199381**	**.0202423**	**.0938680**	**.0504764**	**.2018083**
Stddev	.0000796	.0000408	.044242	.0002682	.0006142	.0013233	.0045562
%RSD	.8550003	.4319346	.4809265	1.324906	.6543665	2.621544	2.257671
#1	.0092931	.0094649	9.230872	.0204857	.0933689	.0490685	.2032865
#2	.0093943	.0094813	9.148799	.0199548	.0936812	.0516946	.1966966
#3	.0092373	.0094038	9.218473	.0202866	.0945540	.0506660	.2054419

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0280971**	**8.178304**	**.0769857**	**.0180702**	**8.977765**	**.0986976**	**.1160557**
Stddev	.0002045	.036170	.0000744	.0003024	.308050	.0020685	.0016638
%RSD	.7276495	.4422627	.0966707	1.673343	3.431256	2.095812	1.433591
#1	.0278670	8.219551	.0770321	.0184170	9.306537	.1009518	.1170240
#2	.0282577	8.163361	.0768999	.0178622	8.695792	.0982545	.1141346
#3	.0281667	8.152001	.0770252	.0179312	8.930967	.0968865	.1170085

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.501226**	**.0176669**	**-.009738**	**.0188078**	**.2058301**	**.4276933**	**.0132555**
Stddev	.033620	.0022332	.000319	.0001787	.0012560	.0012330	.0003464
%RSD	.3954740	12.64052	3.280653	.9503132	.6101952	.2882841	2.613154
#1	8.539960	.0164806	-.009371	.0189403	.2070267	.4275143	.0133902
#2	8.484112	.0202429	-.009887	.0186045	.2045222	.4265596	.0128620
#3	8.479606	.0162772	-.009955	.0188785	.2059416	.4290060	.0135143

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166163BS Acquired: 1/24/2025 18:40:14 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS163 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1949160	.0219276	.1673810
Stddev	.0005276	.0009174	.0009279
%RSD	.2706975	4.183561	.5543704
#1	.1954937	.0213105	.1683886
#2	.1947949	.0229818	.1665617
#3	.1944595	.0214906	.1671926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3411.240	72531.07	11102.14	2421.667	4189.122
Stddev	5.689	138.36	44.22	7.768	6.477
%RSD	.1667622	.1907543	.3982817	.3207663	.1546127
#1	3409.461	72385.98	11131.79	2420.947	4182.430
#2	3417.606	72545.71	11051.32	2414.284	4195.359
#3	3406.654	72661.53	11123.30	2429.769	4189.576

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166132TB Acquired: 1/24/2025 18:44:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB132 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014999	-.005264	-.001815	.0090881	.0009507	.0114953
Stddev	.0010659	.000756	.000691	.0007002	.0012509	.0032247
%RSD	71.06255	14.35886	38.06326	7.704637	131.5752	28.05224
#1	.0023391	-.005873	-.001880	.0092932	-.000450	.0148303
#2	.0018600	-.005501	-.002470	.0083083	.001958	.0112619
#3	.0003006	-.004418	-.001094	.0096629	.001344	.0083936

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010595	-.000075	-.000122	-.002633	.0018627	-.000068
Stddev	.001131	.000018	.000072	.004039	.0001258	.000324
%RSD	10.67712	23.57461	58.92030	153.3884	6.751925	479.3298
#1	-.009399	-.000056	-.000050	.001967	.0019983	.000169
#2	-.010739	-.000091	-.000121	-.004268	.0017498	.000064
#3	-.011647	-.000076	-.000194	-.005598	.0018400	-.000437

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011770	.0129098	.0013415	-.009527	.0036947	.0004876
Stddev	.0008021	.0026396	.0003169	.009222	.0003592	.0003532
%RSD	68.14605	20.44690	23.62055	96.79940	9.722199	72.43657
#1	.0009384	.0159253	.0017014	.001082	.0036180	.0002734
#2	.0020713	.0110178	.0012187	-.014031	.0033801	.0002942
#3	.0005213	.0117862	.0011044	-.015632	.0040861	.0008953

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1424.337	-.000059	.0009371	-1.15556	.0074143	-.013633
Stddev	13.523	.001511	.0008119	.04245	.0031966	.000584
%RSD	.9494254	2571.274	86.63342	3.673177	43.11333	4.285832
#1	1439.952	.001591	.0014869	-1.18410	.0066561	-.013085
#2	1416.567	-.000391	.0000046	-1.17580	.0046651	-.013568
#3	1416.492	-.001375	.0013198	-1.10678	.0109219	-.014248

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166132TB Acquired: 1/24/2025 18:44:17 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB132 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000207	.0492760	.0035293	.0029707	-.000912	-.005395
Stddev	.000120	.0041912	.0027389	.0003444	.000529	.000969
%RSD	58.27334	8.505627	77.60358	11.59470	57.95164	17.95800
#1	-.000123	.0446699	.0035374	.0025937	-.000510	-.004337
#2	-.000345	.0528651	.0007864	.0030495	-.000716	-.005607
#3	-.000153	.0502931	.0062641	.0032689	-.001511	-.006240

Elem	Sr4077
Units	ppm
Avg	.0000033
Stddev	.0000396
%RSD	1207.100
#1	-.000023
#2	-.000016
#3	.000049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2960.580	62195.14	11084.65	2095.838	3409.471
Stddev	9.370	145.24	68.81	6.799	5.089
%RSD	.3164965	.2335302	.6207764	.3244020	.1492534
#1	2970.994	62049.55	11020.22	2091.389	3414.923
#2	2957.918	62340.04	11076.59	2092.460	3404.848
#3	2952.829	62195.82	11157.13	2103.664	3408.640

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-01 Acquired: 1/24/2025 18:48:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1513800**	**-.004875**	**.0065656**	**.0081975**	**.1205482**	**-.113478**
Stddev	.0041194	.002835	.0025253	.0012567	.0008710	.006449
%RSD	2.721220	58.14526	38.46274	15.33007	.7224950	5.683233
#1	.1478743	-.005000	.0044107	.0068713	.1214902	-.110212
#2	.1559171	-.001980	.0059417	.0093706	.1197721	-.109316
#3	.1503487	-.007646	.0093444	.0083504	.1203824	-.120907

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6003426**	**-.000300**	**.0006402**	**450.2302**	**.0000515**	**.0472456**
Stddev	.0023926	.000009	.0000502	3.4011	.0001308	.0005323
%RSD	.3985369	2.855880	7.845195	.7554226	253.8811	1.126746
#1	.6030675	-.000299	.0006525	450.0832	.0000259	.0469650
#2	.5993749	-.000309	.0006831	453.7025	.0001933	.0469123
#3	.5985855	-.000292	.0005850	446.9050	-.000065	.0478595

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001157**	**45.53705**	**1.441161**	**48.84887**	**.0221038**	**.0021377**
Stddev	.001424	.06432	.008405	.10900	.0002530	.0001919
%RSD	123.0997	.1412457	.5831823	.2231291	1.144401	8.977160
#1	.000386	45.60994	1.449914	48.97100	.0221084	.0020844
#2	-.001436	45.48828	1.440415	48.81416	.0218485	.0023507
#3	-.002421	45.51293	1.433155	48.76146	.0223544	.0019782

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1734.866**	**-.001472**	**1.004943**	**36.89522**	**.0574136**	**.6911872**
Stddev	9.403	.001318	.006045	.08990	.0023309	.0005258
%RSD	.5419870	89.57258	.6015210	.2436549	4.059747	.0760665
#1	1740.588	-.002292	1.011638	36.99177	.0574607	.6909655
#2	1739.996	-.002171	1.003306	36.87994	.0597205	.6917875
#3	1724.014	.000049	.999886	36.81394	.0550595	.6908085

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-01 Acquired: 1/24/2025 18:48:26 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160980	F 31.28503	5.033621	-.001451	-.013425	.0401206
Stddev	.0005541	.09632	.015958	.001133	.000668	.0005728
%RSD	3.441713	.3078656	.3170327	78.12086	4.976934	1.427587
#1	.0155112	31.23673	5.040390	-.000482	-.012946	.0403340
#2	.0166122	31.22242	5.045080	-.002697	-.014188	.0394718
#3	.0161706	31.39594	5.015395	-.001173	-.013140	.0405561

Elem	Sr4077
Units	ppm
Avg	3.560129
Stddev	.014294
%RSD	.4014952
#1	3.548566
#2	3.555712
#3	3.576110

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.949	58995.03	10843.69	1942.038	3138.040
Stddev	10.268	73.86	13.68	3.699	17.083
%RSD	.3706930	.1251979	.1262010	.1904707	.5443994
#1	2777.211	58910.47	10843.56	1945.152	3146.560
#2	2774.435	59027.70	10830.08	1937.949	3149.189
#3	2758.202	59046.92	10857.45	1943.012	3118.372

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-02 Acquired: 1/24/2025 18:52:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1481625	-.004916	.0051214	.0094150	.1172541	-.104361
Stddev	.0022566	.000902	.0012544	.0022614	.0030505	.008184
%RSD	1.523064	18.34406	24.49363	24.01960	2.601613	7.842318
#1	.1505829	-.005612	.0036931	.0114523	.1173933	-.108655
#2	.1477880	-.003897	.0060444	.0098110	.1141364	-.109504
#3	.1461165	-.005238	.0056266	.0069817	.1202326	-.094923

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5897026	-.000308	.0005763	447.8873	.0001229	.0476495
Stddev	.0036443	.000025	.0000922	1.7085	.0001857	.0001493
%RSD	.6179912	8.145697	16.00251	.3814666	151.0899	.3133622
#1	.5871659	-.000280	.0006123	446.2099	-.000040	.0475656
#2	.5880632	-.000329	.0006452	449.6253	.000325	.0475610
#3	.5938787	-.000315	.0004715	447.8266	.000083	.0478219

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001398	45.05722	1.426256	48.44567	.0213196	.0021007
Stddev	.000578	.17105	.009466	.26351	.0004513	.0002050
%RSD	41.31659	.3796285	.6636920	.5439291	2.116700	9.757497
#1	-.001466	44.91598	1.419553	48.22201	.0207991	.0020133
#2	-.000789	45.00826	1.422130	48.37885	.0216009	.0023349
#3	-.001938	45.24741	1.437084	48.73616	.0215589	.0019539

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1731.591	-.001715	.9866430	36.40418	.0562235	.6985372
Stddev	23.191	.000395	.0112168	.16198	.0008671	.0037948
%RSD	1.339270	23.01359	1.136861	.4449461	1.542288	.5432470
#1	1710.570	-.002171	.9794515	36.29758	.0567412	.6948365
#2	1727.735	-.001468	.9809099	36.32437	.0552224	.6983555
#3	1756.468	-.001508	.9995676	36.59057	.0567068	.7024196

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-02 Acquired: 1/24/2025 18:52:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0154682	F 30.25348	5.044627	-.002614	-.013376	.0389760
Stddev	.0001767	.05113	.065872	.001667	.000246	.0015766
%RSD	1.142606	.1690163	1.305789	63.77841	1.837293	4.044983
#1	.0156239	30.19689	4.983445	-.004297	-.013658	.0406931
#2	.0155045	30.29635	5.036081	-.002583	-.013209	.0375938
#3	.0152761	30.26722	5.114355	-.000963	-.013261	.0386410

Elem	Sr4077
Units	ppm
Avg	3.485251
Stddev	.037004
%RSD	1.061738
#1	3.485055
#2	3.448345
#3	3.522353

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2817.922	58543.97	10568.54	1942.657	3185.351
Stddev	8.476	158.75	92.39	10.053	10.035
%RSD	.3007977	.2711577	.8742009	.5174941	.3150312
#1	2822.896	58651.79	10669.05	1951.248	3193.323
#2	2822.735	58618.44	10549.27	1945.123	3188.647
#3	2808.135	58361.68	10487.31	1931.600	3174.082

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-01LX5 Acquired: 1/24/2025 18:57:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0271751	-.001801	.0009511	.0017174	.0212601	-.042529	.1029019
Stddev	.0012268	.001933	.0004663	.0011259	.0002431	.011577	.0009421
%RSD	4.514575	107.3589	49.03324	65.55791	1.143459	27.22135	.9155099
#1	.0262758	-.004009	.0004434	.0029370	.0214084	-.055371	.1030769
#2	.0266769	-.000985	.0013603	.0007175	.0213923	-.032894	.1037441
#3	.0285727	-.000409	.0010495	.0014977	.0209795	-.039321	.1018846

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000040	.0001187	84.72067	.0000824	.0096997	-.000627	8.761690
Stddev	.000060	.0000763	.37089	.0004726	.0001701	.001679	.023227
%RSD	149.8764	64.28242	.4377806	573.3916	1.753300	267.8103	.2651013
#1	-.000104	.0000382	84.84244	.0006038	.0095090	.000446	8.764130
#2	.000014	.0001279	85.01537	-.000039	.0097548	-.002562	8.783601
#3	-.000029	.0001900	84.30420	-.000318	.0098354	.000235	8.737339

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2761704	9.351569	.0043957	.0002857	332.8664	.0006754	.1821704
Stddev	.0010004	.018514	.0004747	.0005347	.9060	.0016000	.0016745
%RSD	.3622323	.1979811	10.79853	187.1936	.2721806	236.8977	.9191865
#1	.2760160	9.331456	.0038496	.0004583	333.3038	.0017646	.1803351
#2	.2772390	9.367900	.0046274	-.000314	331.8247	-.001162	.1836150
#3	.2752562	9.355352	.0047100	.000713	333.4706	.001423	.1825611

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.435567	.0133587	.1404574	.0027920	5.824700	1.016217	-.002060
Stddev	.020967	.0024961	.0006342	.0001544	.013974	.000923	.000899
%RSD	.3257995	18.68556	.4515028	5.528677	.2399046	.0908009	43.63827
#1	6.422127	.0104787	.1398516	.0028874	5.811518	1.017282	-.001277
#2	6.424847	.0146996	.1404041	.0026139	5.823231	1.015703	-.003042
#3	6.459726	.0148978	.1411165	.0028747	5.839350	1.015666	-.001862

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-01LX5 Acquired: 1/24/2025 18:57:03 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003264	.0101842	.6558418
Stddev	.000267	.0018065	.0027029
%RSD	8.174973	17.73832	.4121331
#1	-.003340	.0081702	.6581587
#2	-.002968	.0107206	.6564945
#3	-.003486	.0116617	.6528723

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3171.879	66248.77	10912.32	2221.822	3714.762
Stddev	2.617	260.45	18.57	14.281	6.068
%RSD	.0825141	.3931468	.1701738	.6427674	.1633544
#1	3173.126	66072.00	10890.88	2214.647	3721.752
#2	3168.871	66126.44	10923.32	2212.551	3710.853
#3	3173.640	66547.87	10922.76	2238.267	3711.679

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-03 Acquired: 1/24/2025 19:01:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1900639**	**.0429253**	**.0239162**	**.1213898**	**.2176646**	**2.055295**
Stddev	.0009502	.0012347	.0005768	.0050343	.0017104	.010140
%RSD	.4999499	2.876475	2.411580	4.147235	.7858105	.4933453
#1	.1897431	.0442472	.0232671	.1239891	.2177217	2.066742
#2	.1911330	.0418017	.0243698	.1155872	.2159264	2.051701
#3	.1893157	.0427271	.0241117	.1245932	.2193459	2.047442

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.879745**	**.0453717**	**.0491849**	**441.7864**	**.2050005**	**.5393697**
Stddev	.006308	.0001740	.0001821	.9876	.0006034	.0022967
%RSD	.2190541	.3834289	.3702528	.2235395	.2943448	.4258125
#1	2.874822	.0455579	.0492014	442.6250	.2056603	.5380552
#2	2.886856	.0452133	.0489951	442.0363	.2048645	.5380323
#3	2.877558	.0453440	.0493582	440.6979	.2044767	.5420217

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2499521**	**45.88712**	**1.945308**	**47.95853**	**.5100740**	**.0434536**
Stddev	.0047987	.03154	.004353	.04893	.0016711	.0004712
%RSD	1.919836	.0687268	.2237533	.1020253	.3276131	1.084309
#1	.2535900	45.88077	1.942931	47.90772	.5081510	.0434341
#2	.2517527	45.92134	1.950331	47.96251	.5108981	.0429924
#3	.2445135	45.85923	1.942660	48.00534	.5111730	.0439341

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1706.962**	**.4905669**	**1.555576**	**36.74793**	**.0568810**	**.6935859**
Stddev	4.730	.0002996	.024141	.09184	.0032551	.0006920
%RSD	.2770857	.0610684	1.551901	.2499247	5.722630	.0997758
#1	1707.895	.4907364	1.536597	36.64210	.0606384	.6941460
#2	1711.155	.4902210	1.582747	36.79493	.0550865	.6937995
#3	1701.835	.4907433	1.547384	36.80676	.0549181	.6928123

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1129-03 Acquired: 1/24/2025 19:01:07 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLA3S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0155242	F 30.03999	4.978789	-.001054	-.014078	.0400312
Stddev	.0001446	.12249	.007400	.000429	.000860	.0017007
%RSD	.9311605	.4077587	.1486296	40.70596	6.108756	4.248531
#1	.0156217	30.04509	4.984822	-.000793	-.014338	.0414636
#2	.0153581	29.91503	4.970532	-.001550	-.014778	.0404784
#3	.0155928	30.15985	4.981013	-.000821	-.013118	.0381515

Elem	Sr4077
Units	ppm
Avg	3.499734
Stddev	.020626
%RSD	.5893537
#1	3.513710
#2	3.509446
#3	3.476045

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2833.168	58938.62	10765.18	1949.661	3207.163
Stddev	8.134	75.36	20.10	23.918	10.478
%RSD	.2871107	.1278701	.1867090	1.226790	.3266982
#1	2841.497	58986.63	10754.53	1972.185	3217.788
#2	2832.762	58977.48	10788.36	1924.557	3206.862
#3	2825.244	58851.76	10752.65	1952.240	3196.839

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166162BL Acquired: 1/24/2025 19:05:19 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW162 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003445**	**.0004994**	**-.000425**	**-.001093**	**.0002602**	**.0028087**
Stddev	.0005248	.0025041	.000369	.003016	.0014171	.0073646
%RSD	152.3296	501.4119	86.93739	275.9589	544.6164	262.2045
#1	.0000978	.0001930	-.000851	.001854	-.001375	.0077920
#2	-.000011	-.001837	-.000208	-.004173	.001121	-.005651
#3	.000947	.003143	-.000215	-.000959	.001035	.006285

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.010461**	**-.000012**	**-.000004**	**.0084325**	**.0002612**	**-.000014**
Stddev	.000584	.000028	.000033	.0055474	.0002069	.000129
%RSD	5.583781	229.4896	923.0127	65.78530	79.21544	899.6489
#1	-.010069	-.000040	.000032	.0071695	.0001264	-.000115
#2	-.011132	.000016	-.000034	.0145025	.0004995	-.000060
#3	-.010181	-.000013	-.000009	.0036256	.0001578	.000132

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014259**	**.0009512**	**-.000498**	**-.013900**	**-.000021**	**.0003615**
Stddev	.0020920	.0051694	.000144	.009982	.000272	.0002939
%RSD	146.7176	543.4502	28.83733	71.80971	1270.243	81.30215
#1	.0024959	-.003453	-.000528	-.018136	.000070	.0002582
#2	.0027665	-.000336	-.000341	-.021066	-.000327	.0006932
#3	-.000985	.006643	-.000623	-.002499	.000193	.0001333

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5019128**	**.0001347**	**-.000562**	**.1632552**	**.0028607**	F **-.012309**
Stddev	.2746277	.0010852	.001377	.0465436	.0011389	.000375
%RSD	54.71622	805.6533	245.2363	28.50971	39.81191	3.045472
#1	.3472180	-.000718	.000160	.1536105	.0036311	-.012441
#2	.8189945	-.000234	.000305	.1222897	.0033986	-.012600
#3	.3395259	.001356	-.002150	.2138656	.0015525	-.011886

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166162BL Acquired: 1/24/2025 19:05:19 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW162 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000550**	**.0200738**	**.0013583**	**-.000152**	**-.000358**	**.0025110**
Stddev	.000126	.0033581	.0011748	.000561	.000790	.0008056
%RSD	22.85791	16.72858	86.49579	370.0521	220.2505	32.08151
#1	-.000616	.0165372	.0006907	.000477	.000109	.0016022
#2	-.000629	.0232191	.0006693	-.000329	-.001270	.0027935
#3	-.000405	.0204651	.0027148	-.000603	.000086	.0031372

Elem	Sr4077
Units	ppm
Avg	**.0000437**
Stddev	.0000195
%RSD	44.63686
#1	.0000227
#2	.0000613
#3	.0000473

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3375.205**	**71043.48**	**11152.65**	**2400.865**	**4207.284**
Stddev	5.852	152.44	25.88	10.956	10.745
%RSD	.1733964	.2145662	.2320419	.4563292	.2553915
#1	3379.900	70945.27	11132.69	2398.228	4210.088
#2	3377.067	71219.08	11181.89	2412.899	4216.349
#3	3368.648	70966.08	11143.36	2391.469	4195.415

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166162BS Acquired: 1/24/2025 19:09:29 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS162 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0186984**	**.0511025**	**.0177839**	**.0618847**	**.1074178**	**.3827428**	**.3773381**
Stddev	.0014921	.0002504	.0013914	.0019285	.0017185	.0052395	.0034675
%RSD	7.979750	.4900484	7.823745	3.116242	1.599865	1.368947	.9189276
#1	.0199808	.0508355	.0175316	.0597979	.1075025	.3842471	.3734537
#2	.0170607	.0511397	.0165359	.0622549	.1056584	.3870656	.3784397
#3	.0190536	.0513322	.0192841	.0636012	.1090924	.3769156	.3801211

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0093579**	**.0095503**	**9.750133**	**.0210308**	**.0952595**	**.0525518**	**.2108211**
Stddev	.0000982	.0000979	.054009	.0002711	.0001738	.0004275	.0051427
%RSD	1.049240	1.025296	.5539359	1.288953	.1824737	.8134475	2.439350
#1	.0094543	.0094859	9.693261	.0213018	.0951360	.0525853	.2048936
#2	.0093615	.0095020	9.756406	.0207596	.0951842	.0529615	.2140935
#3	.0092580	.0096630	9.800732	.0210309	.0954582	.0521085	.2134762

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0297179**	**8.653244**	**.0773006**	**.0188226**	**9.706324**	**.1004330**	**.1201721**
Stddev	.0000328	.069134	.0003444	.0003456	.173037	.0009554	.0015058
%RSD	.1105303	.7989424	.4455589	1.835867	1.782721	.9513173	1.253074
#1	.0296879	8.578620	.0771704	.0185684	9.610514	.1014774	.1187896
#2	.0297128	8.665998	.0776911	.0186834	9.906074	.0996030	.1199500
#3	.0297530	8.715113	.0770402	.0192161	9.602383	.1002185	.1217766

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.429584**	**.0205569**	**-.011076**	**.0192243**	**.1839162**	**.4379320**	**.0134053**
Stddev	.068371	.0012899	.000293	.0002851	.0005890	.0051239	.0005090
%RSD	.7250733	6.274639	2.643771	1.483246	.3202415	1.170030	3.796753
#1	9.366273	.0208427	-.011236	.0194402	.1844205	.4328530	.0139667
#2	9.420394	.0191480	-.010738	.0193316	.1832689	.4378432	.0132750
#3	9.502086	.0216798	-.011254	.0189010	.1840593	.4430997	.0129741

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166162BS Acquired: 1/24/2025 19:09:29 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS162 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1989422	.0305549	.1792710
Stddev	.0008012	.0015147	.0015814
%RSD	.4027059	4.957190	.8821100
#1	.1990904	.0289739	.1774616
#2	.1980773	.0306976	.1799627
#3	.1996589	.0319932	.1803886

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3411.354	70582.10	11269.36	2392.923	4221.835
Stddev	5.141	140.90	53.86	4.628	6.629
%RSD	.1507162	.1996203	.4778930	.1934055	.1570221
#1	3407.380	70691.93	11207.53	2397.881	4219.489
#2	3417.161	70631.14	11294.58	2392.172	4229.318
#3	3409.522	70423.24	11305.99	2388.716	4216.697

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV017 Acquired: 1/24/2025 19:13:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV017 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.742382**	**4.720587**	**23.22714**	**4.841065**	**4.905671**	**420.6313**
Stddev	.011015	.018243	.03830	.021924	.013221	1.0849
%RSD	.2322742	.3864468	.1648923	.4528845	.2695079	.2579334
#1	4.742522	4.718556	23.22570	4.861072	4.916871	419.6240
#2	4.731297	4.703444	23.18957	4.817628	4.891086	420.4899
#3	4.753326	4.739759	23.26613	4.844494	4.909056	421.7800

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.73894**	**.4506087**	**2.312653**	**406.6380**	**14.68873**	**2.375691**
Stddev	.13825	.0014861	.004580	3.3174	.02431	.003851
%RSD	1.287331	.3297924	.1980530	.8158108	.1654999	.1620942
#1	10.58084	.4493668	2.309766	410.4184	14.67445	2.376728
#2	10.79888	.4502040	2.310259	404.2125	14.67494	2.371428
#3	10.83711	.4522551	2.317935	405.2831	14.71680	2.378918

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.70008**	**413.9968**	**15.38865**	**399.4267**	**2.364326**	**1.257562**
Stddev	.02699	2.3000	.04397	1.5264	.004775	.001686
%RSD	.1836185	.5555698	.2857036	.3821518	.2019747	.1340676
#1	14.73103	416.5536	15.43818	401.0251	2.364633	1.259505
#2	14.68146	412.0960	15.35426	397.9842	2.359404	1.256493
#3	14.68774	413.3409	15.37350	399.2710	2.368940	1.256687

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**379.2645**	**2.369531**	**15.82248**	**157.8968**	**4.699497**	F **5.654083**
Stddev	.4220	.008149	.03868	1.0661	.017047	.003905
%RSD	.1112762	.3438878	.2444815	.6752090	.3627374	.0690714
#1	379.0398	2.376343	15.77882	159.0878	4.697516	5.657085
#2	379.0023	2.360504	15.83613	157.0314	4.683527	5.649668
#3	379.7513	2.371746	15.85248	157.5712	4.717448	5.655497

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV017 Acquired: 1/24/2025 19:13:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV017 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.744021**	**4.804109**	**4.768936**	**4.673767**	**4.835493**	**5.311027**
Stddev	.008540	.007584	.012633	.004475	.002533	.033664
%RSD	.1800081	.1578713	.2649043	.0957412	.0523828	.6338419
#1	4.748031	4.809770	4.774011	4.674314	4.836241	5.349857
#2	4.734214	4.795492	4.754555	4.669044	4.832670	5.290058
#3	4.749818	4.807064	4.778243	4.677943	4.837568	5.293167

Elem	Sr4077
Units	ppm
Avg	**5.308841**
Stddev	.020491
%RSD	.3859733
#1	5.308462
#2	5.288543
#3	5.329519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2765.279**	**60265.10**	**10494.79**	**2008.936**	**3266.999**
Stddev	4.155	159.56	32.09	1.914	4.928
%RSD	.1502552	.2647597	.3057791	.0952715	.1508392
#1	2760.881	60139.59	10518.60	2009.428	3264.783
#2	2769.139	60444.66	10507.46	2010.556	3272.646
#3	2765.816	60211.03	10458.29	2006.825	3263.568

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB017 Acquired: 1/24/2025 19:22:06 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB017 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010604**	**-.001480**	**-.000288**	**-.001319**	**.0009028**	**.0006181**	**-.009191**
Stddev	.0022679	.000877	.001047	.001478	.0005762	.0020179	.000081
%RSD	213.8693	59.25773	363.1327	112.1008	63.82900	326.4524	.8827890
#1	.0013748	-.001124	.000895	-.002989	.0006985	.0016424	-.009270
#2	-.001348	-.002479	-.001095	-.000791	.0004565	-.001706	-.009196
#3	.003155	-.000837	-.000665	-.000177	.0015533	.001918	-.009108

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000044**	**-.000012**	**.0058151**	**.0004315**	**-.000142**	**-.000900**	**.0091148**
Stddev	.000084	.000015	.0018364	.0002521	.000340	.002726	.0053451
%RSD	191.8479	130.5000	31.58010	58.42227	239.8509	302.7998	58.64177
#1	.000003	.000005	.0040289	.0005522	.000189	.000310	.0051451
#2	.000006	-.000026	.0076979	.0001417	-.000489	.001011	.0151924
#3	-.000140	-.000014	.0057186	.0006005	-.000125	-.004022	.0070068

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000136**	**-.015986**	**-.000197**	**.0001332**	**.0198400**	**.0014407**	**-.000405**
Stddev	.000179	.004822	.000214	.0003273	.4327141	.0005587	.001001
%RSD	131.0710	30.16201	108.6907	245.7199	2181.022	38.78252	247.1588
#1	-.000140	-.021554	-.000444	.0003890	.2951282	.0012355	.000177
#2	.000044	-.013160	-.000063	.0002463	-.478919	.0010136	-.001562
#3	-.000313	-.013245	-.000084	-.000236	.243311	.0020730	.000169

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1893799**	**.0043961**	**-.005592**	**.0001704**	**.0160169**	**.0025448**	**.0003397**
Stddev	.0734804	.0024413	.000386	.0003248	.0011974	.0029827	.0004180
%RSD	38.80052	55.53261	6.904574	190.5955	7.475614	117.2053	123.0398
#1	.1602469	.0052255	-.006037	.0005431	.0158976	.0024160	.0007582
#2	.1349332	.0016482	-.005349	-.000052	.0172694	-.000371	-.000078
#3	.2729595	.0063147	-.005390	.000020	.0148837	.005590	.000339

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB017 Acquired: 1/24/2025 19:22:06 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB017 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000942	.0010828	.0000484
Stddev	.000310	.0008704	.0000445
%RSD	32.90850	80.38023	91.93671
#1	-.000824	.0012607	.0000975
#2	-.001293	.0001373	.0000107
#3	-.000708	.0018506	.0000371

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3423.345	70040.32	11207.20	2381.335	4272.560
Stddev	7.581	1372.48	64.68	43.919	6.810
%RSD	.2214415	1.959562	.5771099	1.844289	.1593916
#1	3415.025	70928.87	11214.95	2417.057	4265.711
#2	3425.147	70732.52	11139.00	2394.648	4272.638
#3	3429.862	68459.57	11267.66	2332.300	4279.331

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-09 Acquired: 1/24/2025 19:26:16 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0409909	.0064513	.0030178	-.007826	.0237621	-.122314
Stddev	.0041264	.0033321	.0034278	.001171	.0017780	.012061
%RSD	10.06660	51.65017	113.5875	14.96320	7.482556	9.861061
#1	.0422992	.0026850	-.000870	-.007998	.0255379	-.135594
#2	.0443046	.0076533	.004316	-.008902	.0237665	-.119311
#3	.0363690	.0090157	.005607	-.006579	.0219819	-.112038

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0120455	.0000823	-.000014	377.5806	-.000031	.0006068
Stddev	.0015463	.0000652	.000055	2.0223	.000340	.0002545
%RSD	12.83723	79.26057	387.9062	.5355899	1078.789	41.94274
#1	.0119281	.0000860	-.000078	378.6722	.000340	.0006163
#2	.0105612	.0001456	.000020	378.8225	-.000327	.0008564
#3	.0136472	.0000153	.000016	375.2471	-.000107	.0003477

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103520	.8684976	.3248442	F 1130.565	.0028447	.0003983
Stddev	.0015084	.0052103	.0021145	4.486	.0006828	.0003318
%RSD	14.57058	.5999253	.6509368	.3968182	24.00320	83.28824
#1	.0089710	.8745131	.3266006	1134.584	.0030611	.0004976
#2	.0119616	.8653999	.3254349	1131.386	.0033930	.0000282
#3	.0101235	.8655799	.3224972	1125.725	.0020799	.0006691

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9166.858	.0091655	.1512132	F 458.0229	3.762935	2.798315
Stddev	80.149	.0008525	.0047287	7.7297	.008178	.045617
%RSD	.8743315	9.301471	3.127171	1.687625	.2173178	1.630147
#1	9105.520	.0100468	.1534010	461.5265	3.769962	2.770481
#2	9137.510	.0091049	.1544518	463.3804	3.753959	2.773505
#3	9257.545	.0083450	.1457868	449.1618	3.764886	2.850960

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-09 Acquired: 1/24/2025 19:26:16 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0196079	F 779.6666	2.300179	-.005082	-.011979	.2148300
Stddev	.0001866	3.5880	.004731	.000963	.001059	.0043054
%RSD	.9516011	.4601955	.2056985	18.94878	8.837924	2.004117
#1	.0195120	780.9219	2.295551	-.004511	-.011781	.2166948
#2	.0194886	775.6196	2.305008	-.004541	-.011034	.2178886
#3	.0198229	782.4583	2.299978	-.006193	-.013123	.2099065

Elem	Sr4077
Units	ppm
Avg	7.078453
Stddev	.106886
%RSD	1.510023
#1	7.082277
#2	7.183376
#3	6.969706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2154.379	45575.73	9084.555	1496.260	2275.079
Stddev	14.006	108.33	134.779	3.073	11.496
%RSD	.6501378	.2376873	1.483603	.2053522	.5052874
#1	2167.661	45630.08	9155.476	1499.791	2286.211
#2	2155.731	45646.13	9169.065	1494.794	2275.774
#3	2139.746	45450.99	8929.123	1494.195	2263.251

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-10 Acquired: 1/24/2025 19:30:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0366741**	**.0037746**	**.0050465**	**-.007172**	**.0231475**	**-.148846**
Stddev	.0045226	.0014545	.0008905	.006168	.0017240	.017243
%RSD	12.33188	38.53329	17.64574	86.00857	7.447888	11.58431
#1	.0414689	.0049170	.0042661	-.013154	.0228922	-.153064
#2	.0324848	.0042694	.0060165	-.000833	.0249848	-.129885
#3	.0360685	.0021372	.0048570	-.007528	.0215653	-.163588

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0138367**	**.0000786**	**-.000083**	**377.8081**	**-.000319**	**.0007089**
Stddev	.0004192	.0000650	.000078	1.1982	.000600	.0002198
%RSD	3.029638	82.76430	93.54049	.3171451	188.0527	30.99884
#1	.0136977	.0000473	-.000165	379.1905	-.000551	.0005508
#2	.0143078	.0000351	-.000073	377.0694	.000362	.0009599
#3	.0135047	.0001533	-.000011	377.1642	-.000770	.0006161

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087786**	**.8614391**	**.3248553**	F **1132.034**	**.0019874**	**.0000130**
Stddev	.0033707	.0007596	.0010426	5.503	.0009124	.0002900
%RSD	38.39694	.0881754	.3209454	.4860909	45.90980	2228.058
#1	.0060193	.8614060	.3260166	1137.765	.0017500	.0003479
#2	.0077810	.8606966	.3245494	1131.545	.0029951	-.000153
#3	.0125355	.8622147	.3239998	1126.792	.0012172	-.000156

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **9129.254**	**.0067763**	**.1504374**	F **447.4983**	**3.714158**	**2.809409**
Stddev	129.418	.0002552	.0020160	2.8103	.016998	.020242
%RSD	1.417618	3.765496	1.340103	.6280055	.4576458	.7204958
#1	8992.656	.0064824	.1505479	448.5211	3.704274	2.805174
#2	9145.068	.0069042	.1523959	444.3198	3.704415	2.831433
#3	9250.038	.0069421	.1483684	449.6539	3.733785	2.791620

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-10 Acquired: 1/24/2025 19:30:35 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197472	F 764.3980	2.310040	-.003614	-.011865	.2058262
Stddev	.0006003	3.1287	.028096	.001578	.000711	.0017594
%RSD	3.039822	.4092978	1.216251	43.66692	5.993433	.8548185
#1	.0201973	762.5711	2.314509	-.002655	-.012670	.2074123
#2	.0199786	762.6123	2.335634	-.002752	-.011321	.2039337
#3	.0190657	768.0106	2.279978	-.005435	-.011604	.2061325

Elem	Sr4077
Units	ppm
Avg	6.988860
Stddev	.081400
%RSD	1.164711
#1	6.909760
#2	6.984442
#3	7.072380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2180.757	45527.28	9035.477	1489.701	2299.763
Stddev	5.757	42.23	57.481	6.270	2.886
%RSD	.2639864	.0927507	.6361652	.4209021	.1254964
#1	2183.499	45478.72	9047.973	1490.275	2301.498
#2	2174.142	45547.75	8972.776	1483.164	2296.432
#3	2184.630	45555.37	9085.682	1495.664	2301.361

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-09LX5 Acquired: 1/24/2025 19:34:54 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0092184**	**.0024834**	**-.001822**	**-.001772**	**.0027684**	**-.034764**
Stddev	.0011532	.0015547	.001744	.004112	.0006373	.020065
%RSD	12.50976	62.60492	95.72850	232.0745	23.01950	57.71717
#1	.0100374	.0018565	.000189	-.003008	.0030089	-.057905
#2	.0078996	.0013399	-.002728	-.005125	.0032504	-.022197
#3	.0097183	.0042536	-.002926	.002816	.0020459	-.024191

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002709**	**-.000029**	**-.000041**	**71.50486**	**.0000479**	**.0001274**
Stddev	.000610	.000029	.000093	.38897	.0001763	.0003026
%RSD	22.50887	100.7547	226.9731	.5439806	368.1141	237.4472
#1	-.002041	-.000063	-.000134	71.08489	.0001274	.0000122
#2	-.003235	-.000010	-.000042	71.57696	-.000154	-.000101
#3	-.002851	-.000014	.000052	71.85274	.000170	.000471

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011880**	**.1683007**	**.0611993**	**211.0172**	**.0001731**	**.0002862**
Stddev	.0021843	.0048238	.0004172	.9847	.0002212	.0002843
%RSD	183.8626	2.866156	.6816412	.4666266	127.7792	99.32317
#1	.0026161	.1651837	.0609325	209.9325	.0000425	.0000351
#2	-.001327	.1738569	.0609853	211.2647	.0004285	.0002288
#3	.002274	.1658614	.0616800	211.8546	.0000483	.0005948

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1759.613**	**.0038556**	**.0240127**	**72.83390**	**.6639190**	**.6299157**
Stddev	3.319	.0021382	.0019651	.57788	.0009004	.0065577
%RSD	.1886240	55.45834	8.183444	.7934230	.1356175	1.041046
#1	1763.437	.0015632	.0252644	72.28395	.6649334	.6373516
#2	1757.474	.0042074	.0250258	72.78160	.6636088	.6274366
#3	1757.929	.0057960	.0217478	73.43615	.6632147	.6249590

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-09LX5 Acquired: 1/24/2025 19:34:54 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037614	F 149.3072	.4488400	-.001785	-.003149	.0382779
Stddev	.0003009	.1645	.0033806	.000776	.000233	.0005981
%RSD	7.998329	.1101830	.7531924	43.50401	7.411373	1.562489
#1	.0034209	149.1757	.4459732	-.002635	-.003088	.0376022
#2	.0039914	149.2543	.4479789	-.001607	-.002951	.0384925
#3	.0038717	149.4917	.4525679	-.001113	-.003406	.0387391

Elem	Sr4077
Units	ppm
Avg	1.257791
Stddev	.007584
%RSD	.6029729
#1	1.250145
#2	1.257917
#3	1.265311

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2876.391	58042.47	10180.05	1986.025	3192.366
Stddev	7.982	76.83	52.17	13.157	9.568
%RSD	.2775051	.1323715	.5125070	.6624990	.2997272
#1	2882.066	58112.20	10122.98	1998.581	3196.731
#2	2879.842	58055.10	10191.88	1987.155	3198.973
#3	2867.263	57960.10	10225.29	1972.339	3181.394

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-10 Acquired: 1/24/2025 19:39:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0794003	.0526942	.0194795	.0975814	.1277071	2.209552
Stddev	.0021420	.0044599	.0014288	.0011794	.0010224	.020514
%RSD	2.697705	8.463690	7.334978	1.208656	.8006029	.9284243
#1	.0770721	.0522638	.0205026	.0983662	.1267198	2.192501
#2	.0812874	.0573537	.0178471	.0981529	.1287614	2.203838
#3	.0798413	.0484652	.0200889	.0962251	.1276401	2.232318

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.349319	.0488942	.0467796	366.5602	.1878789	.4768075
Stddev	.031246	.0003971	.0001284	3.3661	.0007798	.0024570
%RSD	1.330023	.8120953	.2744879	.9183031	.4150533	.5153025
#1	2.326213	.0490541	.0468287	363.6040	.1878140	.4747242
#2	2.336873	.0491863	.0468762	365.8528	.1871337	.4761814
#3	2.384870	.0484421	.0466338	370.2238	.1886892	.4795170

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2654609	1.985744	.8551595	F 1098.898	.4670117	.0489825
Stddev	.0029898	.022333	.0086063	7.143	.0019400	.0002701
%RSD	1.126270	1.124670	1.006400	.6500267	.4154087	.5514892
#1	.2623317	1.963718	.8486260	1092.769	.4654035	.0488196
#2	.2682884	1.985142	.8519414	1097.183	.4664654	.0488336
#3	.2657626	2.008372	.8649111	1106.743	.4691663	.0492943

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9065.179	.4728522	.7511755	F 431.3095	3.700706	2.822280
Stddev	102.816	.0016540	.0149813	4.9213	.015330	.020422
%RSD	1.134190	.3497914	1.994378	1.141013	.4142518	.7236163
#1	8962.943	.4721592	.7338775	428.0960	3.706321	2.827573
#2	9168.566	.4747399	.7596777	428.8574	3.683360	2.839535
#3	9064.028	.4716573	.7599714	436.9751	3.712437	2.799732

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1127-10 Acquired: 1/24/2025 19:39:09 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MJNLE5S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189037	F 760.7311	2.281995	-.006142	-.012431	.1974403
Stddev	.0004542	2.0058	.005957	.001383	.000299	.0020283
%RSD	2.402466	.2636679	.2610552	22.51942	2.403979	1.027277
#1	.0189406	760.6198	2.275148	-.007667	-.012769	.1953513
#2	.0193382	758.7832	2.284844	-.005789	-.012202	.1975677
#3	.0184322	762.7902	2.285993	-.004969	-.012322	.1994018

Elem	Sr4077
Units	ppm
Avg	6.815251
Stddev	.045198
%RSD	.6631910
#1	6.780622
#2	6.798751
#3	6.866381

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2222.968	46480.74	9024.419	1532.285	2323.346
Stddev	3.672	326.86	25.996	18.544	6.982
%RSD	.1651702	.7032234	.2880647	1.210190	.3005195
#1	2223.916	46718.65	9032.435	1552.189	2327.605
#2	2226.072	46615.54	8995.359	1529.169	2327.144
#3	2218.915	46108.04	9045.464	1515.497	2315.288

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166138BL Acquired: 1/24/2025 19:43:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW138 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017928	.0004613	-.000809	-.001682	-.000222	-.003176	-.007586
Stddev	.0007281	.0016254	.000715	.002095	.000855	.001303	.000326
%RSD	40.61335	352.3638	88.40218	124.5252	385.1085	41.01903	4.302435
#1	.0013491	-.001340	-.001633	.000712	.000258	-.004407	-.007613
#2	.0026331	.000904	-.000356	-.003177	.000285	-.001812	-.007247
#3	.0013961	.001819	-.000438	-.002582	-.001210	-.003310	-.007899

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000059	.0000103	.0036896	.0000107	-.000056	-.001841	.0046964
Stddev	.000034	.0000179	.0074917	.0001868	.000197	.001365	.0010871
%RSD	58.07763	174.0530	203.0522	1748.983	354.2184	74.14258	23.14792
#1	-.000094	.0000244	.0010780	-.000200	-.000278	-.002674	.0053597
#2	-.000026	.0000163	-.002147	.000156	.000015	-.002584	.0052878
#3	-.000057	-.000010	.012138	.000076	.000097	-.000266	.0034418

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000534	.0070813	-.000033	.0005029	.1716463	.0005463	-.000544
Stddev	.000251	.0068602	.000056	.0000630	.3796200	.0007138	.002071
%RSD	47.07608	96.87839	168.2658	12.53570	221.1641	130.6609	381.0964
#1	-.000801	.0147902	.000008	.0004301	.1027270	.0009272	-.002254
#2	-.000302	.0016481	-.000010	.0005387	.5810046	-.000277	-.001136
#3	-.000499	.0048055	-.000097	.0005399	-.168793	.000989	.001760

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8983637	.0035319	-.007229	-.000358	.0353078	.0007942	.0003357
Stddev	.1068572	.0018825	.000370	.000433	.0020102	.0030206	.0005202
%RSD	11.89464	53.29999	5.121967	120.8959	5.693332	380.3239	154.9595
#1	.7956357	.0026399	-.007591	-.000002	.0345951	-.000107	.0008839
#2	.8905359	.0022611	-.007245	-.000839	.0337510	.004163	.0002744
#3	1.008920	.0056945	-.006851	-.000233	.0375772	-.001673	-.000151

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166138BL Acquired: 1/24/2025 19:43:20 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW138 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000684	.0016037	.0000679
Stddev	.000158	.0012995	.0000131
%RSD	23.02438	81.03110	19.33759
#1	-.000610	.0002572	.0000528
#2	-.000865	.0028505	.0000768
#3	-.000578	.0017034	.0000740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3510.751	71059.45	10875.80	2431.438	4399.123
Stddev	4.057	70.41	26.69	2.712	10.283
%RSD	.1155589	.0990883	.2454159	.1115565	.2337463
#1	3513.313	70979.12	10905.73	2431.307	4395.329
#2	3512.865	71110.48	10867.24	2434.213	4410.764
#3	3506.073	71088.75	10854.45	2428.793	4391.276

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166138BS Acquired: 1/24/2025 19:47:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS138 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0182614**	**.0499193**	**.0184558**	**.0638152**	**.1050956**	**.3561898**	**.3444645**
Stddev	.0012846	.0003147	.0008052	.0019405	.0010257	.0039541	.0044295
%RSD	7.034567	.6304397	4.362583	3.040871	.9759805	1.110108	1.285916
#1	.0196218	.0502486	.0179045	.0630132	.1052788	.3517864	.3393544
#2	.0170691	.0498878	.0180832	.0624042	.1039907	.3594368	.3472093
#3	.0180934	.0496215	.0193798	.0660282	.1060174	.3573460	.3468297

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096186**	**.0096863**	**9.068188**	**.0205140**	**.0951519**	**.0519530**	**.1915098**
Stddev	.0001477	.0000158	.076861	.0005942	.0002208	.0010367	.0062916
%RSD	1.535074	.1626813	.8475896	2.896529	.2320678	1.995561	3.285263
#1	.0097770	.0096702	8.980452	.0209383	.0953185	.0507559	.1847608
#2	.0095940	.0096871	9.100463	.0198349	.0949015	.0525473	.1925556
#3	.0094848	.0097017	9.123649	.0207687	.0952358	.0525558	.1972130

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0276110**	**8.125808**	**.0773244**	**.0181344**	**9.387223**	**.0996211**	**.1143943**
Stddev	.0003406	.068137	.0003186	.0004079	.293258	.0012102	.0039891
%RSD	1.233647	.8385275	.4120878	2.249073	3.124018	1.214814	3.487152
#1	.0272553	8.047577	.0770627	.0183907	9.571438	.0996139	.1099541
#2	.0279342	8.157669	.0776792	.0183483	9.541183	.0984144	.1176755
#3	.0276436	8.172177	.0772312	.0176641	9.049048	.1008348	.1155535

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.854295**	**.0198746**	**-.008414**	**.0190243**	**.1962345**	**.4428045**	**.0133480**
Stddev	.186313	.0005541	.000351	.0002599	.0049938	.0055766	.0003297
%RSD	2.104210	2.787851	4.174221	1.366229	2.544794	1.259384	2.470222
#1	8.663199	.0200581	-.008654	.0193218	.1980801	.4392606	.0129843
#2	8.864262	.0203137	-.008577	.0188413	.1905807	.4492325	.0134325
#3	9.035425	.0192521	-.008011	.0189098	.2000428	.4399203	.0136273

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: PB166138BS Acquired: 1/24/2025 19:47:30 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS138 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1974432	.0277304	.1643604
Stddev	.0009593	.0001864	.0020294
%RSD	.4858440	.6721375	1.234706
#1	.1964611	.0279225	.1620190
#2	.1983779	.0277186	.1654489
#3	.1974907	.0275502	.1656132

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3399.332	73220.35	10829.58	2464.696	4156.980
Stddev	9.686	152.30	75.48	8.294	6.301
%RSD	.2849517	.2079993	.6969925	.3365043	.1515741
#1	3391.857	73395.40	10745.56	2471.572	4149.972
#2	3410.275	73147.35	10851.51	2455.485	4162.177
#3	3395.863	73118.29	10891.67	2467.031	4158.793

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-01 Acquired: 1/24/2025 19:51:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3178455**	**-.007174**	**.3137598**	**.0133829**	**.0325149**	**120.6874**
Stddev	.0022163	.000904	.0015680	.0030830	.0027253	.6709
%RSD	.6972836	12.59421	.4997408	23.03688	8.381558	.5558872
#1	.3176805	-.006162	.3130722	.0155256	.0341199	121.2428
#2	.3157162	-.007458	.3126530	.0147735	.0293683	120.8774
#3	.3201396	-.007901	.3155540	.0098495	.0340566	119.9420

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.172929**	**.0036562**	**.0158085**	F **2505.649**	**.3420472**	**.0544485**
Stddev	.008721	.0001174	.0001463	27.121	.0014211	.0004138
%RSD	.7435420	3.210527	.9252819	1.082389	.4154593	.7600663
#1	1.180654	.0037862	.0156396	2478.333	.3430521	.0544393
#2	1.174662	.0035579	.0158910	2532.570	.3426682	.0540394
#3	1.163472	.0036244	.0158949	2506.043	.3404213	.0548669

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3228314**	**149.0989**	**4.929667**	**33.34642**	**.1448523**	**.0045424**
Stddev	.0024737	.6191	.033708	.07845	.0015563	.0002612
%RSD	.7662508	.4152524	.6837722	.2352501	1.074429	5.750245
#1	.3254761	149.6013	4.961362	33.43266	.1433024	.0043518
#2	.3224437	149.2882	4.933384	33.32730	.1448396	.0044352
#3	.3205745	148.4072	4.894255	33.27930	.1464150	.0048401

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976408**	**.5500284**	**2.473481**	**32.73526**	**2.935265**	**.7280633**
Stddev	.213190	.0012218	.012104	.16390	.022688	.0038259
%RSD	10.78673	.2221327	.4893571	.5006874	.7729437	.5254913
#1	2.152124	.5486361	2.470439	32.84610	2.926998	.7315243
#2	2.037859	.5509219	2.486816	32.81269	2.917871	.7287105
#3	1.739242	.5505271	2.463188	32.54699	2.960928	.7239550

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-01 Acquired: 1/24/2025 19:51:33 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4148923	F 61.84874	3.122559	.0367657	5.705060	.1667577
Stddev	.0015153	.33256	.010462	.0001556	.013652	.0015667
%RSD	.3652339	.5377069	.3350314	.4233155	.2392992	.9394922
#1	.4142571	61.56544	3.127497	.0366158	5.719201	.1673330
#2	.4137979	61.76589	3.129636	.0369266	5.704023	.1679554
#3	.4166218	62.21490	3.110542	.0367548	5.691956	.1649847

Elem	Sr4077
Units	ppm
Avg	2.860242
Stddev	.041430
%RSD	1.448483
#1	2.893735
#2	2.873079
#3	2.813913

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3011.013	63289.38	10966.87	2136.660	3068.527
Stddev	10.831	182.82	42.96	6.753	12.895
%RSD	.3596988	.2888612	.3917621	.3160627	.4202294
#1	3013.659	63084.06	10962.86	2134.854	3077.276
#2	3020.275	63434.55	11011.70	2144.133	3074.588
#3	2999.104	63349.52	10926.05	2130.993	3053.719

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-02 Acquired: 1/24/2025 19:55:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0857143	-.012100	.0930944	.1050603	.0486822	169.8433
Stddev	.0022909	.002960	.0012249	.0012817	.0016902	.3737
%RSD	2.672731	24.46358	1.315761	1.219926	3.472008	.2200324
#1	.0883595	-.011354	.0944680	.1045241	.0468024	169.4599
#2	.0843745	-.009585	.0926993	.1041339	.0491674	170.2065
#3	.0844088	-.015362	.0921157	.1065230	.0500768	169.8633

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5080365	.0013851	.0104791	48.22572	.1829129	.2035162
Stddev	.0020530	.0001058	.0001953	.18854	.0016589	.0002218
%RSD	.4041009	7.634999	1.863538	.3909453	.9069143	.1089654
#1	.5057186	.0012965	.0102563	48.02135	.1823797	.2032640
#2	.5087650	.0015022	.0105606	48.39287	.1847728	.2036809
#3	.5096259	.0013567	.0106205	48.26294	.1815862	.2036036

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5387433	504.1111	10.75584	98.10618	.1184884	.0142113
Stddev	.0026655	3.6991	.04184	.44578	.0004105	.0012377
%RSD	.4947602	.7337821	.3889746	.4543884	.3464796	8.709257
#1	.5393512	508.2744	10.70833	97.74696	.1180463	.0156393
#2	.5358264	501.2028	10.78719	98.60508	.1188576	.0134469
#3	.5410524	502.8561	10.77200	97.96651	.1185614	.0135477

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.820293	.5771416	.7346651	4.779172	F 11.23890	2.045780
Stddev	.137943	.0031297	.0017285	.089589	.02354	.016026
%RSD	7.578057	.5422702	.2352712	1.874573	.2094718	.7833471
#1	1.757885	.5737707	.7365725	4.687948	11.21337	2.064061
#2	1.724584	.5776989	.7332024	4.782536	11.24358	2.034154
#3	1.978412	.5799551	.7342205	4.867031	11.25975	2.039124

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-02 Acquired: 1/24/2025 19:55:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140446**	**1.734209**	**3.977426**	**.0255399**	**5.187942**	**.1912004**
Stddev	.0003500	.005224	.011103	.0005475	.010487	.0004552
%RSD	2.491951	.3012371	.2791570	2.143856	.2021458	.2381008
#1	.0142469	1.732017	3.967850	.0258172	5.181377	.1906773
#2	.0142465	1.740172	3.974830	.0249092	5.182413	.1914171
#3	.0136405	1.730438	3.989597	.0258934	5.200037	.1915068

Elem	Sr4077
Units	ppm
Avg	**.2362709**
Stddev	.0008355
%RSD	.3536088
#1	.2354672
#2	.2362105
#3	.2371349

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3415.839**	**73452.81**	**11652.07**	**2472.536**	**3744.527**
Stddev	5.060	138.94	10.62	12.756	7.526
%RSD	.1481297	.1891551	.0911592	.5158936	.2009848
#1	3421.073	73572.29	11655.44	2459.888	3753.217
#2	3415.470	73300.34	11660.60	2472.324	3740.174
#3	3410.974	73485.79	11640.17	2485.396	3740.191

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-03 Acquired: 1/24/2025 19:59:46 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0381335**	**-.003411**	**.0358724**	**.0238873**	**.0149274**	**63.05446**
Stddev	.0016434	.001278	.0016532	.0012924	.0001735	.15385
%RSD	4.309533	37.46971	4.608523	5.410278	1.162365	.2439878
#1	.0399205	-.004508	.0341816	.0229082	.0151176	63.03883
#2	.0377926	-.002007	.0374852	.0234015	.0147778	62.90903
#3	.0366872	-.003718	.0359504	.0253522	.0148869	63.21552

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.126434**	**.0005170**	**.0074912**	**214.5135**	**.0486408**	**.0462127**
Stddev	.002693	.0001245	.0000998	.3827	.0003192	.0005244
%RSD	.2391035	24.09214	1.332594	.1783979	.6561980	1.134786
#1	1.124327	.0006393	.0074645	214.2714	.0483064	.0456390
#2	1.125506	.0003903	.0076016	214.3143	.0489422	.0463317
#3	1.129468	.0005214	.0074074	214.9547	.0486737	.0466674

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0722098**	**127.6351**	**4.348479**	**46.24349**	**.1670447**	**.0044328**
Stddev	.0006148	.2941	.015825	.10855	.0010879	.0001646
%RSD	.8513843	.2304316	.3639163	.2347281	.6512808	3.712327
#1	.0724313	127.4815	4.333124	46.18864	.1666026	.0045518
#2	.0726831	127.4496	4.347580	46.17331	.1662475	.0045016
#3	.0715149	127.9742	4.364735	46.36852	.1682841	.0042450

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.201706**	**.0978516**	**.7360499**	**7.029618**	**5.976805**	**.5220430**
Stddev	.155223	.0012776	.0089511	.038139	.039144	.0015917
%RSD	12.91687	1.305608	1.216098	.5425427	.6549295	.3048963
#1	1.061976	.0969503	.7374270	6.991488	5.959888	.5217402
#2	1.174355	.0972910	.7264900	7.029601	5.948964	.5206244
#3	1.368786	.0993137	.7442326	7.067766	6.021562	.5237643

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-03 Acquired: 1/24/2025 19:59:46 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0240251**	**4.929473**	F **16.16487**	**.0137309**	**2.419386**	**.0327891**
Stddev	.0001848	.041399	.03779	.0005774	.002188	.0009392
%RSD	.7693626	.8398300	.2337535	4.205073	.0904360	2.864453
#1	.0241085	4.900578	16.12319	.0131180	2.421280	.0332152
#2	.0238133	4.910941	16.17455	.0142646	2.416991	.0334397
#3	.0241536	4.976901	16.19688	.0138101	2.419887	.0317123

Elem	Sr4077
Units	ppm
Avg	**.3108280**
Stddev	.0008235
%RSD	.2649271
#1	.3102252
#2	.3104925
#3	.3117663

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3297.773**	**69388.47**	**11221.85**	**2366.014**	**3760.629**
Stddev	18.593	44.78	11.81	8.918	20.352
%RSD	.5637999	.0645296	.1052050	.3769112	.5411873
#1	3306.983	69426.84	11229.76	2368.427	3775.911
#2	3309.962	69399.30	11208.28	2373.477	3768.449
#3	3276.372	69339.27	11227.52	2356.138	3737.527

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-04 Acquired: 1/24/2025 20:03:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0396842	-.003153	.0367883	.0232757	.0137856	62.12008
Stddev	.0030329	.002328	.0008962	.0019275	.0012304	.59188
%RSD	7.642707	73.81980	2.436059	8.281045	8.925607	.9527926
#1	.0361820	-.005538	.0359624	.0229857	.0131953	61.56440
#2	.0414452	-.003034	.0377412	.0215097	.0129615	62.05333
#3	.0414252	-.000887	.0366614	.0253317	.0152000	62.74249

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.106921	.0005102	.0073814	210.5308	.0484055	.0453560
Stddev	.010817	.0000972	.0000993	2.1431	.0009167	.0002529
%RSD	.9771810	19.05812	1.345408	1.017955	1.893723	.5576213
#1	1.096969	.0004642	.0074960	208.6840	.0478474	.0456275
#2	1.105361	.0004444	.0073286	210.0276	.0479056	.0453134
#3	1.118432	.0006218	.0073197	212.8807	.0494634	.0451271

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0714029	125.6389	4.273684	45.37861	.1644298	.0038382
Stddev	.0019409	1.4261	.044175	.48393	.0006089	.0004658
%RSD	2.718179	1.135117	1.033662	1.066422	.3702909	12.13564
#1	.0713833	124.4121	4.236556	45.01956	.1646033	.0034142
#2	.0733535	125.3009	4.261957	45.18734	.1637531	.0037636
#3	.0694719	127.2037	4.322540	45.92895	.1649332	.0043368

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.230782	.0967220	.7210766	6.843964	5.870968	.5121263
Stddev	.039745	.0018900	.0121015	.113983	.012835	.0069334
%RSD	3.229252	1.954017	1.678255	1.665450	.2186147	1.353856
#1	1.185166	.0956984	.7079689	6.806279	5.869005	.5061967
#2	1.257952	.0955646	.7234365	6.753596	5.859228	.5104325
#3	1.249227	.0989029	.7318243	6.972017	5.884671	.5197497

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-04 Acquired: 1/24/2025 20:03:45 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0242919	4.815168	F 16.29610	.0145577	2.405053	.0303535
Stddev	.0000665	.024792	.07618	.0003055	.003010	.0008882
%RSD	.2736552	.5148655	.4674963	2.098385	.1251403	2.926063
#1	.0242181	4.815469	16.32097	.0143391	2.408406	.0300054
#2	.0243106	4.790227	16.21059	.0144273	2.402586	.0296922
#3	.0243470	4.839808	16.35674	.0149068	2.404167	.0313630

Elem	Sr4077
Units	ppm
Avg	.3052667
Stddev	.0031058
%RSD	1.017408
#1	.3023241
#2	.3049628
#3	.3085134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3362.723	70234.60	11206.95	2375.638	3830.136
Stddev	6.245	558.40	45.33	18.802	1.872
%RSD	.1857195	.7950566	.4044970	.7914411	.0488693
#1	3369.794	70704.87	11158.21	2392.454	3828.249
#2	3360.414	70381.51	11247.86	2379.121	3831.992
#3	3357.961	69617.43	11214.77	2355.338	3830.166

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-03LX5 Acquired: 1/24/2025 20:07:43 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070579	-.001559	.0062776	.0062948	.0022475	12.41733	.2103874
Stddev	.0010629	.001572	.0010301	.0037749	.0003914	.05628	.0022328
%RSD	15.06020	100.8200	16.40928	59.96831	17.41469	.4532595	1.061266
#1	.0072350	.000236	.0062431	.0081796	.0025452	12.40516	.2091268
#2	.0059175	-.002689	.0052652	.0087560	.0018042	12.47870	.2129654
#3	.0080211	-.002224	.0073245	.0019487	.0023930	12.36813	.2090701

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001631	.0014024	42.57394	.0100480	.0093094	.0115370	26.12740
Stddev	.0000954	.0000437	.18871	.0001909	.0005125	.0010687	.10558
%RSD	58.46492	3.113204	.4432531	1.900004	5.505284	9.263434	.4041031
#1	.0002667	.0013912	42.61316	.0102405	.0098427	.0122077	26.19697
#2	.0000789	.0014506	42.73995	.0098587	.0088205	.0120988	26.17932
#3	.0001438	.0013655	42.36870	.0100448	.0092650	.0103046	26.00592

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8795453	9.281522	.0333137	.0008033	.1860979	.0191112	.1426803
Stddev	.0030651	.053592	.0008220	.0003992	.4182099	.0008400	.0027464
%RSD	.3484889	.5774011	2.467448	49.69626	224.7257	4.395265	1.924855
#1	.8786840	9.337378	.0342177	.0010869	.4407935	.0191674	.1403250
#2	.8829489	9.276661	.0326112	.0009761	.4140629	.0182445	.1456970
#3	.8770030	9.230526	.0331121	.0003468	-.296563	.0199217	.1420188

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.537769	1.175137	.0968913	.0044735	.9668995	3.367180	.0009854
Stddev	.063316	.001397	.0009084	.0001070	.0059224	.012305	.0001582
%RSD	4.117418	.1189007	.9375431	2.392376	.6125123	.3654510	16.05322
#1	1.473720	1.173982	.0976305	.0045315	.9649146	3.355518	.0011322
#2	1.539260	1.174738	.0971662	.0043499	.9622246	3.380041	.0008179
#3	1.600326	1.176690	.0958772	.0045389	.9735594	3.365982	.0010062

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-03LX5 Acquired: 1/24/2025 20:07:43 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5007874	.0045226	.0609362
Stddev	.0002772	.0010758	.0004627
%RSD	.0553506	23.78797	.7593388
#1	.5010511	.0041430	.0610459
#2	.5008126	.0036880	.0613341
#3	.5004985	.0057368	.0604284

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3433.809	70802.70	11013.59	2444.833	4129.568
Stddev	8.694	258.82	32.64	8.522	9.299
%RSD	.2531984	.3655476	.2963649	.3485564	.2251914
#1	3427.574	70552.72	11026.04	2435.724	4121.093
#2	3443.741	70785.86	11038.17	2446.164	4139.516
#3	3430.112	71069.53	10976.56	2452.610	4128.094

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-05 Acquired: 1/24/2025 20:11:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1042292**	**.0927172**	**.0730446**	**.1840081**	**.1798247**	**65.58589**
Stddev	.0044030	.0024558	.0005745	.0028618	.0005970	.19564
%RSD	4.224359	2.648697	.7865287	1.555280	.3319722	.2982896
#1	.1022960	.0925138	.0723977	.1809278	.1804970	65.74050
#2	.1011236	.0903695	.0732406	.1865845	.1793566	65.36595
#3	.1092681	.0952684	.0734955	.1845121	.1796205	65.65121

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.844822**	**.0887428**	**.0987248**	**211.0846**	**.4402168**	**.9703231**
Stddev	.014919	.0003768	.0002928	.2454	.0007428	.0041433
%RSD	.3079377	.4245532	.2965457	.1162526	.1687384	.4270073
#1	4.859310	.0883126	.0984323	211.2204	.4393728	.9661874
#2	4.829506	.0890140	.0987241	210.8013	.4407714	.9703077
#3	4.845649	.0889018	.0990179	211.2320	.4405060	.9744741

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5253056**	**127.5847**	**5.211316**	**45.52869**	**1.084006**	**.0738518**
Stddev	.0074929	.2368	.012726	.00745	.004364	.0004806
%RSD	1.426389	.1855723	.2441997	.0163625	.4025693	.6507374
#1	.5203232	127.7311	5.211652	45.53426	1.079452	.0735668
#2	.5216710	127.3115	5.198425	45.52023	1.084415	.0735819
#3	.5339226	127.7114	5.223871	45.53157	1.088151	.0744067

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.190001**	**1.014857**	**1.620158**	**7.045010**	**5.700672**	**.5226623**
Stddev	.162274	.005277	.004302	.037819	.010709	.0014438
%RSD	13.63646	.5199511	.2655171	.5368201	.1878505	.2762391
#1	1.137323	1.015728	1.615218	7.058844	5.688340	.5232565
#2	1.372069	1.009198	1.622179	7.002222	5.707627	.5210162
#3	1.060610	1.019643	1.623078	7.073964	5.706048	.5237141

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-05 Acquired: 1/24/2025 20:11:47 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8G6S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0231876	4.663039	F 16.47214	.0139482	2.403083	.0319578
Stddev	.0002519	.025666	.08235	.0005990	.003637	.0007316
%RSD	1.086459	.5504225	.4999053	4.294770	.1513438	2.289379
#1	.0228979	4.645272	16.37798	.0143814	2.403735	.0327721
#2	.0233101	4.651380	16.50777	.0132646	2.399164	.0313558
#3	.0233549	4.692466	16.53067	.0141985	2.406350	.0317454

Elem	Sr4077
Units	ppm
Avg	.3063566
Stddev	.0011303
%RSD	.3689411
#1	.3073589
#2	.3051315
#3	.3065794

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3411.209	69568.06	11144.07	2376.454	3893.806
Stddev	15.158	1.87	46.77	8.194	12.294
%RSD	.4443501	.0026929	.4197161	.3448127	.3157421
#1	3427.724	69568.92	11196.58	2375.346	3906.793
#2	3407.972	69565.91	11106.85	2368.869	3892.277
#3	3397.931	69569.35	11128.80	2385.145	3882.347

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-06 Acquired: 1/24/2025 20:15:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1568290**	**-.019160**	**.0848639**	**.0955969**	**.0489015**	**166.8477**
Stddev	.0006774	.001769	.0029141	.0050960	.0029166	1.8167
%RSD	.4319078	9.233951	3.433803	5.330754	5.964146	1.088853
#1	.1561320	-.017134	.0814997	.0909440	.0489451	164.9612
#2	.1574849	-.019945	.0866030	.0948036	.0459634	166.9966
#3	.1568700	-.020402	.0864891	.1010430	.0517960	168.5855

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.832569**	**.0041316**	**.0113521**	**143.2012**	**.4696995**	**.3394758**
Stddev	.022078	.0000855	.0002737	1.4239	.0027354	.0003213
%RSD	1.204778	2.070462	2.410650	.9943266	.5823625	.0946429
#1	1.811525	.0040679	.0116615	141.7668	.4667905	.3391615
#2	1.830629	.0042289	.0111417	143.2225	.4700886	.3398037
#3	1.855554	.0040981	.0112532	144.6144	.4722195	.3394623

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6741600**	**444.7569**	**13.72293**	**76.22912**	**.2631840**	**.0130885**
Stddev	.0033227	2.8960	.12716	.63611	.0008030	.0000524
%RSD	.4928611	.6511499	.9265984	.8344704	.3051031	.4001968
#1	.6779761	441.4600	13.59752	75.55601	.2622569	.0131302
#2	.6725963	446.8899	13.71952	76.31104	.2636587	.0130297
#3	.6719078	445.9207	13.85176	76.82029	.2636365	.0131056

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.113988**	**.9337192**	**.7796431**	**12.90505**	**9.201413**	**1.805648**
Stddev	.227788	.0030292	.0039146	.16317	.013972	.015187
%RSD	10.77527	.3244287	.5020991	1.264355	.1518495	.8410837
#1	1.938897	.9372050	.7754078	12.72942	9.186624	1.788113
#2	2.371517	.9322280	.7803931	12.93381	9.203225	1.814611
#3	2.031549	.9317247	.7831284	13.05193	9.214392	1.814219

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-06 Acquired: 1/24/2025 20:15:38 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028767	4.181974	7.650640	.0411615	F 10.72427	.0959440
Stddev	.0005712	.007032	.010722	.0004577	.01584	.0018980
%RSD	19.85556	.1681541	.1401472	1.111910	.1477094	1.978260
#1	.0022833	4.177181	7.652750	.0409980	10.73845	.0942534
#2	.0034227	4.178694	7.639020	.0416785	10.72718	.0955815
#3	.0029240	4.190047	7.660151	.0408080	10.70717	.0979971

Elem	Sr4077
Units	ppm
Avg	.4663406
Stddev	.0051396
%RSD	1.102112
#1	.4615589
#2	.4656873
#3	.4717756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3759.566	78964.73	12666.38	2663.939	3736.941
Stddev	5.855	687.18	51.04	6.642	4.736
%RSD	.1557260	.8702351	.4029673	.2493375	.1267387
#1	3766.290	79731.81	12645.07	2671.506	3738.725
#2	3756.816	78756.97	12629.45	2661.240	3740.526
#3	3755.593	78405.40	12724.63	2659.071	3731.572

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-07 Acquired: 1/24/2025 20:19:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1325424**	**-.010194**	**.1028278**	**.0937254**	**.0483830**	**175.7660**
Stddev	.0006054	.005225	.0015957	.0032282	.0004061	.5371
%RSD	.4567850	51.25721	1.551821	3.444298	.8393398	.3055670
#1	.1321422	-.008944	.1040494	.0940203	.0479339	176.3449
#2	.1322461	-.005708	.1010224	.0903599	.0484906	175.2839
#3	.1332389	-.015931	.1034115	.0967960	.0487245	175.6691

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.427346**	**.0044327**	**.0101051**	**40.84762**	**.7763442**	**.2680476**
Stddev	.005591	.0001767	.0002466	.13357	.0016829	.0012673
%RSD	.3917135	3.987151	2.439935	.3270017	.2167663	.4728045
#1	1.433480	.0044969	.0098592	40.98755	.7780188	.2669397
#2	1.426023	.0042329	.0101038	40.83383	.7763607	.2677735
#3	1.422535	.0045684	.0103524	40.72148	.7746532	.2694296

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7025130**	**453.6374**	**6.642915**	**65.43117**	**.2871680**	**.0117518**
Stddev	.0029826	3.9135	.027430	.26067	.0016337	.0010972
%RSD	.4245656	.8626990	.4129248	.3983895	.5689068	9.335986
#1	.7025141	456.3406	6.674566	65.72894	.2859015	.0126553
#2	.7054951	455.4220	6.626055	65.32034	.2865903	.0120693
#3	.6995299	449.1497	6.628124	65.24422	.2890120	.0105310

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9405251**	**1.218059**	**.6309652**	**27.64569**	F **10.96178**	**1.846709**
Stddev	.1843238	.003170	.0028770	.13440	.06047	.017671
%RSD	19.59796	.2602315	.4559626	.4861363	.5516428	.9568841
#1	.7942601	1.215894	.6288423	27.77066	10.89620	1.859752
#2	1.147561	1.216587	.6342395	27.50352	10.97380	1.853777
#3	.879754	1.221697	.6298137	27.66287	11.01534	1.826599

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-07 Acquired: 1/24/2025 20:19:40 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002396	1.523719	5.814134	.0423975	F 10.87863	.0940059
Stddev	.000180	.006465	.008815	.0010508	.00428	.0012006
%RSD	7.526769	.4243110	.1516097	2.478403	.0393577	1.277162
#1	-.002600	1.523122	5.819002	.0415252	10.87564	.0939602
#2	-.002257	1.517573	5.819441	.0435640	10.88354	.0928288
#3	-.002332	1.530463	5.803959	.0421033	10.87672	.0952287

Elem	Sr4077
Units	ppm
Avg	.3415283
Stddev	.0016218
%RSD	.4748635
#1	.3433971
#2	.3406978
#3	.3404899

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3839.481	78604.77	12740.33	2688.044	3893.854
Stddev	10.605	227.64	7.80	13.886	15.164
%RSD	.2762202	.2896015	.0612084	.5165824	.3894256
#1	3844.196	78344.84	12748.28	2702.772	3904.861
#2	3846.911	78768.60	12732.69	2686.168	3900.144
#3	3827.335	78700.87	12740.02	2675.191	3876.558

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-08 Acquired: 1/24/2025 20:23:43 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.074899**	**-.005352**	**1.029927**	**.0965957**	**.0433159**	**80.56025**
Stddev	.031296	.001866	.005315	.0019020	.0028005	1.06334
%RSD	.6166911	34.85868	.5160478	1.969027	6.465325	1.319925
#1	5.042491	-.003401	1.027130	.0985494	.0448371	81.77589
#2	5.077255	-.005538	1.026595	.0964876	.0450267	80.10190
#3	5.104950	-.007118	1.036057	.0947500	.0400840	79.80296

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7475497**	**.0010536**	**.0086130**	**44.16920**	**.2898254**	**.1658785**
Stddev	.0111320	.0000438	.0002730	.49831	.0039128	.0011376
%RSD	1.489132	4.159084	3.169525	1.128186	1.350045	.6858055
#1	.7601710	.0010863	.0083047	44.74240	.2939643	.1647082
#2	.7433486	.0010708	.0087105	43.92610	.2893250	.1659471
#3	.7391296	.0010039	.0088239	43.83909	.2861868	.1669803

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7809077**	**381.2338**	**6.778393**	**35.81001**	**.2163965**	**.0165408**
Stddev	.0032047	4.1839	.078750	.34841	.0009922	.0005484
%RSD	.4103846	1.097471	1.161773	.9729430	.4584865	3.315586
#1	.7845882	386.0543	6.868730	36.21087	.2158341	.0163138
#2	.7794001	379.1010	6.742217	35.58006	.2158134	.0161424
#3	.7787347	378.5460	6.724232	35.63910	.2175421	.0171663

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9962004**	**.5535392**	**1.704586**	**9.960064**	**6.918592**	**1.574466**
Stddev	.1945793	.0013951	.034278	.123937	.027567	.018761
%RSD	19.53215	.2520417	2.010928	1.244344	.3984448	1.191595
#1	.7811789	.5523010	1.743994	10.09958	6.899022	1.596046
#2	1.160151	.5532657	1.688083	9.91793	6.906636	1.565324
#3	1.047272	.5550508	1.681681	9.86268	6.950119	1.562029

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-08 Acquired: 1/24/2025 20:23:43 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0364869	F 53.22209	6.409837	.0263031	5.044926	.0462273
Stddev	.0002651	.38936	.031551	.0009367	.008801	.0015979
%RSD	.7264948	.7315819	.4922261	3.561119	.1744517	3.456627
#1	.0362036	52.90749	6.444546	.0267803	5.051416	.0477573
#2	.0365284	53.10123	6.402069	.0269051	5.034909	.0463553
#3	.0367288	53.65755	6.382895	.0252239	5.048454	.0445692

Elem	Sr4077
Units	ppm
Avg	.5736377
Stddev	.0079663
%RSD	1.388731
#1	.5826377
#2	.5707847
#3	.5674908

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3550.325	72737.06	11834.40	2492.462	4006.220
Stddev	18.694	654.47	24.88	34.246	22.235
%RSD	.5265490	.8997789	.2102469	1.373972	.5550206
#1	3570.657	71993.81	11856.94	2453.046	4025.965
#2	3546.436	72990.29	11838.57	2509.425	4010.561
#3	3533.880	73227.08	11807.70	2514.916	3982.135

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-09 Acquired: 1/24/2025 20:27:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.229310**	**-.005779**	**.4823824**	**.1170063**	**.0568625**	**153.0868**
Stddev	.022925	.002526	.0112178	.0197091	.0059170	15.0303
%RSD	1.864878	43.70955	2.325494	16.84450	10.40572	9.818132
#1	1.202879	-.003339	.4694391	.1043471	.0526909	144.1285
#2	1.243799	-.008383	.4884162	.1069573	.0542624	144.6928
#3	1.241252	-.005615	.4892919	.1397145	.0636343	170.4392

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7625265**	**.0026155**	**.0133535**	**50.31286**	**.6860920**	**.3860925**
Stddev	.0776478	.0007117	.0013104	5.10476	.0809771	.0086947
%RSD	10.18296	27.21275	9.813375	10.14604	11.80266	2.251971
#1	.7156100	.0028203	.0139032	47.27323	.6381917	.3760536
#2	.7198159	.0032024	.0142995	47.45900	.6404975	.3912259
#3	.8521535	.0018238	.0118577	56.20636	.7795868	.3909980

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.734681**	**495.3617**	**3.248078**	**92.49026**	**.7446698**	**.0149281**
Stddev	.009061	50.4251	.329984	9.61457	.0158562	.0007181
%RSD	.5223553	10.17945	10.15937	10.39523	2.129292	4.810726
#1	1.724862	466.0670	3.045869	86.70658	.7263666	.0155565
#2	1.736464	466.4308	3.069499	87.17529	.7542279	.0150826
#3	1.742719	553.5872	3.628867	103.5889	.7534147	.0141453

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.464616**	**.7749233**	**4.950184**	**11.29172**	**7.683211**	**2.044515**
Stddev	.106960	.0051998	.518519	1.37656	.165903	.234722
%RSD	7.302920	.6710098	10.47474	12.19086	2.159288	11.48056
#1	1.342957	.7747713	4.639169	10.44303	7.491652	1.908626
#2	1.507014	.7801974	4.662620	10.55214	7.777389	1.909372
#3	1.543877	.7698011	5.548765	12.87998	7.780592	2.315548

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-09 Acquired: 1/24/2025 20:27:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0164574	F 25.08891	3.321201	.0457469	F 11.60046	.1172363
Stddev	.0002012	.50269	.021146	.0011586	.05255	.0131296
%RSD	1.222301	2.003650	.6367107	2.532677	.4530088	11.19925
#1	.0163117	24.50886	3.301579	.0470555	11.54047	.1093203
#2	.0166869	25.39785	3.318427	.0453339	11.63838	.1099966
#3	.0163736	25.36002	3.343598	.0448514	11.62253	.1323920

Elem	Sr4077
Units	ppm
Avg	.4390422
Stddev	.0433911
%RSD	9.883116
#1	.4130883
#2	.4149033
#3	.4891349

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3697.744	72845.06	12535.35	2488.815	3847.375
Stddev	51.251	7179.63	89.39	245.284	67.110
%RSD	1.386011	9.856021	.7131117	9.855458	1.744302
#1	3756.779	77076.68	12622.26	2629.647	3924.859
#2	3671.798	76903.16	12540.14	2631.212	3809.573
#3	3664.654	64555.35	12443.67	2205.587	3807.692

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-10 Acquired: 1/24/2025 20:31:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0108642**	**-.005563**	**.0174104**	**.0439485**	**.0181432**	**76.30908**	**.9645424**
Stddev	.0010149	.003085	.0005380	.0030527	.0009400	.46941	.0060479
%RSD	9.341547	55.45327	3.089954	6.946132	5.181178	.6151424	.6270255
#1	.0120161	-.008933	.0169796	.0428508	.0192232	76.41237	.9644481
#2	.0104749	-.002878	.0180134	.0415964	.0175090	76.71825	.9706369
#3	.0101016	-.004878	.0172382	.0473983	.0176974	75.79663	.9585422

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012761**	**.0035382**	**40.67478**	**.0728079**	**.0997425**	**.1730171**	**199.1424**
Stddev	.0000995	.0000760	.23799	.0003544	.0005946	.0023288	.9898
%RSD	7.798033	2.147696	.5851074	.4868185	.5961748	1.345981	.4970299
#1	.0011699	.0035570	40.72125	.0728242	.0997146	.1731204	199.1844
#2	.0012911	.0034545	40.88610	.0731540	.1003505	.1752925	200.1106
#3	.0013672	.0036030	40.41698	.0724457	.0991622	.1706384	198.1323

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.138135**	**63.36977**	**.0690071**	**.0065890**	**1.693137**	**.2602575**	**.5177515**
Stddev	.039697	.33524	.0007806	.0003771	.194143	.0012945	.0027402
%RSD	.5561257	.5290173	1.131177	5.722621	11.46646	.4974091	.5292557
#1	7.141894	63.41534	.0695056	.0065617	1.742646	.2593229	.5153116
#2	7.175819	63.67990	.0681075	.0069790	1.857731	.2597145	.5207161
#3	7.096692	63.01408	.0694082	.0062264	1.479033	.2617351	.5172267

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.768531**	**3.819776**	**.8007909**	**-.000143**	**.3049421**	**3.670041**	**.0129059**
Stddev	.013795	.008468	.0058218	.000257	.0020868	.020947	.0007346
%RSD	.3660469	.2216839	.7270014	180.4563	.6843294	.5707565	5.691542
#1	3.752673	3.819173	.8007261	.000074	.3067613	3.670897	.0122065
#2	3.777760	3.828529	.8066447	-.000074	.3054008	3.648679	.0136712
#3	3.775160	3.811626	.7950017	-.000427	.3026640	3.690547	.0128401

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-10 Acquired: 1/24/2025 20:31:39 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.682594	.0304878	.1290072
Stddev	.006756	.0006476	.0008136
%RSD	.2518643	2.123986	.6306565
#1	2.677818	.0297940	.1292987
#2	2.679639	.0305934	.1296349
#3	2.690324	.0310761	.1280880

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3752.300	77492.21	12183.81	2638.860	4000.570
Stddev	9.925	258.10	58.73	15.775	11.374
%RSD	.2645021	.3330633	.4820668	.5977784	.2843155
#1	3758.981	77302.51	12183.21	2636.515	4003.554
#2	3740.896	77387.99	12242.84	2624.390	3988.002
#3	3757.023	77786.12	12125.37	2655.676	4010.156

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-11 Acquired: 1/24/2025 20:35:37 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.043466**	**-.009099**	**.0846742**	**.1229728**	**.0609187**	**127.6686**	**1.396867**
Stddev	.006408	.002327	.0008971	.0040793	.0005490	1.0913	.007763
%RSD	.6140755	25.57243	1.059502	3.317205	.9012732	.8547706	.5557661
#1	1.037742	-.006481	.0840537	.1185254	.0603763	126.5744	1.390750
#2	1.050388	-.009883	.0857028	.1265403	.0614742	128.7569	1.405601
#3	1.042267	-.010932	.0842662	.1238526	.0609058	127.6745	1.394252

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025462**	**.0110500**	**32.82104**	**.3998565**	**.2488683**	**.6511589**	**549.7880**
Stddev	.0002242	.0001087	.27194	.0028623	.0006542	.0025145	5.0554
%RSD	8.806952	.9840174	.8285463	.7158181	.2628487	.3861495	.9195182
#1	.0026207	.0111394	32.57861	.3970606	.2482308	.6534794	544.7050
#2	.0022941	.0110816	33.11509	.4027808	.2488361	.6515098	554.8153
#3	.0027237	.0109289	32.76942	.3997282	.2495379	.6484874	549.8438

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.998006**	**65.83045**	**.2690989**	**.0154355**	**1.100679**	**.9639659**	**.8665583**
Stddev	.030896	.63571	.0004676	.0010304	.278991	.0039950	.0116134
%RSD	.7727918	.9656772	.1737528	6.675323	25.34712	.4144316	1.340179
#1	3.971854	65.19906	.2686059	.0145578	1.359666	.9594019	.8558149
#2	4.032097	66.47039	.2691548	.0165700	1.137108	.9668290	.8788803
#3	3.990067	65.82191	.2695360	.0151786	.805264	.9656666	.8649797

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.36403**	**6.733750**	**2.242647**	**.0007859**	**2.139464**	**2.866405**	**.0261177**
Stddev	.09911	.009196	.020736	.0004156	.005077	.002972	.0015199
%RSD	.8721021	.1365651	.9246036	52.88468	.2372962	.1037012	5.819531
#1	11.25099	6.743747	2.222621	.0004170	2.135228	2.869747	.0276744
#2	11.43602	6.731852	2.264026	.0007045	2.145091	2.865411	.0260415
#3	11.40507	6.725652	2.241295	.0012361	2.138073	2.864057	.0246374

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-11 Acquired: 1/24/2025 20:35:37 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.424583**	**.0999132**	**.3895470**
Stddev	.012543	.0005265	.0026535
%RSD	.2312316	.5269856	.6811742
#1	5.415161	.0997766	.3875603
#2	5.438820	.1004945	.3925604
#3	5.419767	.0994684	.3885202

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3573.351**	**74091.93**	**11891.99**	**2539.430**	**3893.780**
Stddev	1.284	776.79	68.19	30.906	3.703
%RSD	.0359258	1.048408	.5733970	1.217032	.0951124
#1	3571.873	74928.42	11970.30	2568.905	3893.749
#2	3574.188	73393.30	11845.77	2507.269	3890.093
#3	3573.992	73954.07	11859.90	2542.116	3897.500

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-12 Acquired: 1/24/2025 20:39:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1069892	-.009196	.0513186	.0988876	.0479074	138.6581
Stddev	.0025608	.000739	.0009314	.0052174	.0018211	.7619
%RSD	2.393530	8.031033	1.814988	5.276066	3.801198	.5494515
#1	.1040714	-.008457	.0521791	.1016360	.0467101	138.2157
#2	.1088635	-.009935	.0514470	.0928706	.0500031	139.5378
#3	.1080327	-.009197	.0503296	.1021562	.0470091	138.2208

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.455346	.0031209	.0096298	83.54710	.0402395	.2282003
Stddev	.012688	.0000507	.0002207	.37945	.0004612	.0006516
%RSD	.5167384	1.623504	2.291831	.4541695	1.146216	.2855459
#1	2.447783	.0031795	.0095132	83.51277	.0404402	.2288071
#2	2.469994	.0030918	.0098844	83.94254	.0405663	.2282821
#3	2.448261	.0030916	.0094919	83.18598	.0397119	.2275116

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.046778	470.1898	14.27960	80.03707	.0897049	.0136070
Stddev	.003692	1.5353	.05686	.39407	.0008738	.0002925
%RSD	.3527206	.3265176	.3982016	.4923536	.9740332	2.149329
#1	1.048374	471.9592	14.27924	79.91741	.0901549	.0139440
#2	1.042557	469.3993	14.33663	80.47710	.0902619	.0134576
#3	1.049404	469.2109	14.22291	79.71671	.0886978	.0134195

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.932017	.4240293	.9411095	12.04781	F 18.97376	1.916504
Stddev	.203537	.0027353	.0045935	.08155	.01156	.007059
%RSD	5.176398	.6450659	.4880977	.6768844	.0609468	.3683210
#1	4.093670	.4259875	.9380108	12.00752	18.98161	1.924275
#2	3.998936	.4209041	.9463870	12.14166	18.96048	1.914746
#3	3.703446	.4251963	.9389307	11.99424	18.97917	1.910490

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-12 Acquired: 1/24/2025 20:39:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8H6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000901**	**4.486233**	**3.957260**	**.0332719**	**9.635728**	**.1064997**
Stddev	.000287	.013532	.023508	.0012572	.028655	.0022146
%RSD	31.85755	.3016264	.5940482	3.778710	.2973846	2.079475
#1	-.000904	4.489962	3.974080	.0331999	9.652368	.1047579
#2	-.001187	4.471228	3.930399	.0320522	9.602640	.1089921
#3	-.000613	4.497509	3.967301	.0345636	9.652177	.1057492

Elem	Sr4077
Units	ppm
Avg	**.4702313**
Stddev	.0023637
%RSD	.5026732
#1	.4687078
#2	.4729543
#3	.4690317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3634.642**	**74172.31**	**11944.40**	**2523.838**	**3902.068**
Stddev	6.775	268.98	70.33	11.868	1.839
%RSD	.1863878	.3626400	.5887866	.4702246	.0471258
#1	3641.656	74053.48	11876.30	2528.470	3904.191
#2	3634.135	73983.21	12016.76	2510.352	3901.032
#3	3628.135	74480.24	11940.14	2532.690	3900.981

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-13 Acquired: 1/24/2025 20:43:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8E9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6367586**	**-.003170**	**.3101046**	**.0400712**	**.0224852**	**11.20154**	**.2817580**
Stddev	.0035494	.000700	.0004332	.0024019	.0018804	.01984	.0013832
%RSD	.5574198	22.06741	.1396813	5.994014	8.362694	.1771507	.4909074
#1	.6338362	-.003814	.3100915	.0375206	.0203139	11.21385	.2803214
#2	.6357312	-.002426	.3105442	.0404031	.0235738	11.21211	.2818717
#3	.6407084	-.003270	.3096782	.0422898	.0235678	11.17864	.2830807

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001485**	**.0054075**	**102.5569**	**.0187505**	**.0661313**	**.3670738**	**157.5104**
Stddev	.0000366	.0000822	.2112	.0002531	.0001521	.0030172	.1908
%RSD	24.62124	1.519435	.2059676	1.349790	.2299363	.8219537	.1211032
#1	.0001754	.0055004	102.3131	.0190427	.0662984	.3705529	157.4740
#2	.0001069	.0053445	102.6844	.0186009	.0660944	.3651746	157.7168
#3	.0001631	.0053775	102.6733	.0186079	.0660011	.3654941	157.3405

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.549564**	**27.01413**	**.2247842**	**.0102059**	**-.300155**	**.0178758**	**.5174085**
Stddev	.010405	.03841	.0001279	.0003140	.515213	.0024469	.0059002
%RSD	.4081067	.1422031	.0569179	3.076823	171.6488	13.68811	1.140339
#1	2.537742	27.00036	.2246382	.0099726	-.693845	.0182040	.5115213
#2	2.557334	27.05753	.2248374	.0105629	.282955	.0201421	.5173825
#3	2.553615	26.98450	.2248769	.0100822	-.489575	.0152815	.5233216

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.648511**	**5.113272**	**.6429786**	**.0133056**	**9.292415**	**2.009844**	**.0020989**
Stddev	.022815	.025089	.0014686	.0000266	.037312	.004197	.0004386
%RSD	.8614142	.4906639	.2283994	.1999711	.4015280	.2088006	20.89662
#1	2.662986	5.089485	.6423854	.0133318	9.260064	2.007058	.0020744
#2	2.622211	5.110843	.6446509	.0133064	9.283948	2.007804	.0025492
#3	2.660336	5.139486	.6418994	.0132786	9.333232	2.014671	.0016730

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: Q1105-13 Acquired: 1/24/2025 20:43:44 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: YE8E9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0348638	.0117266	.8165897
Stddev	.0006588	.0015702	.0014827
%RSD	1.889684	13.38984	.1815777
#1	.0349062	.0132905	.8148792
#2	.0355003	.0101502	.8175092
#3	.0341848	.0117390	.8173806

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3385.004	71260.25	11167.51	2439.550	3939.926
Stddev	4.427	114.82	15.56	9.521	.681
%RSD	.1307925	.1611282	.1392997	.3902841	.0172915
#1	3386.248	71350.54	11177.03	2443.815	3939.558
#2	3388.675	71131.03	11149.56	2428.642	3940.713
#3	3380.087	71299.20	11175.94	2446.193	3939.509

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV018 Acquired: 1/24/2025 20:47:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV018 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.707409**	**4.659181**	**23.39443**	**4.773983**	**4.833517**	**393.9862**
Stddev	.018664	.011576	.07265	.014123	.020550	3.3364
%RSD	.3964807	.2484620	.3105310	.2958322	.4251665	.8468415
#1	4.689048	4.672548	23.32467	4.762117	4.818573	393.2975
#2	4.706817	4.652541	23.38896	4.770227	4.825025	391.0478
#3	4.726362	4.652454	23.46965	4.789604	4.856952	397.6132

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.809870**	**.4635220**	**2.336605**	**383.1110**	**14.66003**	**2.381766**
Stddev	.012985	.0045036	.006971	2.7754	.03265	.005744
%RSD	.1323693	.9716102	.2983396	.7244479	.2227149	.2411729
#1	9.815266	.4675811	2.330840	382.5216	14.66734	2.377503
#2	9.819287	.4643076	2.334623	380.6775	14.62435	2.379498
#3	9.795057	.4586772	2.344352	386.1337	14.68841	2.388298

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.12298**	**392.5674**	**14.44875**	**380.8906**	**2.373623**	**1.232923**
Stddev	.03553	1.3200	.07205	.9816	.007970	.002226
%RSD	.2515583	.3362581	.4986900	.2577170	.3357592	.1805083
#1	14.14466	391.4609	14.40008	380.3753	2.365501	1.233939
#2	14.14231	392.2127	14.41465	380.2740	2.373939	1.230371
#3	14.08198	394.0285	14.53153	382.0226	2.381431	1.234459

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**364.7059**	**2.333372**	**14.83621**	**148.0824**	**4.775750**	F **5.630876**
Stddev	.0947	.008224	.14213	.8765	.019973	.028911
%RSD	.0259750	.3524508	.9579742	.5918759	.4182237	.5134388
#1	364.5982	2.336727	14.73548	147.3532	4.762011	5.658286
#2	364.7760	2.339389	14.77437	147.8393	4.766578	5.633673
#3	364.7436	2.324001	14.99878	149.0548	4.798662	5.600667

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCV018 Acquired: 1/24/2025 20:47:41 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV018 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.697594**	**4.815164**	**4.690515**	**4.730829**	**4.720757**	**4.803810**
Stddev	.019786	.011640	.030163	.015256	.026294	.038168
%RSD	.4212009	.2417418	.6430664	.3224881	.5569926	.7945293
#1	4.689127	4.803557	4.711478	4.720154	4.744093	4.772423
#2	4.683451	4.815098	4.704121	4.724029	4.725909	4.792710
#3	4.720205	4.826837	4.655945	4.748303	4.692267	4.846297

Elem	Sr4077
Units	ppm
Avg	**4.901571**
Stddev	.056888
%RSD	1.160616
#1	4.927528
#2	4.836334
#3	4.940852

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2785.335**	**61181.97**	**10181.50**	**2059.472**	**3267.533**
Stddev	7.409	131.91	86.27	12.954	5.887
%RSD	.2660127	.2156031	.8472913	.6290193	.1801635
#1	2791.669	61229.60	10103.73	2066.711	3274.166
#2	2787.149	61283.44	10166.48	2067.188	3265.507
#3	2777.187	61032.86	10274.29	2044.516	3262.927

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB018 Acquired: 1/24/2025 20:56:16 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB018 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013200**	**-.001265**	**-.000351**	**.0006555**	**.0006190**	**.0036341**	**-.007030**
Stddev	.0014303	.001085	.001550	.0010237	.0013952	.0036815	.000687
%RSD	108.3603	85.77683	441.7535	156.1685	225.3938	101.3042	9.772250
#1	.0025165	-.002107	.001181	.0017683	-.000136	.0066592	-.006237
#2	.0017076	-.001647	-.000316	.0004443	-.000236	.0047079	-.007441
#3	-.000264	-.000041	-.001918	-.000246	.002229	-.000465	-.007412

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000004**	**.0000817**	**.0030295**	**.0004518**	**-.000041**	**-.000993**	**.0116385**
Stddev	.000078	.0000807	.0020712	.0001532	.000050	.001465	.0082353
%RSD	2091.033	98.80318	68.36802	33.89768	120.2806	147.5807	70.75929
#1	-.000060	.0001745	.0049719	.0002754	-.000028	-.001986	.0162034
#2	-.000036	.0000292	.0008499	.0005290	-.000096	-.001683	.0021317
#3	.000085	.0000413	.0032667	.0005510	.000000	.000690	.0165804

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000267**	**-.011573**	**.0001638**	**.0005192**	**-.027730**	**-.000240**	**-.001033**
Stddev	.000185	.006797	.0004019	.0002798	.218708	.000906	.001575
%RSD	69.41303	58.73325	245.3646	53.89423	788.6976	377.4843	152.3733
#1	-.000411	-.011507	-.000272	.0001961	-.267771	.000195	-.001527
#2	-.000058	-.004809	.000243	.0006767	.160250	-.001281	.000729
#3	-.000331	-.018403	.000520	.0006847	.024330	.000366	-.002302

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3869876**	**.0035010**	**-.006407**	**-.000091**	**.0110608**	**.0018694**	**-.000083**
Stddev	.0807006	.0005460	.000281	.000198	.0015584	.0022004	.000737
%RSD	20.85355	15.59515	4.389918	217.3606	14.08965	117.7090	886.9580
#1	.2948459	.0036313	-.006255	-.000318	.0093931	.0033553	-.000901
#2	.4451012	.0039701	-.006732	.000004	.0113093	-.000659	.000119
#3	.4210158	.0029017	-.006235	.000042	.0124801	.002911	.000532

Reviewed By:Mohan
On:1/27/2025 6:21:46 AM
Inst Id :P4

Sample Name: CCB018 Acquired: 1/24/2025 20:56:16 Type: Unk
Method: EPA SFAM01.0(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB018 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000824	-.000661	.0000650
Stddev	.000212	.000867	.0000570
%RSD	25.73632	131.1851	87.63234
#1	-.000808	-.000629	.0000599
#2	-.001043	.000190	.0001244
#3	-.000620	-.001543	.0000108

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3484.194	71668.21	10902.10	2500.200	4292.563
Stddev	8.803	164.98	35.44	14.798	15.469
%RSD	.2526555	.2302067	.3250481	.5918776	.3603770
#1	3480.586	71748.07	10912.63	2504.050	4285.636
#2	3494.227	71778.06	10931.09	2512.693	4310.286
#3	3477.767	71478.49	10862.59	2483.858	4281.769

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Prep Standard - Chemical Standard Summary

Order ID : Q1127

Test : Metals CLP12

Prepbatch ID : PB166138,

Sequence ID/Qc Batch ID: LB134411,

Standard ID :
MP83499,MP83500,MP84041,MP84058,MP84059,MP84060,MP84061,MP84062,MP84063,MP84064,MP84065,MP84066,MP84067,MP84069,MP84070,MP84071,MP84072,MP84099,

Chemical ID :
M5130,M5218,M5223,M5289,M5295,M5296,M5298,M5393,M5429,M5472,M5476,M5496,M5497,M5513,M5516,M5519,M5565,M5658,M5697,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5819,M5820,M5875,M5942,M5959,M5961,M5962,M5970,M5976,M5978,M5981,M5983,M5985,M5990,M6021,M6023,M6025,M6028,M6030,M6032,M6121,M6126,M6127,M6128,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP83499	12/09/2024	01/30/2025	Eman Mughal	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6121 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/24/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP84041	01/14/2025	07/14/2025	Eman Mughal	None	None	Sarabjit Jaswal 01/16/2025

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP84058	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 4.00000ml of M5289 + 4.00000ml of M5298 + 4.00000ml of M5497 + 4.00000ml of M5806 + 4.00000ml of M6127 + 30.00000ml of MP83500 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP84059	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5476 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5806 + 12.50000ml of M5819 + 12.50000ml of M6128 + 13.75000ml of M5697 + 14.50000ml of M5298 + 14.50000ml of M5496 + 14.50000ml of M5658 + 2.00000ml of M5513 + 22.50000ml of M5497 + 22.50000ml of M6127 + 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5802 + 5.00000ml of M5875 + 303.50000ml of MP83500 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	MP84060	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 250.00000ml of MP83500 + 250.00000ml of MP84059 = 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
1007	ICPAES ISM01.2(S3)	MP84061	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of MP84059 + 75.00000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	MP84062	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 12.50000ml of MP84059 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP84063	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5298 + 0.20000ml of M5476 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M6128 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5961 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5497 + 10.00000ml of M5519 + 10.00000ml of M5806 + 10.00000ml of M6127 + 2.00000ml of M5942 + 4.00000ml of M6032 + 34.24000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	MP84064	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of MP84063 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	MP84065	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of M5218 + 0.50000ml of M5472 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 10.00000ml of M5295 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP84066	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = 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
905	ICP AES ICSAB SOLN	MP84067	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	MP84069	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.75000ml of M5497 + 0.75000ml of M6127 + 1.22500ml of M5496 + 1.25000ml of M5298 + 1.25000ml of M5516 + 19.77500ml of MP83500 + 25.00000ml of MP84059 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP84070	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 2.50000ml of M5962 + 50.00000ml of M5565 + 50.00000ml of M5990 + 147.50000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP84071	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP84072	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3963	CONC.LCSW SPIKE	MP84099	01/16/2025	01/31/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 01/17/2025

FROM 0.05000ml of M5472 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5289 + 0.10000ml of M5658 + 0.10000ml of M5697 + 0.10000ml of M5802 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.25000ml of M6128 + 0.50000ml of M6032 + 1.00000ml of M5298 + 1.25000ml of M5816 + 1.25000ml of M5820 + 1.25000ml of M6121 + 2.50000ml of M5497 + 2.50000ml of M5516 + 2.50000ml of M5519 + 2.50000ml of M5768 + 2.50000ml of M6126 + 226.35000ml of W3112 = Final Quantity: 250.000 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 A / ICSA (ICP) STOCK SOLN	ICSA-1211	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Aluminum (Al) 10,000PPM	070622	07/06/2025	09/02/2022 / jaswal	07/12/2022 / jaswal	M5289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	020422	02/04/2025	05/02/2023 / jaswal	06/15/2022 / jaswal	M5298

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

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	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

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	01/08/2024 / bin	03/17/2023 / bin	M5519

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	05/30/2023 / jaswal	05/26/2023 / jaswal	M5565

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5983

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

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.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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R: 02/22/24 M5986 M5987, M5988, M5989-M5990

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Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

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	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

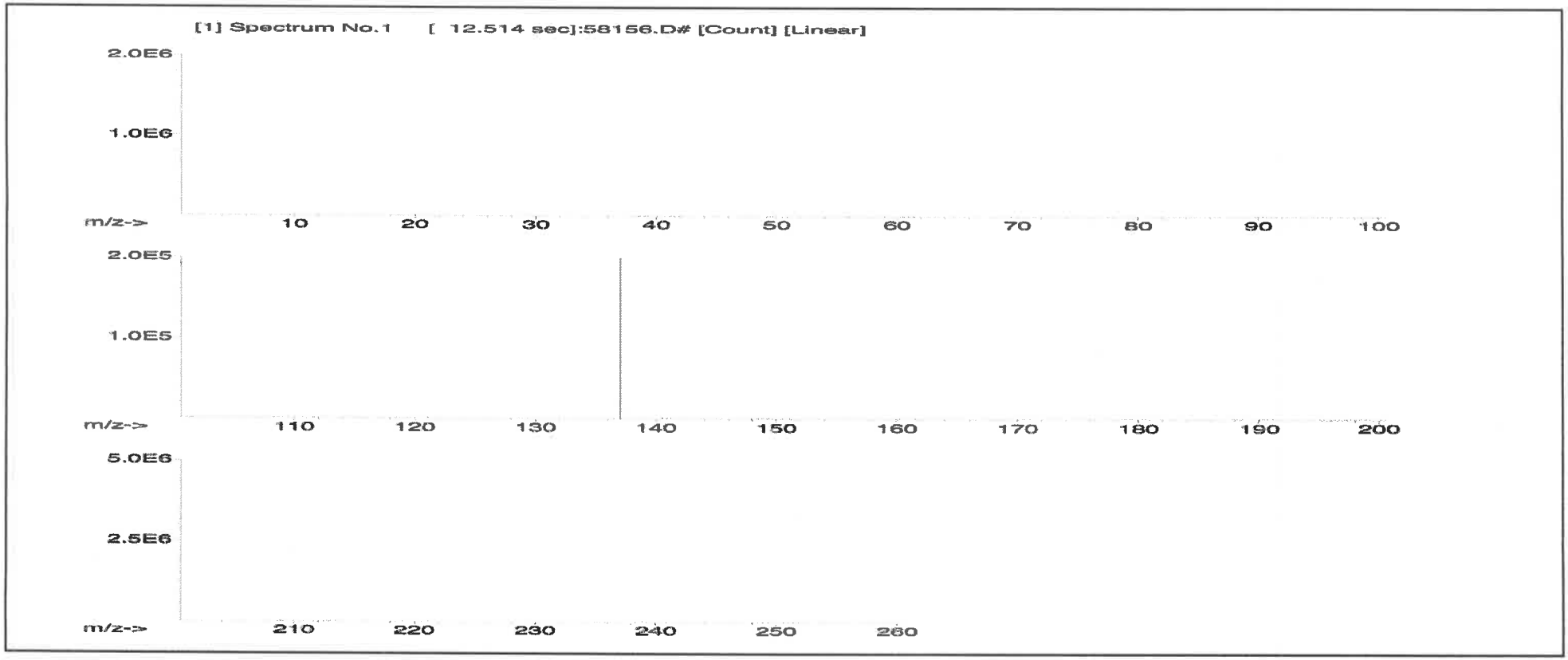
Giovanni Esposito

Formulated By:	Giovanni Esposito	010924

Pedro Rentas

Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/15/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

Part Number: 57048
Lot Number: 070124
Description: Cadmium (Cd)

Expiration Date: 070127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

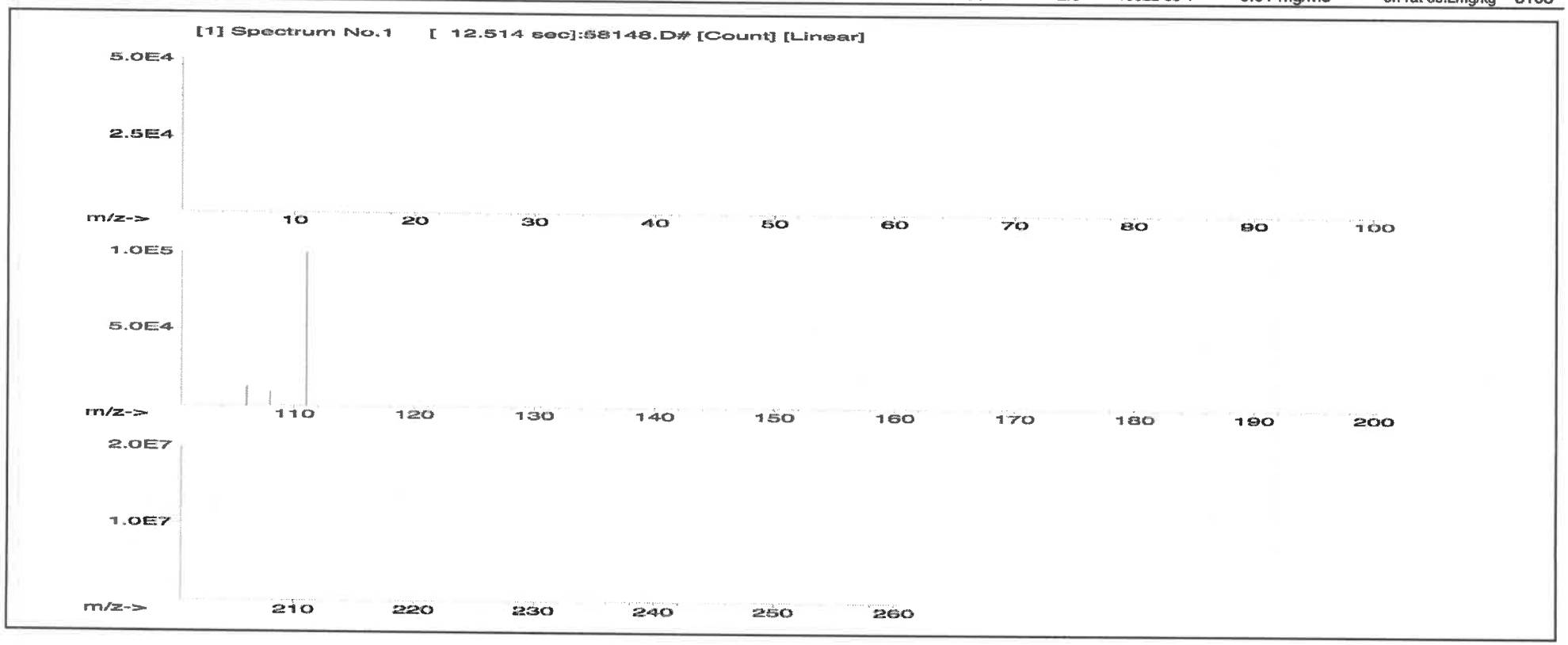
Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	± 5E-05 Balance Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 070124

Pedro Rentas
Reviewed By: Pedro L. Rentas 070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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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

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

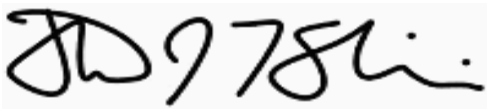
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

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X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

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

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4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

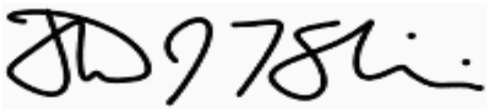
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/5/24 M6025

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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CERTIFIED WEIGHT REPORT:

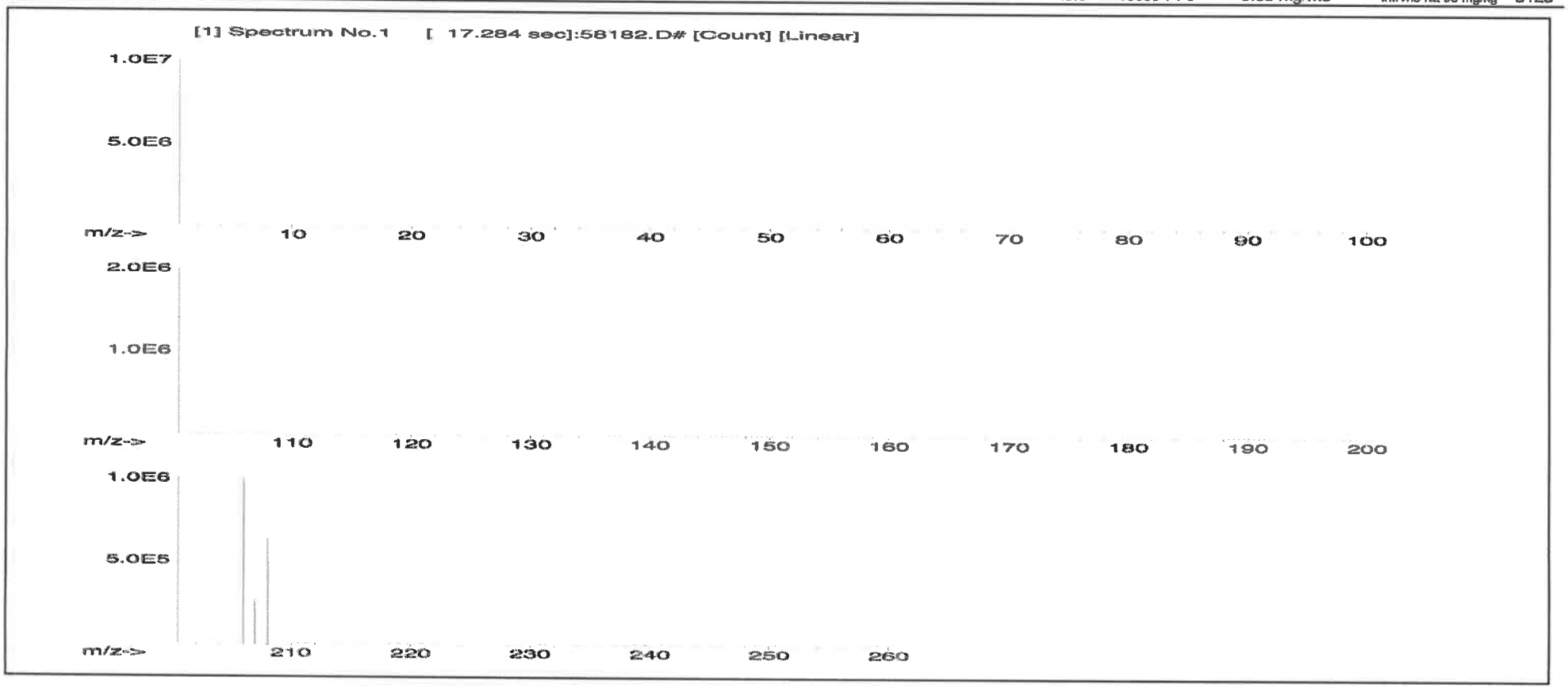
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL
INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M5289 R: 07/12/22 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

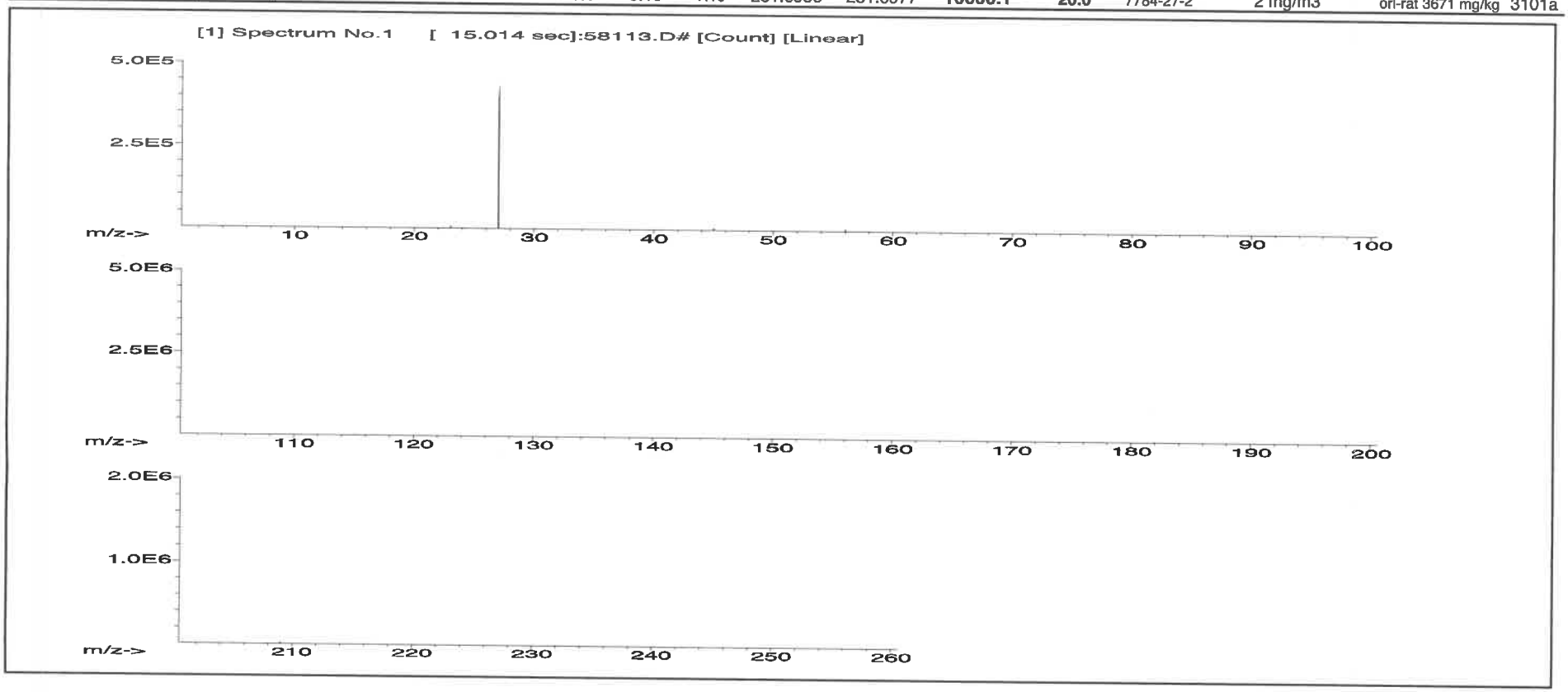
Part Number: 58113
Lot Number: 070622
Description: Aluminum (Al)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



350

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	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	<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 INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

SJ 6/15/22

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 020422
Description: Iron (Fe)

M5298

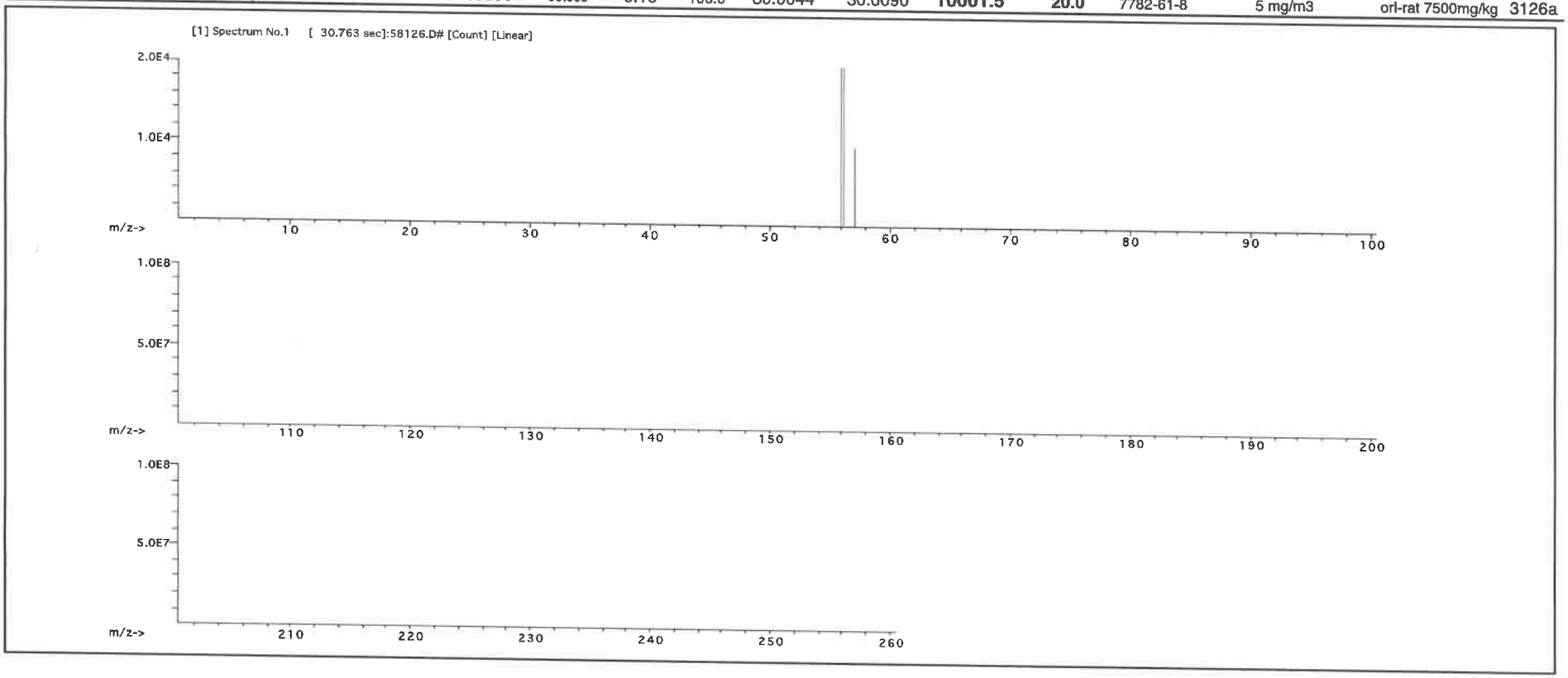
Expiration Date: 020425
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	20370011	Nitric Acid	
5.0%	150.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	020422
Reviewed By:	Pedro L. Rentas	020422

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)	IN346	221035107	10000	99.999	0.10	100.0	30.0044	30.0090	**10001.5**	**20.0**	7782-61-8	5 mg/m3	orl-rat 7500mg/kg	3126a



354

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.5	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

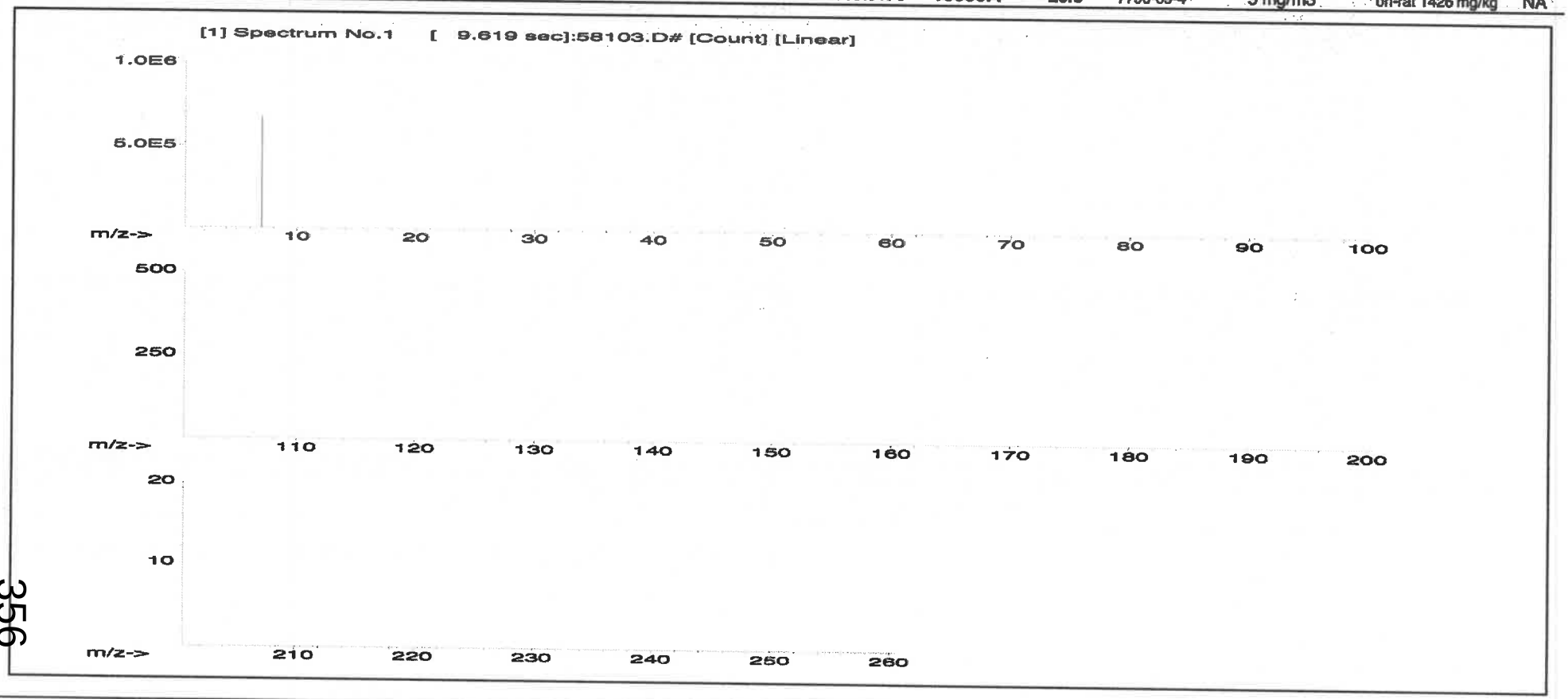
Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

	Lot #		Balance Uncertainty
Solvent:	20510011	Nitric Acid	5E-05
2%	20.0 (mL)	Nitric Acid	

Formulated By: Lawrence Barry 070622
Reviewed By: Pedro L. Rentas 070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



356

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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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M5497 - M5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

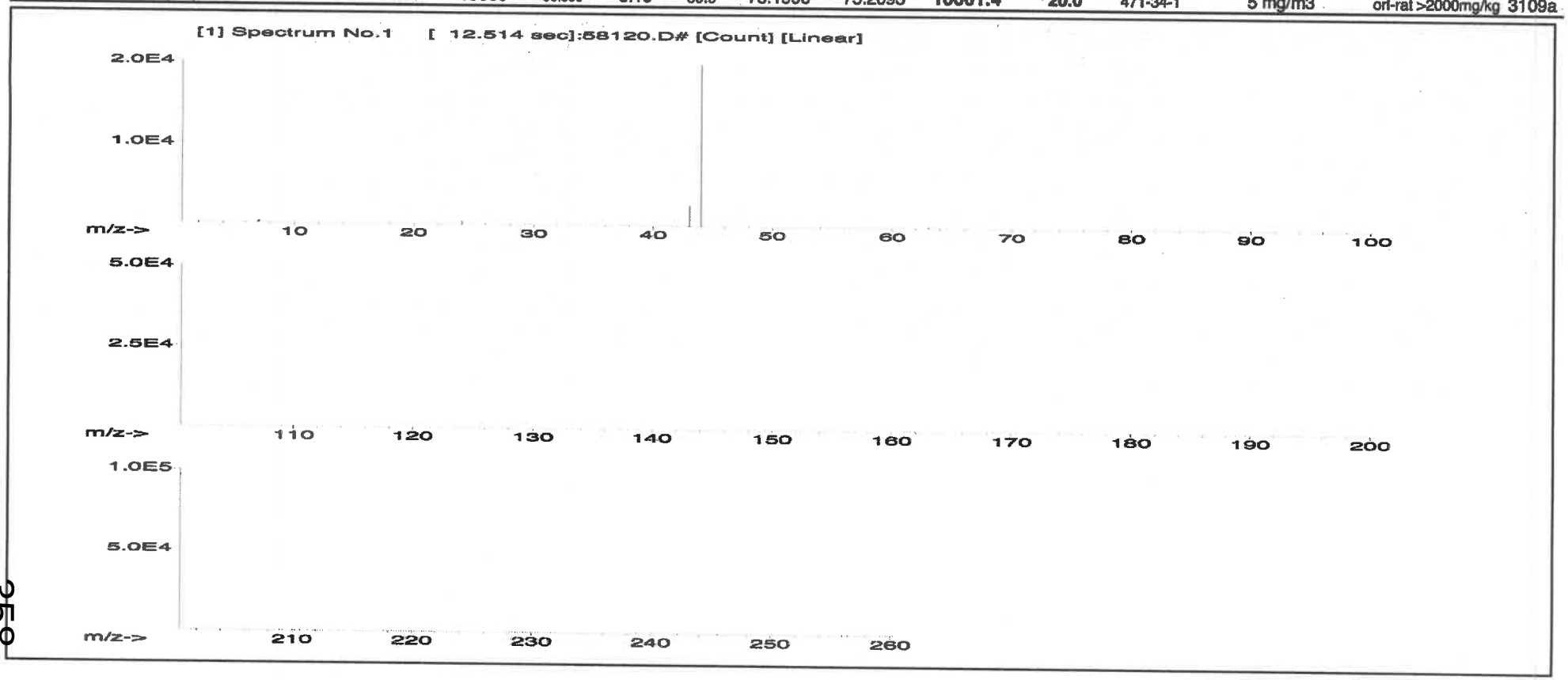
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



358

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* 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).

65569

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M 5513 R: 03/17/23 BF

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

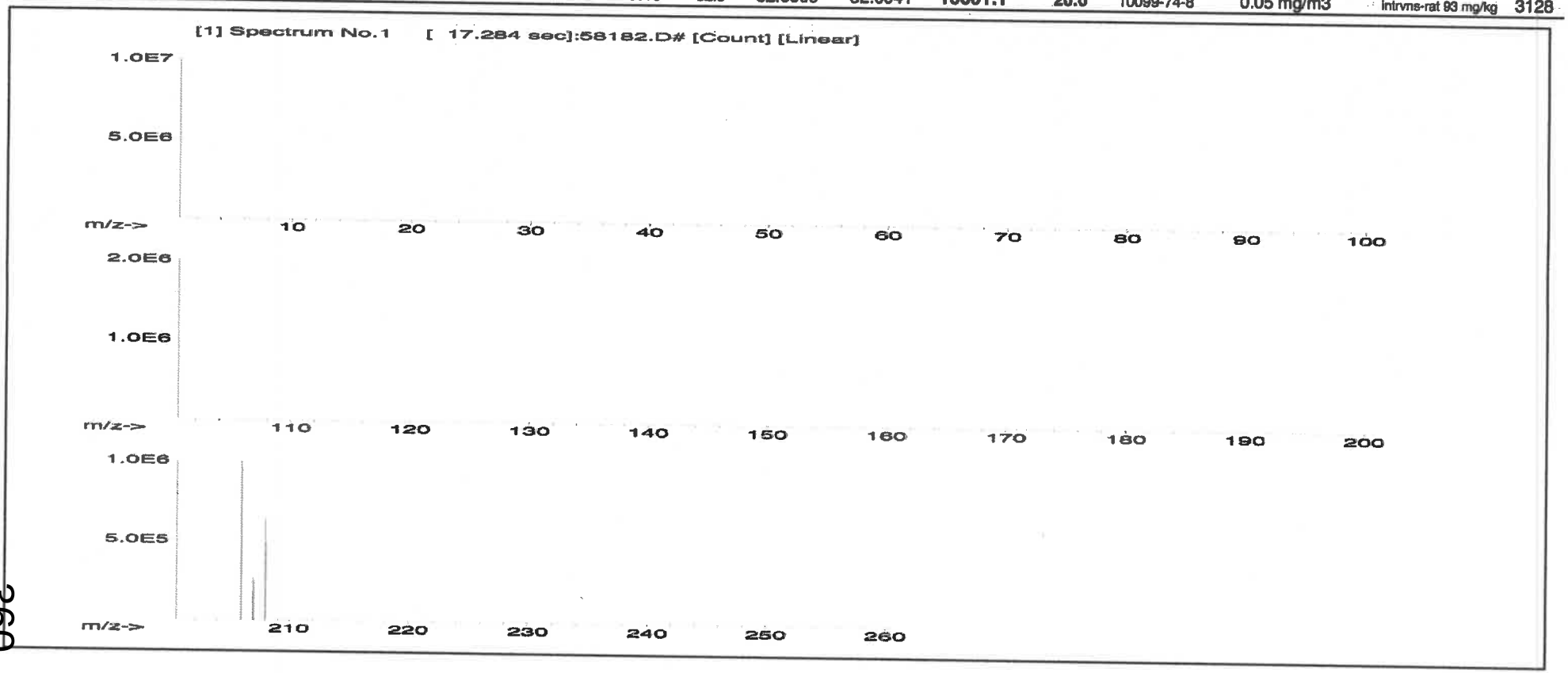
Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito		
Formulated By:	Giovanni Esposito	061522
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	061522

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	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



360

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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* 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).

3961

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Certified Reference Material CRM

M516 M517 R: 03/17/22 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

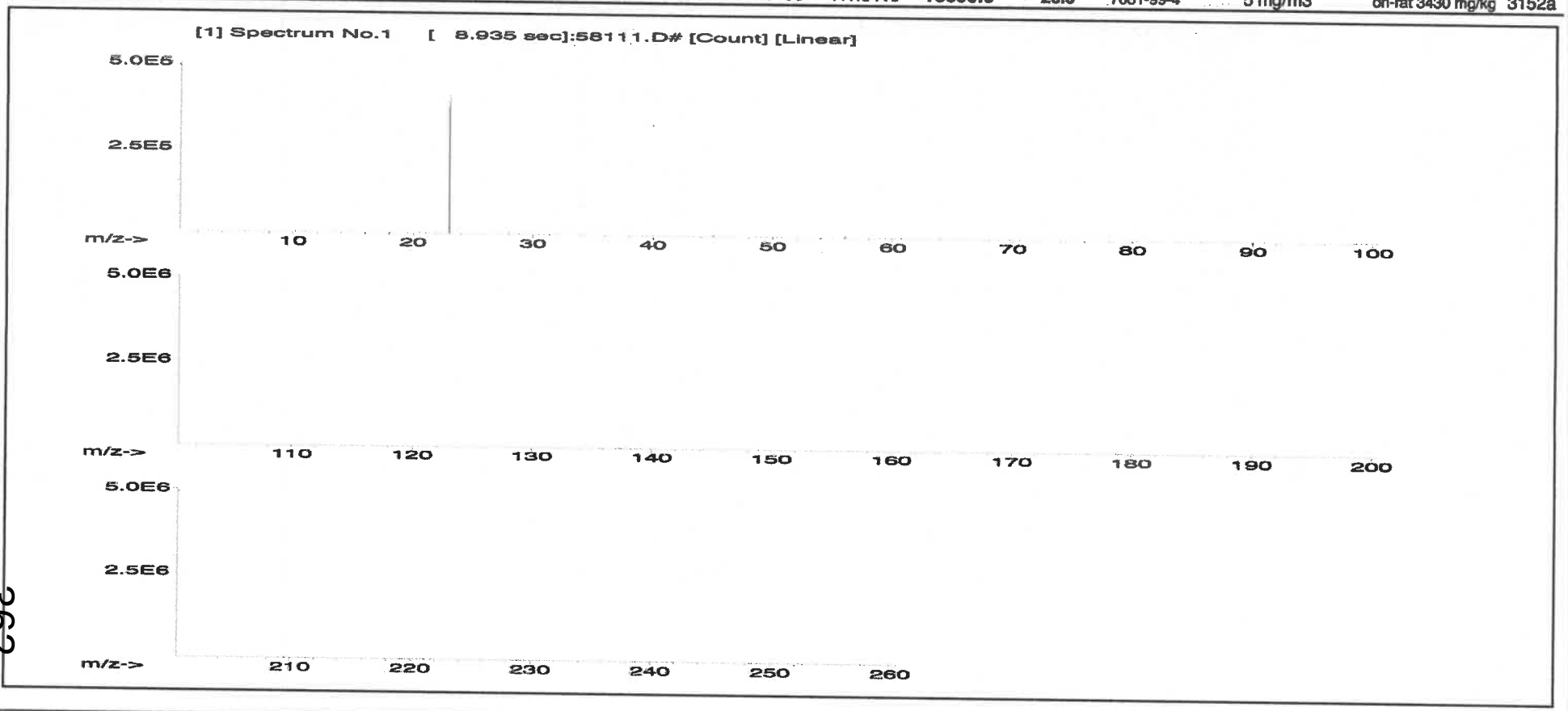
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



362

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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

M5519. M5520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

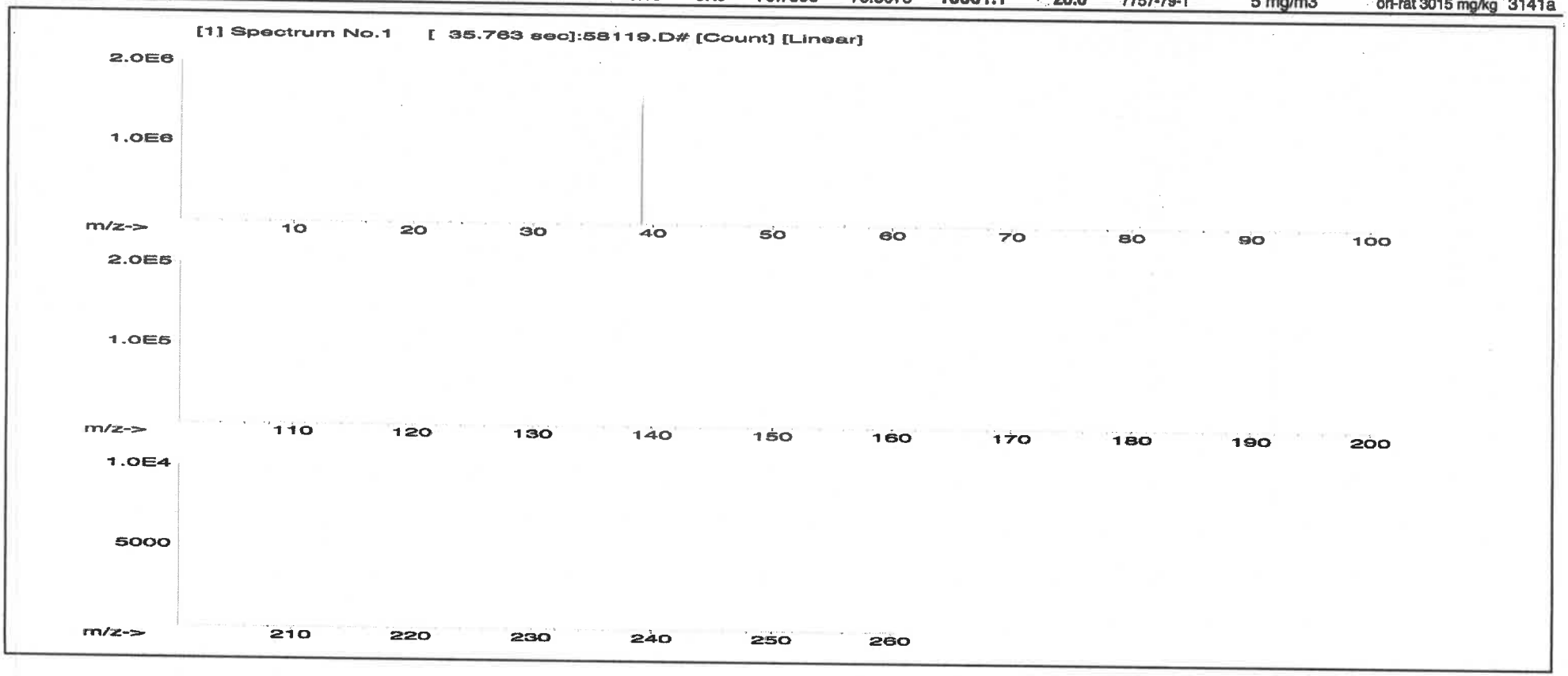
Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

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
Pedro Rentas
Reviewed By: Pedro L. Rentas 120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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).

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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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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M5658 R! 8/25/23

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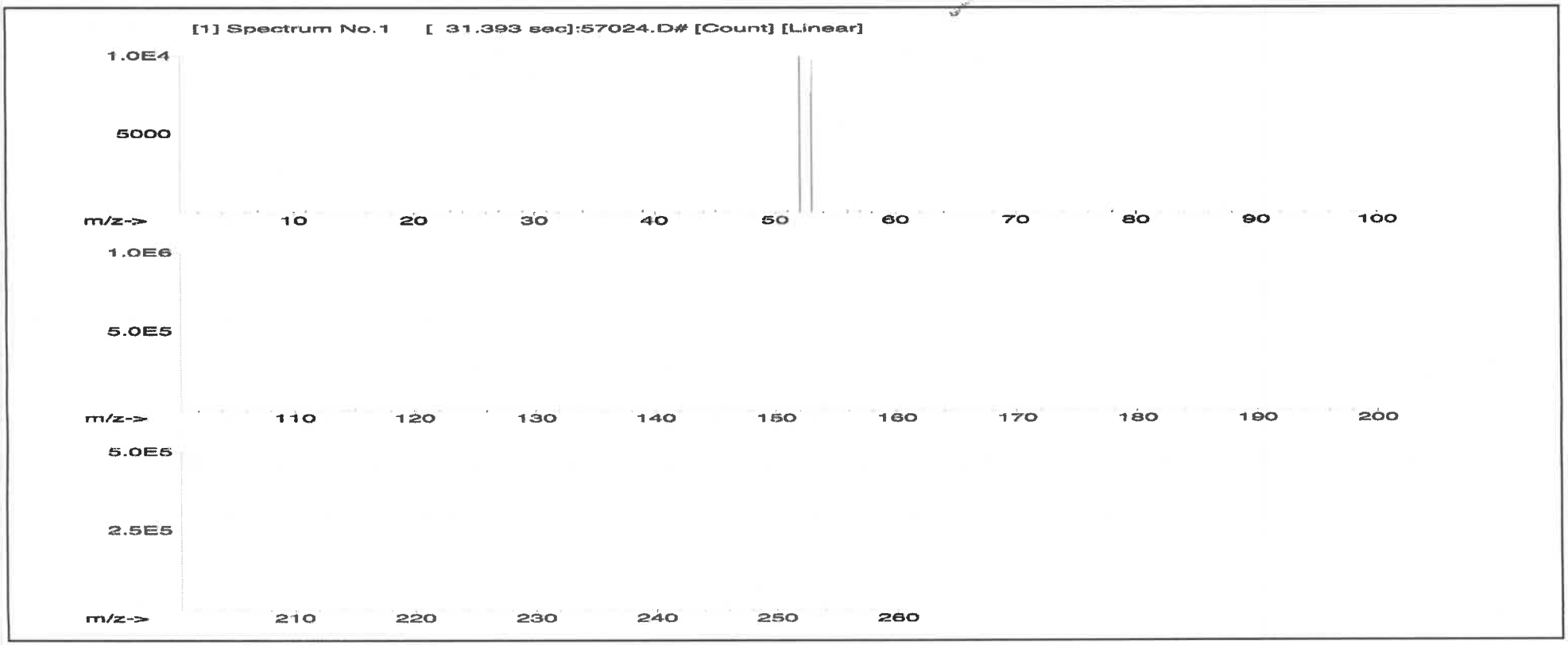
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1.	Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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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	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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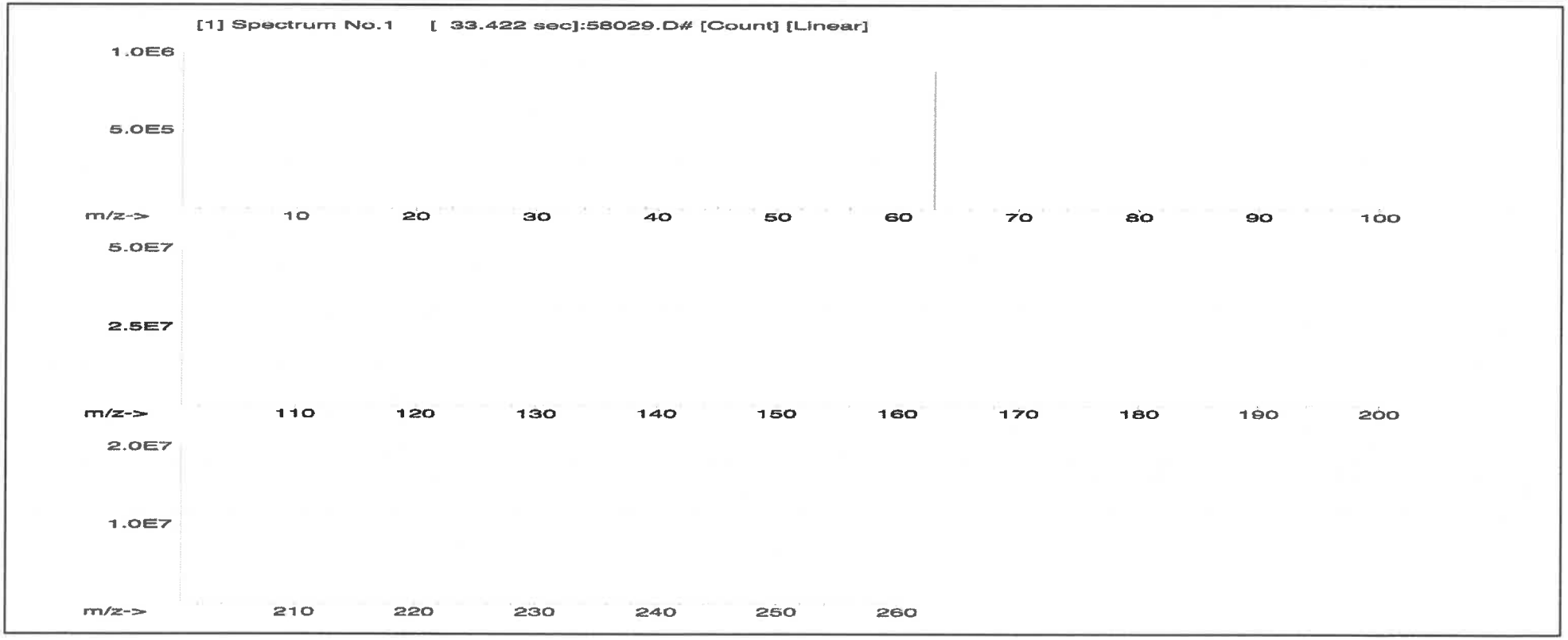
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**58029**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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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	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

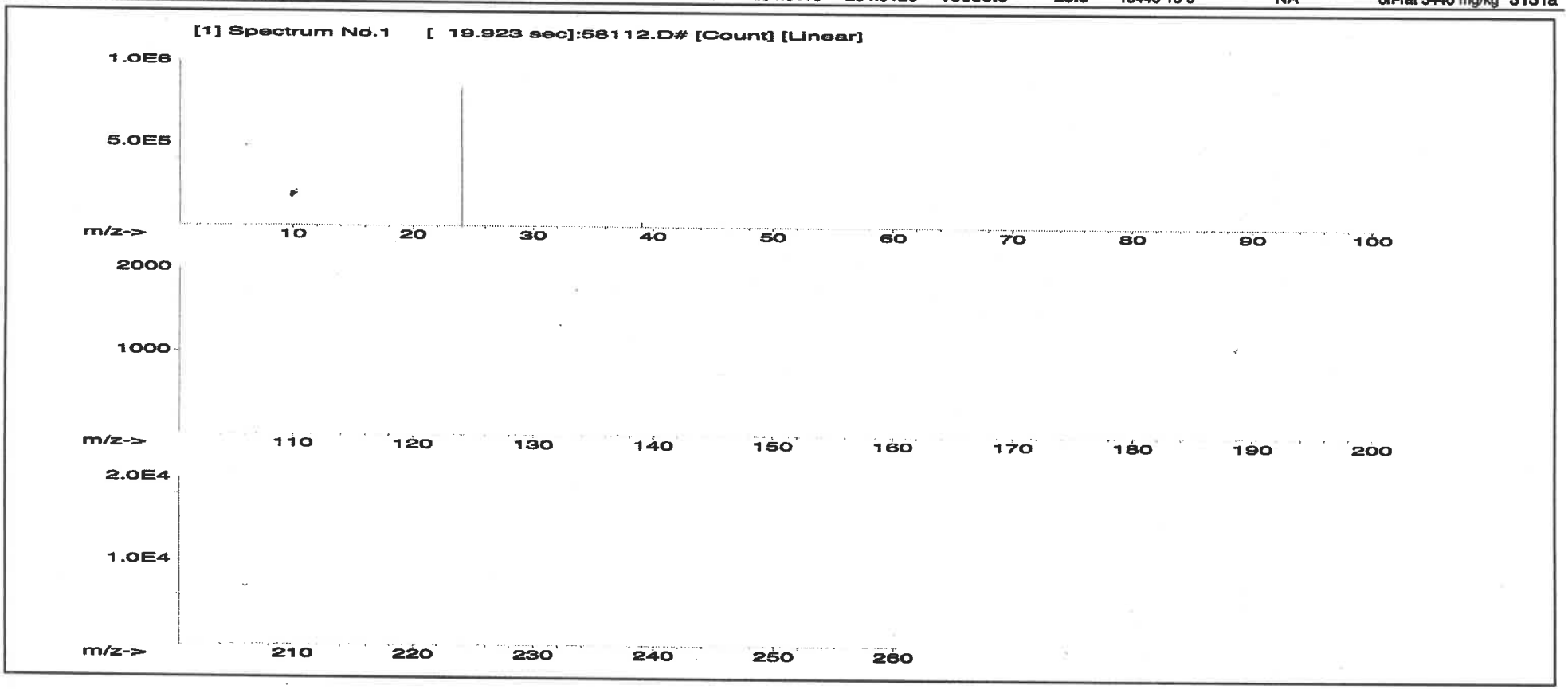
		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



375

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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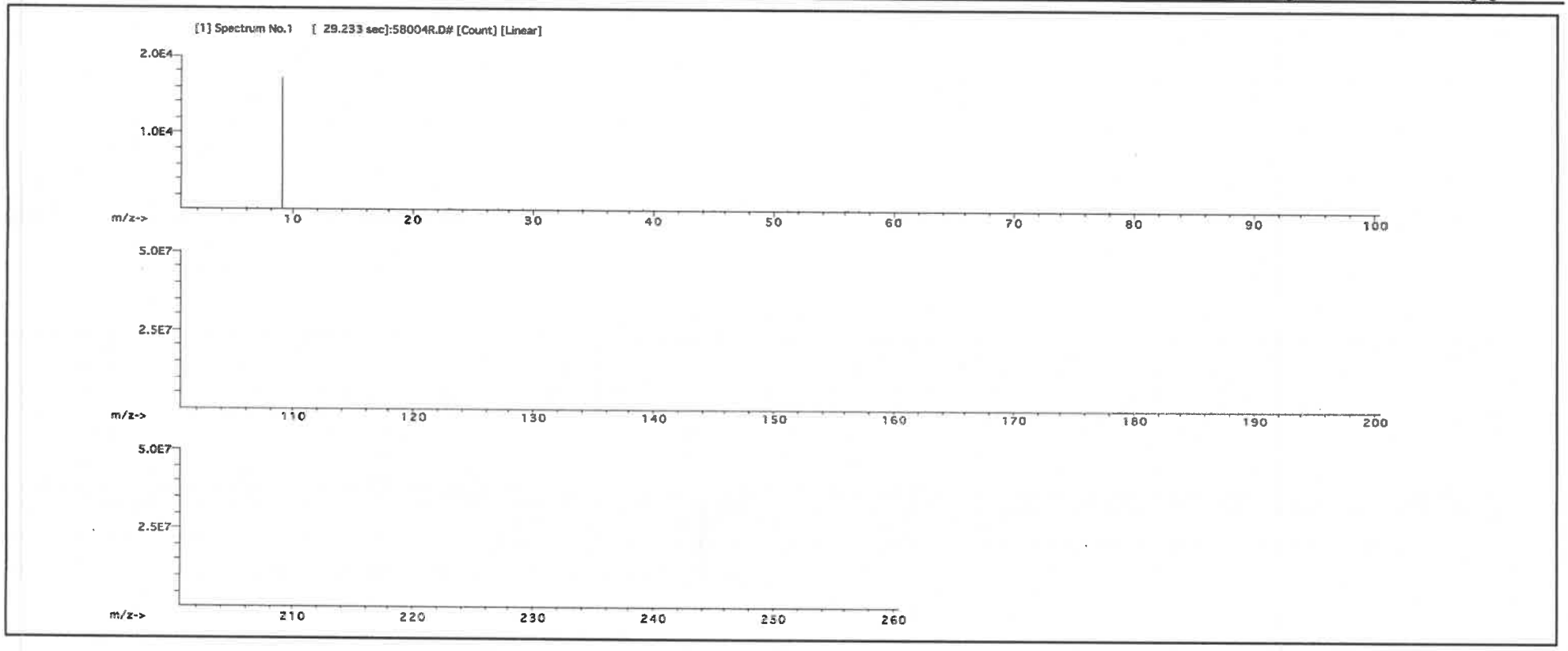
376

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57004**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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378

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

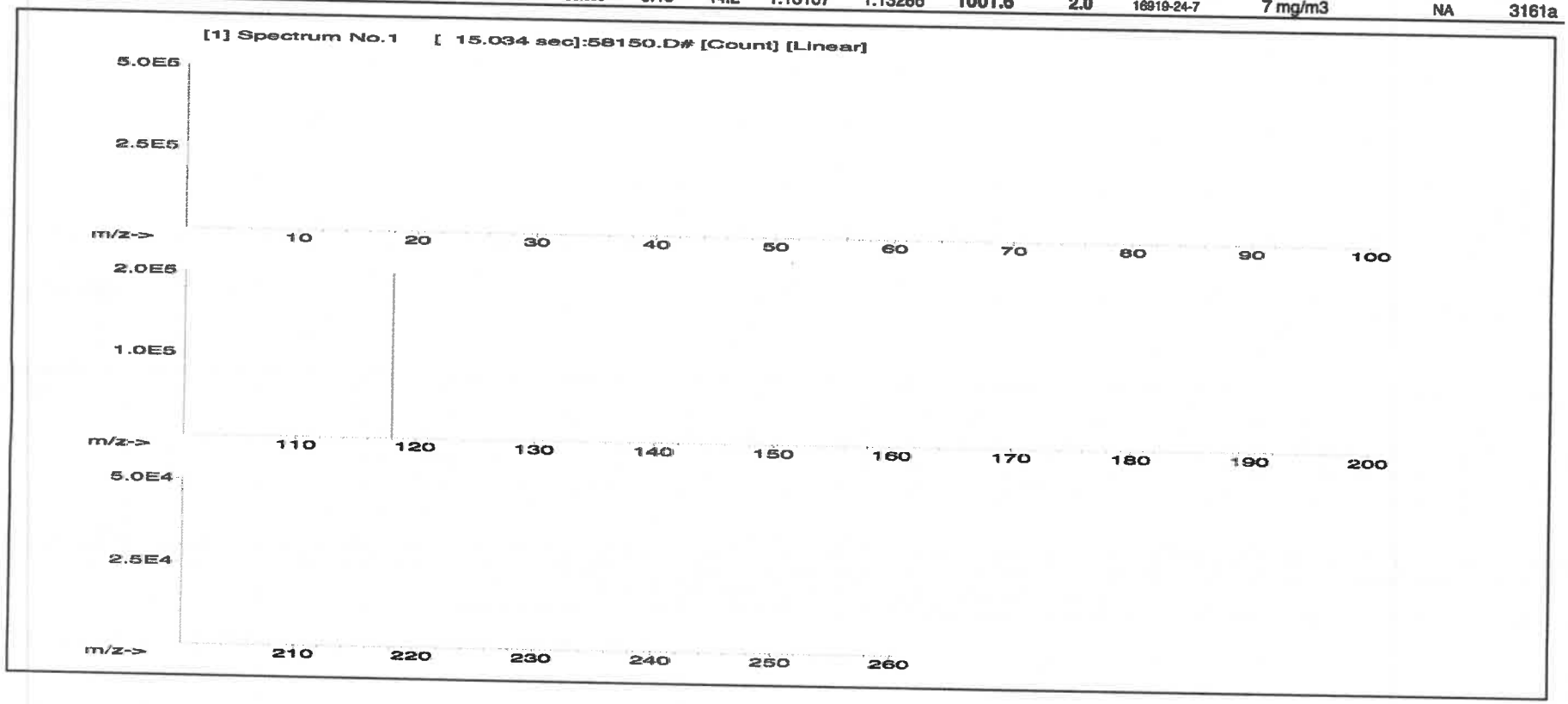
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



379

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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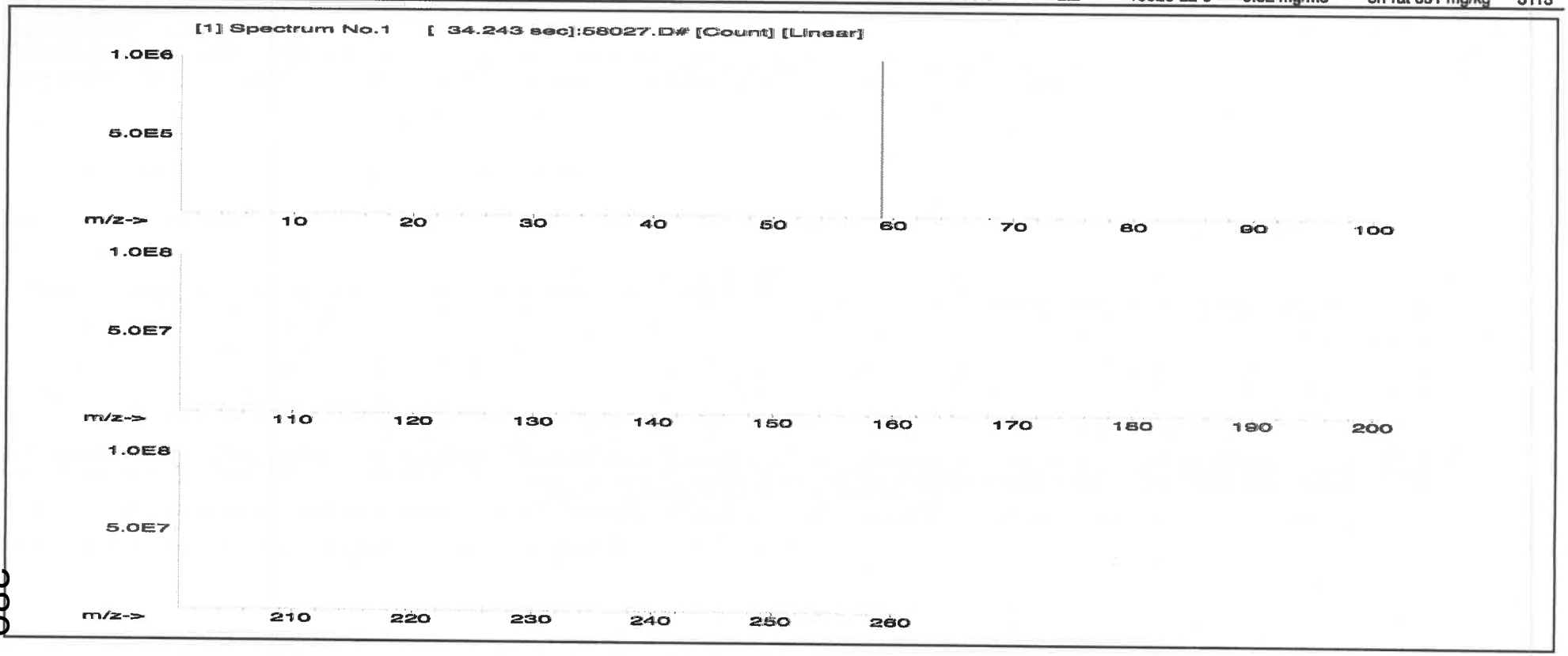
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CERTIFIED WEIGHT REPORT:

		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



380

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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* 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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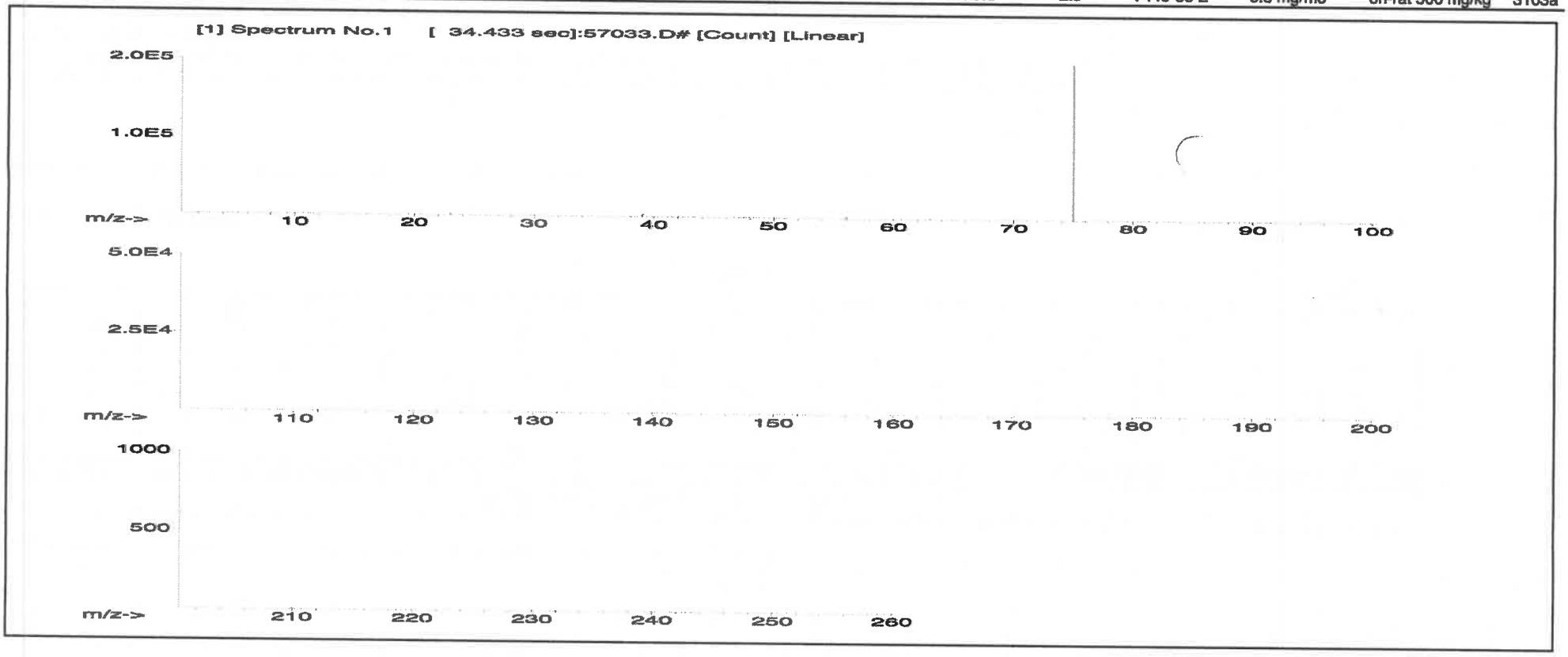
382

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



383

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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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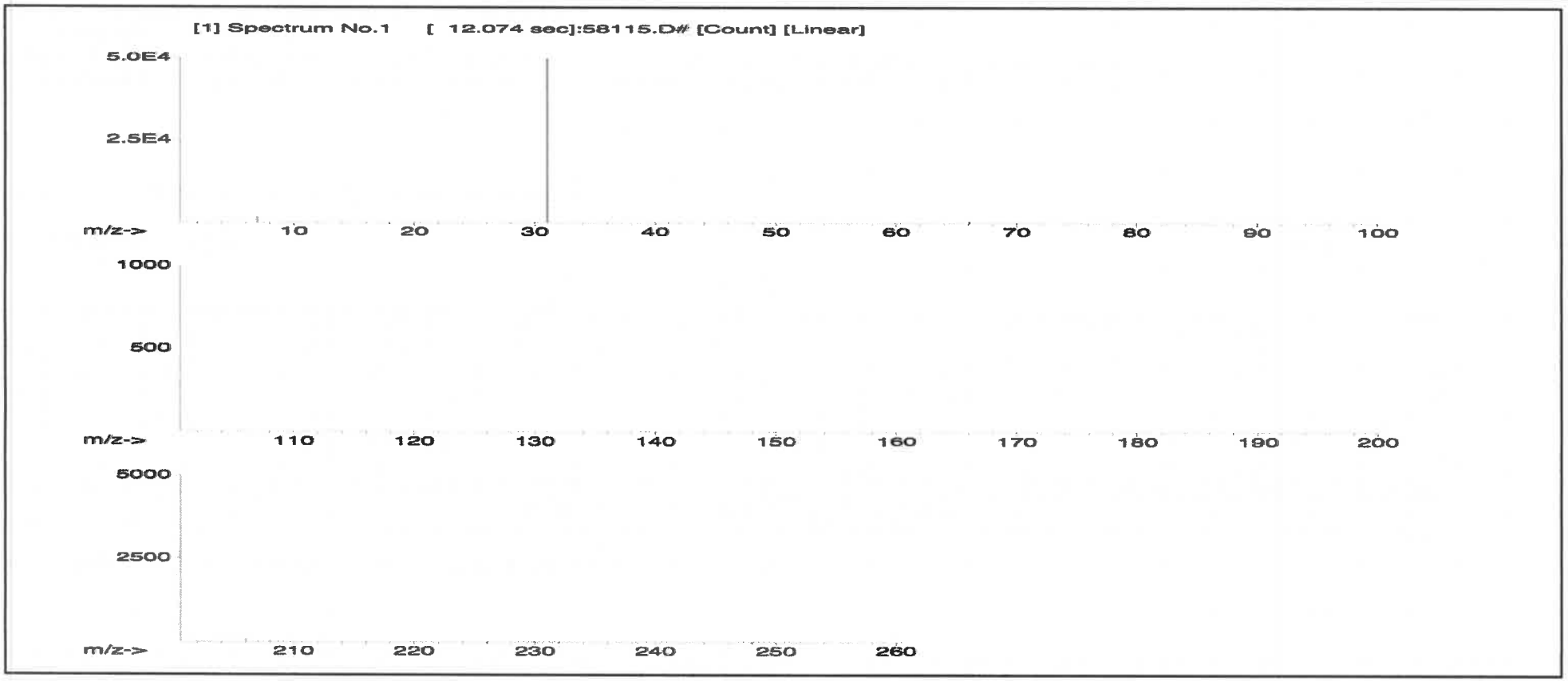
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CERTIFIED WEIGHT REPORT:

			Lot #	
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



385

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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* 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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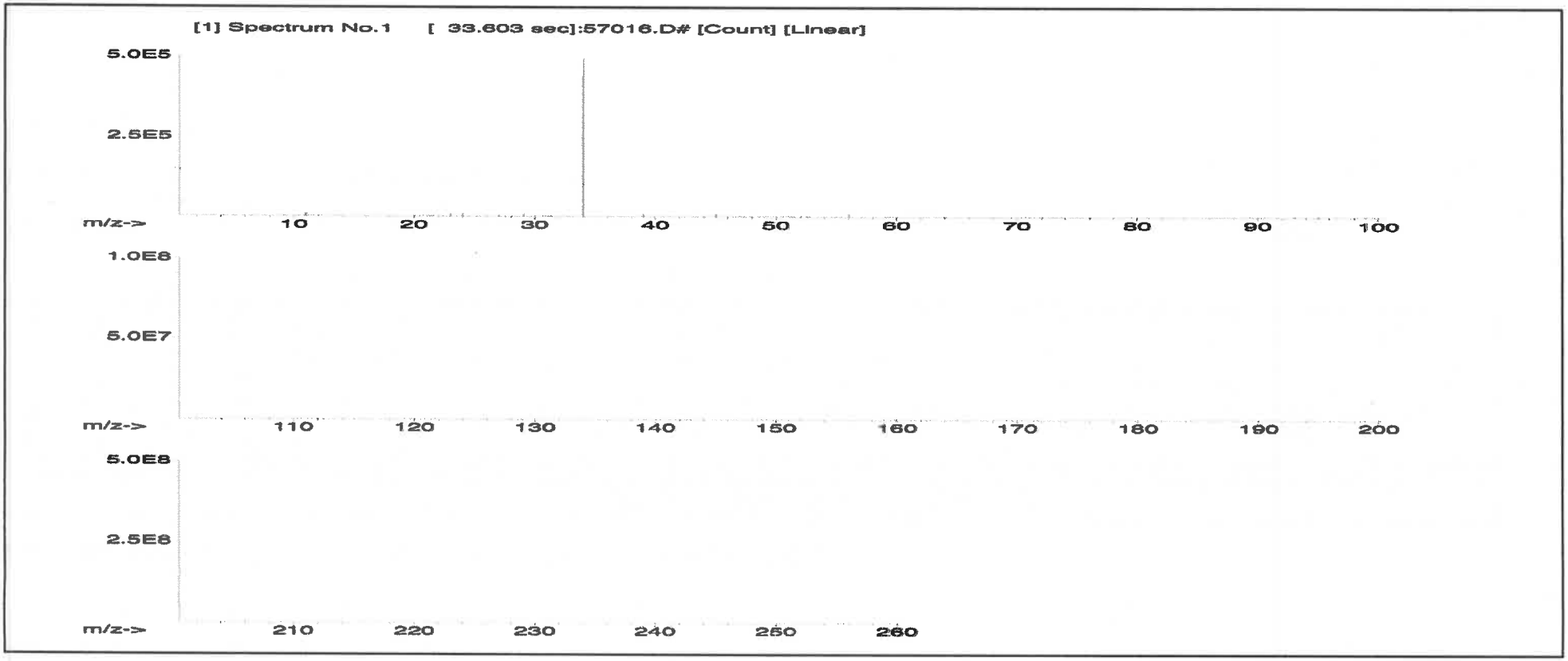
386

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



387

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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388

CERTIFIED WEIGHT REPORT:

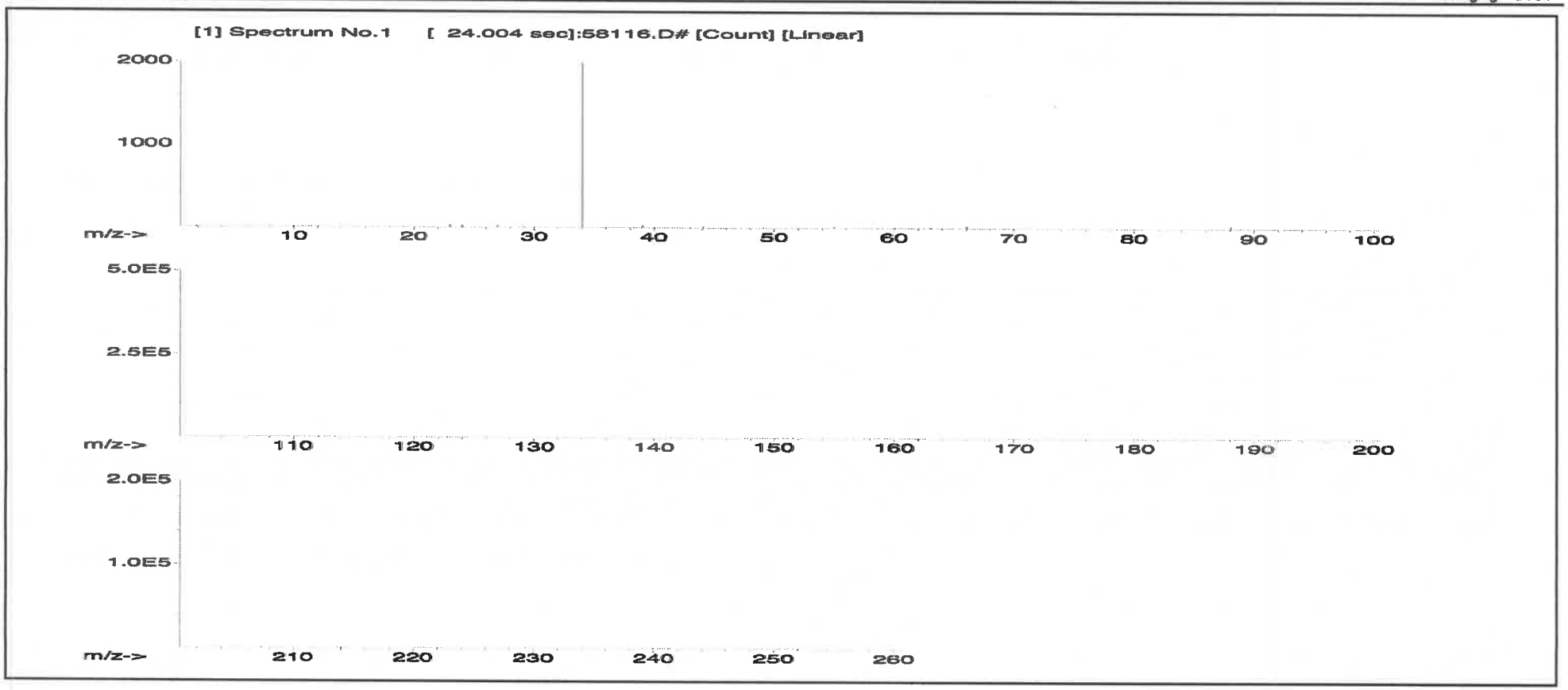
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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390

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

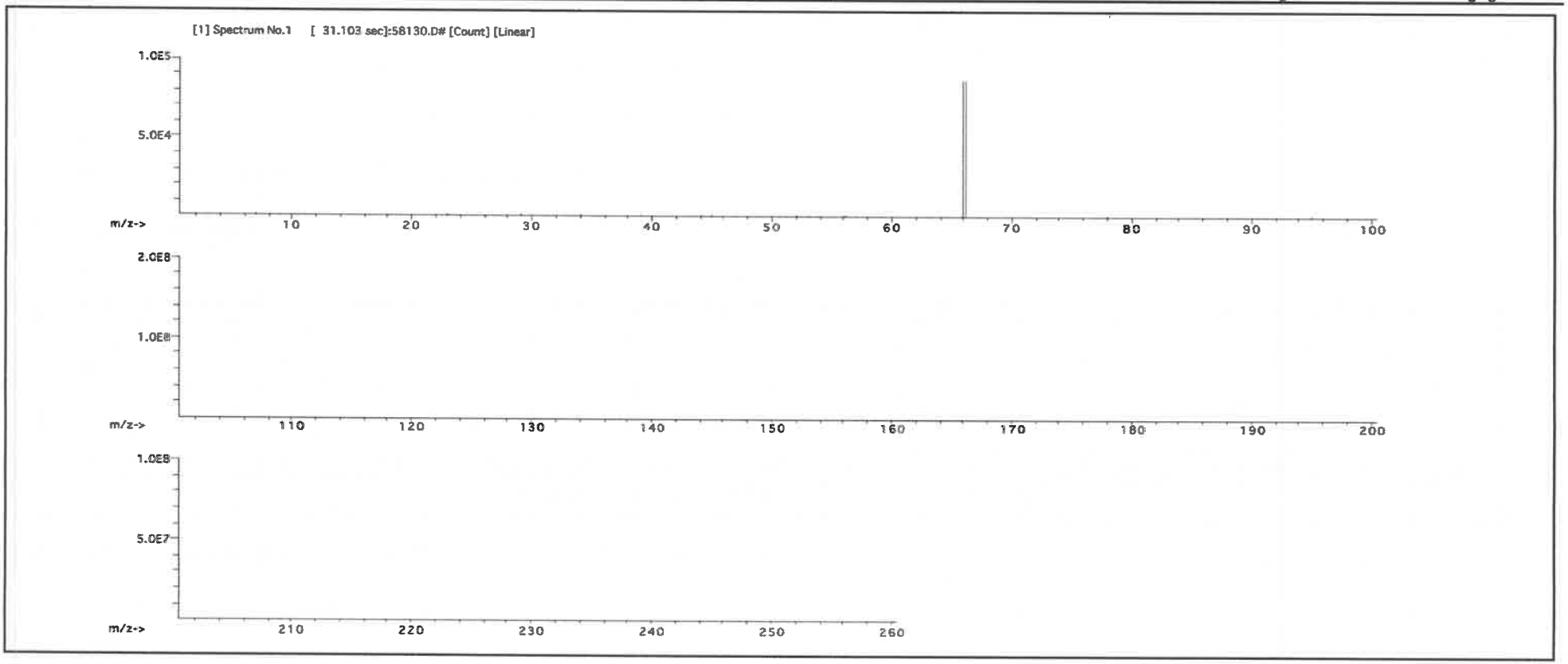
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



391

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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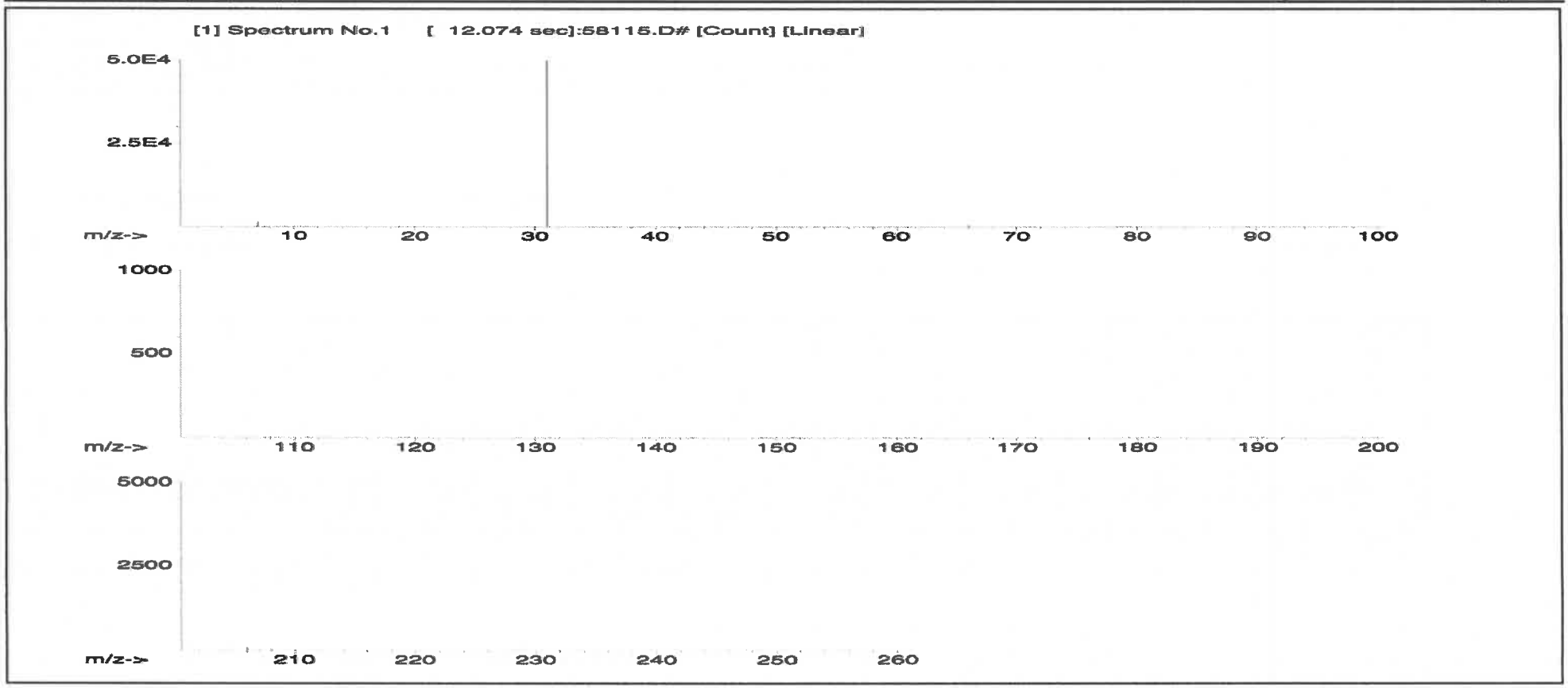
392

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	rl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
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 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

M5961 R: 6/11/24

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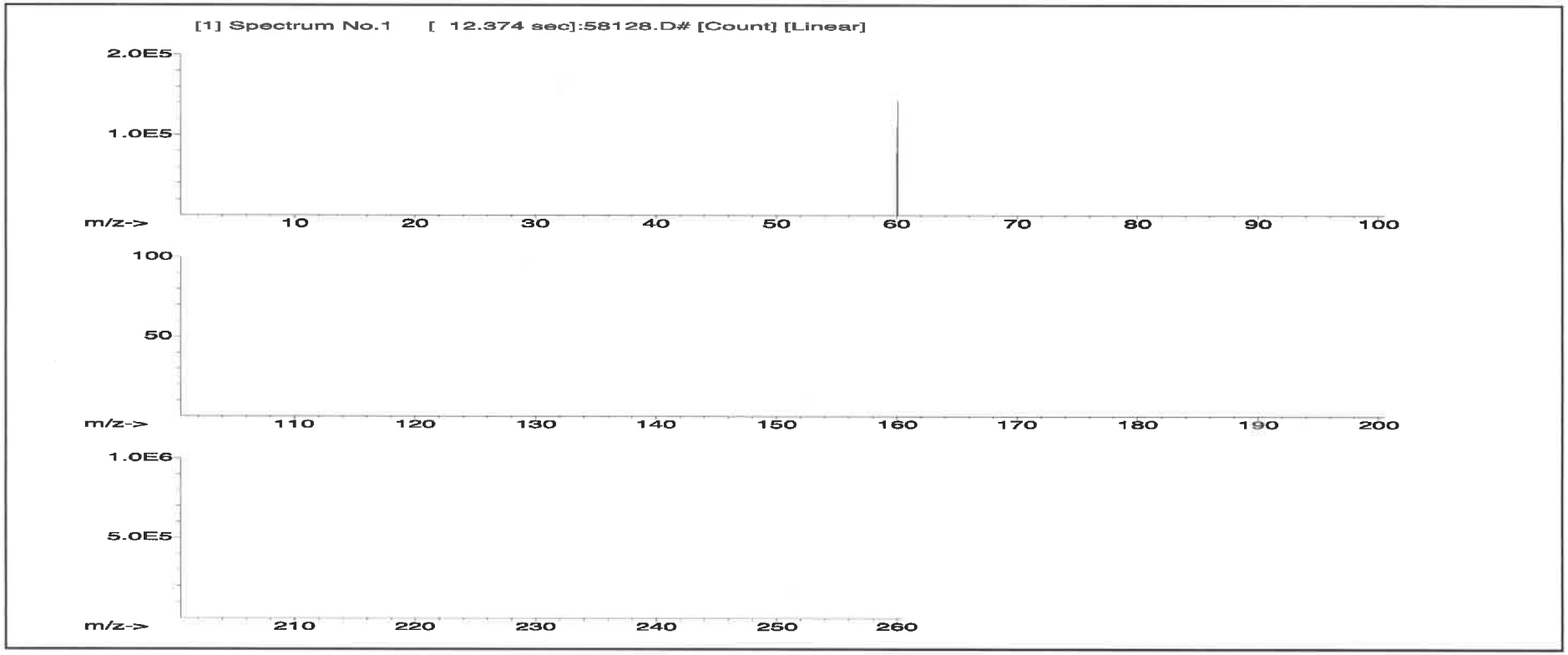
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CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**		2%	5.0 (mL) Nitric Acid
Expiration Date:	041127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes 041124
Reviewed By:	Pedro L. Rentas 041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5962 R! 06/14/24.

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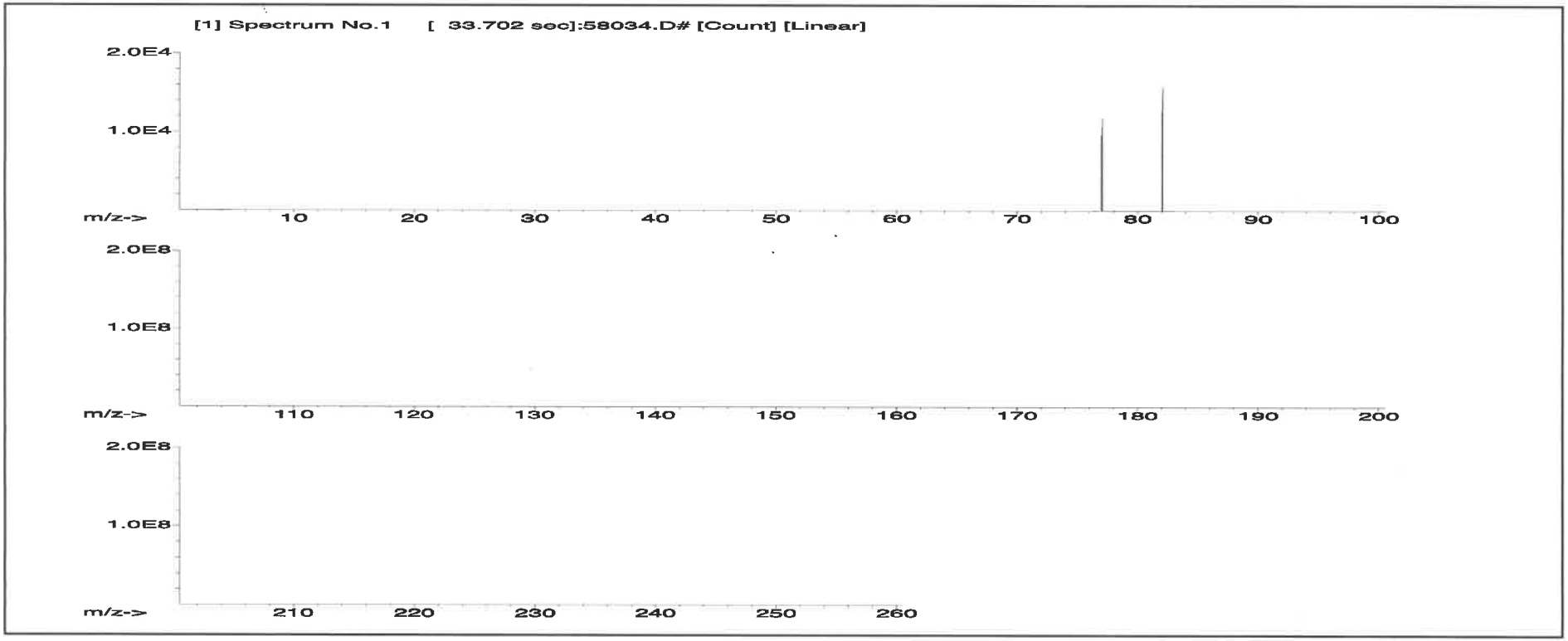
404

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

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CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11

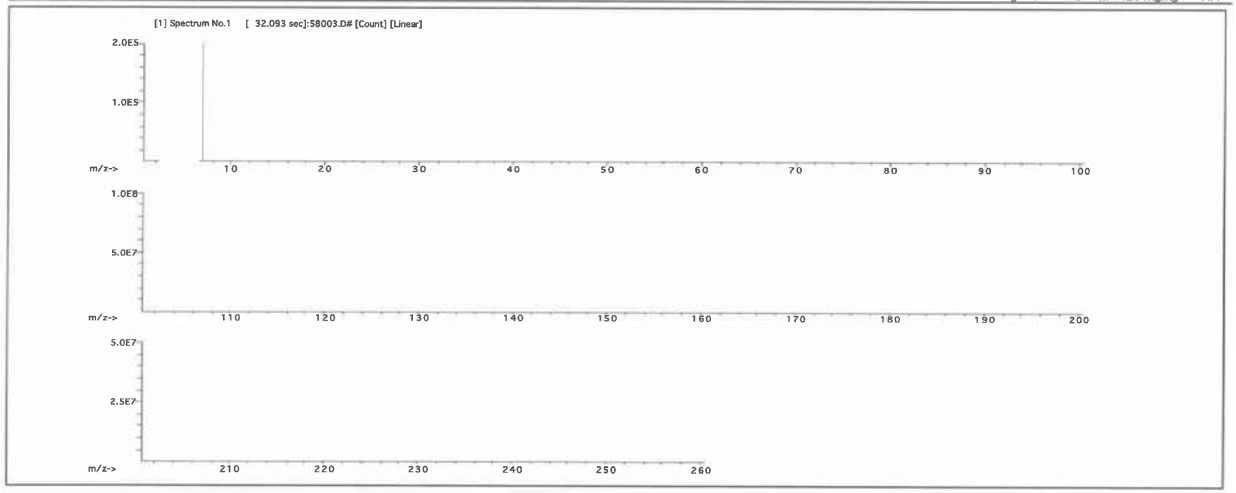
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.016 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



412

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) 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

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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		

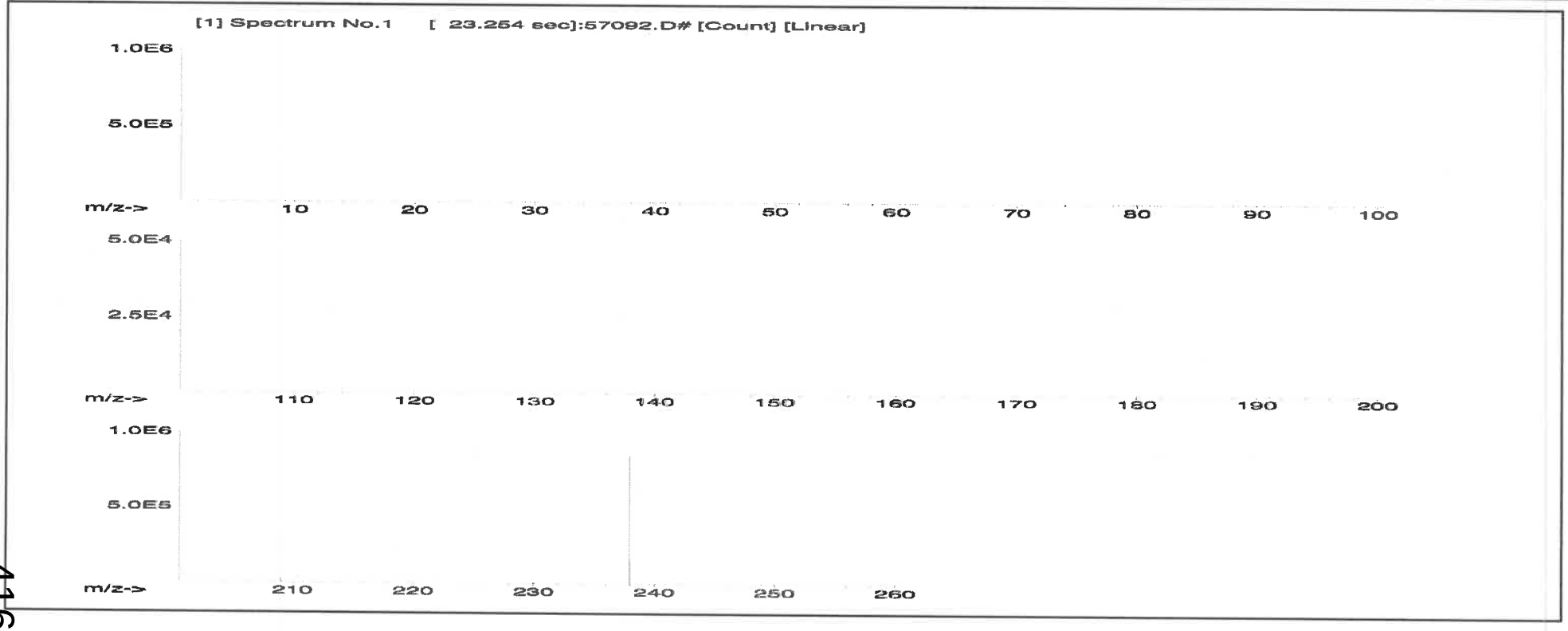
Giovanni Esposito

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



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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	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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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5983 R: 6/11/24

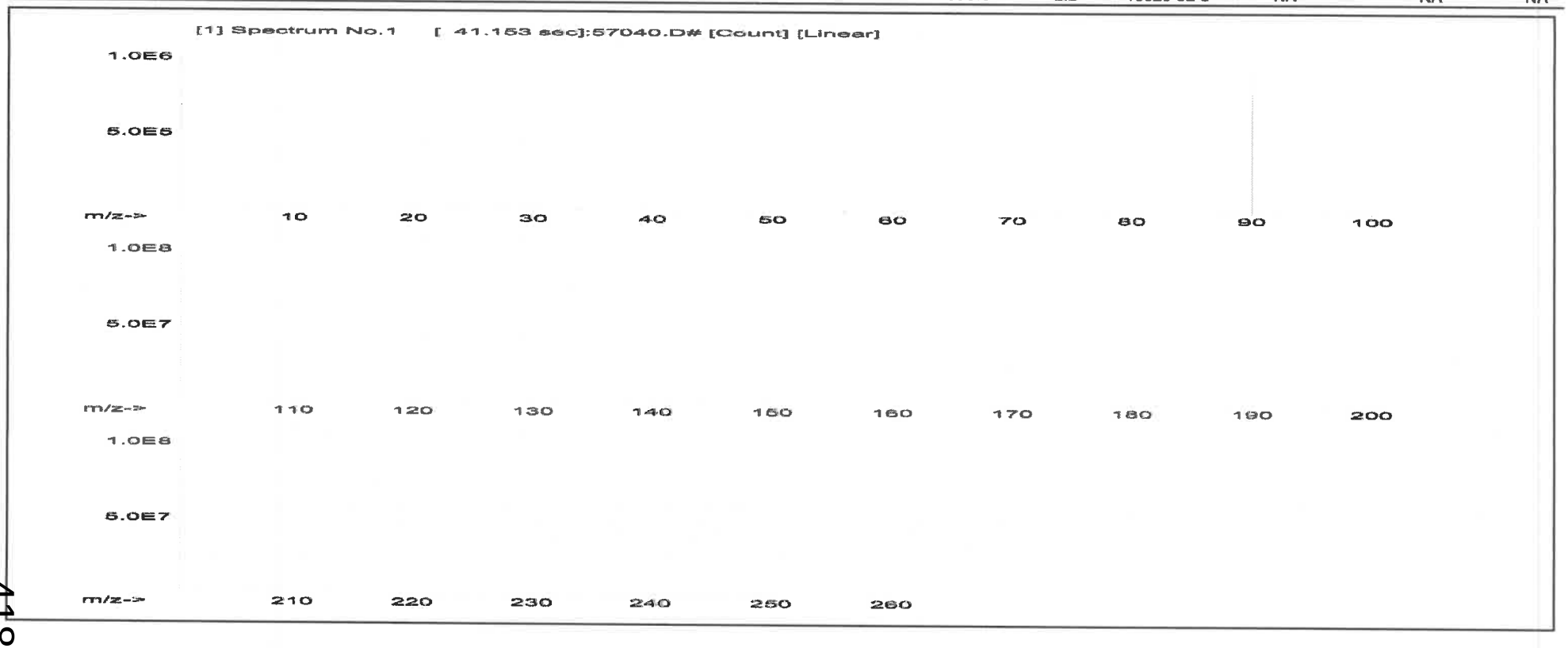
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57040**	21110221	Nitric Acid	
Lot Number:	**071423**			
Description:	**Zirconium (Zr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071426			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Rentas	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

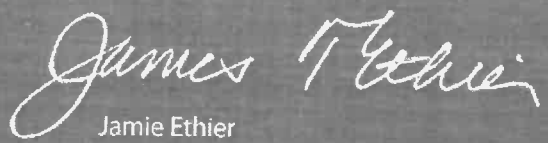
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Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
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425

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

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Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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428

CERTIFIED WEIGHT REPORT:

R→ 1/13/25

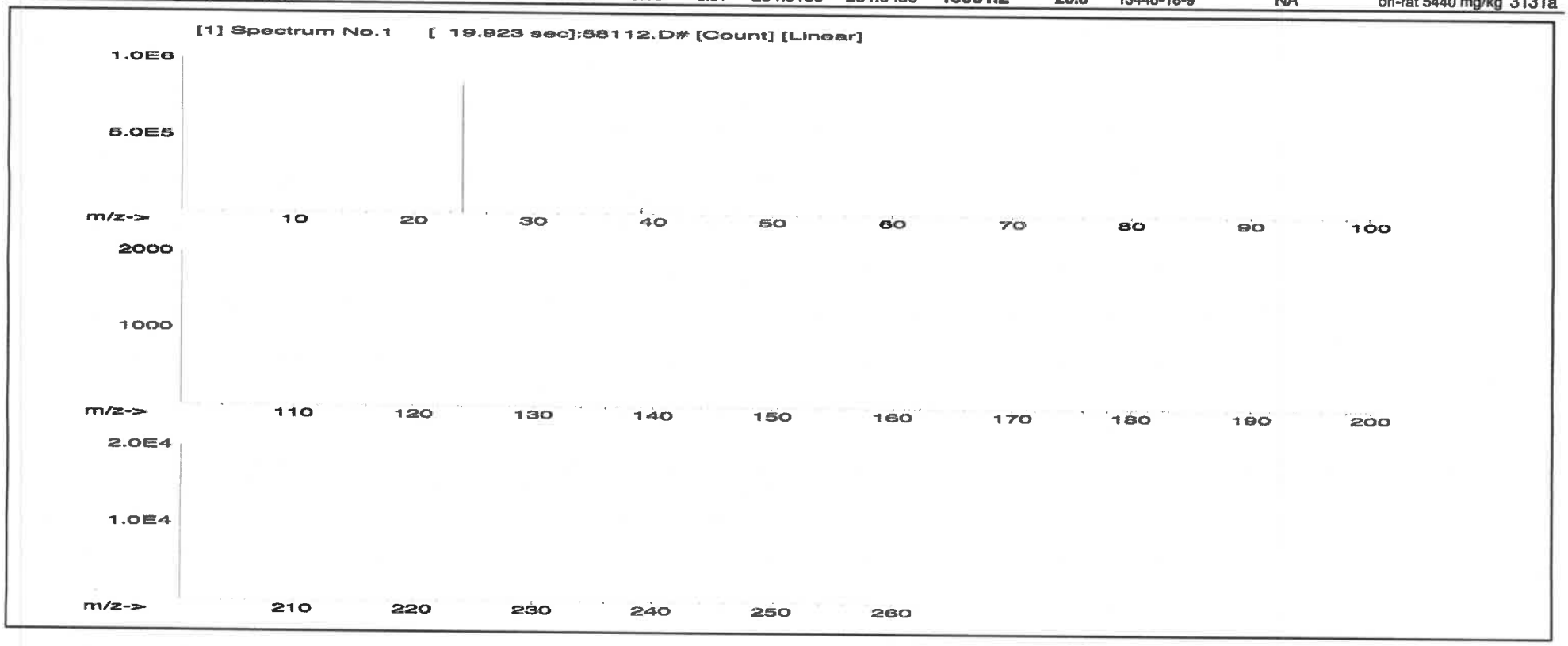
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	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



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	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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430

CERTIFIED WEIGHT REPORT:

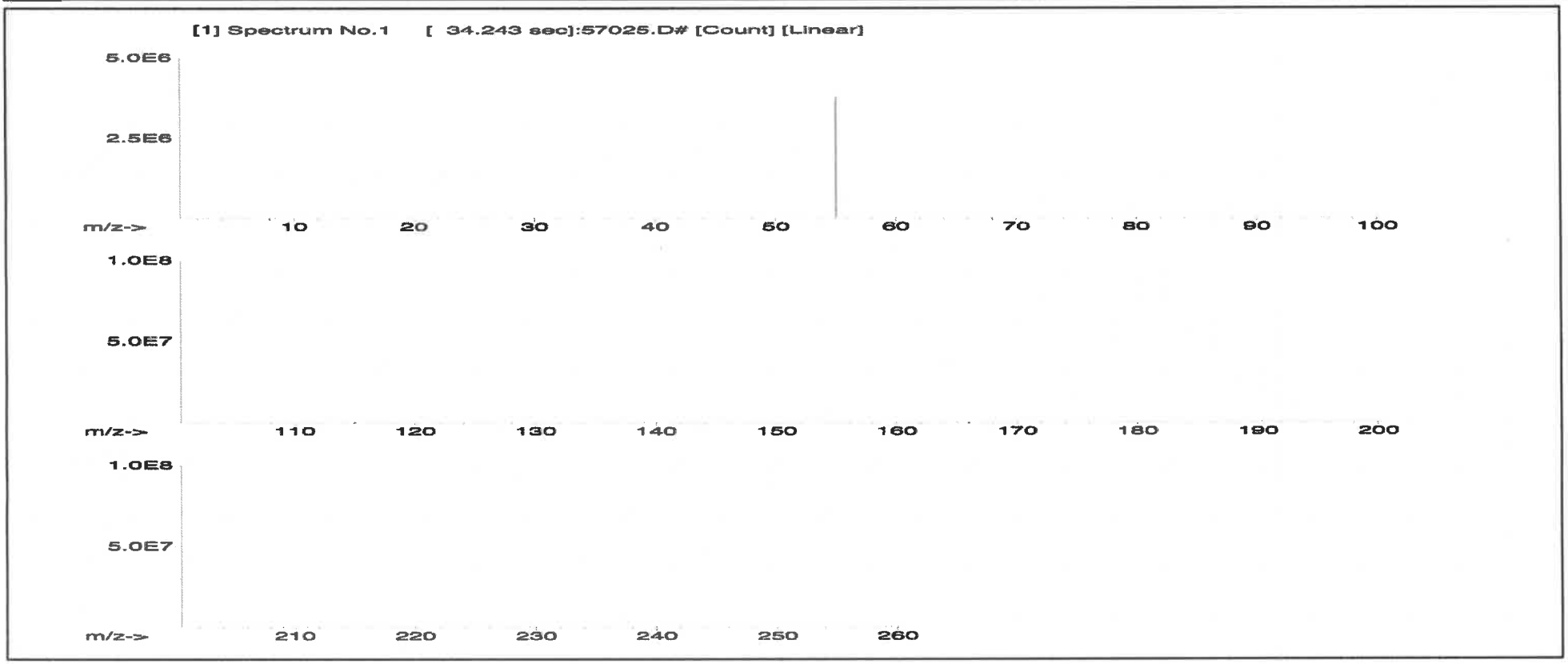
R->1/13/25
M6128

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



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	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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CERTIFIED WEIGHT REPORT:

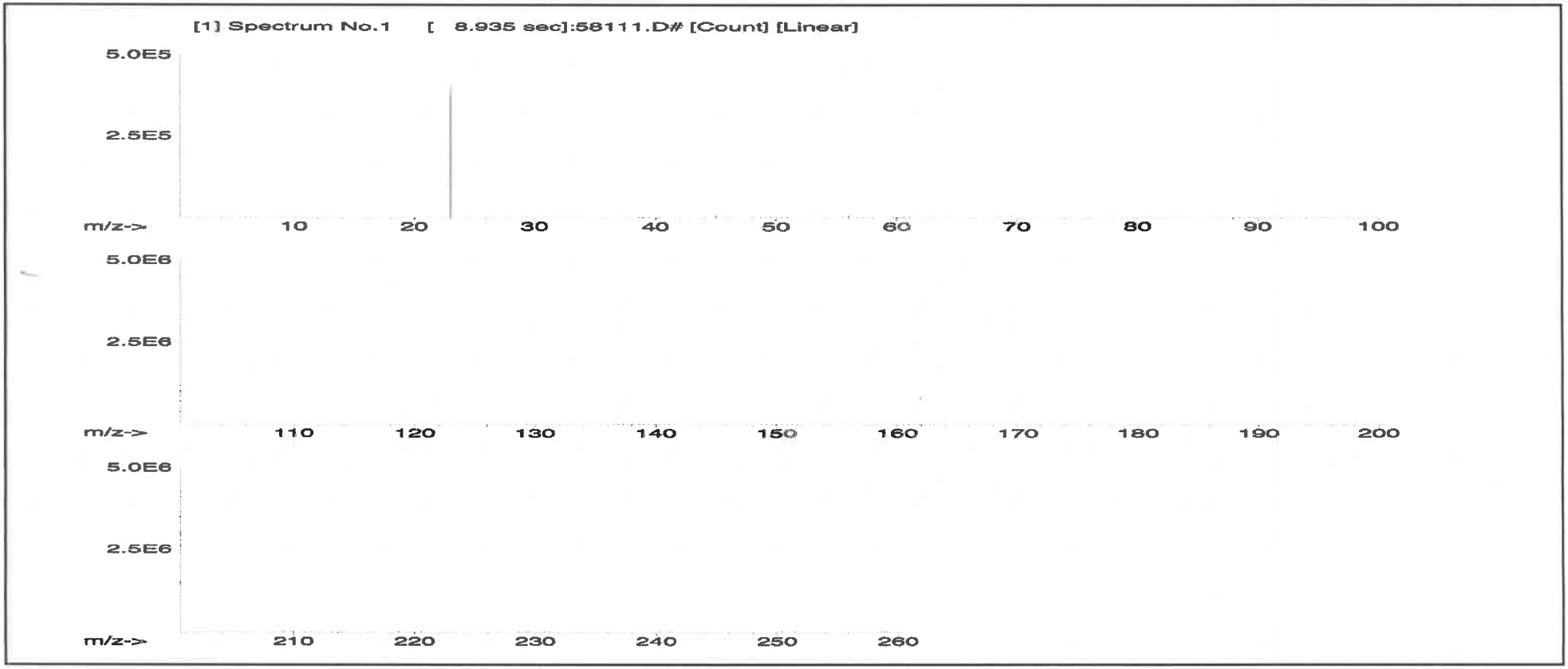
			Lot #	
Part Number:	**58111**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**122223**			
Description:	**Sodium (Na)**	2%	60.0 (mL)	Nitric Acid
Expiration Date:	122226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	3000.4	0.06	Flask Uncertainty	

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

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. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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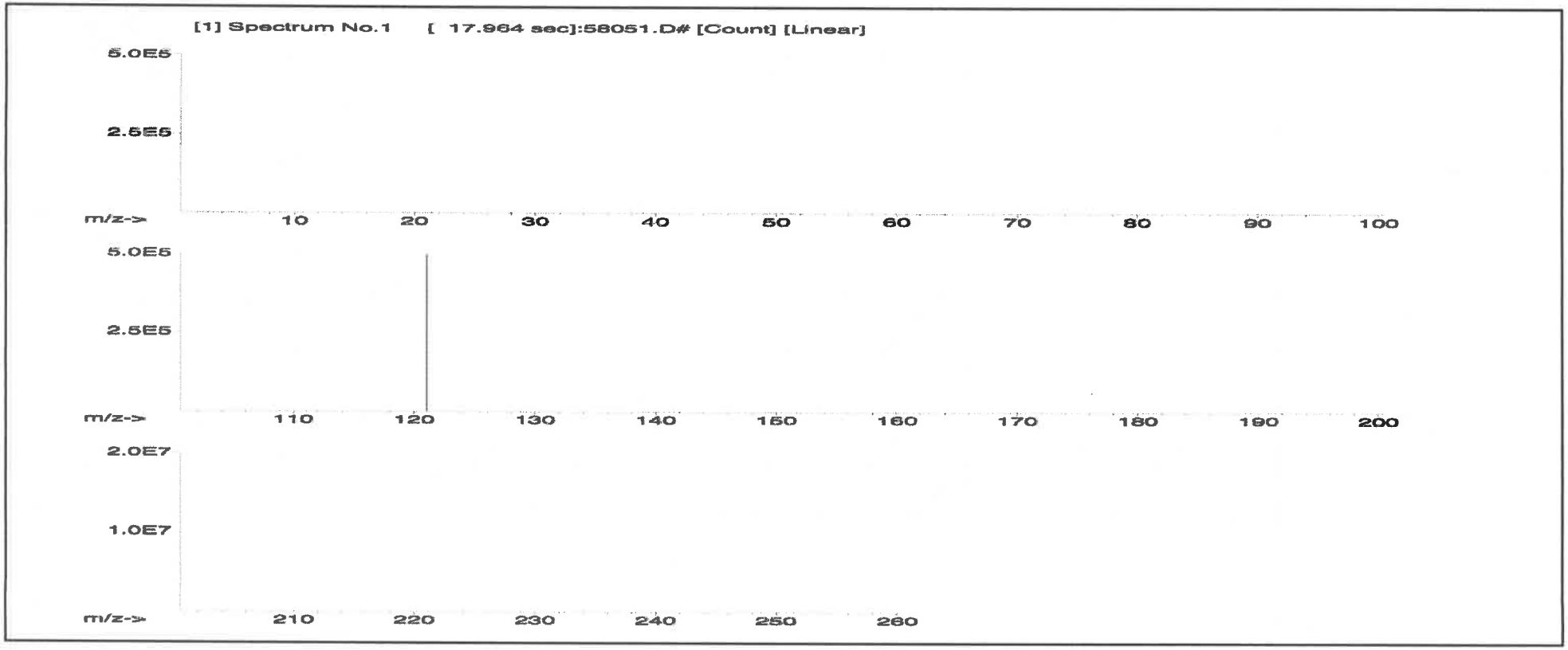
434

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



435

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:

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Certified by:

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R: 8/5/24

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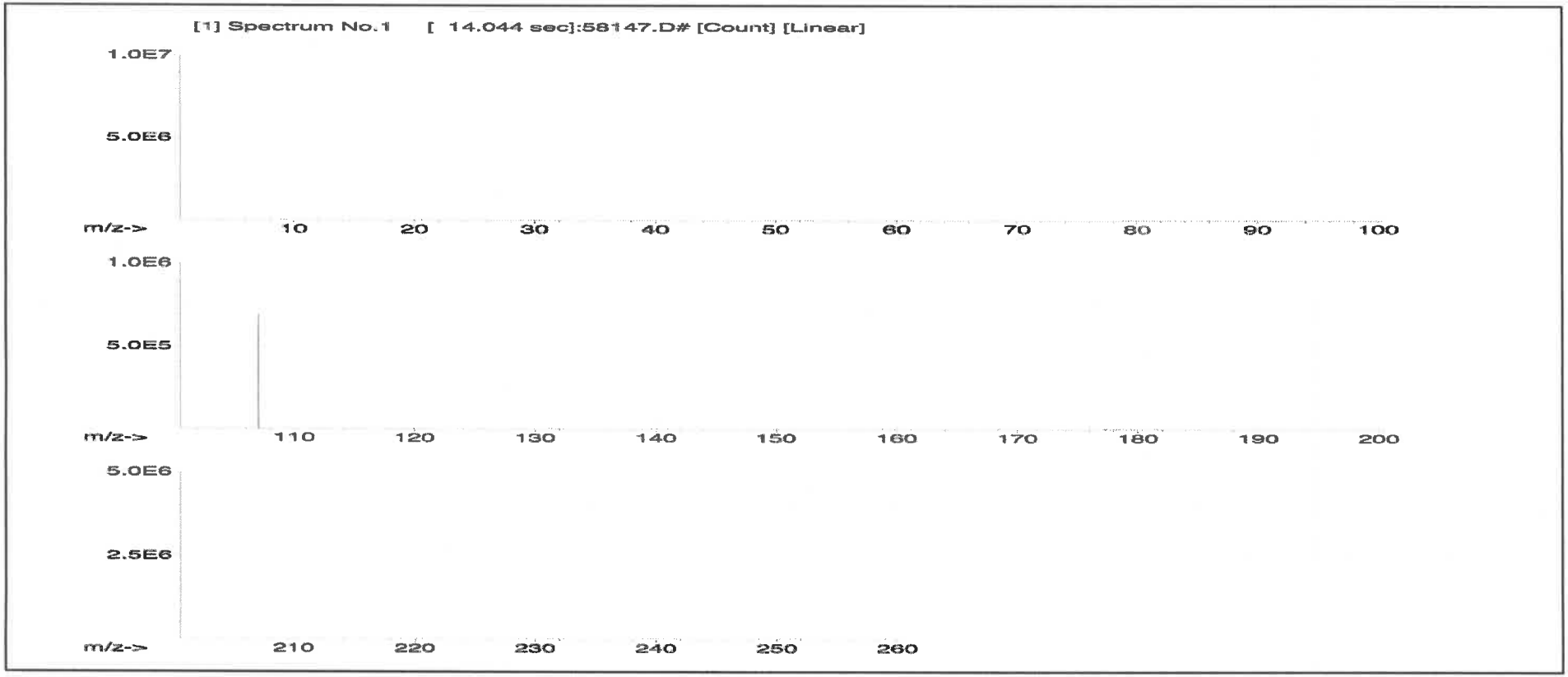
436

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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	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:

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Certified by:

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R: 8/5/24 M6019

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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 888.01 ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

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https://Absolutestandards.com

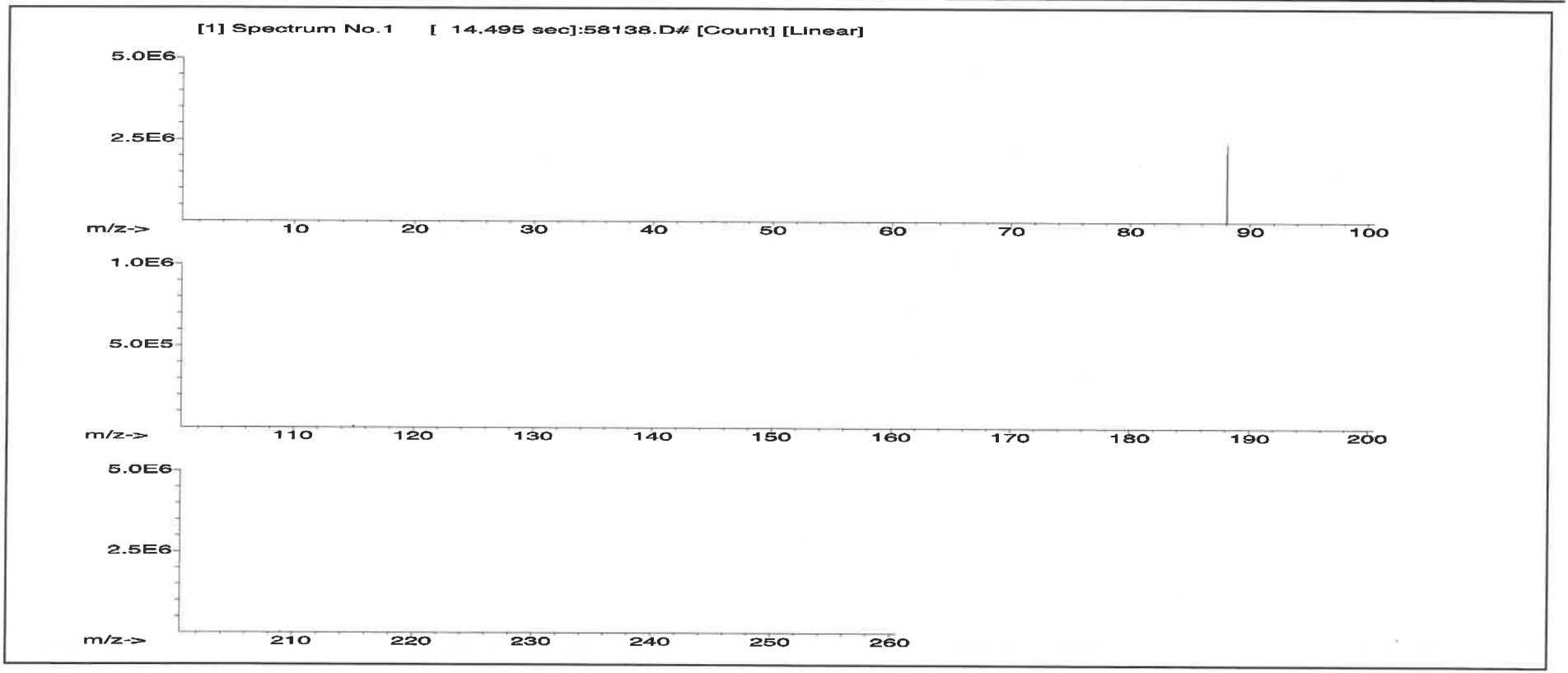
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CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
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):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

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	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



443

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	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

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M6023

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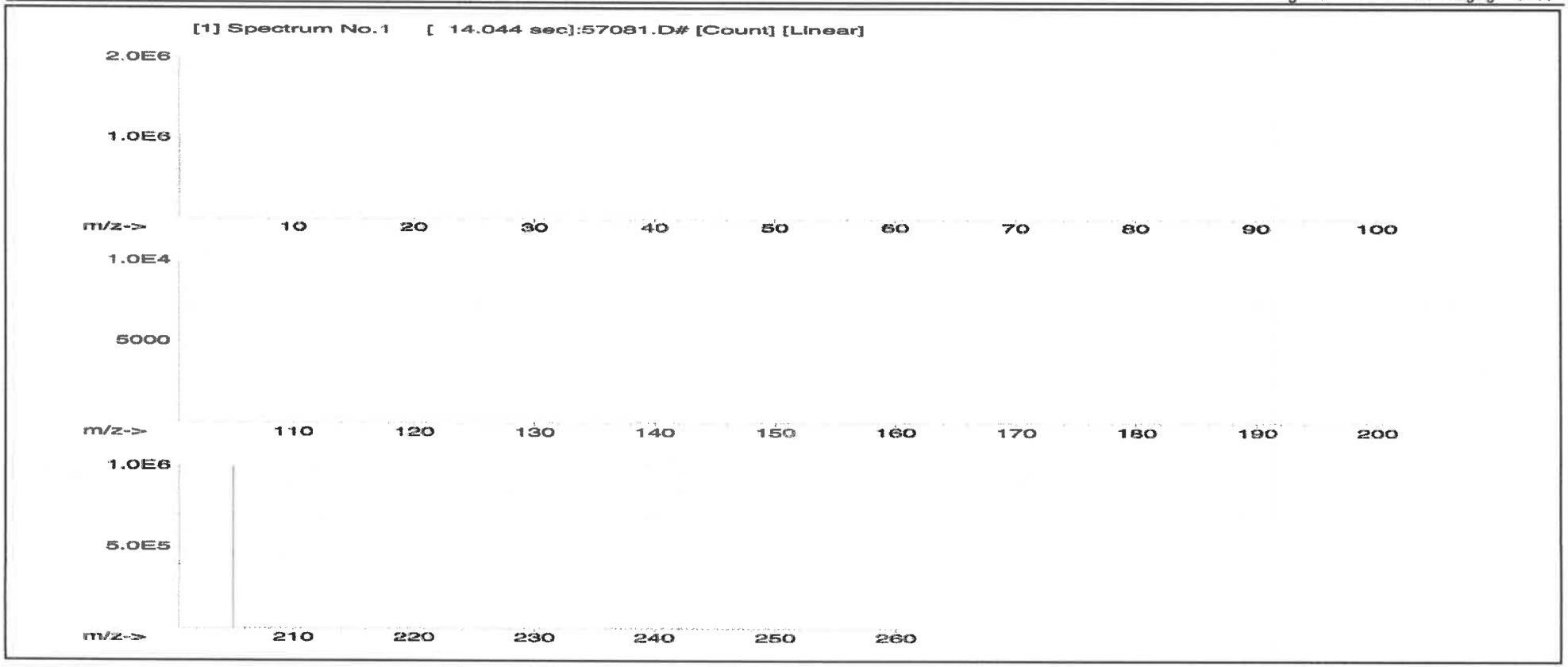
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



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	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

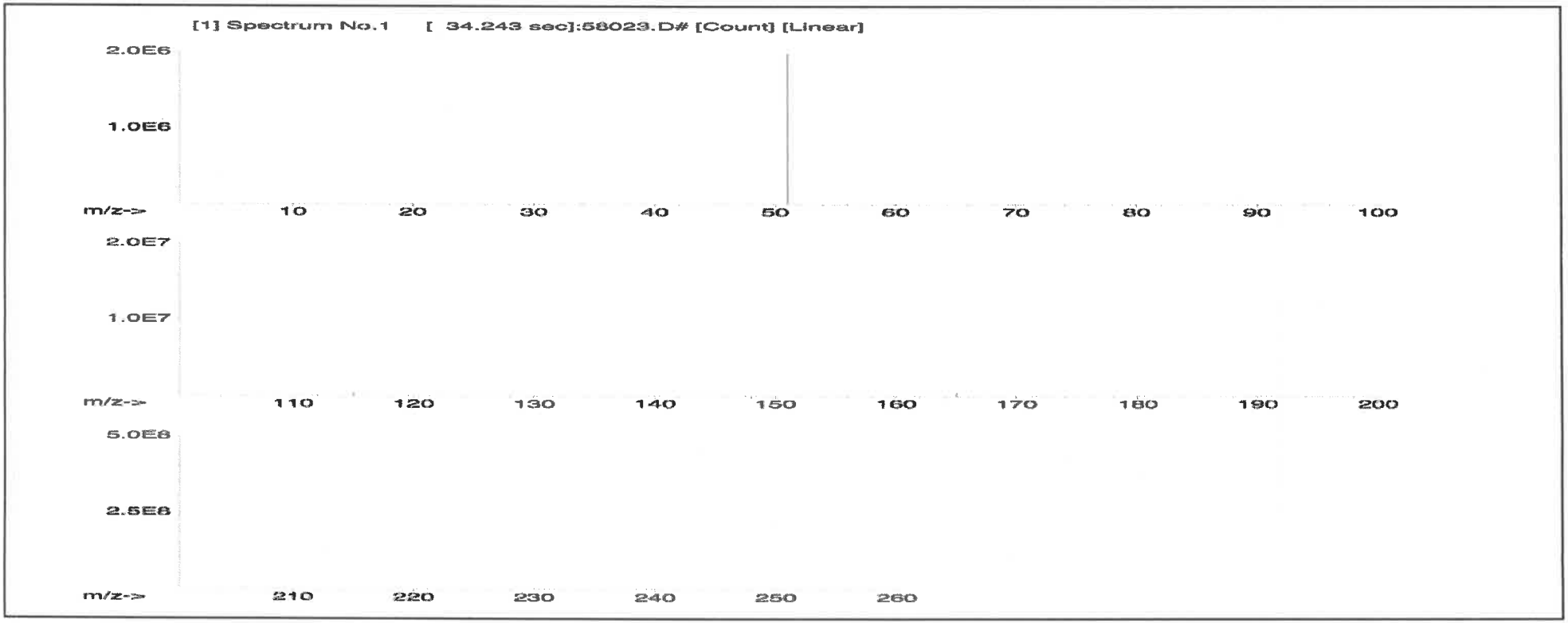
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166138

SOP ID : M200.7-Trace Elements-22, MSFAM01.1-Trace Metals-2

SDG No : MJNLB3

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: 01/20/2025 **Time :** 10:40 **Temp :** 96 °C

End Digest Date: 01/20/2025 **Time :** 12:45 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: S123.

Supervisor Signature: MB

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	0.50	MP84099
Spike Sol 6	0.25	MP84070
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	MP84041
1:1 HCL	0.50	MP83499
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 #55 :96

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/20/25 13:45	S123. MET digestion	ICP-METALS
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166138

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB166138BL	PBW138	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	20
PB166138BS	LCS138	<2	50	50	Colorless	Colorless	Clear	Clear	MP84099	21
Q1127-09	MJNLE5	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	22
Q1127-10	MJNLE5D	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	23
Q1127-11	MJNLE5S	<2	50	50	Colorless	Colorless	Clear	Clear	MP84070	24

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Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134411

Review By	Sarabjit Jaswal	Review On	1/27/2025 6:20:54 AM
Supervise By	Mohan Bera	Supervise On	1/27/2025 6:21:46 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/24/25 11:36		Kareem	OK
2	S1	S01	CAL2	01/24/25 11:40		Kareem	OK
3	S2	S02	CAL3	01/24/25 11:44		Kareem	OK
4	S3	S03	CAL4	01/24/25 11:48		Kareem	OK
5	S4	S04	CAL5	01/24/25 11:52		Kareem	OK
6	S5	S05	CAL6	01/24/25 11:56		Kareem	OK
7	S6	S06	CAL7	01/24/25 12:01		Kareem	OK
8	ICV002	ICV002	ICV	01/24/25 12:18	Inst. paused for calibration review	Kareem	OK
9	ICB002	ICB002	ICB	01/24/25 12:23		Kareem	OK
10	ICSA002	ICSA002	ICSA	01/24/25 12:29	Inst. paused for review	Kareem	OK
11	ICSAB002	ICSAB002	ICSAB	01/24/25 12:36	Inst. paused for review	Kareem	OK
12	CCV013	CCV013	CCV	01/24/25 12:59	Inst. paused for review	Kareem	OK
13	CCB013	CCB013	CCB	01/24/25 13:03		Kareem	OK
14	Q1046-02	GCQ19	SAM	01/24/25 13:07		Kareem	OK
15	Q1046-03	GCQ19D	DUP	01/24/25 13:12		Kareem	OK
16	Q1046-02L	GCQ19L	SD	01/24/25 13:16		Kareem	OK
17	Q1046-04	GCQ19S	MS	01/24/25 13:20		Kareem	OK
18	Q1045-07DL	GCQ04	SAM	01/24/25 13:24	2x for Ba	Kareem	Confirms

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

19	Q1045-08DL	GCQ04D	DUP	01/24/25 13:28	2x for Ba	Kareem	Confirms
20	Q1045-07LDL	GCQ04L	SD	01/24/25 13:32	10x for Ba	Kareem	Confirms
21	Q1045-09DL	GCQ04S	MS	01/24/25 13:36	2x for Ba	Kareem	Confirms
22	Q1039-10DL	GCPE5	SAM	01/24/25 13:40	2x for Ba	Kareem	Confirms
23	Q1042-09DL	GCPJ2	SAM	01/24/25 13:45	2x for Ba	Kareem	Confirms
24	Q1044-13DL	GCPY8	SAM	01/24/25 13:49	2x for Ba	Kareem	Confirms
25	Q1044-16DL	GCPZ1	SAM	01/24/25 13:53	2x for Ba	Kareem	Confirms
26	Q1044-18DL	GCPZ3	SAM	01/24/25 13:57	2x for Ba	Kareem	Confirms
27	Q1044-19DL	GCPZ4	SAM	01/24/25 14:01	2x for Ba	Kareem	Confirms
28	Q1044-20DL	GCPZ5	SAM	01/24/25 14:05	2x for Ba	Kareem	Confirms
29	Q1044-21DL	GCPZ6	SAM	01/24/25 14:09	2x for Ba	Kareem	Confirms
30	Q1045-01DL	GCPZ8	SAM	01/24/25 14:14	2x for Ba	Kareem	Confirms
31	Q1045-03DL	GCQ00	SAM	01/24/25 14:18	2x for Ba	Kareem	Confirms
32	Q1045-04DL	GCQ01	SAM	01/24/25 14:22	2x for Ba	Kareem	Confirms
33	Q1045-05DL	GCQ02	SAM	01/24/25 14:26	2x for Ba	Kareem	Confirms
34	CCV014	CCV014	CCV	01/24/25 14:30		Kareem	OK
35	CCB014	CCB014	CCB	01/24/25 14:35		Kareem	OK
36	Q1045-10DL	GCQ05	SAM	01/24/25 14:39	NOT USE	Kareem	Not Ok
37	Q1045-11DL	GCQ06	SAM	01/24/25 14:43	2x for Ba	Kareem	Confirms
38	Q1045-13DL	GCQ08	SAM	01/24/25 14:47	2x for Ba	Kareem	Confirms

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Instrument ID: P4

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Supervise By	Mohan Bera	Supervise On	1/27/2025 6:21:46 AM

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ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

39	Q1045-16DL	GCQ11	SAM	01/24/25 14:51	2x for Ba	Kareem	Confirms
40	Q1045-18DL	GCQ13	SAM	01/24/25 14:55	2x for Ba	Kareem	Confirms
41	Q1045-20DL	GCQ15	SAM	01/24/25 14:59	2x for Ba	Kareem	Confirms
42	Q1045-22DL	GCQ17	SAM	01/24/25 15:03	NOT USE	Kareem	Not Ok
43	Q1046-01DL	GCQ18	SAM	01/24/25 15:08	NOT USE	Kareem	Not Ok
44	Q1046-10DL	GCQ25	SAM	01/24/25 15:12	2x for Ba	Kareem	Confirms
45	Q1046-11DL	GCQ26	SAM	01/24/25 15:16	NOT USE	Kareem	Not Ok
46	Q1047-07DL	GCQ42	SAM	01/24/25 15:20	2x for Ba	Kareem	Confirms
47	Q1047-08DL	GCQ43	SAM	01/24/25 15:25	2x for Ba	Kareem	Confirms
48	Q1047-09DL	GCQ44	SAM	01/24/25 15:29	2x for Ba	Kareem	Confirms
49	Q1047-10DL	GCQ45	SAM	01/24/25 15:33	2x for Ba	Kareem	Confirms
50	Q1047-11DL	GCQ46	SAM	01/24/25 15:37	2x for Ba	Kareem	Confirms
51	Q1045-22DL2	GCQ17	SAM	01/24/25 15:41	5x for Ba	Kareem	Confirms
52	Q1045-10DL2	GCQ05	SAM	01/24/25 15:45	5x for Ba	Kareem	Confirms
53	Q1046-01DL2	GCQ18	SAM	01/24/25 15:49	5x for Ba	Kareem	Confirms
54	Q1046-11DL2	GCQ26	SAM	01/24/25 15:53	5x for Ba	Kareem	Confirms
55	Q1047-12DL	GCQ47	SAM	01/24/25 15:58	2x for Ba	Kareem	Confirms
56	CCV015	CCV015	CCV	01/24/25 16:02		Kareem	OK
57	CCB015	CCB015	CCB	01/24/25 16:06		Kareem	OK
58	Q1047-21	GCQ56	SAM	01/24/25 16:10	Already analyzed	Kareem	Not Ok

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Daily Analysis Runlog For Sequence/QCBatch ID # LB134411

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Supervise By	Mohan Bera	Supervise On	1/27/2025 6:21:46 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

59	Q1043-15	GCPL7	SAM	01/24/25 16:14	Already analyzed	Kareem	Not Ok
60	Q1047-13DL	GCQ48	SAM	01/24/25 16:18	2x for Ba	Kareem	Confirms
61	Q1047-14DL	GCQ49	SAM	01/24/25 16:22	2x for Ba	Kareem	Confirms
62	Q1047-15DL	GCQ50	SAM	01/24/25 16:26	2x for Ba	Kareem	Confirms
63	Q1047-17DL	GCQ52	SAM	01/24/25 16:30	2x for Ba	Kareem	Confirms
64	Q1047-18DL	GCQ53	SAM	01/24/25 16:34	2x for Ba	Kareem	Confirms
65	Q1047-19DL	GCQ54	SAM	01/24/25 16:38	2x for Ba	Kareem	Confirms
66	Q1047-20DL	GCQ55	SAM	01/24/25 16:42	2x for Ba	Kareem	Confirms
67	PB166163TB	LEB163	MB	01/24/25 16:46		Kareem	OK
68	Q1106-01	YE8G3	SAM	01/24/25 16:50	Ca high	Kareem	Dilution
69	Q1106-02	YE8G5	SAM	01/24/25 16:55	Mn high	Kareem	Dilution
70	Q1106-03	YE8G6	SAM	01/24/25 16:59		Kareem	OK
71	Q1106-04	YE8G6D	DUP	01/24/25 17:03		Kareem	OK
72	Q1106-03L	YE8G6L	SD	01/24/25 17:08		Kareem	OK
73	Q1106-05	YE8G6S	MS	01/24/25 17:12		Kareem	OK
74	Q1106-06	YE8H0	SAM	01/24/25 17:16		Kareem	OK
75	Q1106-07	YE8H1	SAM	01/24/25 17:20	Mn high	Kareem	Dilution
76	Q1106-08	YE8H2	SAM	01/24/25 17:24		Kareem	OK
77	Q1106-09	YE8H3	SAM	01/24/25 17:29		Kareem	OK
78	CCV016	CCV016	CCV	01/24/25 17:42		Kareem	OK

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ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

79	CCB016	CCB016	CCB	01/24/25 17:46		Kareem	OK
80	Q1106-10	YE8H4	SAM	01/24/25 17:50		Kareem	OK
81	Q1106-11	YE8H5	SAM	01/24/25 17:54		Kareem	OK
82	Q1106-12	YE8H6	SAM	01/24/25 17:59	Mn high	Kareem	Dilution
83	Q1106-13	YE8F6	SAM	01/24/25 18:03		Kareem	OK
84	Q1106-14	YE8F9	SAM	01/24/25 18:07		Kareem	OK
85	Q1106-15	YE8G0	SAM	01/24/25 18:11		Kareem	OK
86	Q1106-16	YE8G1	SAM	01/24/25 18:15		Kareem	OK
87	Q1106-17	YE8G2	SAM	01/24/25 18:19		Kareem	OK
88	Q1106-18	YE8H9	SAM	01/24/25 18:23		Kareem	OK
89	Q1106-19	YE8J0	SAM	01/24/25 18:28		Kareem	OK
90	Q1106-20	YE8J1	SAM	01/24/25 18:32		Kareem	OK
91	PB166163BL	PBW163	MB	01/24/25 18:36		Kareem	OK
92	PB166163BS	LCS163	LCS	01/24/25 18:40		Kareem	OK
93	PB166132TB	LEB132	MB	01/24/25 18:44		Kareem	OK
94	Q1129-01	MJNLA3	SAM	01/24/25 18:48		Kareem	OK
95	Q1129-02	MJNLA3D	DUP	01/24/25 18:52		Kareem	OK
96	Q1129-01L	MJNLA3L	SD	01/24/25 18:57		Kareem	OK
97	Q1129-03	MJNLA3S	MS	01/24/25 19:01		Kareem	OK
98	PB166162BL	PBW162	MB	01/24/25 19:05		Kareem	OK

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ICAL Standard	MP83500,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

99	PB166162BS	LCS162	LCS	01/24/25 19:09		Kareem	OK
100	CCV017	CCV017	CCV	01/24/25 19:13		Kareem	OK
101	CCB017	CCB017	CCB	01/24/25 19:22	Inst. paused for review	Kareem	OK
102	Q1127-09	MJNLE5	SAM	01/24/25 19:26		Kareem	OK
103	Q1127-10	MJNLE5D	DUP	01/24/25 19:30		Kareem	OK
104	Q1127-09L	MJNLE5L	SD	01/24/25 19:34		Kareem	OK
105	Q1127-11	MJNLE5S	MS	01/24/25 19:39		Kareem	OK
106	PB166138BL	PBW138	MB	01/24/25 19:43		Kareem	OK
107	PB166138BS	LCS138	LCS	01/24/25 19:47		Kareem	OK
108	Q1105-01	YE8G3	SAM	01/24/25 19:51	Ca high	Kareem	Dilution
109	Q1105-02	YE8G5	SAM	01/24/25 19:55		Kareem	OK
110	Q1105-03	YE8G6	SAM	01/24/25 19:59		Kareem	OK
111	Q1105-04	YE8G6D	DUP	01/24/25 20:03		Kareem	OK
112	Q1105-03L	YE8G6L	SD	01/24/25 20:07		Kareem	OK
113	Q1105-05	YE8G6S	MS	01/24/25 20:11		Kareem	OK
114	Q1105-06	YE8H0	SAM	01/24/25 20:15		Kareem	OK
115	Q1105-07	YE8H1	SAM	01/24/25 20:19		Kareem	OK
116	Q1105-08	YE8H2	SAM	01/24/25 20:23		Kareem	OK
117	Q1105-09	YE8H3	SAM	01/24/25 20:27		Kareem	OK
118	Q1105-10	YE8H4	SAM	01/24/25 20:31		Kareem	OK

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ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

119	Q1105-11	YE8H5	SAM	01/24/25 20:35		Kareem	OK
120	Q1105-12	YE8H6	SAM	01/24/25 20:39		Kareem	OK
121	Q1105-13	YE8E9	SAM	01/24/25 20:43		Kareem	OK
122	CCV018	CCV018	CCV	01/24/25 20:47		Kareem	OK
123	CCB018	CCB018	CCB	01/24/25 20:56	Inst. paused for review	Kareem	OK
124	Q1105-14	YE8F0	SAM	01/24/25 21:00		Kareem	OK
125	Q1105-15	YE8F1	SAM	01/24/25 21:04		Kareem	OK
126	Q1105-16	YE8F2	SAM	01/24/25 21:08		Kareem	OK
127	Q1105-17	YE8F3	SAM	01/24/25 21:12		Kareem	OK
128	Q1105-18	YE8F4	SAM	01/24/25 21:16		Kareem	OK
129	Q1105-19	YE8F6	SAM	01/24/25 21:20		Kareem	OK
130	Q1105-20	YE8G0	SAM	01/24/25 21:24		Kareem	OK
131	Q1105-21	YE8G1	SAM	01/24/25 21:28		Kareem	OK
132	Q1105-22	YE8G2	SAM	01/24/25 21:32		Kareem	OK
133	PB166155BL	PBS155	MB	01/24/25 21:36		Kareem	OK
134	PB166155BS	LCS155	LCS	01/24/25 21:40		Kareem	OK
135	Q1135-01	YE8F5	SAM	01/24/25 21:44		Kareem	OK
136	Q1135-02	YE8F7	SAM	01/24/25 21:48		Kareem	OK
137	Q1135-03	YE8F7D	DUP	01/24/25 21:52		Kareem	OK
138	Q1135-02L	YE8F7L	SD	01/24/25 21:56		Kareem	OK

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

139	Q1135-04	YE8F7S	MS	01/24/25 22:00		Kareem	OK
140	Q1135-05	YE8F8	SAM	01/24/25 22:05		Kareem	OK
141	Q1135-06	YE8F9	SAM	01/24/25 22:09		Kareem	OK
142	Q1135-07	YE8H9	SAM	01/24/25 22:13		Kareem	OK
143	Q1135-08	YE8J0	SAM	01/24/25 22:17		Kareem	OK
144	CCV019	CCV019	CCV	01/24/25 22:21		Kareem	OK
145	CCB019	CCB019	CCB	01/24/25 22:29	Inst. paused for review	Kareem	OK
146	Q1135-10	YE8J1	SAM	01/24/25 22:33		Kareem	OK
147	Q1135-11	YE8E3	SAM	01/24/25 22:38		Kareem	OK
148	Q1135-12	YE8E4	SAM	01/24/25 22:42		Kareem	OK
149	Q1135-13	YE8E5	SAM	01/24/25 22:46		Kareem	OK
150	Q1135-14	YE8E6	SAM	01/24/25 22:50		Kareem	OK
151	Q1135-15	YE8E7	SAM	01/24/25 22:54		Kareem	OK
152	Q1135-16	YE8E8	SAM	01/24/25 22:58		Kareem	OK
153	Q1135-17	YE8D2	SAM	01/24/25 23:01		Kareem	OK
154	Q1135-18	YE8D4	SAM	01/24/25 23:05		Kareem	OK
155	Q1135-19	YE8C3	SAM	01/24/25 23:09		Kareem	OK
156	Q1135-21	YE8D0	SAM	01/24/25 23:14		Kareem	OK
157	Q1135-22	YE8D5	SAM	01/24/25 23:17		Kareem	OK
158	PB166196BL	PBS196	MB	01/24/25 23:21		Kareem	OK

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Instrument ID: P4

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ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

159	PB166196BS	LCS196	LCS	01/24/25 23:26		Kareem	OK
160	CCV020	CCV020	CCV	01/24/25 23:30		Kareem	OK
161	CCB020	CCB020	CCB	01/24/25 23:38	Inst. paused for review	Kareem	OK

EPA SAMPLE NO.

MJNLB3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-01

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	1.0	U	01/21/2025	1733
7440-50-8	Copper	2.0	U	01/21/2025	1733
7439-92-1	Lead	1.0	U	01/21/2025	1733
7440-66-6	Zinc	5.0	U	01/21/2025	1733

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

Comments:

EPA SAMPLE NO.

MJNLB5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-02

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	15		01/21/2025	1737
7440-50-8	Copper	100		01/21/2025	1737
7439-92-1	Lead	3.4		01/21/2025	1737
7440-66-6	Zinc	9.3		01/21/2025	1737

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

Comments:

EPA SAMPLE NO.

MJNLB6

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-05

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	3.2		01/21/2025	1750
7440-50-8	Copper	11		01/21/2025	1750
7439-92-1	Lead	1.0	U	01/21/2025	1750
7440-66-6	Zinc	4.1	J	01/21/2025	1750

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

Comments:

EPA SAMPLE NO.

MJNLB8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-06

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	3.1		01/21/2025	1753
7440-50-8	Copper	10		01/21/2025	1753
7439-92-1	Lead	0.29	J	01/21/2025	1753
7440-66-6	Zinc	2.6	J	01/21/2025	1753

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

Comments:

EPA SAMPLE NO.

MJNLB9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-07

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	3.1		01/21/2025	1756
7440-50-8	Copper	8.1		01/21/2025	1756
7439-92-1	Lead	1.1		01/21/2025	1756
7440-66-6	Zinc	1.1	J	01/21/2025	1756

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

Comments:

EPA SAMPLE NO.

MJNLC0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-08

% Solids: Date Received: 01/17/2025

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
7440-38-2	Arsenic	1.5		01/21/2025	1800
7440-50-8	Copper	2.7		01/21/2025	1800
7439-92-1	Lead	0.38	J	01/21/2025	1800
7440-66-6	Zinc	1.3	J	01/21/2025	1800

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

Comments:

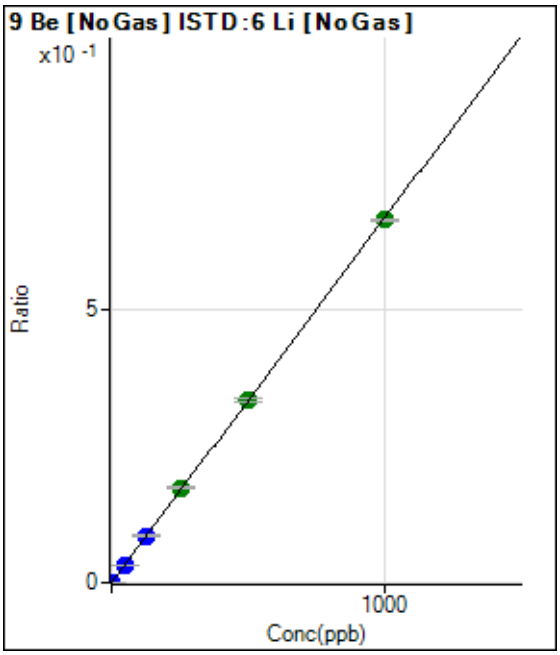
Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

Calibration for 069AREF.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8012125MS.b\
Analysis File: P8012125MS-2.batch.bin
DA Date-Time: 2025-02-05 12:04:43
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2025-01-21 13:20:04
2	006CALS.d	S02	2025-01-21 13:30:11
3	007CALB.d	S03	2025-01-21 13:33:31
4	008CALS.d	S04	2025-01-21 13:36:39
5	009CALS.d	S05	2025-01-21 13:39:36
6	010CALS.d	S06	2025-01-21 13:42:30
7	011CALS.d	S07	2025-01-21 13:45:16
8	012CALS.d	S08	2025-01-21 13:48:03

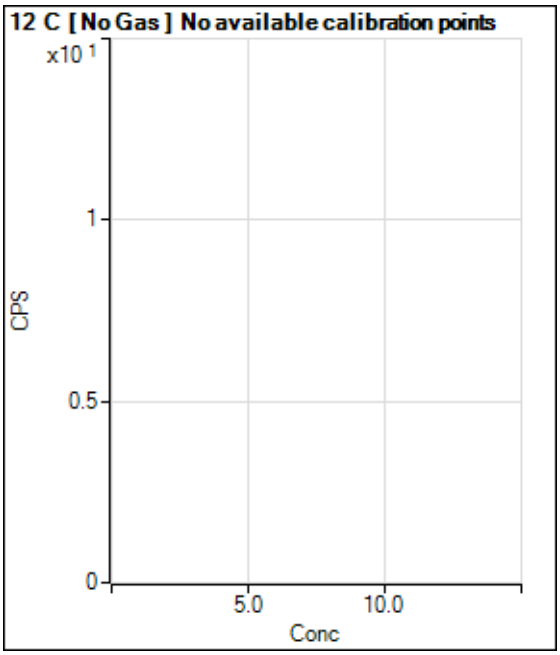
Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373.29	0.0000	P	8.9
2	☐	1.000	1.033	6063.41	0.0007	P	2.3
3	☐	50.000	48.051	275453.13	0.0322	P	6.8
4	☐	125.000	127.552	684849.85	0.0853	P	3.4
5	☐	250.000	260.831	1372306.04	0.1744	A	3.0
6	☐	500.000	503.550	2576231.80	0.3367	A	2.1
7	☐	1000.000	995.296	4906067.01	0.6654	A	0.3
8	☐			1392.81	0.0002	P	14.0

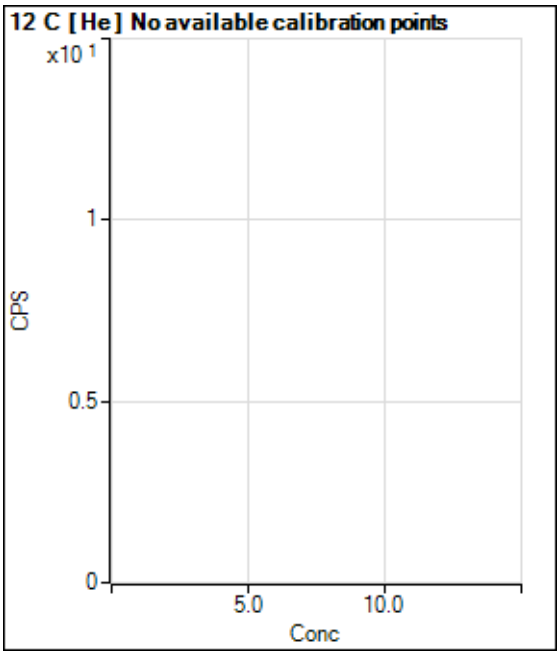
y = 6.6855E-004 * x + 4.6067E-005
R = 0.9999
DL = 0.01831
BEC = 0.06891

Weight: <None>
Min Conc: 0

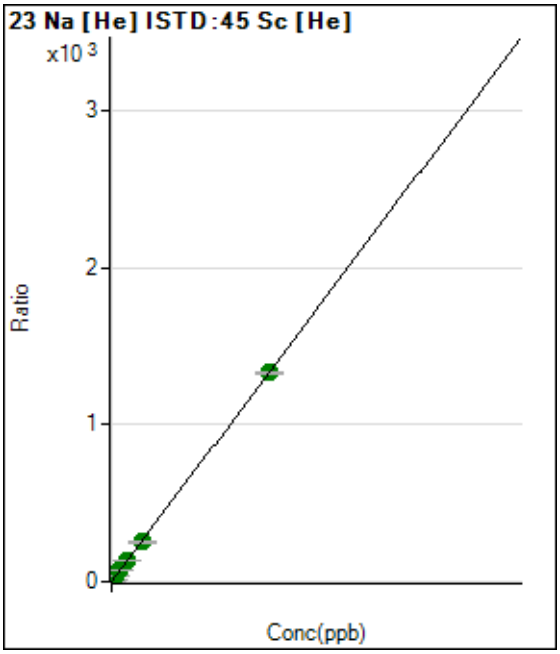


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2781098.53		A	1.7
2	☐			3131562.24		A	0.5
3	☐			3349679.74		A	0.3
4	☐			3443418.70		A	0.7
5	☐			3459863.21		A	1.7
6	☐			3504301.72		A	2.9
7	☐			3832762.30		A	3.1
8	☐			4841259.65		A	11.4

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			18186.91		P	2.1
2	☐			20427.61		P	0.6
3	☐			21745.05		P	0.9
4	☐			22511.78		P	2.1
5	☐			23189.48		P	1.1
6	☐			24330.17		P	0.7
7	☐			27632.63		P	0.5
8	☐			44822.50		P	1.7

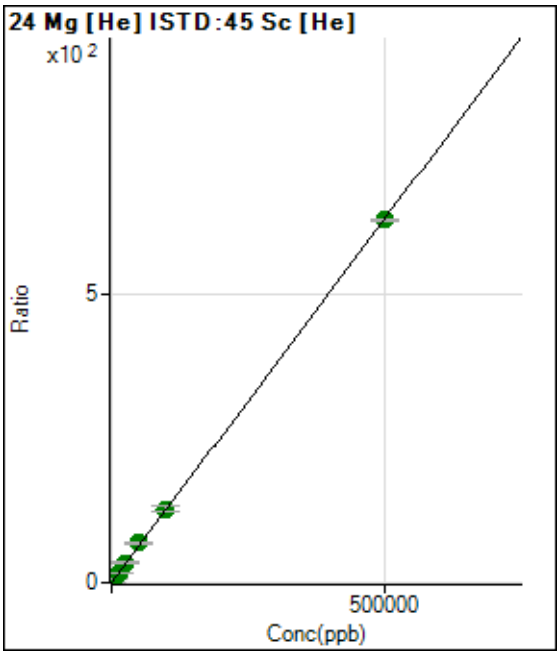


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18676.49	0.1135	P	2.6
2	☐	500.000	517.846	245842.74	1.4931	P	0.3
3	☐	5000.000	5220.165	2340727.61	14.0201	A	0.4
4	☐	12500.000	12807.212	5484663.43	34.2322	A	0.8
5	☐	25000.000	25754.067	10625581.58	68.7228	A	2.5
6	☐	50000.000	50936.052	20882867.61	135.8080	A	0.9
7	☐	100000.00	95025.142	40782815.51	253.2621	A	6.0
8	☐	500000.00	500853.76	182926532.8	1,334.396	A	0.8

y = 0.0027 * x + 0.1135
R = 0.9999
DL = 3.335
BEC = 42.61

Weight: <None>
Min Conc: 0

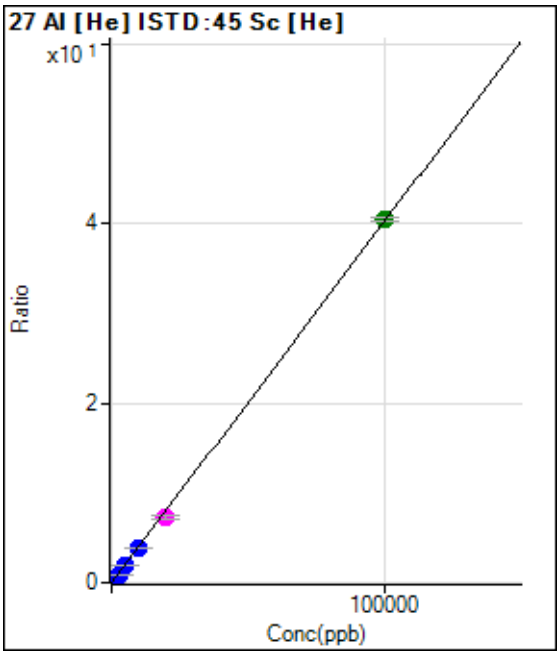
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	537.79	0.0033	P	3.4
2	☐	500.000	571.998	118880.52	0.7220	P	0.3
3	☐	5000.000	5604.813	1176366.66	7.0458	A	0.7
4	☐	12500.000	13978.934	2814886.66	17.5681	A	0.6
5	☐	25000.000	27679.894	5377259.40	34.7837	A	3.3
6	☐	50000.000	54590.989	10547553.73	68.5981	A	1.7
7	☐	100000.00	101587.53	20555707.61	127.6504	A	6.0
8	☐	500000.00	499046.30	85966676.50	627.0668	A	0.7

y = 0.0013 * x + 0.0033
R = 1.0000
DL = 0.2619
BEC = 2.599

Weight: <None>
Min Conc: 0

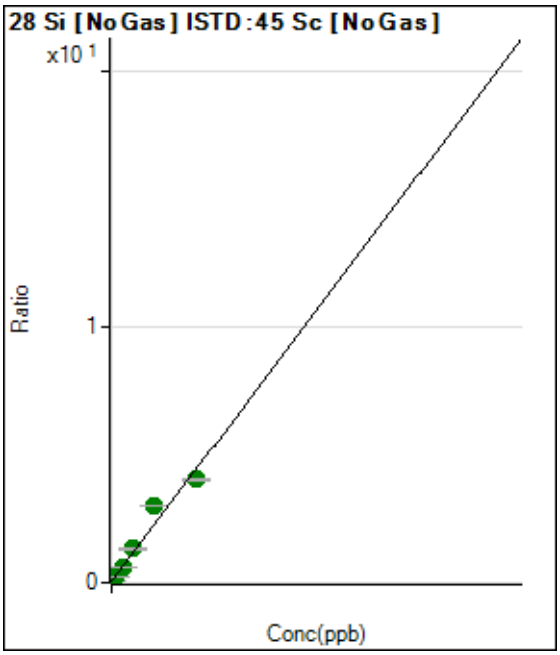


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0004	P	10.5
2	☐	20.000	19.497	1352.30	0.0082	P	4.1
3	☐	1000.000	959.910	64523.31	0.3865	P	1.0
4	☐	2500.000	2379.661	153458.92	0.9576	P	1.2
5	☐	5000.000	4761.011	296158.88	1.9154	P	2.5
6	☐	10000.000	9462.111	585315.00	3.8064	P	0.6
7	☐	20000.000	18039.181	1169174.25	7.2564	M	5.7
8	☐	100000.00	100461.31	5539912.21	40.4096	A	1.0

y = 4.0224E-004 * x + 3.7083E-004
R = 0.9998
DL = 0.2893
BEC = 0.9219

Weight: <None>
Min Conc: 0

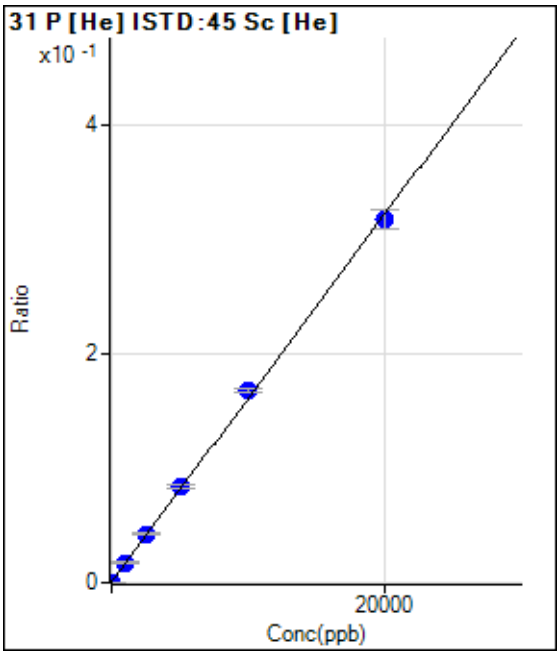
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	398591.20	0.0423	P	0.2
2	☐	10.000	1.735	487247.19	0.0499	P	2.3
3	☐	50.000	47.094	2552423.87	0.2494	A	8.8
4	☐	125.000	127.905	5813608.45	0.6049	A	5.3
5	☐	250.000	292.523	12479284.40	1.3289	A	2.8
6	☐	500.000	668.277	27839775.97	2.9815	A	0.8
7	☐	1000.000	905.096	37391805.28	4.0231	A	2.4
8	☐			505265.44	0.0638	P	2.6

y = 0.0044 * x + 0.0423
R = 0.9762
DL = 0.05488
BEC = 9.62

Weight: <None>
Min Conc: 0

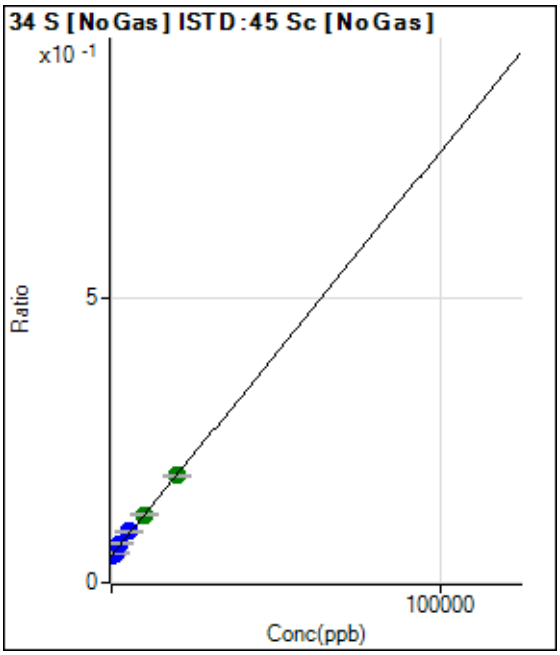


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-15.300	47.78	0.0003	P	19.6
2	☐	0.000	15.300	128.89	0.0008	P	5.5
3	☐	1000.000	1059.169	2931.43	0.0176	P	2.2
4	☐	2500.000	2633.655	6869.47	0.0429	P	3.1
5	☐	5000.000	5233.742	13085.99	0.0846	P	3.4
6	☐	10000.000	10437.383	25875.34	0.1683	P	1.5
7	☐	20000.000	19703.208	51097.41	0.3172	P	5.3
8	☐			75.56	0.0006	P	22.3

y = 1.6071E-005 * x + 5.3692E-004
R = 0.9996
DL = 9.32
BEC = 33.41

Weight: <None>
Min Conc: 0

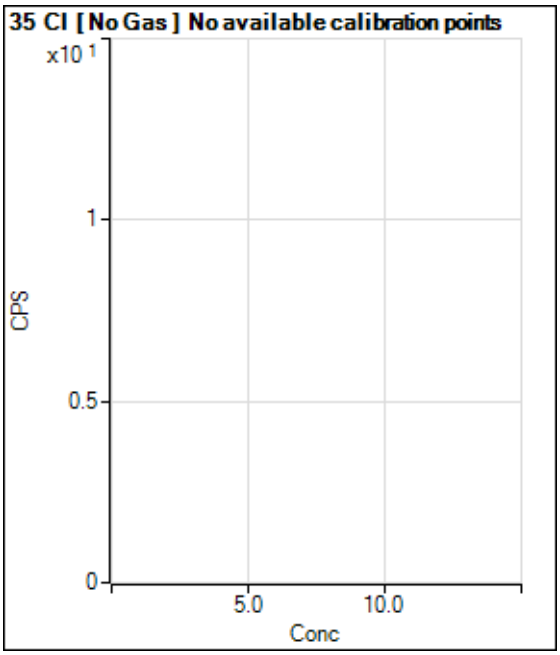
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On:2/5/2025 4:17:00 PM
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	77.055	452596.64	0.0480	P	0.4
2	☐	0.000	-77.055	458130.92	0.0470	P	1.3
3	☐	1000.000	645.707	532767.68	0.0521	P	9.1
4	☐	2500.000	2879.069	652400.29	0.0679	P	6.3
5	☐	5000.000	5920.395	840061.37	0.0895	P	1.4
6	☐	10000.000	10089.891	1111303.07	0.1190	A	1.8
7	☐	20000.000	19695.286	1738863.78	0.1871	A	2.9
8	☐			341569.72	0.0431	P	2.3

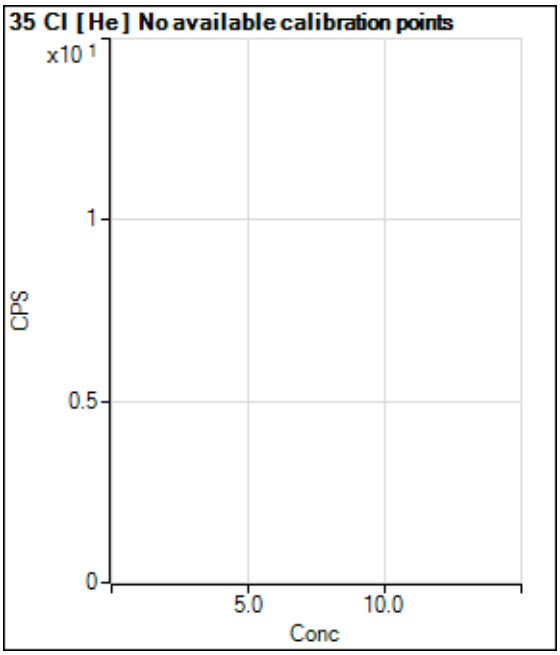
y = 7.0873E-006 * x + 0.0475
R = 0.9982
DL = 171.8
BEC = 6702

Weight: <None>
Min Conc: 0

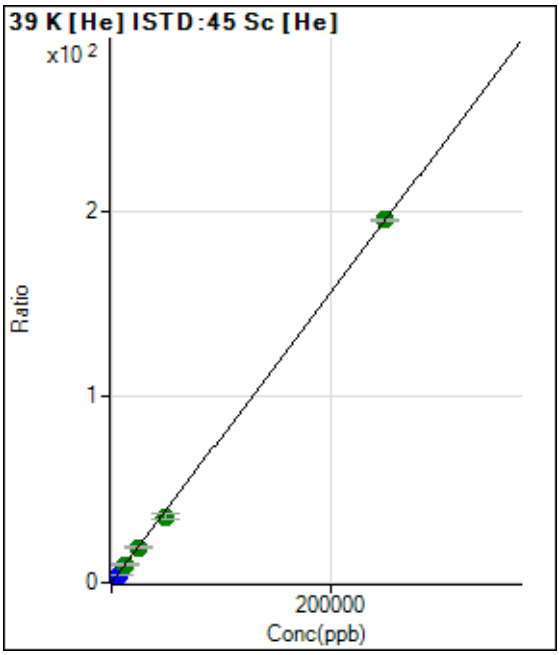


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			59378.77		P	0.5
2	☐			62165.93		P	0.4
3	☐			65850.99		P	1.0
4	☐			69807.13		P	0.8
5	☐			71279.68		P	2.4
6	☐			79068.88		P	4.4
7	☐			94917.76		P	3.9
8	☐			57483.52		P	2.1

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			238.89		P	9.3
2	☐			244.45		P	15.7
3	☐			221.12		P	21.9
4	☐			272.23		P	16.2
5	☐			238.89		P	3.5
6	☐			305.56		P	4.4
7	☐			404.46		P	4.8
8	☐			241.12		P	20.8

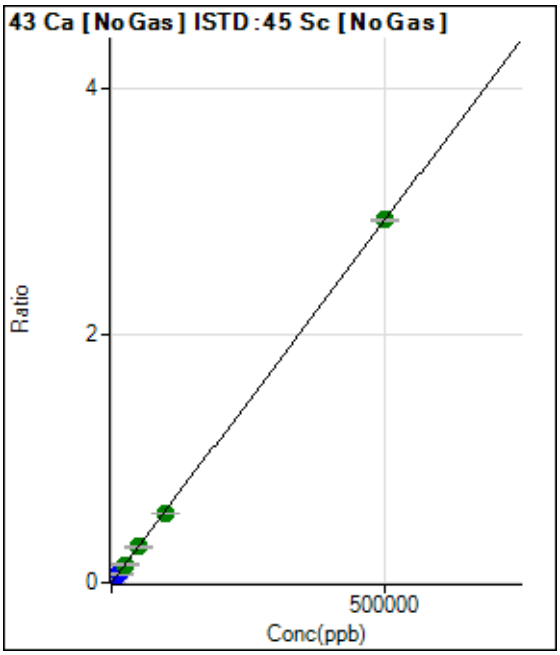


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6504.87	0.0395	P	1.2
2	☐	500.000	490.079	69314.05	0.4210	P	1.0
3	☐	2500.000	2354.333	312535.98	1.8720	P	0.5
4	☐	6250.000	5911.999	743666.12	4.6411	P	0.5
5	☐	12500.000	12504.224	1510799.13	9.7721	A	2.9
6	☐	25000.000	24548.174	2944095.48	19.1463	A	1.0
7	☐	50000.000	45833.739	5750581.58	35.7138	A	6.3
8	☐	250000.00	250888.15	26775853.21	195.3158	A	0.5

y = 7.7834E-004 * x + 0.0395
R = 0.9998
DL = 1.846
BEC = 50.77

Weight: <None>
Min Conc: 0

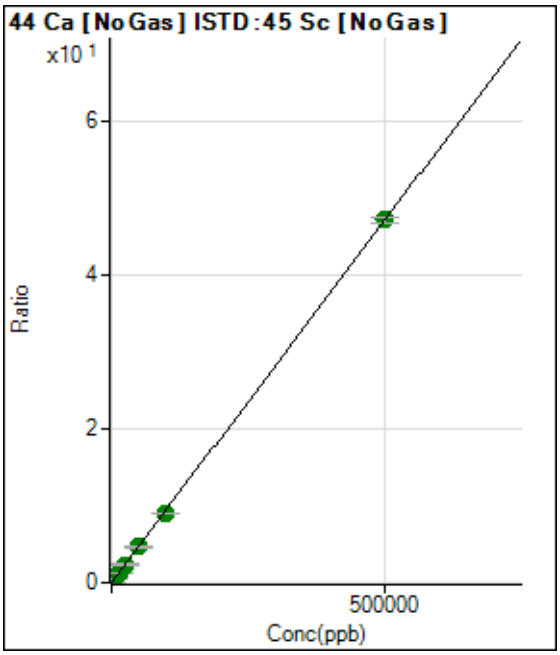
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440.01	0.0000	P	11.9
2	☐	500.000	495.907	28778.78	0.0029	P	2.8
3	☐	5000.000	4535.921	272262.78	0.0266	P	8.2
4	☐	12500.000	12143.561	683639.70	0.0711	P	5.6
5	☐	25000.000	25199.713	1385716.14	0.1476	A	1.6
6	☐	50000.000	49486.147	2705816.92	0.2897	A	2.4
7	☐	100000.00	95410.840	5191218.05	0.5586	A	1.3
8	☐	500000.00	500972.78	23224622.99	2.9327	A	0.7

y = 5.8540E-006 * x + 4.6719E-005
R = 1.0000
DL = 2.86
BEC = 7.981

Weight: <None>
Min Conc: 0

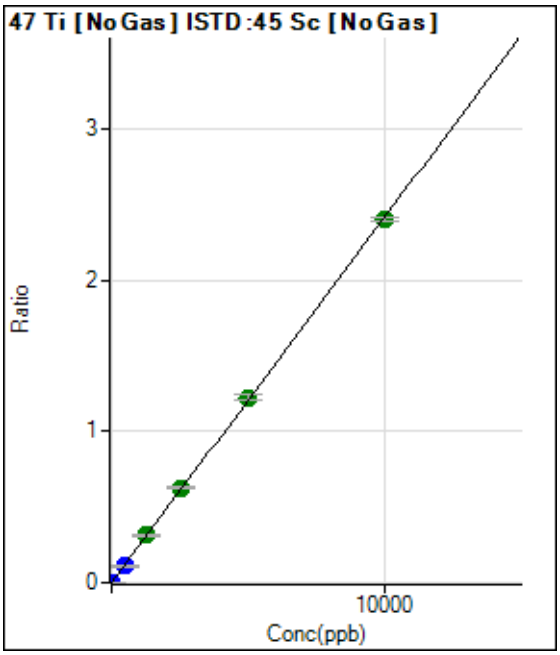


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8515.93	0.0009	P	0.9
2	☐	500.000	498.370	467584.48	0.0479	P	2.0
3	☐	5000.000	4735.690	4580089.93	0.4477	A	9.2
4	☐	12500.000	12502.904	11346407.33	1.1805	A	5.4
5	☐	25000.000	24955.726	22119602.72	2.3554	A	2.7
6	☐	50000.000	49157.355	43320409.63	4.6388	A	2.3
7	☐	100000.00	95879.158	84080052.08	9.0470	A	1.3
8	☐	500000.00	500913.21	374217296.6	47.2614	A	1.5

y = 9.4349E-005 * x + 9.0399E-004
R = 1.0000
DL = 0.2717
BEC = 9.581

Weight: <None>
Min Conc: 0

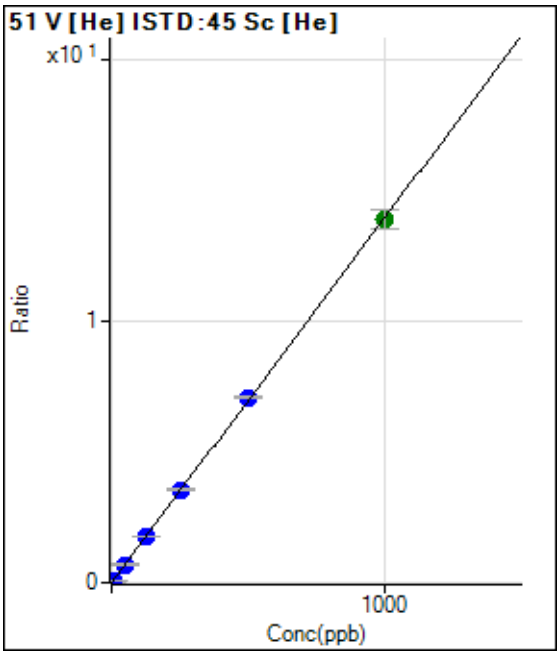
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0000	P	25.8
2	☐	5.000	5.158	12307.56	0.0013	P	2.1
3	☐	500.000	466.229	1152872.13	0.1127	P	8.5
4	☐	1250.000	1303.962	3027988.25	0.3150	A	5.4
5	☐	2500.000	2596.827	5891825.81	0.6274	A	2.7
6	☐	5000.000	5072.872	11446774.13	1.2256	A	3.3
7	☐	10000.000	9934.301	22305824.67	2.4001	A	1.1
8	☐			7589.86	0.0010	P	4.3

y = 2.4160E-004 * x + 1.5212E-005
R = 0.9999
DL = 0.04882
BEC = 0.06296

Weight: <None>
Min Conc: 0

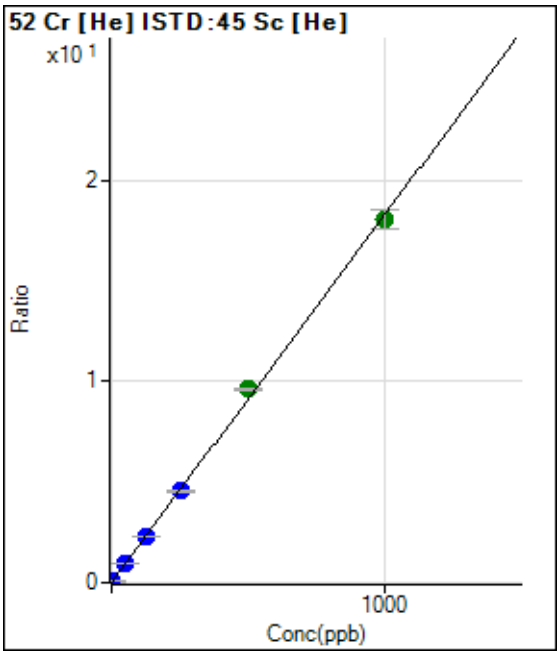


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0001	P	76.9
2	☐	5.000	5.269	12098.53	0.0735	P	1.0
3	☐	50.000	49.905	116076.51	0.6953	P	0.9
4	☐	125.000	126.890	283274.46	1.7676	P	1.0
5	☐	250.000	254.438	548076.06	3.5444	P	1.9
6	☐	500.000	506.959	1085908.98	7.0620	P	0.9
7	☐	1000.000	995.178	2233055.38	13.8628	A	5.4
8	☐			318.90	0.0023	P	12.0

y = 0.0139 * x + 8.1632E-005
R = 1.0000
DL = 0.01352
BEC = 0.00586

Weight: <None>
Min Conc: 0

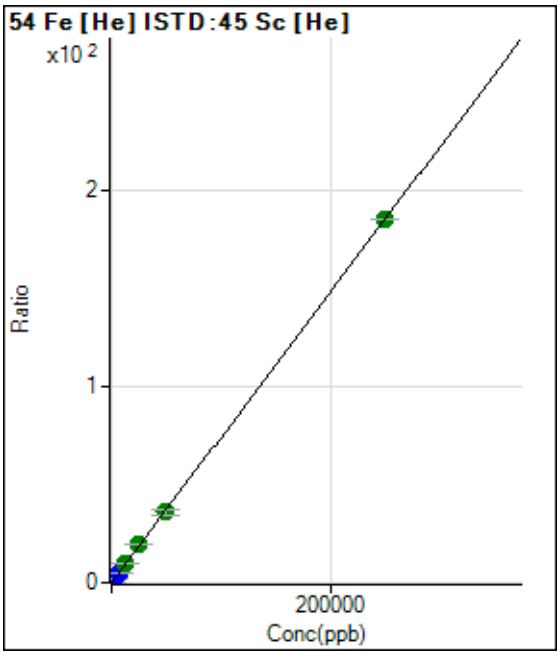
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1824.58	0.0111	P	5.5
2	☐	2.000	2.125	8210.21	0.0499	P	0.9
3	☐	50.000	49.601	152938.48	0.9160	P	0.1
4	☐	125.000	124.862	366841.43	2.2892	P	0.9
5	☐	250.000	248.628	703098.45	4.5472	P	2.3
6	☐	500.000	526.342	1478302.27	9.6141	A	1.6
7	☐	1000.000	987.209	2902815.44	18.0225	A	5.5
8	☐			6580.12	0.0480	P	18.1

y = 0.0182 * x + 0.0111
R = 0.9995
DL = 0.1009
BEC = 0.608

Weight: <None>
Min Conc: 0

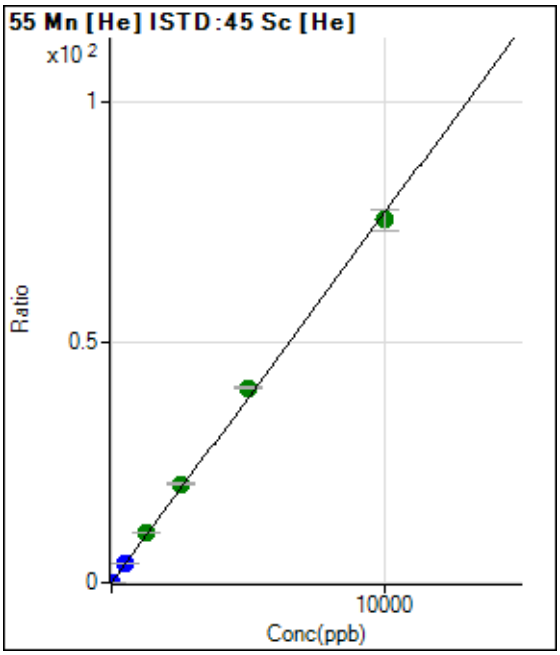


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	548.90	0.0033	P	5.4
2	☐	50.000	57.600	7553.17	0.0459	P	0.4
3	☐	2500.000	2557.404	315848.07	1.8918	P	0.5
4	☐	6250.000	6382.082	755669.28	4.7161	P	0.4
5	☐	12500.000	13273.143	1516040.24	9.8048	A	2.6
6	☐	25000.000	26466.057	3005459.68	19.5470	A	1.8
7	☐	50000.000	48530.986	5770728.87	35.8406	A	6.4
8	☐	250000.00	250104.66	25319241.57	184.6909	A	0.2

y = 7.3844E-004 * x + 0.0033
R = 1.0000
DL = 0.7362
BEC = 4.521

Weight: <None>
Min Conc: 0

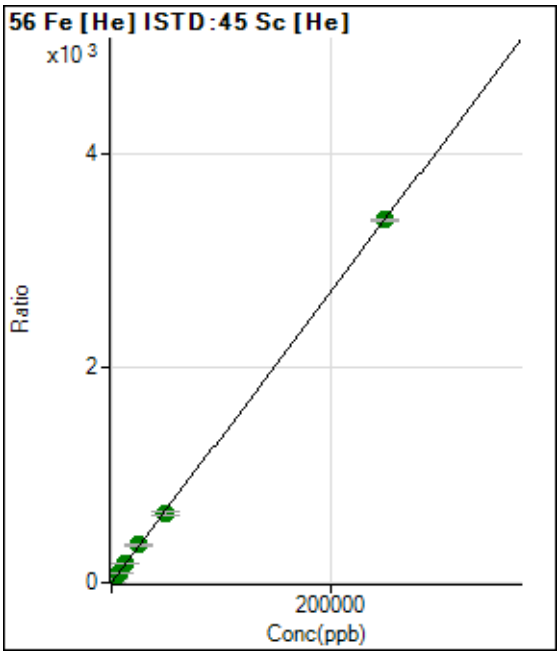
Reviewed By:Mohan
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.89	0.0012	P	23.7
2	☐	1.000	1.096	1580.11	0.0096	P	4.5
3	☐	500.000	505.368	650297.54	3.8950	P	0.1
4	☐	1250.000	1337.036	1651038.60	10.3031	A	0.8
5	☐	2500.000	2671.615	3182765.33	20.5861	A	2.8
6	☐	5000.000	5265.753	6239161.57	40.5741	A	0.6
7	☐	10000.000	9813.072	12176614.40	75.6115	A	5.9
8	☐			4065.12	0.0297	P	4.4

y = 0.0077 * x + 0.0012
R = 0.9993
DL = 0.1065
BEC = 0.1496

Weight: <None>
Min Conc: 0

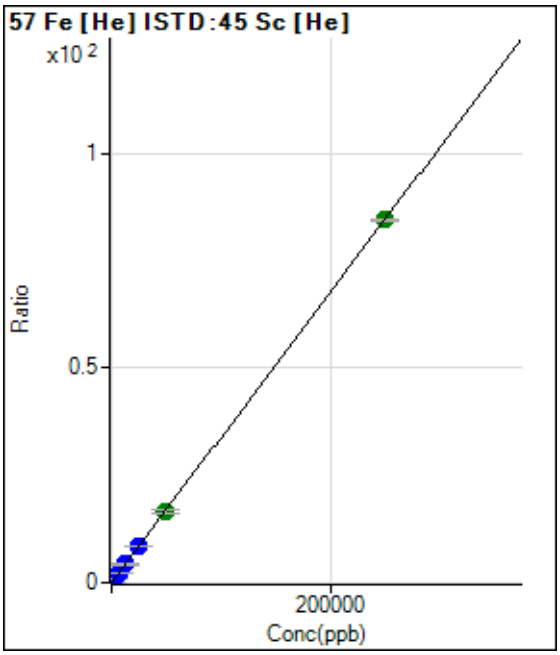


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8069.03	0.0490	P	2.4
2	☐	50.000	54.837	129929.49	0.7891	P	0.7
3	☐	2500.000	2627.368	5928038.52	35.5073	A	0.9
4	☐	6250.000	6589.984	14259544.51	88.9858	A	0.9
5	☐	12500.000	13027.227	27191727.10	175.8613	A	2.3
6	☐	25000.000	25943.110	53841976.42	350.1708	A	1.6
7	☐	50000.000	48024.822	104403318.4	648.1801	A	5.4
8	☐	250000.00	250264.58	463024321.9	3,377.557	A	0.2

y = 0.0135 * x + 0.0490
R = 0.9999
DL = 0.2575
BEC = 3.634

Weight: <None>
Min Conc: 0

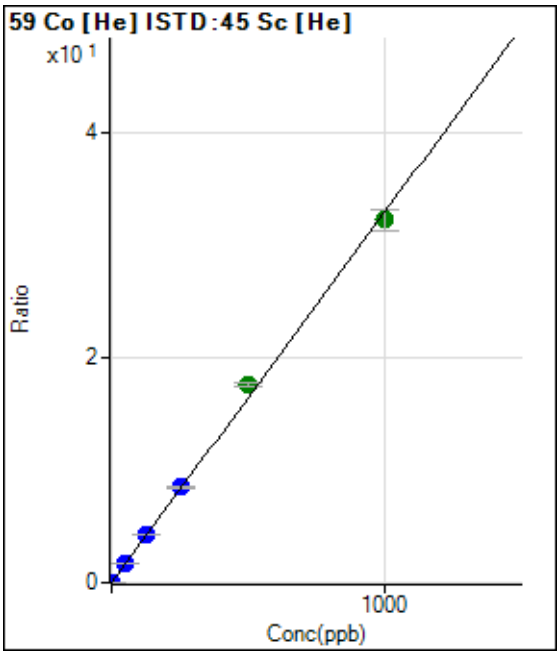
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0011	P	14.4
2	☐	50.000	53.622	3167.05	0.0192	P	1.8
3	☐	2500.000	2548.696	143978.40	0.8624	P	0.9
4	☐	6250.000	6369.774	345139.49	2.1537	P	1.1
5	☐	12500.000	12649.048	661147.62	4.2756	P	1.9
6	☐	25000.000	25055.375	1302092.19	8.4681	P	1.1
7	☐	50000.000	49015.777	2668408.76	16.5650	A	5.2
8	☐	250000.00	250180.37	11589914.96	84.5447	A	0.6

y = 3.3793E-004 * x + 0.0011
R = 1.0000
DL = 1.429
BEC = 3.296

Weight: <None>
Min Conc: 0

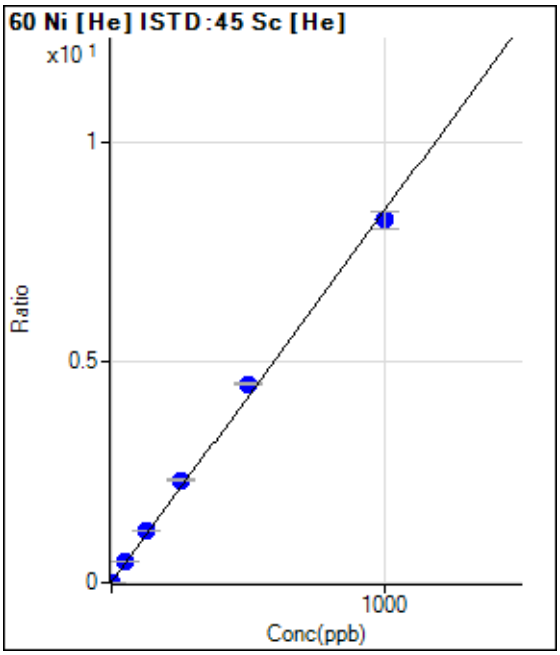


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0011	P	26.1
2	☐	1.000	1.130	6310.35	0.0383	P	1.7
3	☐	50.000	51.929	286018.79	1.7132	P	1.1
4	☐	125.000	129.958	686728.14	4.2859	P	0.4
5	☐	250.000	258.378	1317492.50	8.5199	P	1.8
6	☐	500.000	534.784	2711445.31	17.6332	A	1.1
7	☐	1000.000	979.797	5202623.78	32.3055	A	5.8
8	☐			9505.46	0.0693	P	1.1

y = 0.0330 * x + 0.0011
R = 0.9990
DL = 0.02557
BEC = 0.0327

Weight: <None>
Min Conc: 0

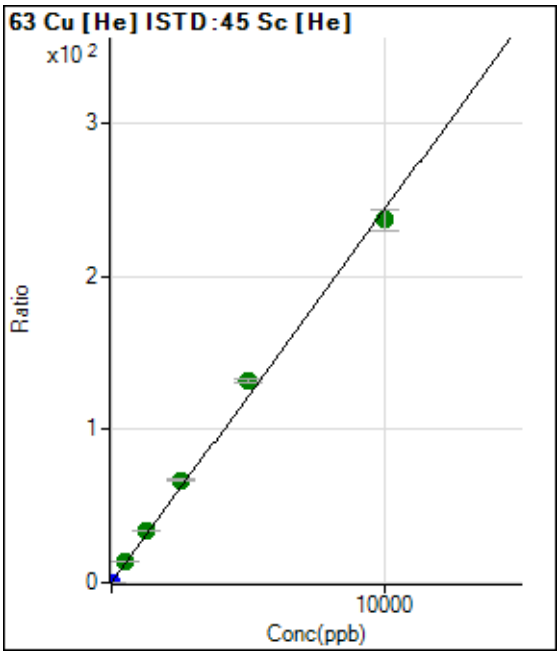
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1528.99	0.0093	P	7.0
2	☐	1.000	1.122	3088.14	0.0188	P	3.3
3	☐	50.000	55.258	79305.91	0.4750	P	1.5
4	☐	125.000	139.951	190493.40	1.1889	P	0.5
5	☐	250.000	274.859	359678.56	2.3259	P	1.6
6	☐	500.000	533.403	692720.31	4.5050	P	1.0
7	☐	1000.000	974.952	1325263.78	8.2265	P	5.0
8	☐			5793.45	0.0423	P	1.7

y = 0.0084 * x + 0.0093
R = 0.9988
DL = 0.2305
BEC = 1.104

Weight: <None>
Min Conc: 0

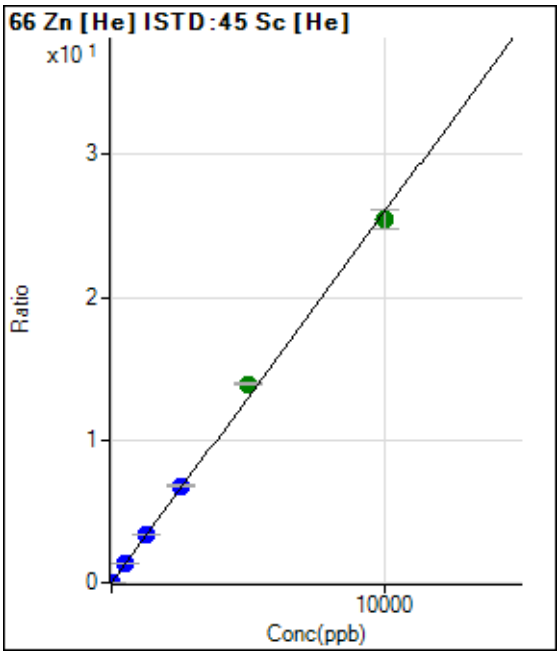


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2852.54	0.0173	P	2.5
2	☐	2.000	2.311	12118.57	0.0736	P	0.7
3	☐	500.000	555.681	2261786.08	13.5472	A	0.1
4	☐	1250.000	1382.362	5395335.10	33.6754	A	0.1
5	☐	2500.000	2744.547	10334509.29	66.8423	A	2.7
6	☐	5000.000	5388.510	20175262.89	131.2181	A	2.0
7	☐	10000.000	9725.279	38143519.71	236.8109	A	5.5
8	☐			8949.56	0.0653	P	2.4

y = 0.0243 * x + 0.0173
R = 0.9985
DL = 0.0544
BEC = 0.7121

Weight: <None>
Min Conc: 0

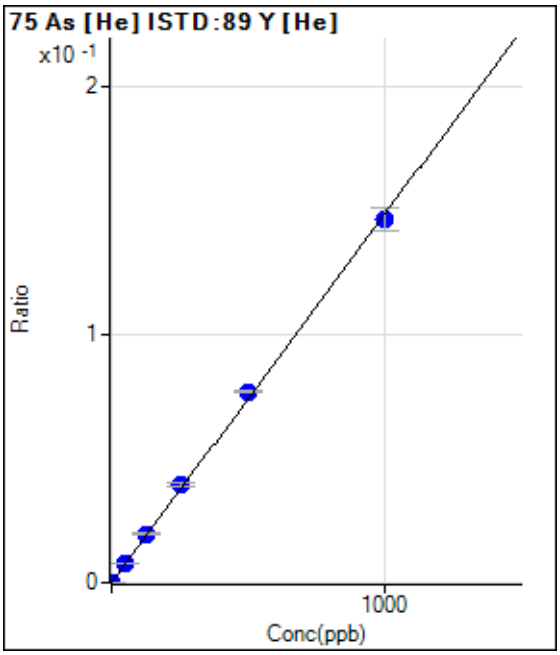
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	247.78	0.0015	P	9.9
2	☐	5.000	5.798	2726.95	0.0166	P	3.3
3	☐	500.000	521.844	226512.84	1.3567	P	0.2
4	☐	1250.000	1305.407	543408.98	3.3916	P	0.1
5	☐	2500.000	2594.653	1042148.99	6.7398	P	2.1
6	☐	5000.000	5364.334	2142278.11	13.9326	A	1.5
7	☐	10000.000	9786.151	4093843.52	25.4161	A	5.3
8	☐			5176.55	0.0378	P	4.1

y = 0.0026 * x + 0.0015
R = 0.9989
DL = 0.1729
BEC = 0.5799

Weight: <None>
Min Conc: 0

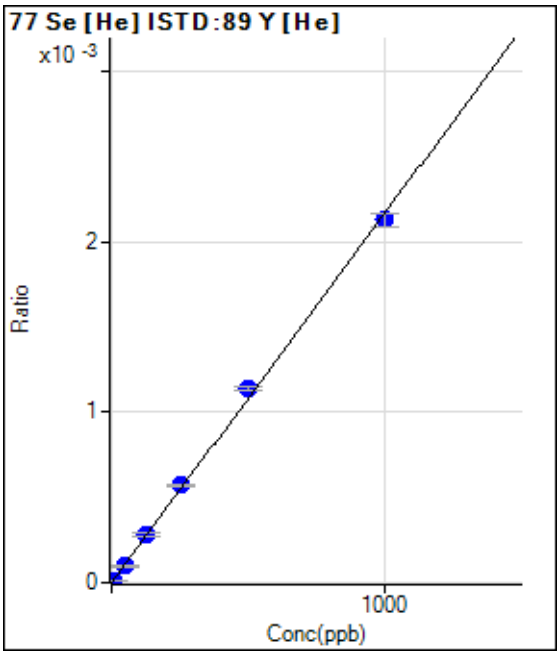


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	50.5
2	☐	1.000	1.267	313.34	0.0002	P	13.3
3	☐	50.000	51.966	12803.69	0.0077	P	1.7
4	☐	125.000	132.360	30991.89	0.0197	P	1.9
5	☐	250.000	265.069	60349.51	0.0394	P	3.1
6	☐	500.000	519.455	118184.65	0.0772	P	0.5
7	☐	1000.000	985.486	233494.31	0.1465	P	6.4
8	☐			108.89	0.0001	P	25.5

y = 1.4868E-004 * x + 4.1011E-006
R = 0.9996
DL = 0.04179
BEC = 0.02758

Weight: <None>
Min Conc: 0

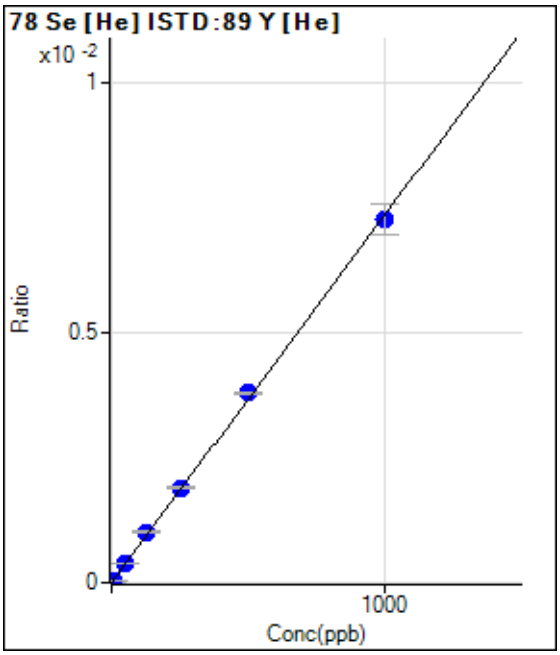
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	4.425	15.56	0.0000	P	33.5
3	☐	50.000	45.597	163.34	0.0001	P	9.0
4	☐	125.000	131.285	446.68	0.0003	P	8.6
5	☐	250.000	263.545	873.37	0.0006	P	1.9
6	☐	500.000	525.442	1739.01	0.0011	P	2.4
7	☐	1000.000	983.330	3399.33	0.0021	P	4.0
8	☐			2.22	0.0000	P	173.2

y = 2.1629E-006 * x + 0.0000E+000
R = 0.9993
DL = 0
BEC = 0

Weight: <None>
Min Conc: 0

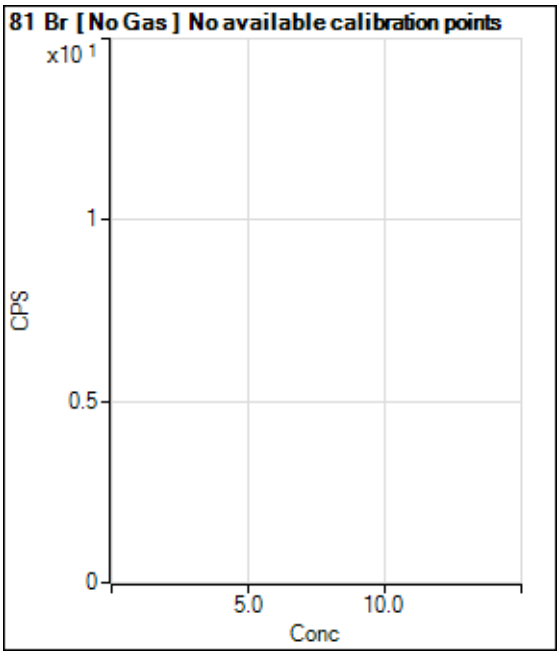


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.44	0.0000	P	115.4
2	☐	5.000	5.094	65.56	0.0000	P	17.0
3	☐	50.000	52.937	648.91	0.0004	P	2.8
4	☐	125.000	136.902	1589.00	0.0010	P	2.6
5	☐	250.000	258.036	2908.11	0.0019	P	2.6
6	☐	500.000	516.329	5810.14	0.0038	P	1.4
7	☐	1000.000	988.191	11569.29	0.0073	P	8.3
8	☐			10.00	0.0000	P	32.6

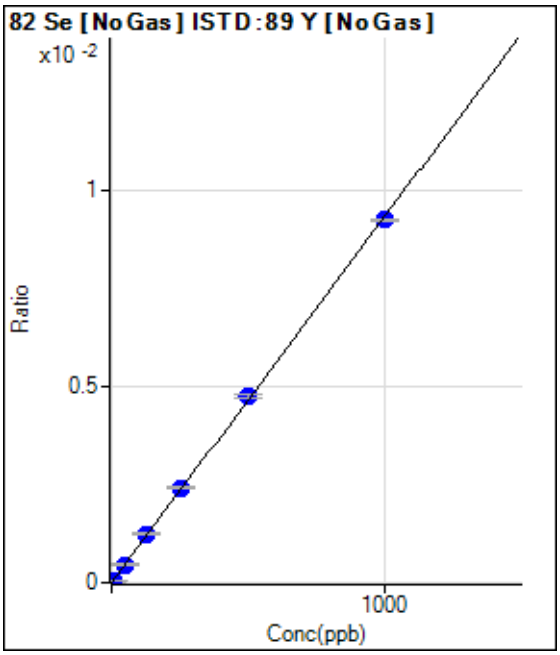
y = 7.3485E-006 * x + 2.7703E-006
R = 0.9997
DL = 1.305
BEC = 0.377

Weight: <None>
Min Conc: 0

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			5992.45		P	3.8
2	☐			5926.86		P	1.2
3	☐			5874.63		P	2.0
4	☐			6150.29		P	2.9
5	☐			5897.97		P	2.8
6	☐			5937.99		P	3.2
7	☐			6373.72		P	0.9
8	☐			6377.06		P	3.5

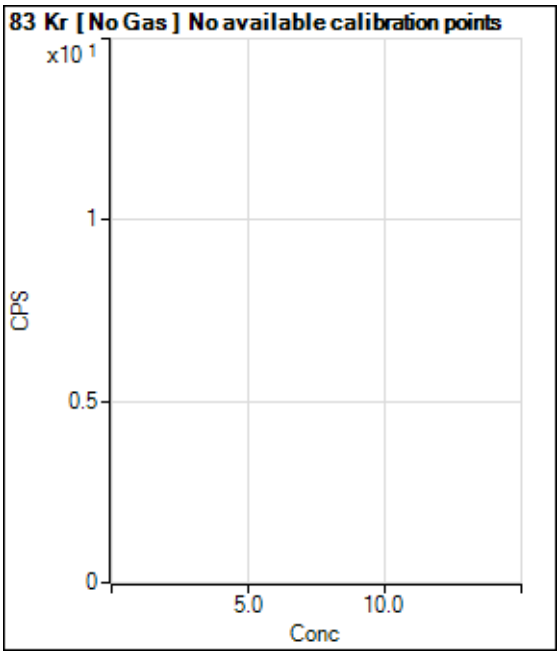


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-40.00	0.0000	P	-59.9
2	☐	5.000	5.430	1170.08	0.0000	P	4.5
3	☐	50.000	49.655	11631.73	0.0005	P	7.1
4	☐	125.000	132.835	29231.99	0.0012	P	4.6
5	☐	250.000	259.812	56393.54	0.0024	P	0.9
6	☐	500.000	509.446	109345.07	0.0048	P	1.9
7	☐	1000.000	991.860	211821.24	0.0093	P	0.7
8	☐			-26.67	0.0000	P	-251.

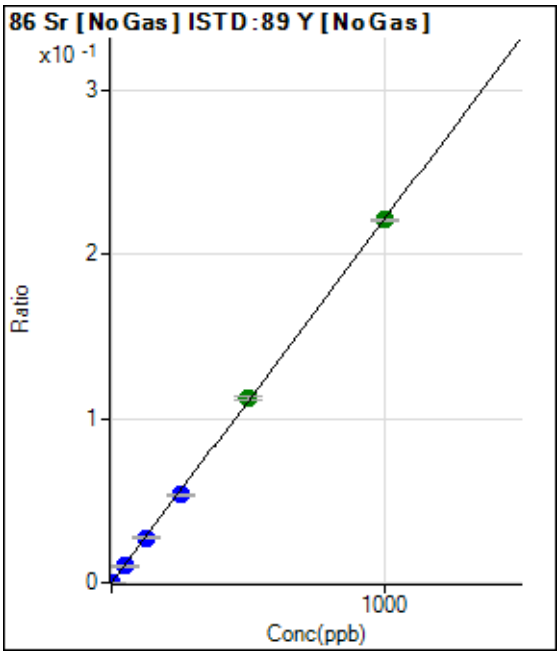
y = 9.3359E-006 * x - 1.7073E-006
R = 0.9999
DL = 0.3284
BEC = -0.1829

Weight: <None>
Min Conc: 0

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			195.56		P	9.4
2	☐			188.89		P	9.7
3	☐			167.78		P	20.9
4	☐			178.89		P	13.2
5	☐			177.78		P	6.6
6	☐			218.89		P	1.8
7	☐			220.00		P	14.5
8	☐			353.34		P	21.3

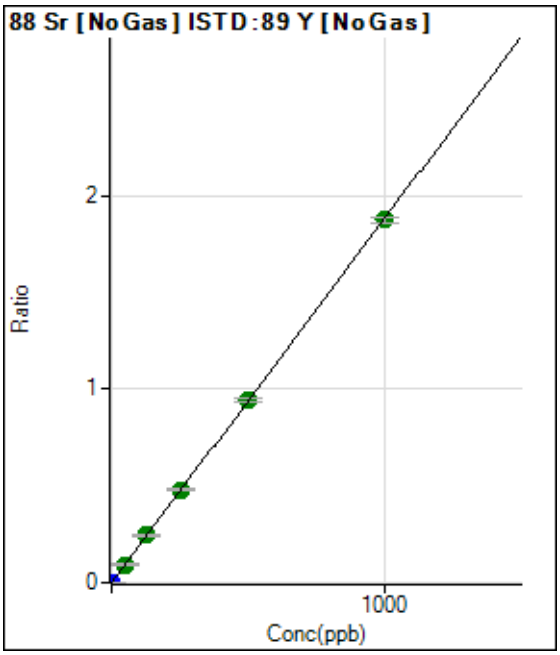


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0000	P	2.9
2	☐	1.000	0.993	5568.93	0.0002	P	5.0
3	☐	50.000	45.666	254952.60	0.0101	P	8.3
4	☐	125.000	122.760	642335.05	0.0272	P	3.9
5	☐	250.000	241.801	1246664.24	0.0536	P	2.7
6	☐	500.000	508.606	2591942.88	0.1127	A	2.4
7	☐	1000.000	998.244	5059881.56	0.2212	A	0.5
8	☐			12557.97	0.0006	P	1.6

y = 2.2155E-004 * x + 1.3239E-005
R = 0.9999
DL = 0.005256
BEC = 0.05976

Weight: <None>
Min Conc: 0

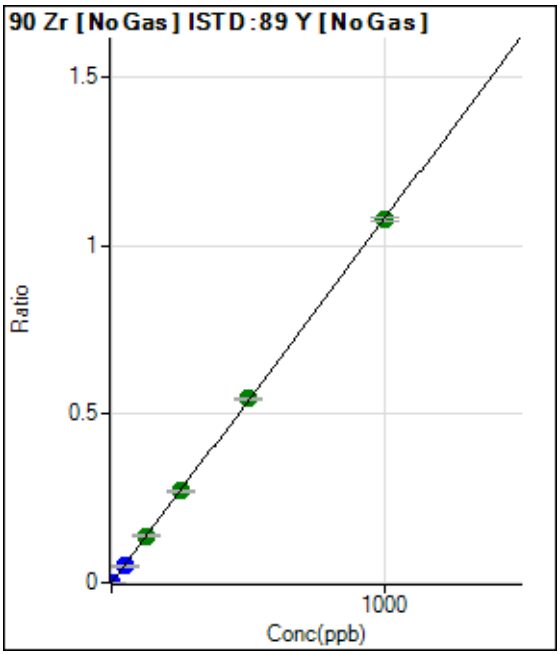
Reviewed By:Mohan
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	407.79	0.0000	P	3.0
2	☐	1.000	0.964	43739.36	0.0018	P	3.4
3	☐	50.000	49.186	2330925.33	0.0926	A	8.3
4	☐	125.000	129.781	5766568.80	0.2444	A	5.0
5	☐	250.000	255.589	11195869.49	0.4812	A	2.2
6	☐	500.000	502.908	21775486.62	0.9468	A	1.8
7	☐	1000.000	996.592	42932629.08	1.8763	A	1.8
8	☐			103607.60	0.0052	P	0.7

y = 0.0019 * x + 1.7415E-005
R = 1.0000
DL = 0.0008344
BEC = 0.00925

Weight: <None>
Min Conc: 0

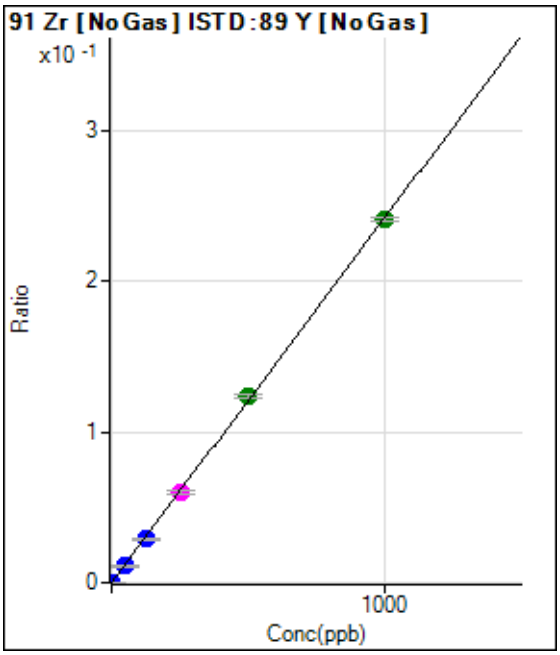


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	727.81	0.0000	P	5.0
2	☐	1.000	0.995	26427.28	0.0011	P	2.0
3	☐	50.000	45.342	1234502.72	0.0491	P	8.5
4	☐	125.000	128.176	3271831.97	0.1386	A	4.5
5	☐	250.000	252.462	6351258.31	0.2730	A	2.1
6	☐	500.000	505.116	12560530.93	0.5462	A	1.2
7	☐	1000.000	996.662	24657292.97	1.0777	A	0.9
8	☐			12991.71	0.0007	P	2.7

y = 0.0011 * x + 3.1083E-005
R = 1.0000
DL = 0.004329
BEC = 0.02875

Weight: <None>
Min Conc: 0

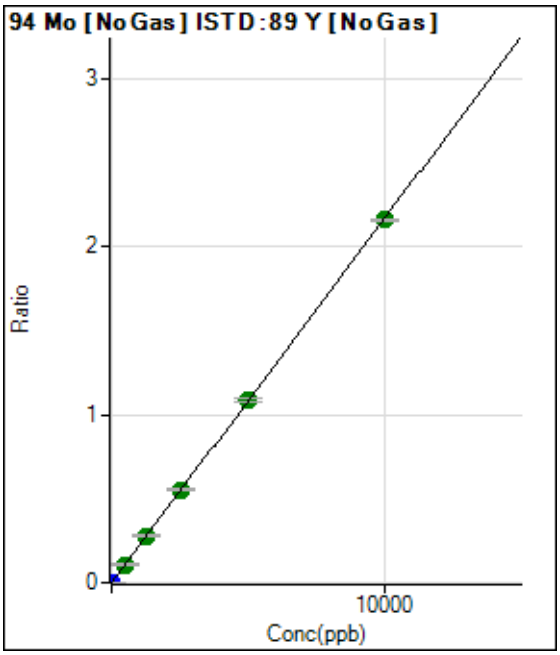
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On:2/5/2025 4:17:00 PM
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.34	0.0000	P	11.3
2	☐	1.000	0.980	5810.16	0.0002	P	4.2
3	☐	50.000	44.863	273058.90	0.0108	P	7.9
4	☐	125.000	120.968	690113.63	0.0292	P	4.4
5	☐	250.000	248.548	1397650.90	0.0601	M	5.2
6	☐	500.000	511.452	2842381.76	0.1236	A	1.6
7	☐	1000.000	995.398	5503360.16	0.2405	A	1.2
8	☐			2964.79	0.0001	P	3.7

y = 2.4164E-004 * x + 6.5479E-006
R = 0.9999
DL = 0.009183
BEC = 0.0271

Weight: <None>
Min Conc: 0

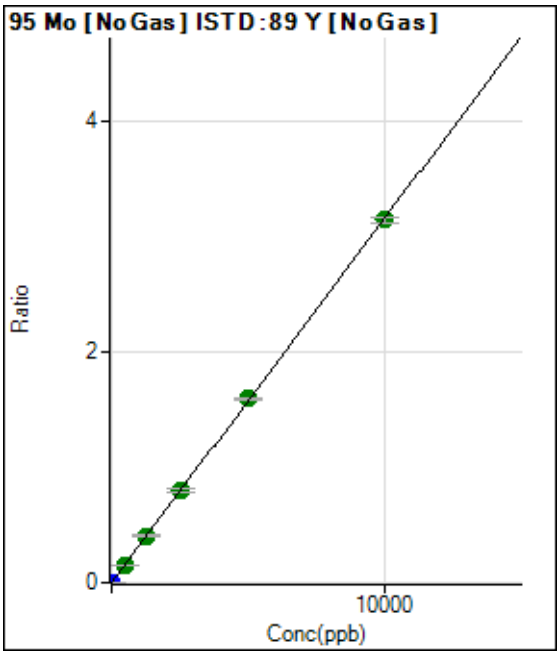


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	522.24	0.0000	P	3.8
2	☐	5.000	5.962	31378.68	0.0013	P	4.5
3	☐	500.000	483.496	2637155.07	0.1048	A	8.4
4	☐	1250.000	1291.344	6604291.36	0.2799	A	5.2
5	☐	2500.000	2544.846	12830412.17	0.5515	A	2.4
6	☐	5000.000	5039.805	25118300.18	1.0921	A	2.1
7	☐	10000.000	9964.543	49403889.82	2.1593	A	0.8
8	☐			11944.17	0.0006	P	11.8

y = 2.1670E-004 * x + 2.2306E-005
R = 1.0000
DL = 0.01176
BEC = 0.1029

Weight: <None>
Min Conc: 0

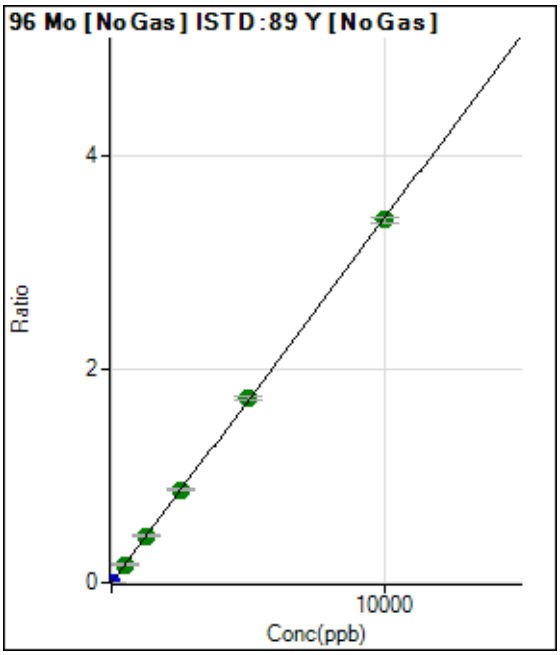
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	532.24	0.0000	P	3.9
2	☐	5.000	4.908	37472.60	0.0016	P	2.4
3	☐	500.000	479.146	3798346.96	0.1510	A	9.0
4	☐	1250.000	1287.477	9573417.36	0.4057	A	5.0
5	☐	2500.000	2534.244	18576371.81	0.7985	A	2.5
6	☐	5000.000	5048.313	36575983.07	1.5906	A	0.9
7	☐	10000.000	9963.641	71831217.82	3.1392	A	1.6
8	☐			10757.68	0.0005	P	15.4

y = 3.1506E-004 * x + 2.2733E-005
R = 1.0000
DL = 0.008374
BEC = 0.07215

Weight: <None>
Min Conc: 0

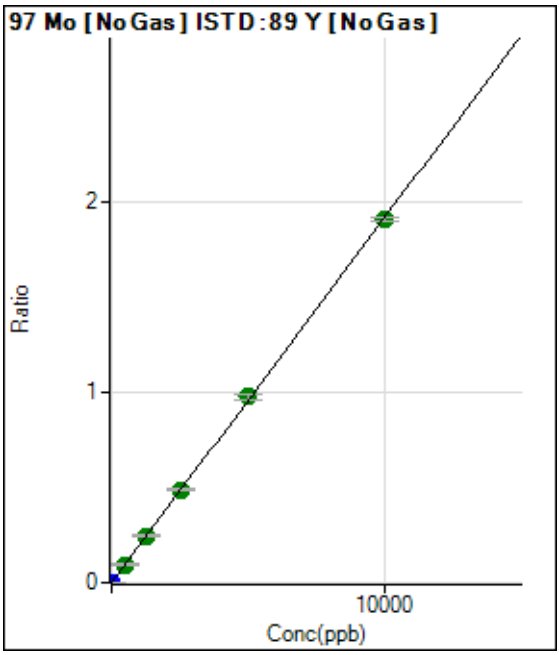


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	635.58	0.0000	P	5.8
2	☐	5.000	5.032	41648.97	0.0017	P	2.5
3	☐	500.000	481.704	4135838.58	0.1644	A	8.6
4	☐	1250.000	1283.341	10336723.39	0.4379	A	3.8
5	☐	2500.000	2558.071	20304742.48	0.8728	A	2.5
6	☐	5000.000	5058.223	39685073.30	1.7257	A	1.3
7	☐	10000.000	9953.118	77695502.17	3.3957	A	1.4
8	☐			14753.58	0.0007	P	11.0

y = 3.4116E-004 * x + 2.7143E-005
R = 0.9999
DL = 0.01378
BEC = 0.07956

Weight: <None>
Min Conc: 0

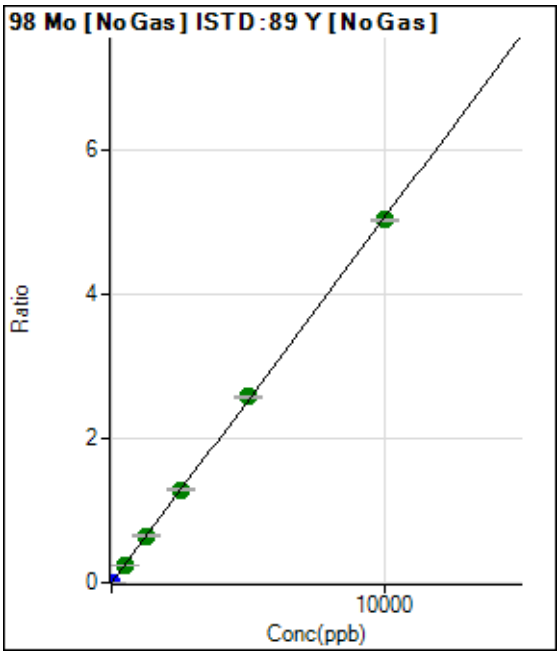
Reviewed By:Mohan
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	332.23	0.0000	P	2.3
2	☐	5.000	4.929	22945.71	0.0010	P	3.5
3	☐	500.000	482.776	2333612.05	0.0927	A	8.7
4	☐	1250.000	1279.316	5801103.59	0.2457	A	3.8
5	☐	2500.000	2543.288	11366011.78	0.4885	A	2.7
6	☐	5000.000	5089.562	22484445.64	0.9776	A	2.4
7	☐	10000.000	9941.594	43691045.74	1.9095	A	1.1
8	☐			5567.86	0.0003	P	17.4

y = 1.9207E-004 * x + 1.4190E-005
R = 0.9999
DL = 0.005192
BEC = 0.07388

Weight: <None>
Min Conc: 0

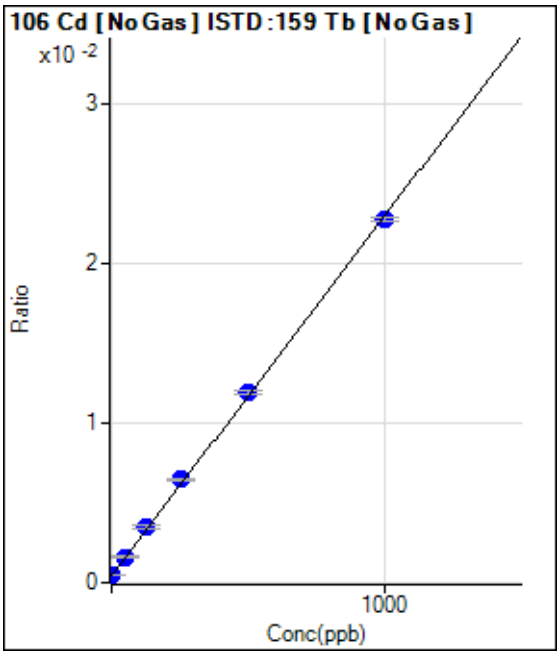


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	778.92	0.0000	P	6.8
2	☐	5.000	4.936	60460.93	0.0025	P	3.3
3	☐	500.000	475.139	6054186.30	0.2406	A	8.3
4	☐	1250.000	1288.584	15401005.74	0.6524	A	3.7
5	☐	2500.000	2541.138	29929033.16	1.2864	A	2.3
6	☐	5000.000	5090.644	59269079.67	2.5771	A	1.8
7	☐	10000.000	9940.814	115135346.0	5.0324	A	0.7
8	☐			13585.88	0.0007	P	19.7

y = 5.0624E-004 * x + 3.3266E-005
R = 0.9999
DL = 0.01337
BEC = 0.06571

Weight: <None>
Min Conc: 0

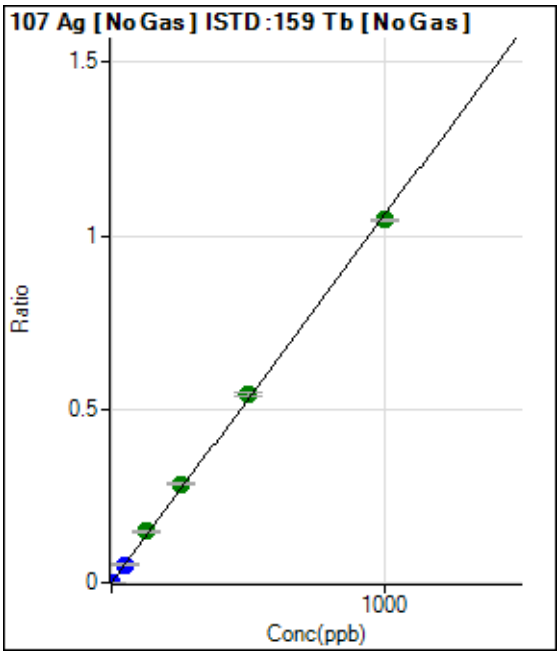
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7426.50	0.0004	P	1.0
2	☐	1.000	0.793	7885.64	0.0005	P	3.2
3	☐	50.000	51.281	29072.83	0.0016	P	6.7
4	☐	125.000	135.884	60484.00	0.0035	P	5.2
5	☐	250.000	267.035	110185.32	0.0065	P	1.3
6	☐	500.000	509.597	203139.33	0.0119	P	2.0
7	☐	1000.000	989.518	385834.37	0.0228	P	1.1
8	☐			6002.47	0.0004	P	1.6

y = 2.2556E-005 * x + 4.3701E-004
R = 0.9997
DL = 0.603
BEC = 19.37

Weight: <None>
Min Conc: 0

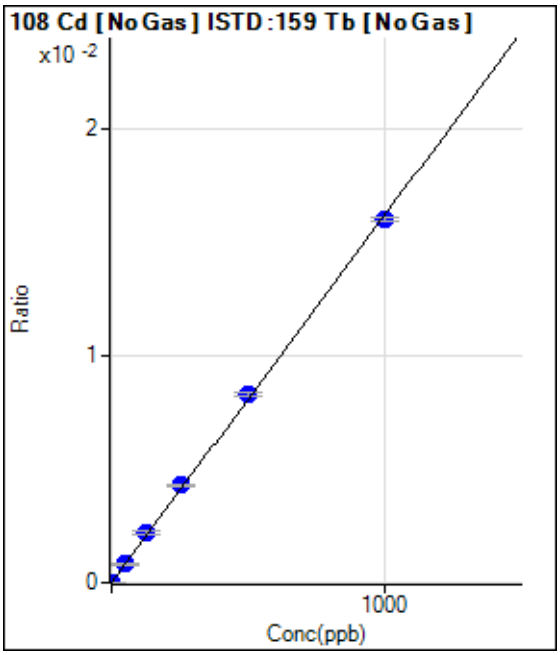


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	164.45	0.0000	P	4.4
2	☐	1.000	0.992	18386.74	0.0011	P	1.5
3	☐	50.000	48.779	941884.13	0.0517	P	8.8
4	☐	125.000	138.673	2537182.03	0.1470	A	6.3
5	☐	250.000	267.471	4834660.72	0.2834	A	2.4
6	☐	500.000	514.324	9279013.96	0.5450	A	2.0
7	☐	1000.000	986.822	17729304.87	1.0457	A	0.8
8	☐			2368.01	0.0002	P	15.2

y = 0.0011 * x + 9.6778E-006
R = 0.9996
DL = 0.001197
BEC = 0.009133

Weight: <None>
Min Conc: 0

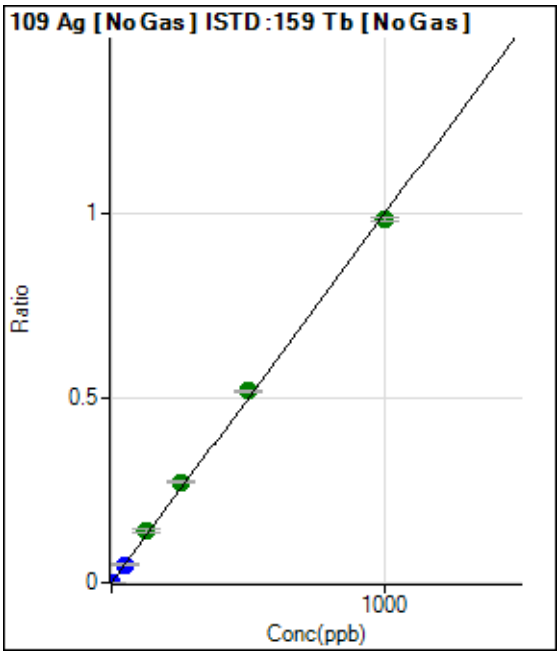
Reviewed By:Mohan
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.55	0.0000	P	14.8
2	☐	1.000	1.018	311.12	0.0000	P	12.4
3	☐	50.000	51.414	15152.87	0.0008	P	9.7
4	☐	125.000	137.946	38494.74	0.0022	P	6.9
5	☐	250.000	265.596	73213.16	0.0043	P	2.3
6	☐	500.000	512.576	141001.72	0.0083	P	1.6
7	☐	1000.000	988.124	270662.70	0.0160	P	1.2
8	☐			166.67	0.0000	P	22.9

y = 1.6155E-005 * x + 1.5034E-006
R = 0.9997
DL = 0.04132
BEC = 0.09306

Weight: <None>
Min Conc: 0

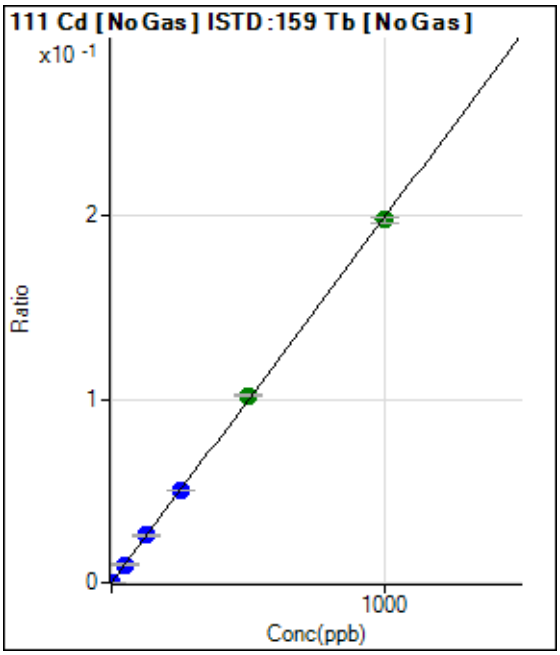


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67.78	0.0000	P	24.9
2	☐	1.000	1.022	17778.23	0.0010	P	1.7
3	☐	50.000	49.461	901178.05	0.0495	P	8.9
4	☐	125.000	140.009	2418429.53	0.1400	A	5.0
5	☐	250.000	271.589	4632622.29	0.2716	A	1.9
6	☐	500.000	518.679	8830295.29	0.5187	A	1.2
7	☐	1000.000	983.414	16674810.72	0.9834	A	1.0
8	☐			2257.99	0.0002	P	12.7

y = 0.0010 * x + 3.9859E-006
R = 0.9994
DL = 0.002974
BEC = 0.003986

Weight: <None>
Min Conc: 0

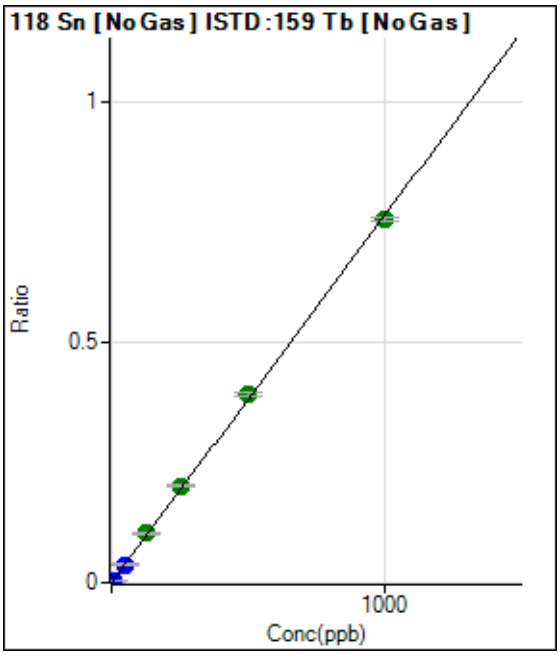
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1508.53	0.0001	P	1.2
2	☐	1.000	1.081	5271.06	0.0003	P	1.6
3	☐	50.000	48.988	179408.88	0.0098	P	9.1
4	☐	125.000	129.346	446606.55	0.0259	P	5.3
5	☐	250.000	252.155	858379.83	0.0503	P	1.0
6	☐	500.000	511.926	1737967.87	0.1021	A	1.6
7	☐	1000.000	993.006	3356285.33	0.1979	A	1.6
8	☐			1937.19	0.0001	P	2.6

y = 1.9924E-004 * x + 8.8768E-005
R = 0.9999
DL = 0.01599
BEC = 0.4455

Weight: <None>
Min Conc: 0

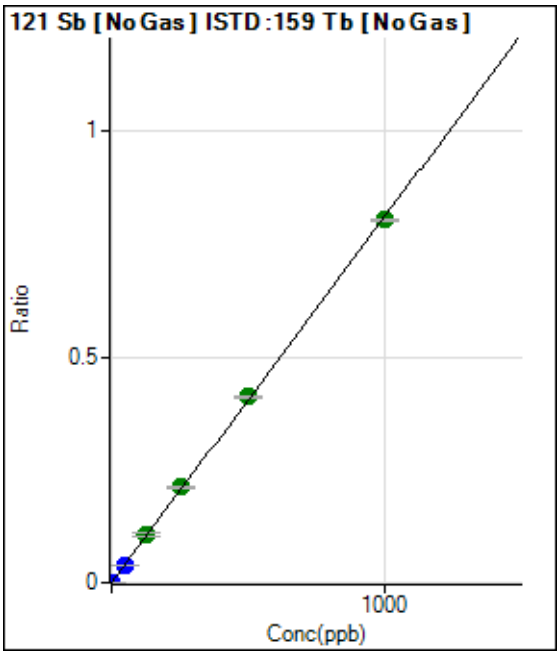


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	856.73	0.0001	P	2.5
2	☐	5.000	4.708	63219.78	0.0036	P	1.5
3	☐	50.000	48.162	671317.16	0.0369	P	9.0
4	☐	125.000	135.102	1783726.03	0.1033	A	5.3
5	☐	250.000	263.813	3439156.48	0.2016	A	2.2
6	☐	500.000	513.366	6678842.11	0.3923	A	1.5
7	☐	1000.000	988.695	12809157.53	0.7555	A	1.0
8	☐			3874.24	0.0003	P	11.5

y = 7.6409E-004 * x + 5.0411E-005
R = 0.9997
DL = 0.005037
BEC = 0.06598

Weight: <None>
Min Conc: 0

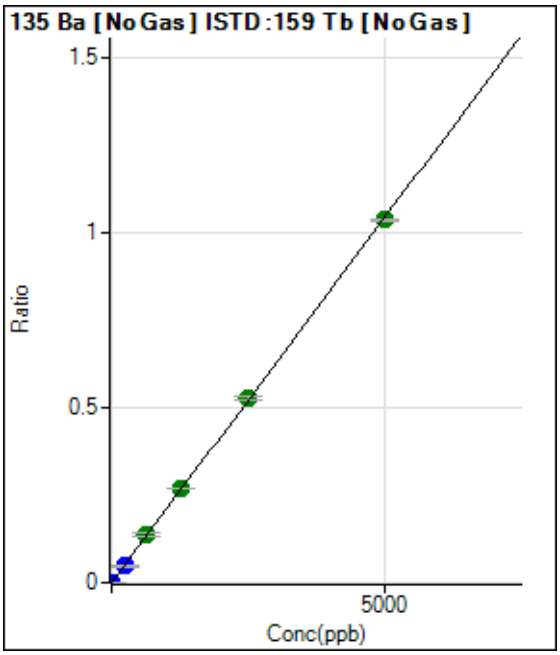
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Inst Id :P8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	95.56	0.0000	P	11.8
2	☐	2.000	2.022	28463.00	0.0016	P	1.4
3	☐	50.000	47.282	697386.27	0.0383	P	8.7
4	☐	125.000	132.189	1846730.32	0.1070	A	7.2
5	☐	250.000	261.254	3606792.83	0.2115	A	1.4
6	☐	500.000	508.568	7007799.83	0.4116	A	1.2
7	☐	1000.000	992.140	13615004.24	0.8030	A	0.7
8	☐			8727.32	0.0006	P	4.9

y = 8.0939E-004 * x + 5.6210E-006
R = 0.9998
DL = 0.002454
BEC = 0.006945

Weight: <None>
Min Conc: 0

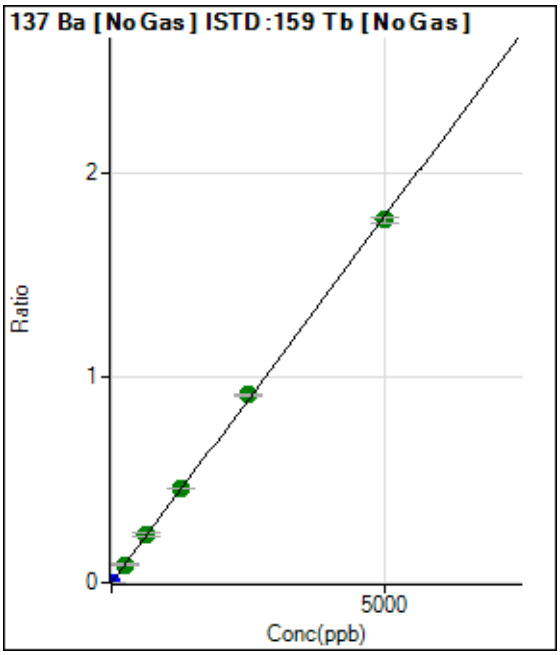


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.67	0.0000	P	21.8
2	☐	10.000	10.119	36863.37	0.0021	P	1.4
3	☐	250.000	232.515	883637.46	0.0485	P	8.8
4	☐	625.000	660.035	2376447.47	0.1376	A	6.2
5	☐	1250.000	1292.102	4595443.44	0.2694	A	0.9
6	☐	2500.000	2530.686	8983879.17	0.5277	A	1.6
7	☐	5000.000	4970.626	17572769.32	1.0364	A	0.7
8	☐			7235.33	0.0005	P	7.1

y = 2.0851E-004 * x + 1.6873E-005
R = 0.9999
DL = 0.05287
BEC = 0.08092

Weight: <None>
Min Conc: 0

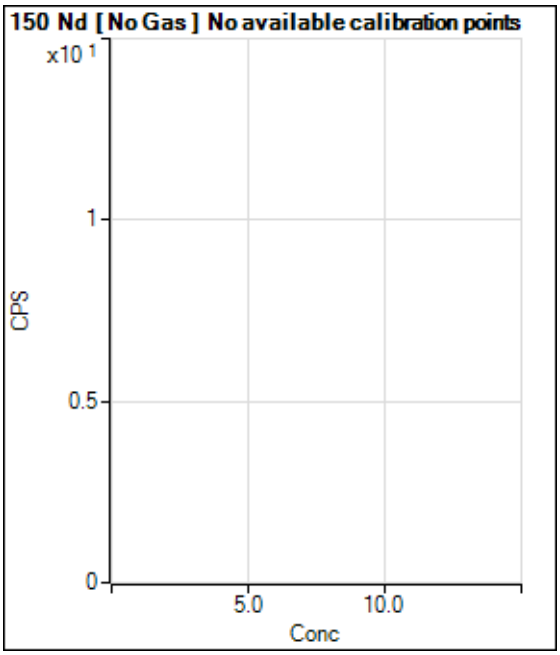
Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444.46	0.0000	P	2.0
2	☐	10.000	10.280	64124.27	0.0037	P	1.8
3	☐	250.000	245.674	1599865.95	0.0878	A	9.0
4	☐	625.000	656.518	4052563.24	0.2346	A	5.2
5	☐	1250.000	1289.261	7858669.53	0.4608	A	1.6
6	☐	2500.000	2561.422	15583035.74	0.9154	A	1.0
7	☐	5000.000	4955.750	30029615.38	1.7710	A	1.4
8	☐			12618.22	0.0008	P	7.4

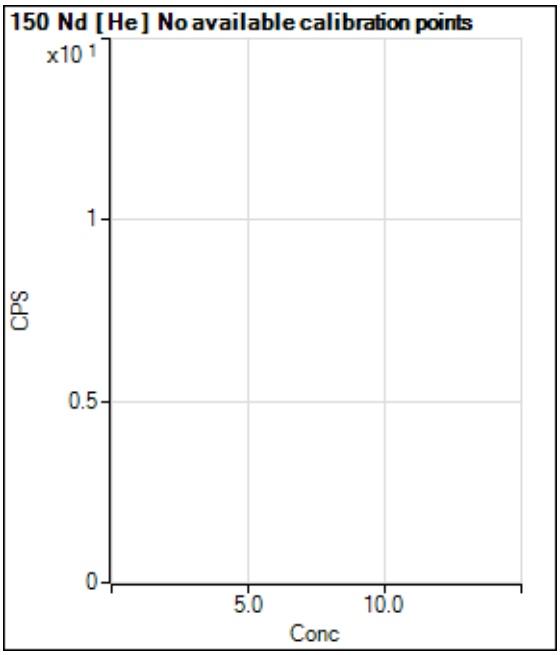
y = 3.5736E-004 * x + 2.6157E-005
R = 0.9998
DL = 0.004369
BEC = 0.07319

Weight: <None>
Min Conc: 0

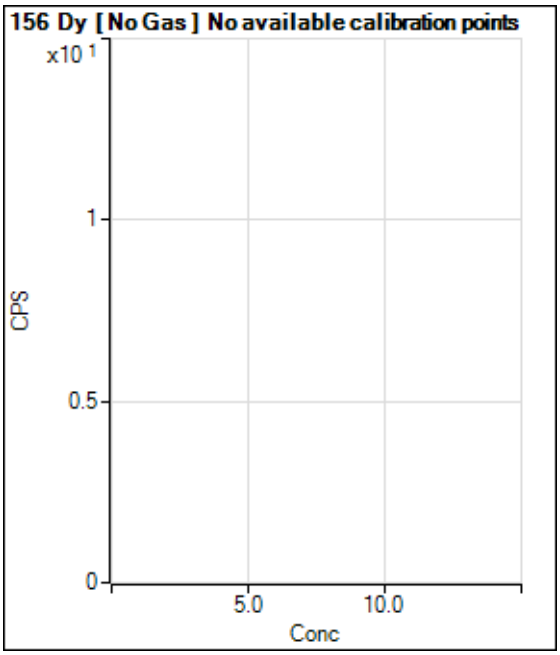


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			18.89		P	51.0
2	☐			20.00		P	16.7
3	☐			94.45		P	19.4
4	☐			227.78		P	8.6
5	☐			410.01		P	7.3
6	☐			775.59		P	11.1
7	☐			1465.65		P	7.1
8	☐			317.79		P	9.5

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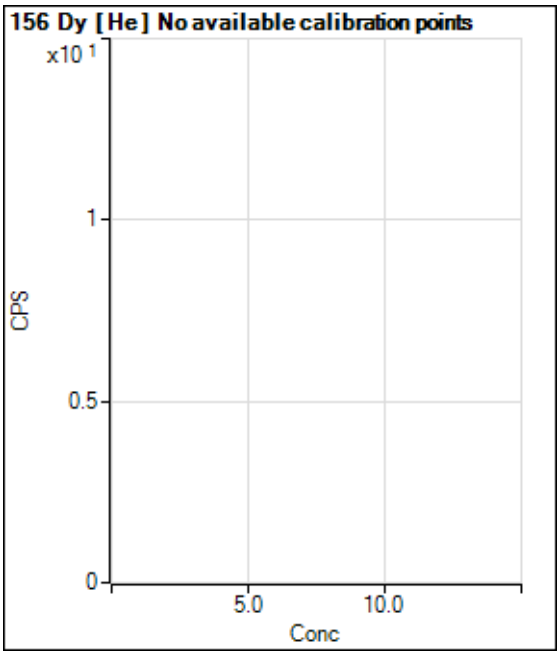


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2.22		P	86.6
2	☐			1.11		P	173.2
3	☐			8.89		P	21.6
4	☐			12.22		P	15.7
5	☐			10.00		P	33.3
6	☐			30.00		P	11.1
7	☐			33.33		P	26.4
8	☐			67.78		P	22.2

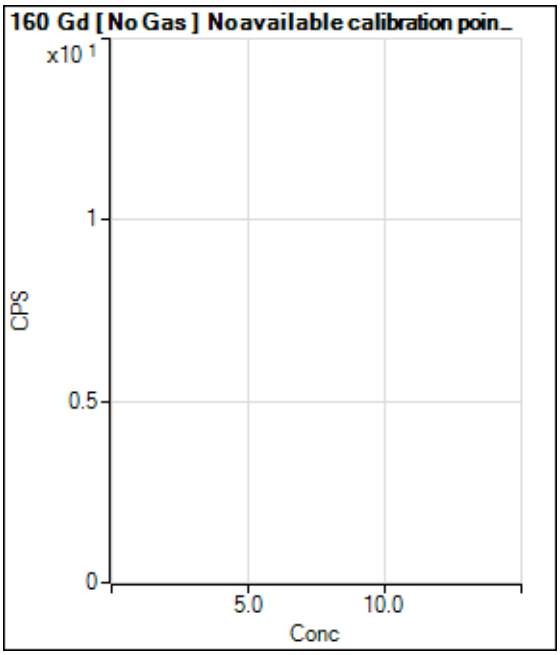


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			138.89		P	9.7
2	☐			111.11		P	15.1
3	☐			127.78		P	12.1
4	☐			127.78		P	17.4
5	☐			168.89		P	12.7
6	☐			281.12		P	24.5
7	☐			418.90		P	9.2
8	☐			591.13		P	3.2

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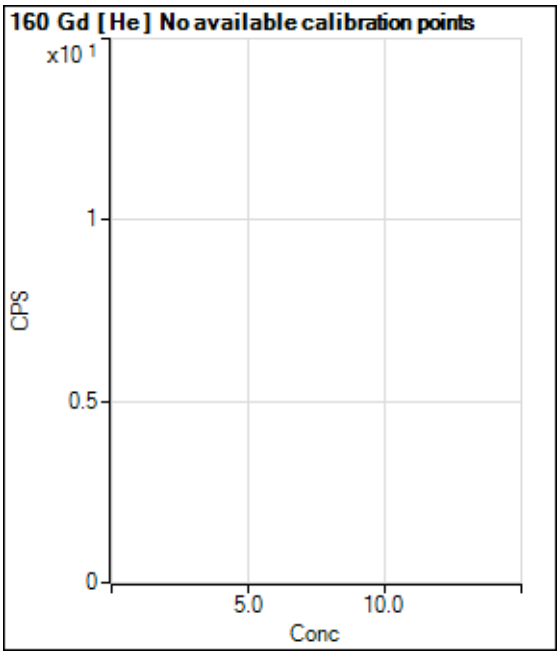


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.66		P	86.6
2	☐			3.33		P	100.1
3	☐			8.89		P	21.6
4	☐			7.78		P	24.7
5	☐			14.44		P	13.4
6	☐			38.89		P	26.2
7	☐			38.89		P	4.9
8	☐			168.89		P	14.5

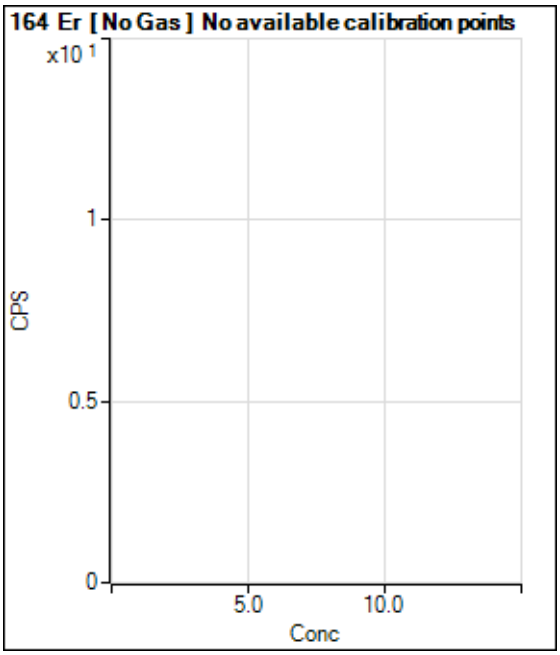


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1	☐			55.56		P	3.5
2	☐			72.22		P	16.2
3	☐			78.89		P	25.8
4	☐			87.78		P	9.6
5	☐			97.78		P	17.2
6	☐			141.11		P	17.7
7	☐			204.45		P	4.7
8	☐			470.01		P	8.6

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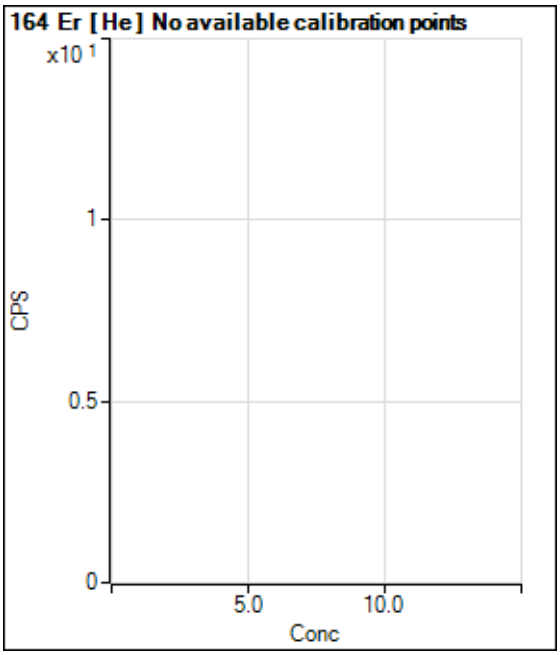


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			13.33		P	50.0
2	☐			13.33		P	75.0
3	☐			12.22		P	41.7
4	☐			12.22		P	41.7
5	☐			30.00		P	38.5
6	☐			47.78		P	10.7
7	☐			53.33		P	16.5
8	☐			203.34		P	17.7

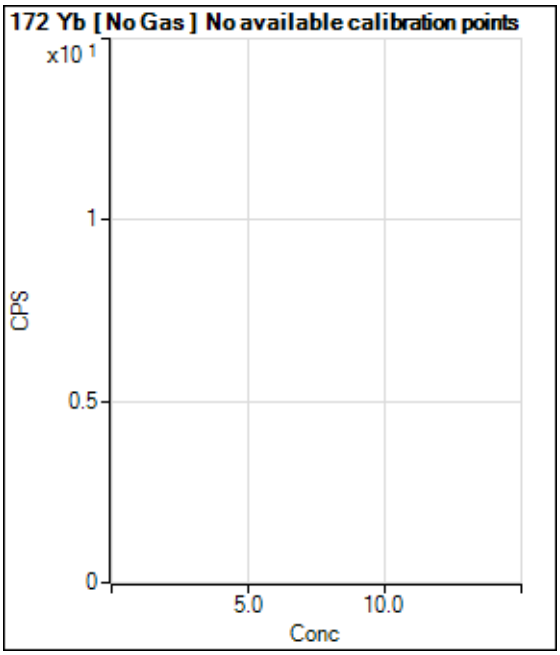


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			100.00		P	12.0
2	☐			101.11		P	30.6
3	☐			88.89		P	14.2
4	☐			102.22		P	1.9
5	☐			133.34		P	13.2
6	☐			177.78		P	8.5
7	☐			245.56		P	26.2
8	☐			550.02		P	6.2

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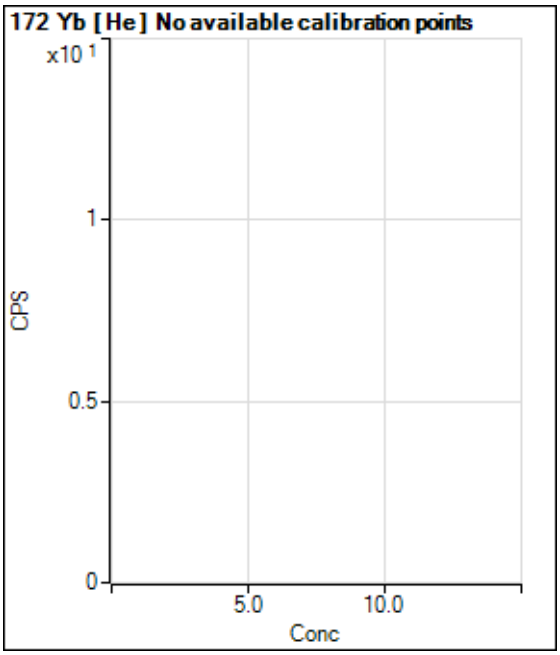


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1	☐			26.67		P	25.0
2	☐			28.89		P	6.7
3	☐			20.00		P	33.4
4	☐			27.78		P	18.3
5	☐			33.33		P	26.4
6	☐			56.67		P	36.7
7	☐			67.78		P	35.6
8	☐			182.23		P	24.9

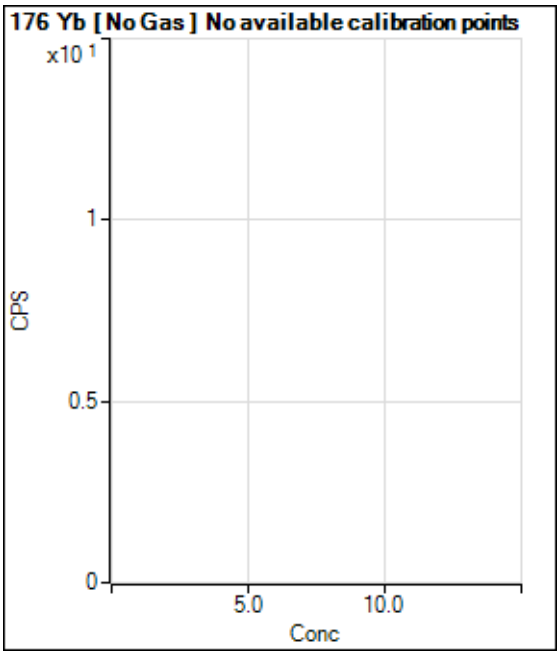


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			93.33		P	17.9
2	☐			98.89		P	14.0
3	☐			113.34		P	10.2
4	☐			127.78		P	15.7
5	☐			136.67		P	19.0
6	☐			203.34		P	21.3
7	☐			240.01		P	16.8
8	☐			663.36		P	5.4

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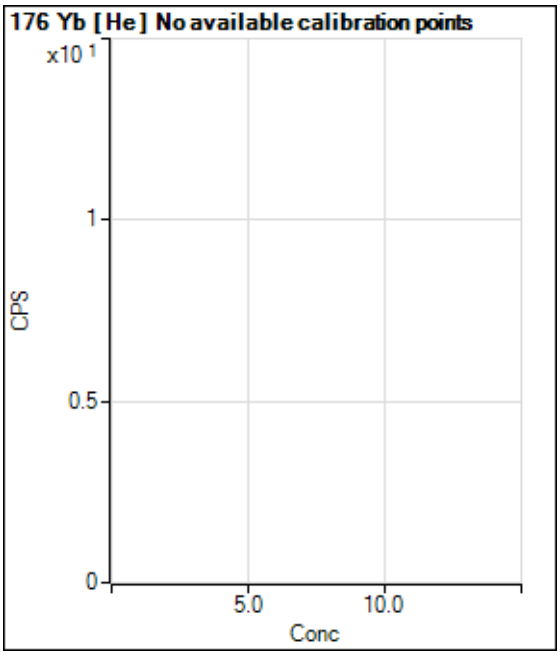


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			44.44		P	31.2
2	☐			37.78		P	5.1
3	☐			37.78		P	25.5
4	☐			32.22		P	26.0
5	☐			48.89		P	30.7
6	☐			73.34		P	34.3
7	☐			103.33		P	14.1
8	☐			250.00		P	7.4

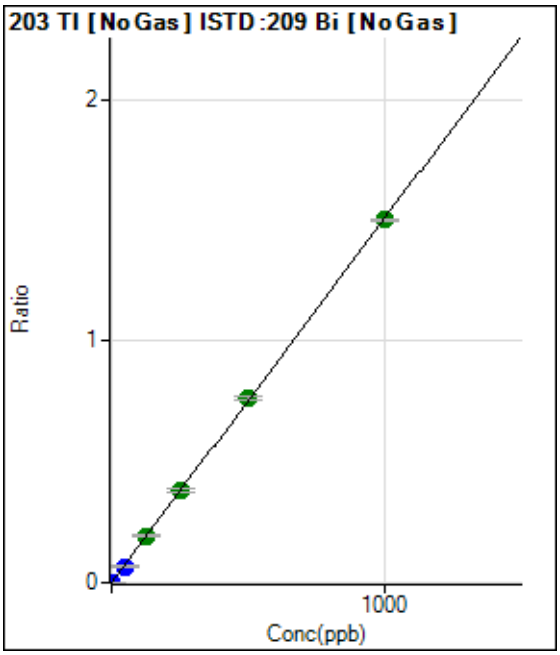


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2112.41		P	6.2
2	☐			2171.32		P	4.6
3	☐			5593.47		P	4.4
4	☐			10545.40		P	0.3
5	☐			18488.58		P	3.5
6	☐			34637.63		P	3.3
7	☐			65331.60		P	2.3
8	☐			2193.55		P	5.2

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			358.90		P	14.8
2	☐			326.67		P	3.7
3	☐			1444.54		P	3.2
4	☐			3048.16		P	3.7
5	☐			5646.82		P	1.4
6	☐			11049.14		P	2.5
7	☐			21019.04		P	0.7
8	☐			383.35		P	4.0

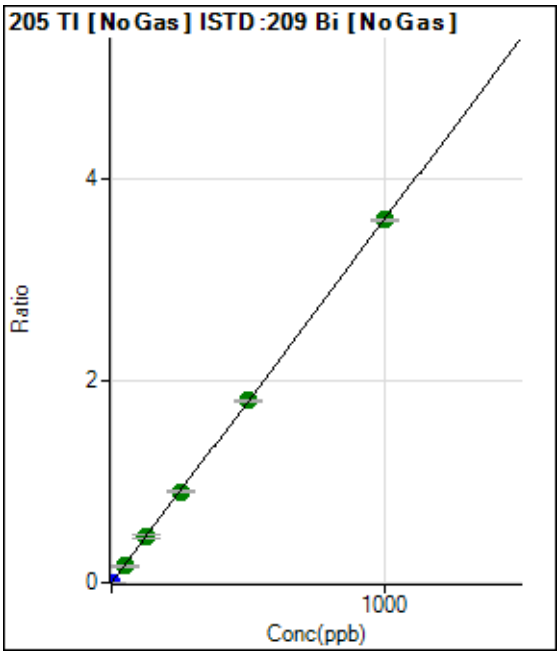


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	264.45	0.0000	P	5.5
2	☐	1.000	0.944	15261.27	0.0014	P	5.3
3	☐	50.000	44.447	750399.08	0.0671	P	8.7
4	☐	125.000	127.268	2006603.89	0.1920	A	4.9
5	☐	250.000	252.403	3864080.53	0.3808	A	3.2
6	☐	500.000	506.273	7517879.33	0.7637	A	2.0
7	☐	1000.000	996.257	14484830.48	1.5029	A	0.4
8	☐			1642.35	0.0002	P	19.1

y = 0.0015 * x + 2.5632E-005
R = 0.9999
DL = 0.002809
BEC = 0.01699

Weight: <None>
Min Conc: 0

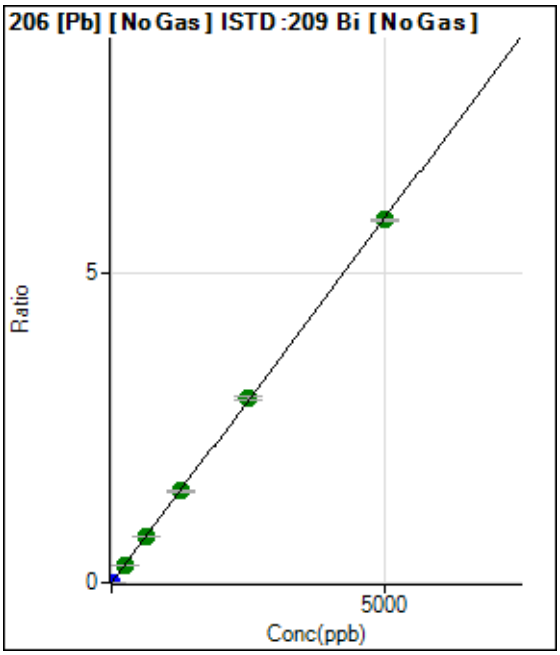
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0001	P	5.6
2	☐	1.000	0.952	36711.87	0.0035	P	1.7
3	☐	50.000	47.023	1888825.69	0.1689	A	8.9
4	☐	125.000	127.353	4778171.60	0.4572	A	4.7
5	☐	250.000	251.254	9154095.42	0.9019	A	3.1
6	☐	500.000	501.236	17709685.43	1.7992	A	1.6
7	☐	1000.000	998.923	34559890.87	3.5855	A	0.8
8	☐			3990.67	0.0005	P	18.8

y = 0.0036 * x + 6.8177E-005
R = 1.0000
DL = 0.003169
BEC = 0.01899

Weight: <None>
Min Conc: 0

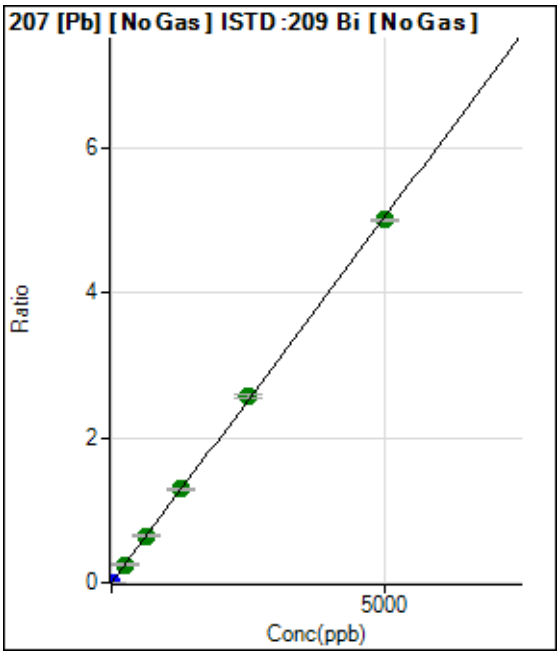


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1597.90	0.0002	P	2.0
2	☐	1.000	0.990	13886.44	0.0013	P	1.9
3	☐	250.000	237.786	3125888.25	0.2795	A	9.5
4	☐	625.000	633.273	7778657.24	0.7442	A	4.1
5	☐	1250.000	1260.402	15029331.02	1.4810	A	3.1
6	☐	2500.000	2532.051	29284656.51	2.9750	A	1.7
7	☐	5000.000	4980.951	56409227.49	5.8522	A	0.3
8	☐			16848.88	0.0022	P	6.3

y = 0.0012 * x + 1.5489E-004
R = 1.0000
DL = 0.007934
BEC = 0.1318

Weight: <None>
Min Conc: 0

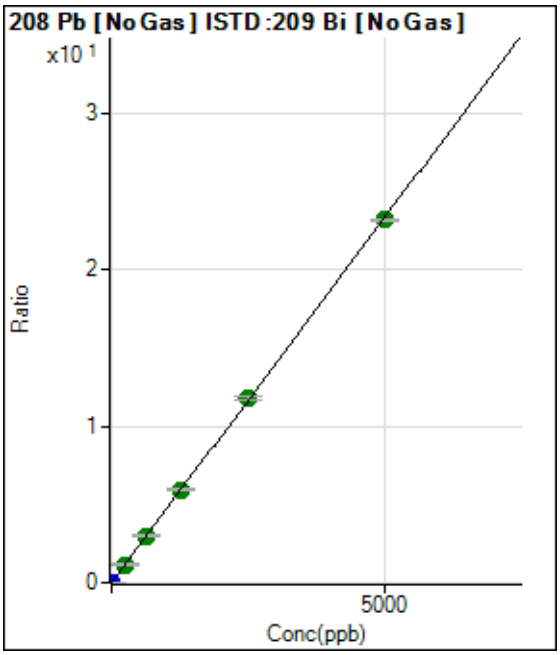
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1465.65	0.0001	P	5.4
2	☐	1.000	0.997	12082.39	0.0011	P	2.7
3	☐	250.000	242.620	2738468.26	0.2447	A	8.4
4	☐	625.000	641.590	6762541.50	0.6469	A	3.9
5	☐	1250.000	1276.607	13062094.95	1.2871	A	2.8
6	☐	2500.000	2551.501	25322184.90	2.5723	A	2.4
7	☐	5000.000	4965.893	48251109.84	5.0063	A	0.4
8	☐			14477.14	0.0019	P	7.6

y = 0.0010 * x + 1.4205E-004
R = 0.9999
DL = 0.02283
BEC = 0.1409

Weight: <None>
Min Conc: 0

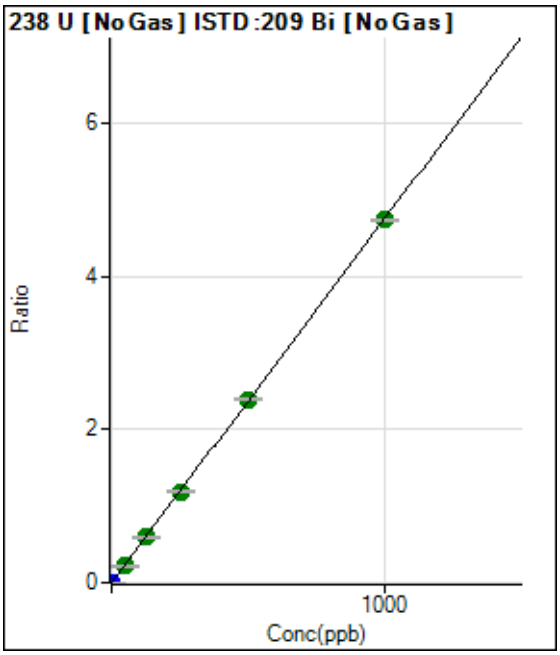


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6621.85	0.0006	P	0.4
2	☐	1.000	0.990	55353.28	0.0053	P	2.5
3	☐	250.000	239.922	12518252.25	1.1189	A	8.7
4	☐	625.000	637.885	31088948.07	2.9739	A	3.5
5	☐	1250.000	1274.215	60282461.05	5.9398	A	2.3
6	☐	2500.000	2541.332	116608513.2	11.8459	A	2.0
7	☐	5000.000	4972.173	223386996.6	23.1762	A	0.2
8	☐			66589.77	0.0085	P	6.9

y = 0.0047 * x + 6.4189E-004
R = 0.9999
DL = 0.001771
BEC = 0.1377

Weight: <None>
Min Conc: 0

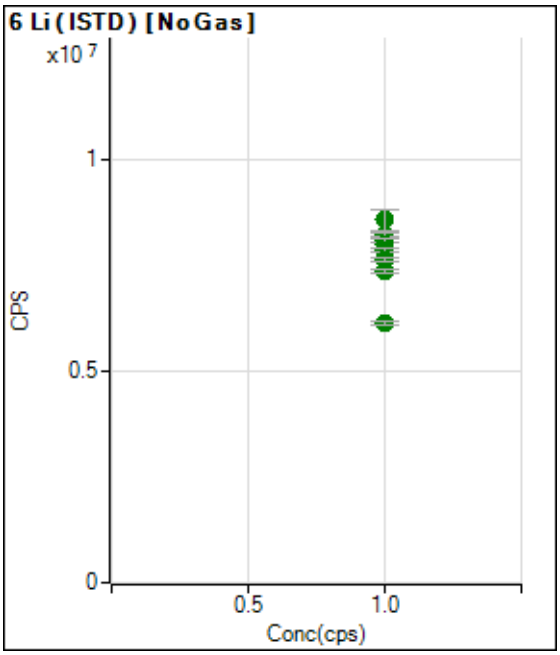
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	195.56	0.0000	P	13.2
2	☐	1.000	0.935	46930.86	0.0045	P	2.3
3	☐	50.000	46.658	2478345.48	0.2215	A	8.6
4	☐	125.000	124.473	6178807.62	0.5909	A	2.4
5	☐	250.000	250.854	12086317.60	1.1908	A	1.4
6	☐	500.000	504.904	23593804.37	2.3968	A	2.0
7	☐	1000.000	997.568	45643959.88	4.7355	A	0.5
8	☐			3079.33	0.0004	P	31.9

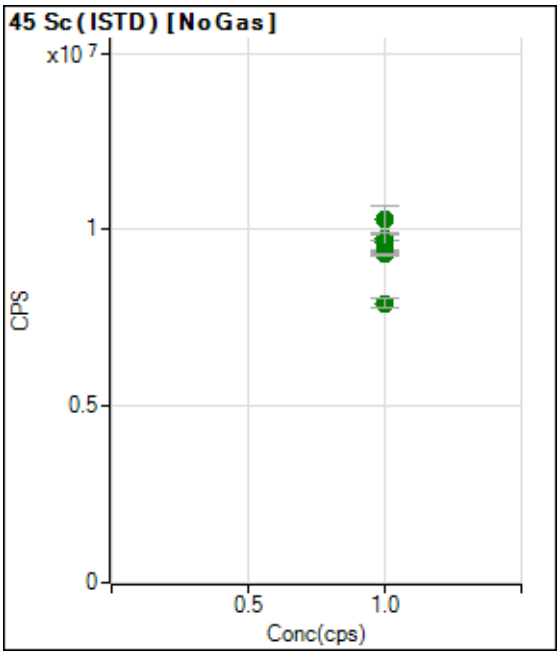
y = 0.0047 * x + 1.8960E-005
R = 1.0000
DL = 0.001579
BEC = 0.003994

Weight: <None>
Min Conc: 0

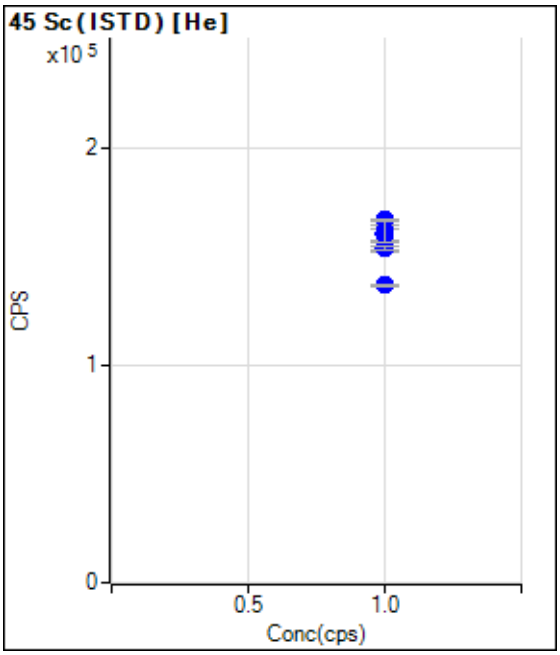


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8099897.79		A	1.0
2	☐	1.000		8230997.70		A	1.1
3	☐	1.000		8586378.49		A	6.2
4	☐	1.000		8031680.48		A	2.7
5	☐	1.000		7867290.98		A	0.9
6	☐	1.000		7652187.86		A	1.2
7	☐	1.000		7372435.59		A	1.7
8	☐	1.000		6149074.87		A	1.5

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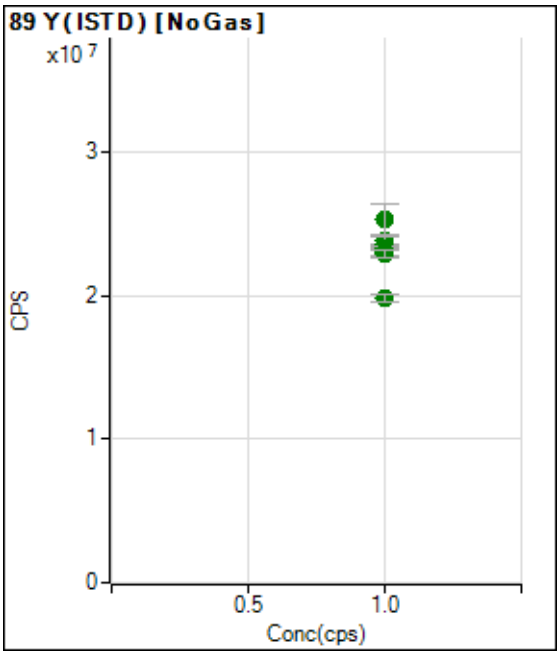


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9420556.46		A	0.3
2	☐	1.000		9758900.41		A	1.7
3	☐	1.000		10280982.42		A	8.1
4	☐	1.000		9630431.45		A	5.6
5	☐	1.000		9390550.14		A	0.5
6	☐	1.000		9336717.71		A	1.4
7	☐	1.000		9293186.60		A	0.8
8	☐	1.000		7920521.76		A	3.8

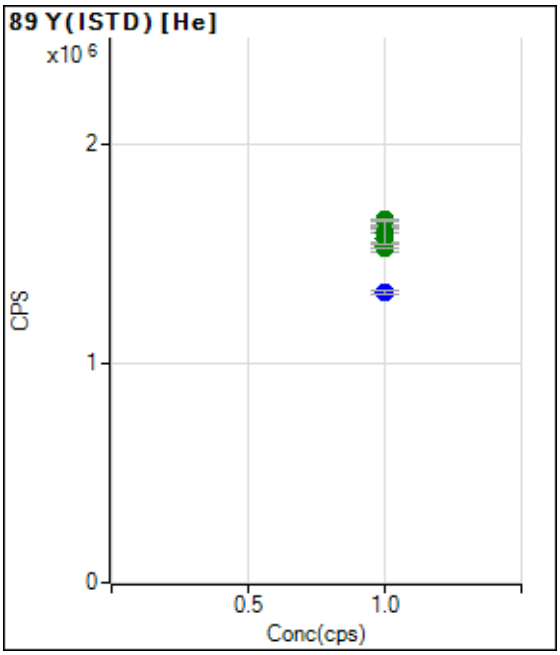


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		164583.24		P	2.6
2	☐	1.000		164655.25		P	0.1
3	☐	1.000		166955.58		P	0.5
4	☐	1.000		160217.40		P	3.5
5	☐	1.000		154685.74		P	2.8
6	☐	1.000		153780.11		P	1.3
7	☐	1.000		161415.83		P	6.0
8	☐	1.000		137089.46		P	0.6

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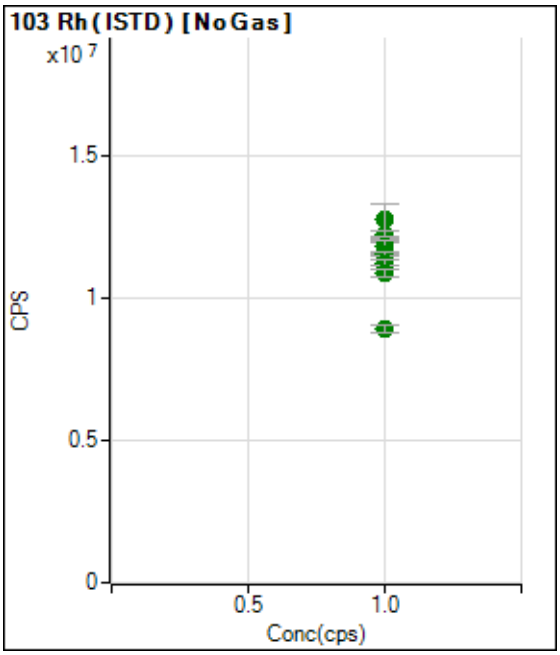


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23414394.09		A	0.3
2	☐	1.000		23890579.37		A	2.4
3	☐	1.000		25283224.90		A	8.3
4	☐	1.000		23631637.43		A	4.1
5	☐	1.000		23264550.76		A	1.1
6	☐	1.000		22993202.43		A	1.9
7	☐	1.000		22877086.88		A	2.3
8	☐	1.000		19821071.79		A	2.6

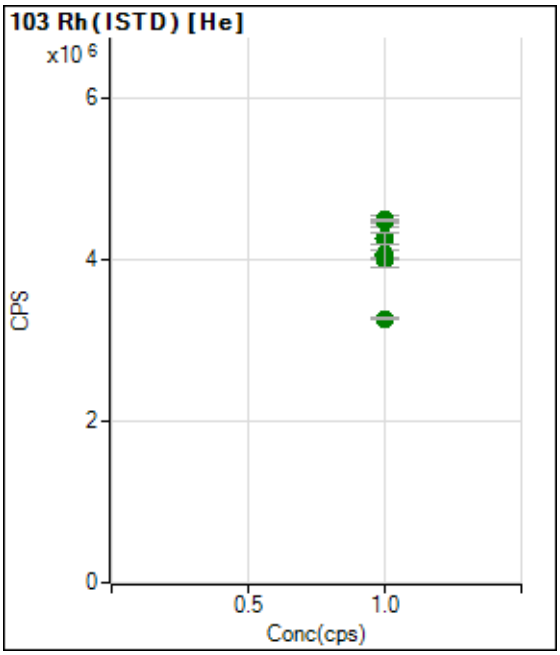


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1632896.80		A	2.4
2	☐	1.000		1628997.88		A	1.0
3	☐	1.000		1656269.02		A	0.2
4	☐	1.000		1574797.65		A	3.4
5	☐	1.000		1532134.89		A	3.1
6	☐	1.000		1530179.16		A	0.1
7	☐	1.000		1598065.39		A	6.8
8	☐	1.000		1325603.04		P	0.9

Reviewed By:Mohan
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Inst Id :P8

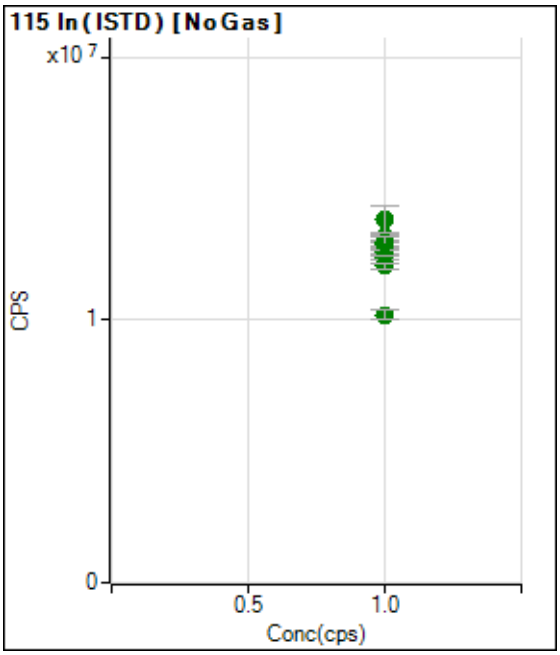


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1	☐	1.000		11959641.91		A	0.5
2	☐	1.000		12220553.57		A	2.0
3	☐	1.000		12722171.20		A	9.3
4	☐	1.000		11792825.93		A	4.1
5	☐	1.000		11516962.33		A	1.2
6	☐	1.000		11222903.03		A	2.2
7	☐	1.000		10849027.20		A	2.7
8	☐	1.000		8893130.28		A	3.4

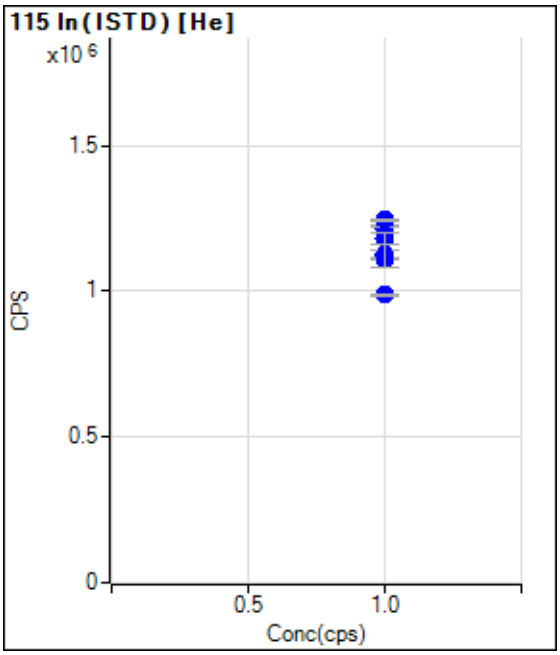


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4460998.20		A	3.2
2	☐	1.000		4460088.09		A	0.6
3	☐	1.000		4485718.02		A	0.8
4	☐	1.000		4247924.94		A	3.4
5	☐	1.000		4066018.27		A	2.0
6	☐	1.000		4000493.59		A	0.7
7	☐	1.000		4031374.39		A	7.0
8	☐	1.000		3267149.43		A	0.4

Reviewed By:Mohan
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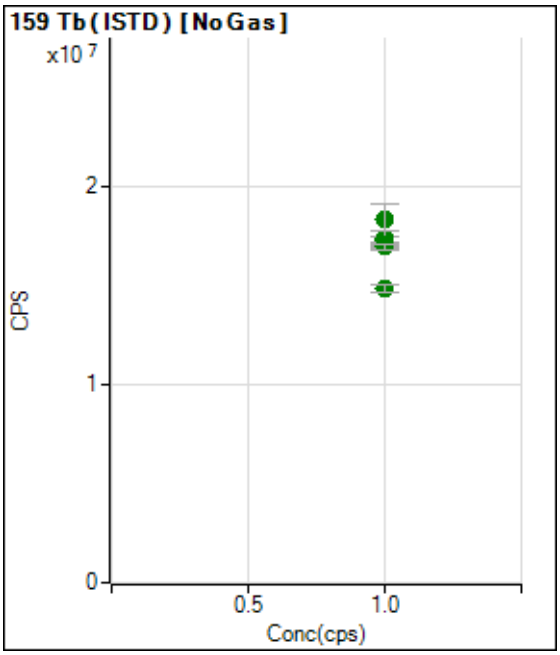


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12884063.97		A	0.6
2	☐	1.000		13182658.65		A	2.1
3	☐	1.000		13813924.83		A	7.9
4	☐	1.000		12953682.42		A	3.5
5	☐	1.000		12570564.69		A	1.0
6	☐	1.000		12370838.36		A	1.0
7	☐	1.000		12071270.94		A	1.9
8	☐	1.000		10212449.56		A	4.0

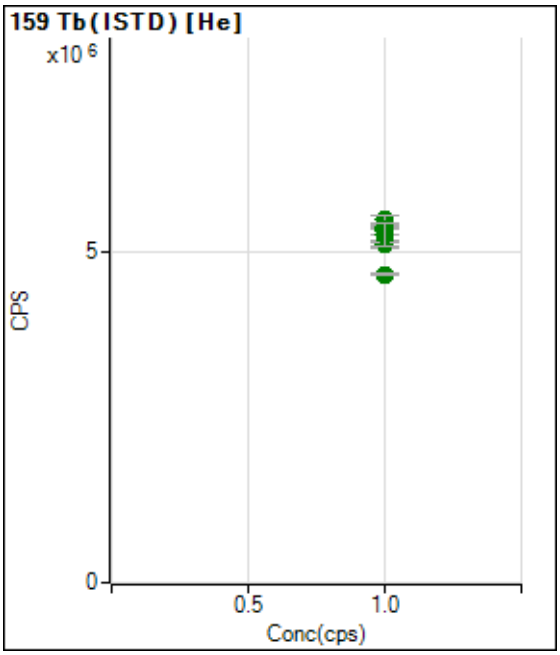


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1214327.48		P	2.5
2	☐	1.000		1219830.30		P	0.3
3	☐	1.000		1244612.39		P	0.8
4	☐	1.000		1182333.51		P	3.1
5	☐	1.000		1127945.65		P	2.6
6	☐	1.000		1105988.31		P	0.1
7	☐	1.000		1121311.33		P	6.9
8	☐	1.000		987108.41		P	0.8

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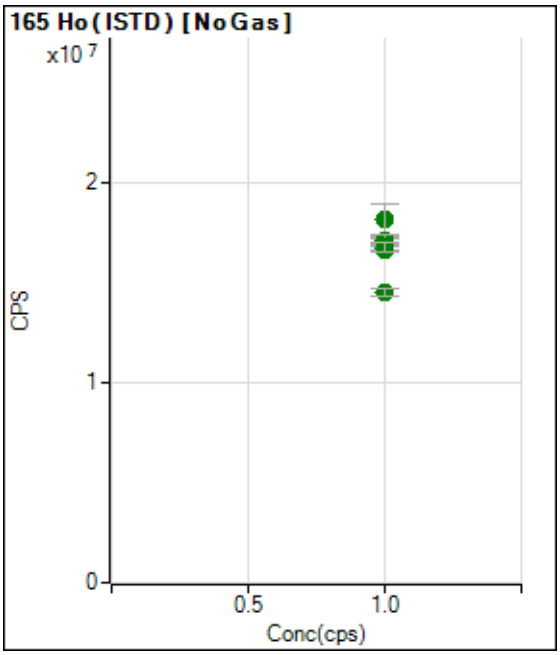


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16993185.72		A	0.6
2	☐	1.000		17334142.66		A	1.4
3	☐	1.000		18314848.89		A	8.9
4	☐	1.000		17301963.49		A	5.1
5	☐	1.000		17054902.66		A	1.0
6	☐	1.000		17022203.77		A	1.5
7	☐	1.000		16953191.55		A	2.0
8	☐	1.000		14860064.23		A	2.9

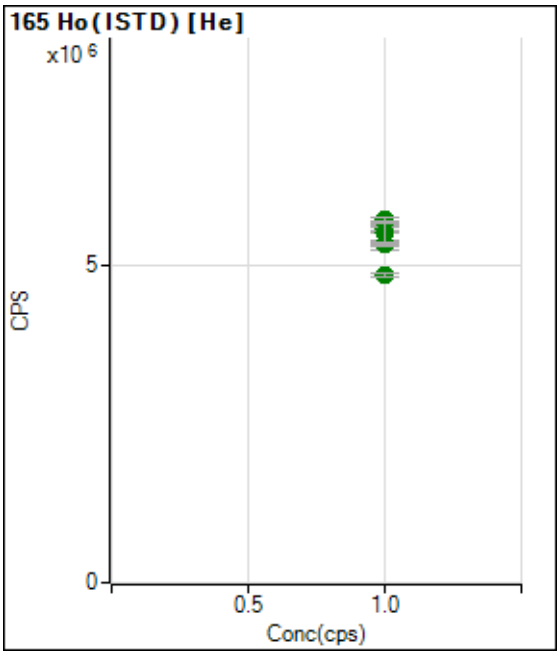


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5335374.92		A	2.3
2	☐	1.000		5397091.69		A	1.7
3	☐	1.000		5492762.76		A	2.6
4	☐	1.000		5346877.53		A	3.4
5	☐	1.000		5124646.59		A	2.7
6	☐	1.000		5144817.36		A	0.1
7	☐	1.000		5273062.14		A	6.7
8	☐	1.000		4663328.96		A	0.8

Reviewed By:Mohan
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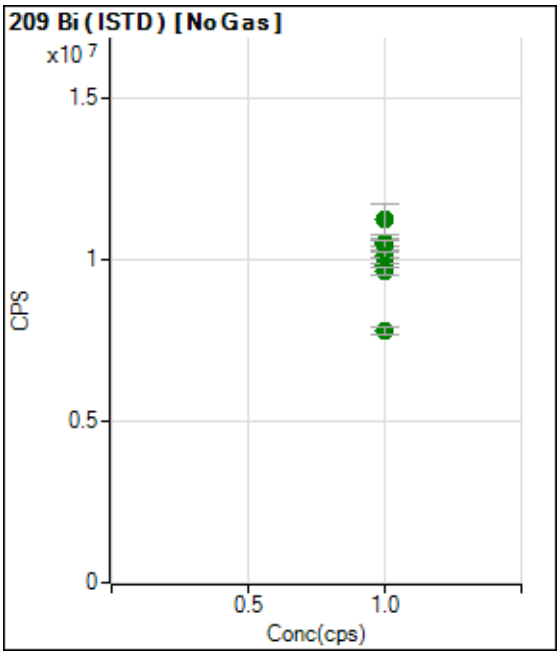


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16594418.92		A	0.4
2	☐	1.000		17048857.24		A	1.3
3	☐	1.000		18129499.45		A	8.8
4	☐	1.000		17117479.19		A	3.1
5	☐	1.000		16785622.25		A	1.5
6	☐	1.000		16719400.45		A	1.6
7	☐	1.000		16750206.28		A	2.6
8	☐	1.000		14541874.51		A	2.5

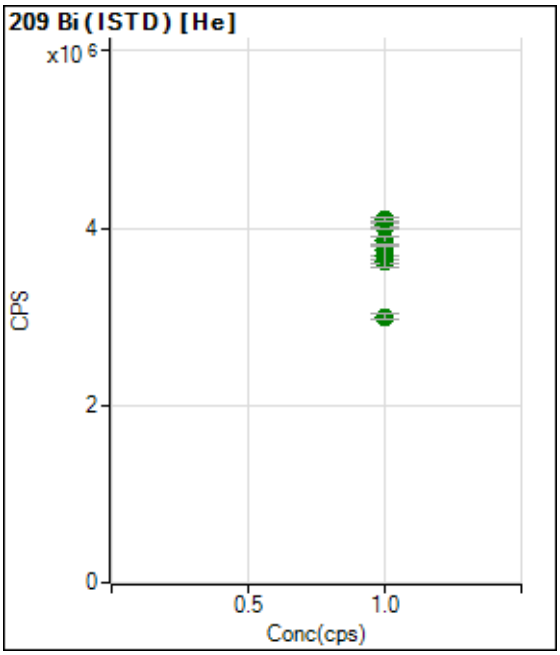


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5580186.86		A	2.0
2	☐	1.000		5568217.14		A	0.8
3	☐	1.000		5713083.87		A	1.6
4	☐	1.000		5504668.74		A	3.7
5	☐	1.000		5317415.79		A	2.7
6	☐	1.000		5325093.81		A	1.0
7	☐	1.000		5506435.82		A	6.5
8	☐	1.000		4847645.86		A	1.4

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10316036.30		A	0.4
2	☐	1.000		10536375.68		A	2.2
3	☐	1.000		11243167.61		A	8.5
4	☐	1.000		10462106.16		A	3.3
5	☐	1.000		10149366.38		A	1.4
6	☐	1.000		9842359.58		A	1.1
7	☐	1.000		9638528.89		A	2.5
8	☐	1.000		7794924.88		A	3.5



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4024132.30		A	2.1
2	☐	1.000		4005051.68		A	0.4
3	☐	1.000		4091505.84		A	1.0
4	☐	1.000		3852623.52		A	2.8
5	☐	1.000		3750242.62		A	3.6
6	☐	1.000		3620962.13		A	0.6
7	☐	1.000		3681725.81		A	6.5
8	☐	1.000		2999843.25		A	2.3

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8
ClientSampleId :TUNE001

US EPA Tune Check Report

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P8012125MS-2.b
Acq. Date-Time	2025-01-21 12:52:00
Report Comment	---
Instrument Name	G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		33875	338748.47			1.074	5.000
24		714207	7142074.70			1.052	5.000
25		96261	962605.58			1.094	5.000
26		112578	1125783.96			1.119	5.000
59		156163	1561629.00			1.309	5.000
113		17764	177635.61			1.240	5.000
115		243672	2436715.30			1.634	5.000
206		53400	534004.31			0.746	5.000
207		46175	461754.78			0.943	5.000
208		117288	1172879.81			0.445	5.000
220		0	2.30			36.377	

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	34169	33982	34211	33353	33659
24	714894	717952	723188	702988	712015
25	97401	97126	95694	94824	96258
26	113412	113315	113168	110397	112600
59	157652	155862	158474	153198	155629
113	17862	17903	17989	17472	17592
115	245374	246147	247560	237809	241467
206	53252	53580	53762	52773	53635
207	45909	46472	46562	45541	46393
208	117589	116584	117898	116951	117417

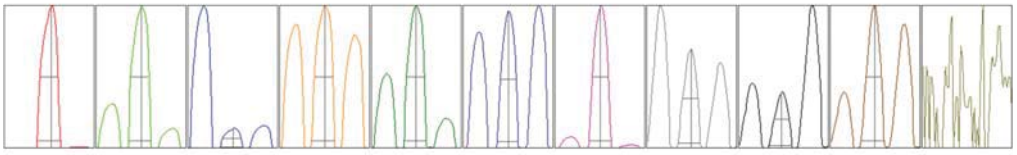
Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8
ClientSampleId :TUNE001

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	61761.72	9.10	8.90 - 9.10	
24	1253273.97	24.05	23.90 - 24.10	
25	168737.09	25.05	24.90 - 25.10	
26	193136.92	26.05	25.90 - 26.10	
59	279324.52	59.00	58.90 - 59.10	
113	35896.75	113.05	112.90 - 113.10	
115	484193.73	115.05	114.90 - 115.10	
206	107436.17	206.00	205.90 - 206.10	
207	92856.61	206.95	206.90 - 207.10	
208	235962.98	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.773	0.900	
24	0.61	0.739	0.900	
25	0.61	0.738	0.900	
26	0.61	0.775	0.900	
59	0.59	0.737	0.900	
113	0.52	0.684	0.900	
115	0.53	0.726	0.900	
206	0.51	0.740	0.900	
207	0.51	0.772	0.900	
208	0.51	0.768	0.900	
220				

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

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.78 L/min Dilution Gas 0.40 L/min

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8
ClientSampleId :TUNE001

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	-6.0 V	Omega Lens	8.1 V	Deflect	15.4 V
Extract 2	-130.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-65 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	170 V		

QP Parameters

Mass Gain	103	Axis Gain	0.9959	QP Bias	-4.0 V
Mass Offset	126	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	1.5 mm		

EM

Discriminator	4.0 mV	Analog HV	2176 V	Pulse HV	1058 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		26332	263318.53			1.885	
89		20320	203203.32			1.969	
205		29292	292922.19			1.152	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	26161	26195	25939	26164	27201
89	20323	20303	19870	20146	20959
205	28957	29117	29199	29348	29840

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.78 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	-6.0 V	Omega Lens	8.1 V	Deflect	2.4 V

US EPA Tune Check Report

Extract 2	-130.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-65 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	103	Axis Gain	0.9959	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	1.5 mm		

EM

Discriminator	4.0 mV	Analog HV	2176 V	Pulse HV	1058 V

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.07	-0.04	0.11	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.01	0.00	-0.01	0.00	N/A	ppb
Barium	135-1	-0.02	0.00	0.02	0.00	N/A	ppb
Barium	137-1	0.00	0.00	0.00	0.00	N/A	ppb
Beryllium	9-1	0.01	-0.01	0.00	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	-0.01	-0.01	0.02	0.00	N/A	ppb
Cadmium	106-1	0.09	-0.23	0.14	0.00	N/A	ppb
Cadmium	111-1	0.00	-0.01	0.00	0.00	N/A	ppb
Calcium	43-1	0.26	0.80	-1.06	0.00	N/A	ppb
Calcium	44-1	0.05	0.05	-0.10	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	0.04	-0.01	0.00	N/A	ppb
Cobalt	59-2	0.00	0.01	-0.01	0.00	N/A	ppb
Copper	63-2	0.01	0.01	-0.02	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	54-2	-0.06	0.27	-0.21	0.00	N/A	ppb
Iron	56-2	0.07	0.03	-0.10	0.00	N/A	ppb
Iron	57-2	-0.55	0.21	0.33	0.00	N/A	ppb
Krypton	83-1						cps
Lead	206-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.01	-0.01	0.00	0.00	N/A	ppb
Lead	208-1	0.00	0.00	0.00	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.01	-0.08	0.09	0.00	N/A	ppb
Manganese	55-2	0.00	0.04	-0.03	0.00	N/A	ppb
Molybdenum	94-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.00	0.01	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.00	0.00	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	-0.02	0.08	-0.07	0.00	N/A	ppb
Phosphorus	31-2	-18.32	-11.40	-16.18	-15.30		ppb
Potassium	39-2	0.33	-0.71	0.38	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	-0.12	0.09	0.03	0.00	N/A	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.10	0.48	-0.38	0.00	N/A	ppb
Silicon	28-1	0.02	-0.02	0.00	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	0.21	0.99	-1.20	0.00	N/A	ppb
Strontium	86-1	0.00	0.00	0.00	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	107.20	77.69	46.27	77.05	39.54	ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.00	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	0.00	0.00	0.00	0.00	N/A	ppb
Titanium	47-1	-0.02	0.01	0.00	0.00	N/A	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	N/A	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.07	0.04	0.03	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19.21	20.45	18.83	19.50	4.32	ppb
Antimony	121-1	2.00	2.02	2.05	2.02	1.38	ppb
Arsenic	75-2	1.46	1.16	1.18	1.27	13.58	ppb
Barium	135-1	10.02	10.06	10.28	10.12	1.36	ppb
Barium	137-1	10.17	10.18	10.50	10.28	1.82	ppb
Beryllium	9-1	1.03	1.01	1.06	1.03	2.41	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	0.86	1.09	1.10	1.02	13.51	ppb
Cadmium	106-1	1.53	0.56	0.29	0.79	82.28	ppb
Cadmium	111-1	1.05	1.09	1.10	1.08	2.27	ppb
Calcium	43-1	491.22	484.76	511.74	495.91	2.84	ppb
Calcium	44-1	488.07	498.54	508.49	498.37	2.05	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.10	2.15	2.12	2.12	1.18	ppb
Cobalt	59-2	1.12	1.12	1.15	1.13	1.71	ppb
Copper	63-2	2.30	2.30	2.33	2.31	0.86	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				103		%
Holmium	165-2				100		%
Indium	115-1				102		%
Indium	115-2				100		%
Iron	54-2	57.35	57.89	57.56	57.60	0.47	ppb
Iron	56-2	55.25	54.88	54.39	54.84	0.79	ppb
Iron	57-2	52.55	53.75	54.56	53.62	1.89	ppb
Krypton	83-1						cps
Lead	206-1	0.97	1.01	0.99	0.99	2.16	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.96	1.02	1.01	1.00	3.04	ppb
Lead	208-1	0.96	1.00	1.01	0.99	2.79	ppb
Lithium	6-1				102		%
Magnesium	24-2	570.66	571.13	574.20	572.00	0.34	ppb
Manganese	55-2	1.07	1.16	1.05	1.10	5.17	ppb
Molybdenum	94-1	5.86	5.75	6.27	5.96	4.53	ppb
Molybdenum	95-1	4.88	4.80	5.04	4.91	2.48	ppb
Molybdenum	96-1	4.99	4.93	5.18	5.03	2.55	ppb
Molybdenum	97-1	4.81	4.85	5.13	4.93	3.51	ppb
Molybdenum	98-1	4.87	4.81	5.12	4.94	3.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.21	1.08	1.08	1.12	6.45	ppb
Phosphorus	31-2	13.20	18.30	14.40	15.30	17.43	ppb
Potassium	39-2	496.39	485.57	488.28	490.08	1.15	ppb
Rhodium	103-1				102		%
Rhodium	103-2				100		%
Scandium	45-1				104		%
Scandium	45-2				100		%
Selenium	82-1	5.16	5.60	5.53	5.43	4.34	ppb
Selenium	77-2	4.75	2.81	5.72	4.43	33.52	ppb
Selenium	78-2	5.22	5.96	4.11	5.09	18.21	ppb
Silicon	28-1	1.49	1.70	2.02	1.74	15.23	ppb
Silver	107-1	0.98	0.98	1.01	0.99	1.53	ppb
Silver	109-1	1.01	1.02	1.04	1.02	1.68	ppb
Sodium	23-2	519.61	517.76	516.17	517.85	0.33	ppb
Strontium	86-1	0.99	0.94	1.05	0.99	5.29	ppb
Strontium	88-1	0.94	0.95	1.00	0.96	3.43	ppb
Sulfur	34-1	-152.09	-92.85	13.78	-77.05		ppb
Terbium	159-1				102		%
Terbium	159-2				101		%
Thallium	203-1	0.89	0.98	0.97	0.94	5.39	ppb
Thallium	205-1	0.94	0.95	0.97	0.95	1.78	ppb
Tin	118-1	4.71	4.64	4.78	4.71	1.49	ppb
Titanium	47-1	5.07	5.13	5.28	5.16	2.10	ppb
Uranium	238-1	0.91	0.94	0.95	0.93	2.29	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.28	5.21	5.31	5.27	0.95	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				100		%
Zinc	66-2	5.69	6.04	5.66	5.80	3.62	ppb
Zirconium	90-1	0.98	0.98	1.02	0.99	2.01	ppb
Zirconium	91-1	1.00	0.93	1.01	0.98	4.27	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	948.81	966.34	964.58	959.91	1.01	ppb
Antimony	121-1	51.31	43.07	47.47	47.28	8.72	ppb
Arsenic	75-2	51.27	52.98	51.64	51.97	1.73	ppb
Barium	135-1	252.50	211.80	233.25	232.52	8.76	ppb
Barium	137-1	268.71	224.68	243.62	245.67	8.99	ppb
Beryllium	9-1	51.46	44.90	47.80	48.05	6.84	ppb
Bismuth	209-1				109		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Cadmium	108-1	56.77	46.84	50.62	51.41	9.75	ppb
Cadmium	106-1	56.04	46.60	51.20	51.28	9.21	ppb
Cadmium	111-1	53.37	44.36	49.24	48.99	9.20	ppb
Calcium	43-1	4920.11	4175.73	4511.92	4535.92	8.22	ppb
Calcium	44-1	5205.61	4343.45	4658.00	4735.69	9.21	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	49.64	49.63	49.53	49.60	0.12	ppb
Cobalt	59-2	51.26	52.27	52.26	51.93	1.12	ppb
Copper	63-2	556.05	554.78	556.21	555.68	0.14	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				102		%
Indium	115-1				107		%
Indium	115-2				102		%
Iron	54-2	2550.69	2571.69	2549.83	2557.40	0.48	ppb
Iron	56-2	2603.17	2627.97	2650.97	2627.37	0.91	ppb
Iron	57-2	2533.61	2576.32	2536.15	2548.70	0.94	ppb
Krypton	83-1						cps
Lead	206-1	259.52	214.43	239.42	237.79	9.50	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	262.20	221.53	244.12	242.62	8.40	ppb
Lead	208-1	260.40	218.54	240.83	239.92	8.73	ppb
Lithium	6-1				106		%
Magnesium	24-2	5651.66	5588.99	5573.79	5604.81	0.74	ppb
Manganese	55-2	505.08	505.89	505.13	505.37	0.09	ppb
Molybdenum	94-1	523.81	442.21	484.47	483.50	8.44	ppb
Molybdenum	95-1	522.47	436.32	478.65	479.15	8.99	ppb
Molybdenum	96-1	521.27	438.34	485.50	481.70	8.64	ppb
Molybdenum	97-1	526.86	443.02	478.44	482.78	8.72	ppb
Molybdenum	98-1	513.69	434.64	477.09	475.14	8.33	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	54.27	55.73	55.77	55.26	1.55	ppb
Phosphorus	31-2	1034.64	1060.72	1082.14	1059.17	2.25	ppb
Potassium	39-2	2350.69	2367.43	2344.88	2354.33	0.50	ppb
Rhodium	103-1				106		%
Rhodium	103-2				101		%
Scandium	45-1				109		%
Scandium	45-2				101		%
Selenium	82-1	53.03	46.05	49.89	49.66	7.04	ppb
Selenium	77-2	47.56	48.35	40.88	45.60	9.00	ppb
Selenium	78-2	51.77	54.64	52.41	52.94	2.84	ppb
Silicon	28-1	52.47	42.69	46.12	47.09	10.54	ppb
Silver	107-1	52.96	44.36	49.02	48.78	8.82	ppb
Silver	109-1	53.81	45.00	49.57	49.46	8.91	ppb
Sodium	23-2	5203.54	5213.52	5243.43	5220.16	0.40	ppb
Strontium	86-1	49.27	41.73	46.00	45.67	8.28	ppb
Strontium	88-1	53.40	45.23	48.92	49.19	8.32	ppb
Sulfur	34-1	1370.85	62.59	503.67	645.71	103.08	ppb
Terbium	159-1				108		%
Terbium	159-2				103		%
Thallium	203-1	47.98	40.29	45.07	44.45	8.73	ppb
Thallium	205-1	50.82	42.50	47.75	47.02	8.95	ppb
Tin	118-1	52.45	43.81	48.22	48.16	8.98	ppb
Titanium	47-1	508.40	429.43	460.86	466.23	8.53	ppb
Uranium	238-1	50.50	42.52	46.95	46.66	8.58	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	50.01	50.28	49.42	49.91	0.88	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				108		%
Yttrium	89-2				101		%
Zinc	66-2	521.24	522.81	521.49	521.84	0.16	ppb
Zirconium	90-1	49.24	41.56	45.23	45.34	8.47	ppb
Zirconium	91-1	48.26	41.23	45.10	44.86	7.86	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2407.07	2379.85	2352.06	2379.66	1.16	ppb
Antimony	121-1	132.36	141.65	122.56	132.19	7.22	ppb
Arsenic	75-2	130.66	135.19	131.23	132.36	1.86	ppb
Barium	135-1	667.90	696.25	615.96	660.04	6.17	ppb
Barium	137-1	655.23	691.27	623.06	656.52	5.20	ppb
Beryllium	9-1	129.15	130.83	122.67	127.55	3.38	ppb
Bismuth	209-1				101		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	137.34	147.69	128.80	137.95	6.86	ppb
Cadmium	106-1	137.12	143.25	127.28	135.88	5.93	ppb
Cadmium	111-1	129.65	136.09	122.30	129.35	5.33	ppb
Calcium	43-1	12292.56	12737.84	11400.28	12143.56	5.61	ppb
Calcium	44-1	12653.05	13087.50	11768.16	12502.90	5.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	126.02	124.79	123.78	124.86	0.90	ppb
Cobalt	59-2	130.21	130.28	129.38	129.96	0.39	ppb
Copper	63-2	1381.57	1382.62	1382.89	1382.36	0.05	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				99		%
Indium	115-1				101		%
Indium	115-2				97		%
Iron	54-2	6405.43	6381.13	6359.68	6382.08	0.36	ppb
Iron	56-2	6654.70	6563.26	6551.99	6589.98	0.85	ppb
Iron	57-2	6439.02	6367.96	6302.35	6369.77	1.07	ppb
Krypton	83-1						cps
Lead	206-1	638.92	655.90	605.00	633.27	4.09	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	638.53	668.30	617.95	641.59	3.95	ppb
Lead	208-1	639.49	659.15	615.02	637.89	3.47	ppb
Lithium	6-1				99		%
Magnesium	24-2	13960.78	14067.33	13908.69	13978.93	0.58	ppb
Manganese	55-2	1343.89	1343.03	1324.19	1337.04	0.83	ppb
Molybdenum	94-1	1286.18	1360.38	1227.47	1291.34	5.16	ppb
Molybdenum	95-1	1286.15	1352.67	1223.62	1287.48	5.01	ppb
Molybdenum	96-1	1282.90	1332.24	1234.88	1283.34	3.79	ppb
Molybdenum	97-1	1283.58	1326.16	1228.20	1279.32	3.84	ppb
Molybdenum	98-1	1285.81	1337.80	1242.14	1288.58	3.72	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	140.15	140.56	139.14	139.95	0.52	ppb
Phosphorus	31-2	2717.47	2552.66	2630.84	2633.66	3.13	ppb
Potassium	39-2	5931.09	5929.71	5875.20	5912.00	0.54	ppb
Rhodium	103-1				99		%
Rhodium	103-2				95		%
Scandium	45-1				102		%
Scandium	45-2				97		%
Selenium	82-1	131.09	139.63	127.78	132.84	4.60	ppb
Selenium	77-2	121.63	143.60	128.62	131.29	8.55	ppb
Selenium	78-2	137.56	140.13	133.02	136.90	2.63	ppb
Silicon	28-1	130.33	133.66	119.72	127.91	5.69	ppb
Silver	107-1	138.07	147.69	130.27	138.67	6.29	ppb
Silver	109-1	139.90	147.10	133.03	140.01	5.03	ppb
Sodium	23-2	12742.41	12926.98	12752.25	12807.21	0.81	ppb
Strontium	86-1	123.37	127.23	117.69	122.76	3.91	ppb
Strontium	88-1	131.48	135.26	122.60	129.78	5.01	ppb
Sulfur	34-1	3162.79	3292.18	2182.23	2879.07	21.08	ppb
Terbium	159-1				102		%
Terbium	159-2				100		%
Thallium	203-1	127.97	133.14	120.69	127.27	4.91	ppb
Thallium	205-1	129.12	132.22	120.72	127.35	4.67	ppb
Tin	118-1	135.94	141.76	127.61	135.10	5.27	ppb
Titanium	47-1	1317.19	1367.06	1227.63	1303.96	5.42	ppb
Uranium	238-1	125.27	126.97	121.18	124.47	2.39	ppb

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	128.31	126.64	125.72	126.89	1.04	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				96		%
Zinc	66-2	1306.20	1305.74	1304.28	1305.41	0.08	ppb
Zirconium	90-1	129.43	133.21	121.88	128.18	4.50	ppb
Zirconium	91-1	120.17	126.69	116.04	120.97	4.44	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4873.68	4640.02	4769.34	4761.01	2.46	ppb
Antimony	121-1	256.95	262.95	263.87	261.25	1.44	ppb
Arsenic	75-2	273.66	264.43	257.12	265.07	3.13	ppb
Barium	135-1	1279.10	1299.84	1297.37	1292.10	0.88	ppb
Barium	137-1	1269.14	1287.54	1311.11	1289.26	1.63	ppb
Beryllium	9-1	252.53	261.95	268.01	260.83	2.99	ppb
Bismuth	209-1				98		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	258.88	267.49	270.42	265.60	2.26	ppb
Cadmium	106-1	263.28	266.94	270.89	267.04	1.42	ppb
Cadmium	111-1	249.42	252.58	254.47	252.16	1.01	ppb
Calcium	43-1	24833.51	25151.65	25613.98	25199.71	1.56	ppb
Calcium	44-1	24164.98	25307.61	25394.59	24955.73	2.75	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	254.57	243.09	248.22	248.63	2.31	ppb
Cobalt	59-2	263.03	254.00	258.10	258.38	1.75	ppb
Copper	63-2	2819.24	2671.51	2742.90	2744.55	2.69	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				95		%
Indium	115-1				98		%
Indium	115-2				93		%
Iron	54-2	13660.00	13144.53	13014.90	13273.14	2.57	ppb
Iron	56-2	13340.75	12737.81	13003.12	13027.23	2.32	ppb
Iron	57-2	12900.53	12424.99	12621.63	12649.05	1.89	ppb
Krypton	83-1						cps
Lead	206-1	1225.87	1303.09	1252.25	1260.40	3.11	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1243.88	1314.83	1271.11	1276.61	2.80	ppb
Lead	208-1	1245.32	1303.43	1273.89	1274.21	2.28	ppb
Lithium	6-1				97		%
Magnesium	24-2	28657.22	26823.46	27559.01	27679.89	3.33	ppb
Manganese	55-2	2748.99	2601.37	2664.48	2671.62	2.77	ppb
Molybdenum	94-1	2478.37	2601.10	2555.07	2544.85	2.44	ppb
Molybdenum	95-1	2468.32	2592.55	2541.86	2534.24	2.46	ppb
Molybdenum	96-1	2488.43	2617.69	2568.09	2558.07	2.55	ppb
Molybdenum	97-1	2463.88	2589.73	2576.25	2543.29	2.72	ppb
Molybdenum	98-1	2481.74	2596.56	2545.12	2541.14	2.26	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	279.71	271.19	273.68	274.86	1.59	ppb
Phosphorus	31-2	5437.66	5103.97	5159.60	5233.74	3.42	ppb
Potassium	39-2	12911.18	12214.29	12387.21	12504.22	2.90	ppb
Rhodium	103-1				96		%
Rhodium	103-2				91		%
Scandium	45-1				100		%
Scandium	45-2				94		%
Selenium	82-1	257.57	259.77	262.10	259.81	0.87	ppb
Selenium	77-2	264.82	257.92	267.89	263.54	1.94	ppb
Selenium	78-2	263.55	259.92	250.63	258.04	2.58	ppb
Silicon	28-1	282.91	295.82	298.85	292.52	2.89	ppb
Silver	107-1	259.96	271.32	271.13	267.47	2.43	ppb
Silver	109-1	265.93	273.04	275.79	271.59	1.87	ppb
Sodium	23-2	26436.89	25159.93	25665.38	25754.07	2.50	ppb
Strontium	86-1	234.46	246.96	243.99	241.80	2.70	ppb
Strontium	88-1	248.97	259.24	258.56	255.59	2.25	ppb
Sulfur	34-1	5727.01	5962.18	6071.99	5920.40	2.98	ppb
Terbium	159-1				100		%
Terbium	159-2				96		%
Thallium	203-1	245.42	261.26	250.53	252.40	3.20	ppb
Thallium	205-1	242.50	256.79	254.47	251.25	3.05	ppb
Tin	118-1	257.45	265.52	268.47	263.81	2.16	ppb
Titanium	47-1	2516.10	2629.91	2644.46	2596.83	2.71	ppb
Uranium	238-1	246.90	253.80	251.86	250.85	1.42	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	259.34	249.78	254.19	254.44	1.88	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				94		%
Zinc	66-2	2652.08	2543.15	2588.74	2594.65	2.11	ppb
Zirconium	90-1	247.54	257.95	251.89	252.46	2.07	ppb
Zirconium	91-1	233.76	256.55	255.33	248.55	5.16	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9517.93	9405.93	9462.47	9462.11	0.59	ppb
Antimony	121-1	501.60	510.57	513.53	508.57	1.22	ppb
Arsenic	75-2	516.41	520.46	521.50	519.46	0.52	ppb
Barium	135-1	2485.41	2547.23	2559.42	2530.69	1.57	ppb
Barium	137-1	2535.22	2565.16	2583.89	2561.42	0.96	ppb
Beryllium	9-1	491.90	505.82	512.92	503.55	2.12	ppb
Bismuth	209-1				95		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Cadmium	108-1	504.65	511.81	521.27	512.58	1.63	ppb
Cadmium	106-1	497.55	513.24	518.00	509.60	2.10	ppb
Cadmium	111-1	502.53	514.74	518.50	511.93	1.63	ppb
Calcium	43-1	48197.88	49789.72	50470.84	49486.15	2.36	ppb
Calcium	44-1	47879.58	49860.46	49732.03	49157.36	2.25	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	530.68	516.67	531.67	526.34	1.59	ppb
Cobalt	59-2	540.97	534.07	529.30	534.78	1.10	ppb
Copper	63-2	5508.54	5305.01	5351.99	5388.51	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				101		%
Holmium	165-2				95		%
Indium	115-1				96		%
Indium	115-2				91		%
Iron	54-2	27018.43	26115.16	26264.58	26466.06	1.83	ppb
Iron	56-2	26409.28	25644.30	25775.76	25943.11	1.58	ppb
Iron	57-2	25375.66	24817.68	24972.78	25055.37	1.15	ppb
Krypton	83-1						cps
Lead	206-1	2483.60	2556.50	2556.05	2532.05	1.66	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2483.24	2572.84	2598.42	2551.50	2.37	ppb
Lead	208-1	2484.66	2555.18	2584.15	2541.33	2.01	ppb
Lithium	6-1				94		%
Magnesium	24-2	55631.44	54009.37	54132.16	54590.99	1.65	ppb
Manganese	55-2	5303.05	5244.07	5250.14	5265.75	0.62	ppb
Molybdenum	94-1	4918.50	5095.16	5105.76	5039.81	2.09	ppb
Molybdenum	95-1	4996.41	5067.43	5081.10	5048.31	0.90	ppb
Molybdenum	96-1	4994.61	5049.89	5130.17	5058.22	1.35	ppb
Molybdenum	97-1	4951.08	5154.85	5162.76	5089.56	2.36	ppb
Molybdenum	98-1	4986.03	5147.17	5138.73	5090.64	1.78	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	537.95	527.19	535.07	533.40	1.04	ppb
Phosphorus	31-2	10600.07	10420.52	10291.57	10437.38	1.48	ppb
Potassium	39-2	24837.55	24452.21	24354.76	24548.17	1.04	ppb
Rhodium	103-1				94		%
Rhodium	103-2				90		%
Scandium	45-1				99		%
Scandium	45-2				93		%
Selenium	82-1	498.46	514.23	515.65	509.45	1.87	ppb
Selenium	77-2	514.88	522.10	539.35	525.44	2.39	ppb
Selenium	78-2	516.49	509.07	523.42	516.33	1.39	ppb
Silicon	28-1	661.92	671.57	671.34	668.28	0.82	ppb
Silver	107-1	502.61	517.64	522.72	514.32	2.03	ppb
Silver	109-1	512.91	517.44	525.68	518.68	1.25	ppb
Sodium	23-2	51458.46	50531.09	50818.61	50936.05	0.93	ppb
Strontium	86-1	494.57	514.39	516.85	508.61	2.40	ppb
Strontium	88-1	492.19	508.92	507.61	502.91	1.85	ppb
Sulfur	34-1	9849.42	9989.10	10431.15	10089.89	3.01	ppb
Terbium	159-1				100		%
Terbium	159-2				96		%
Thallium	203-1	494.84	511.44	512.54	506.27	1.96	ppb
Thallium	205-1	492.34	507.82	503.55	501.24	1.59	ppb
Tin	118-1	505.56	513.89	520.65	513.37	1.47	ppb
Titanium	47-1	4878.27	5154.77	5185.57	5072.87	3.34	ppb
Uranium	238-1	493.65	507.82	513.25	504.90	2.00	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	511.32	502.49	507.07	506.96	0.87	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				94		%
Zinc	66-2	5459.29	5306.38	5327.33	5364.33	1.55	ppb
Zirconium	90-1	497.91	509.41	508.03	505.12	1.24	ppb
Zirconium	91-1	501.88	515.48	517.00	511.45	1.63	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17747.95	19183.92	17185.68	18039.18	5.71	ppb
Antimony	121-1	985.74	990.73	999.95	992.14	0.73	ppb
Arsenic	75-2	999.06	1040.49	916.91	985.49	6.38	ppb
Barium	135-1	4930.11	4994.03	4987.73	4970.63	0.71	ppb
Barium	137-1	4878.22	4985.11	5003.92	4955.75	1.37	ppb
Beryllium	9-1	993.65	993.93	998.30	995.30	0.26	ppb
Bismuth	209-1				93		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	984.56	978.21	1001.60	988.12	1.22	ppb
Cadmium	106-1	980.31	985.72	1002.53	989.52	1.17	ppb
Cadmium	111-1	975.47	997.28	1006.27	993.01	1.59	ppb
Calcium	43-1	94576.06	96861.66	94794.80	95410.84	1.32	ppb
Calcium	44-1	94631.10	97093.98	95912.39	95879.16	1.28	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1004.07	1030.77	926.79	987.21	5.47	ppb
Cobalt	59-2	996.12	1027.05	916.22	979.80	5.84	ppb
Copper	63-2	9812.41	10214.67	9148.76	9725.28	5.53	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				101		%
Holmium	165-2				99		%
Indium	115-1				94		%
Indium	115-2				92		%
Iron	54-2	49311.89	51169.33	45111.73	48530.99	6.39	ppb
Iron	56-2	48718.69	50213.06	45142.72	48024.82	5.43	ppb
Iron	57-2	49624.57	51208.61	46214.15	49015.78	5.21	ppb
Krypton	83-1						cps
Lead	206-1	4965.18	4993.96	4983.71	4980.95	0.29	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4982.68	4971.85	4943.15	4965.89	0.41	ppb
Lead	208-1	4968.39	4965.77	4982.36	4972.17	0.18	ppb
Lithium	6-1				91		%
Magnesium	24-2	103353.93	106645.29	94763.39	101587.54	6.04	ppb
Manganese	55-2	9961.65	10303.19	9174.38	9813.07	5.90	ppb
Molybdenum	94-1	9870.20	10032.57	9990.86	9964.54	0.85	ppb
Molybdenum	95-1	9783.32	10050.00	10057.60	9963.64	1.57	ppb
Molybdenum	96-1	9799.59	10080.23	9979.53	9953.12	1.43	ppb
Molybdenum	97-1	9811.80	10018.44	9994.54	9941.59	1.14	ppb
Molybdenum	98-1	9867.15	10011.96	9943.33	9940.81	0.73	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	988.15	1016.02	920.68	974.95	5.03	ppb
Phosphorus	31-2	19813.55	20680.04	18616.03	19703.21	5.26	ppb
Potassium	39-2	46597.12	48245.65	42658.45	45833.74	6.26	ppb
Rhodium	103-1				91		%
Rhodium	103-2				90		%
Scandium	45-1				99		%
Scandium	45-2				98		%
Selenium	82-1	983.82	995.77	995.99	991.86	0.70	ppb
Selenium	77-2	940.57	1016.94	992.47	983.33	3.97	ppb
Selenium	78-2	985.54	1071.72	907.32	988.19	8.32	ppb
Silicon	28-1	881.42	908.40	925.46	905.10	2.45	ppb
Silver	107-1	978.52	988.87	993.08	986.82	0.76	ppb
Silver	109-1	971.90	988.46	989.88	983.41	1.02	ppb
Sodium	23-2	97314.66	99221.91	88538.86	95025.14	6.00	ppb
Strontium	86-1	994.16	1003.17	997.40	998.24	0.46	ppb
Strontium	88-1	976.80	1010.05	1002.92	996.59	1.76	ppb
Sulfur	34-1	18843.73	19911.80	20330.33	19695.29	3.89	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	998.22	999.26	991.29	996.26	0.43	ppb
Thallium	205-1	997.70	991.29	1007.78	998.92	0.83	ppb
Tin	118-1	981.50	984.05	1000.54	988.69	1.05	ppb
Titanium	47-1	9828.52	10037.68	9936.71	9934.30	1.05	ppb
Uranium	238-1	997.20	993.01	1002.50	997.57	0.48	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	1002.77	1044.59	938.18	995.18	5.39	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				98		%
Zinc	66-2	9970.14	10192.16	9196.15	9786.15	5.34	ppb
Zirconium	90-1	986.90	998.18	1004.91	996.66	0.91	ppb
Zirconium	91-1	982.83	1007.33	996.03	995.40	1.23	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100375.68	101479.64	99528.62	100461.31	0.97	ppb
Antimony	121-1	0.76	0.70	0.69	0.72	4.99	ppb
Arsenic	75-2	0.69	0.46	0.43	0.53	26.81	ppb
Barium	135-1	2.44	2.14	2.18	2.25	7.36	ppb
Barium	137-1	2.50	2.23	2.17	2.30	7.61	ppb
Beryllium	9-1	0.32	0.25	0.23	0.27	17.54	ppb
Bismuth	209-1				76		%
Bismuth	209-2				75		%
Bromine	81-1						cps
Cadmium	108-1	0.54	0.78	0.48	0.60	26.48	ppb
Cadmium	106-1	-1.47	-1.19	-1.75	-1.47		ppb
Cadmium	111-1	0.23	0.20	0.20	0.21	8.17	ppb
Calcium	43-1	500607.62	497434.22	504876.52	500972.79	0.75	ppb
Calcium	44-1	503676.43	492301.72	506761.50	500913.22	1.52	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.48	1.53	2.06	2.02	23.55	ppb
Cobalt	59-2	2.10	2.07	2.05	2.07	1.12	ppb
Copper	63-2	2.03	1.98	1.90	1.97	3.30	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				87		%
Indium	115-1				79		%
Indium	115-2				81		%
Iron	54-2	250351.75	250329.76	249632.47	250104.66	0.16	ppb
Iron	56-2	250472.66	249756.28	250564.82	250264.59	0.18	ppb
Iron	57-2	251620.45	248591.30	250329.37	250180.37	0.61	ppb
Krypton	83-1						cps
Lead	206-1	1.84	1.65	1.63	1.71	6.75	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.85	1.67	1.58	1.70	8.28	ppb
Lead	208-1	1.84	1.64	1.60	1.69	7.41	ppb
Lithium	6-1				76		%
Magnesium	24-2	497480.29	503144.15	496514.48	499046.31	0.72	ppb
Manganese	55-2	3.89	3.58	3.63	3.70	4.53	ppb
Molybdenum	94-1	3.04	2.58	2.40	2.67	12.30	ppb
Molybdenum	95-1	1.93	1.60	1.41	1.65	16.11	ppb
Molybdenum	96-1	2.36	2.05	1.89	2.10	11.45	ppb
Molybdenum	97-1	1.67	1.29	1.19	1.39	18.30	ppb
Molybdenum	98-1	1.57	1.24	1.04	1.28	20.66	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	3.91	4.00	3.83	3.91	2.24	ppb
Phosphorus	31-2	4.57	-7.86	6.05	0.92	834.19	ppb
Potassium	39-2	251857.05	251307.34	249500.07	250888.15	0.49	ppb
Rhodium	103-1				74		%
Rhodium	103-2				73		%
Scandium	45-1				84		%
Scandium	45-2				83		%
Selenium	82-1	0.47	-0.19	-0.17	0.03	1081.08	ppb
Selenium	77-2	0.00	0.00	2.34	0.78	173.21	ppb
Selenium	78-2	0.66	0.98	0.31	0.65	51.49	ppb
Silicon	28-1	5.27	4.51	4.88	4.89	7.72	ppb
Silver	107-1	0.17	0.14	0.12	0.14	16.15	ppb
Silver	109-1	0.17	0.15	0.13	0.15	13.00	ppb
Sodium	23-2	504998.67	497034.54	500528.07	500853.76	0.80	ppb
Strontium	86-1	2.82	2.84	2.75	2.80	1.66	ppb
Strontium	88-1	2.78	2.78	2.74	2.77	0.69	ppb
Sulfur	34-1	-593.21	-760.16	-488.33	-613.90		ppb
Terbium	159-1				87		%
Terbium	159-2				87		%
Thallium	203-1	0.15	0.13	0.09	0.12	21.79	ppb
Thallium	205-1	0.15	0.12	0.10	0.12	21.76	ppb
Tin	118-1	0.32	0.26	0.24	0.27	14.23	ppb
Titanium	47-1	4.09	3.86	3.75	3.90	4.40	ppb
Uranium	238-1	0.11	0.07	0.06	0.08	33.48	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.14	0.18	0.16	0.16	12.42	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				85		%
Yttrium	89-2				81		%
Zinc	66-2	14.57	13.37	13.95	13.96	4.29	ppb
Zirconium	90-1	0.59	0.58	0.56	0.58	2.84	ppb
Zirconium	91-1	0.62	0.57	0.59	0.59	3.83	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	446.61	453.72	462.45	454.26	1.75	ppb
Antimony	121-1	180.48	237.25	206.38	208.04	13.66	ppb
Arsenic	75-2	199.75	204.12	201.94	201.94	1.08	ppb
Barium	135-1	86.91	115.50	101.18	101.20	14.13	ppb
Barium	137-1	89.02	117.25	102.51	102.93	13.72	ppb
Beryllium	9-1	86.55	106.97	95.64	96.38	10.61	ppb
Bismuth	209-1				98		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	164.12	216.58	193.20	191.30	13.74	ppb
Cadmium	106-1	176.51	232.39	200.23	203.04	13.81	ppb
Cadmium	111-1	90.10	119.22	103.70	104.34	13.96	ppb
Calcium	43-1	1834.23	2366.95	2119.99	2107.06	12.65	ppb
Calcium	44-1	1859.97	2430.56	2155.61	2148.71	13.28	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	96.49	96.93	96.92	96.78	0.26	ppb
Cobalt	59-2	100.74	100.66	100.85	100.75	0.09	ppb
Copper	63-2	105.93	106.77	105.62	106.11	0.56	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				97		%
Indium	115-2				99		%
Iron	54-2	2057.03	2059.24	2045.88	2054.05	0.35	ppb
Iron	56-2	2092.44	2061.04	2032.11	2061.86	1.46	ppb
Iron	57-2	1984.57	2008.25	1969.04	1987.29	0.99	ppb
Krypton	83-1						cps
Lead	206-1	189.16	243.66	213.73	215.52	12.67	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	180.72	231.85	203.40	205.32	12.48	ppb
Lead	208-1	182.83	236.69	205.85	208.46	12.96	ppb
Lithium	6-1				98		%
Magnesium	24-2	1177.03	1193.49	1193.10	1187.87	0.79	ppb
Manganese	55-2	100.10	98.97	99.50	99.52	0.57	ppb
Molybdenum	94-1	4342.84	5600.45	4881.01	4941.43	12.77	ppb
Molybdenum	95-1	4324.57	5592.32	4920.00	4945.63	12.82	ppb
Molybdenum	96-1	4302.96	5606.75	4950.40	4953.37	13.16	ppb
Molybdenum	97-1	4285.36	5580.29	4918.23	4927.96	13.14	ppb
Molybdenum	98-1	4294.22	5586.74	4890.14	4923.70	13.14	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	109.05	108.68	107.65	108.46	0.67	ppb
Phosphorus	31-2	-23.32	-4.41	-17.00	-14.91		ppb
Potassium	39-2	1801.18	1797.93	1812.25	1803.79	0.42	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	182.51	235.31	205.77	207.86	12.73	ppb
Selenium	77-2	221.51	203.63	197.69	207.61	5.97	ppb
Selenium	78-2	202.38	208.29	211.88	207.52	2.31	ppb
Silicon	28-1	111.59	145.48	130.40	129.16	13.15	ppb
Silver	107-1	42.56	55.73	49.26	49.18	13.39	ppb
Silver	109-1	41.93	56.17	49.50	49.20	14.49	ppb
Sodium	23-2	1885.98	1893.66	1891.79	1890.48	0.21	ppb
Strontium	86-1	440.23	569.91	504.51	504.88	12.84	ppb
Strontium	88-1	439.53	565.15	503.73	502.80	12.49	ppb
Sulfur	34-1	-1273.71	66.80	-664.79	-623.90		ppb
Terbium	159-1				98		%
Terbium	159-2				101		%
Thallium	203-1	180.42	230.32	199.91	203.55	12.35	ppb
Thallium	205-1	175.63	225.62	193.92	198.39	12.75	ppb
Tin	118-1	439.55	572.32	505.70	505.86	13.12	ppb
Titanium	47-1	4337.13	5580.80	4986.24	4968.06	12.52	ppb
Uranium	238-1	442.11	571.24	493.22	502.19	12.95	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	95.35	95.36	94.57	95.10	0.48	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				100		%
Zinc	66-2	200.76	199.33	203.48	201.19	1.05	ppb
Zirconium	90-1	455.02	593.98	514.49	521.17	13.38	ppb
Zirconium	91-1	459.83	599.72	525.98	528.51	13.24	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.26	0.18	0.22	0.22	18.89	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	18.81	ppb
Arsenic	75-2	0.00	-0.03	-0.03	-0.02		ppb
Barium	135-1	0.01	0.02	0.03	0.02	44.07	ppb
Barium	137-1	0.02	0.05	0.04	0.03	44.75	ppb
Beryllium	9-1	0.01	0.01	0.02	0.01	13.70	ppb
Bismuth	209-1				97		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	0.07	0.06	0.06	0.06	5.44	ppb
Cadmium	106-1	-1.09	-0.45	-1.31	-0.95		ppb
Cadmium	111-1	-0.03	-0.01	-0.03	-0.02		ppb
Calcium	43-1	0.42	1.98	1.42	1.28	61.93	ppb
Calcium	44-1	-0.02	0.02	0.57	0.19	173.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	0.01	0.00	0.00		ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	1117.79	ppb
Copper	63-2	-0.01	0.03	-0.03	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				95		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				100		%
Iron	54-2	0.12	0.04	0.66	0.28	123.41	ppb
Iron	56-2	-0.05	0.22	0.11	0.09	141.68	ppb
Iron	57-2	-0.01	-0.12	0.34	0.07	350.27	ppb
Krypton	83-1						cps
Lead	206-1	0.02	0.01	0.02	0.02	33.19	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	-0.01	0.00	0.00		ppb
Lead	208-1	0.01	0.00	0.01	0.01	46.87	ppb
Lithium	6-1				96		%
Magnesium	24-2	-0.71	-0.30	-0.43	-0.48		ppb
Manganese	55-2	0.02	0.04	0.03	0.03	32.38	ppb
Molybdenum	94-1	0.03	0.02	0.03	0.02	21.03	ppb
Molybdenum	95-1	0.02	0.03	0.02	0.03	31.33	ppb
Molybdenum	96-1	0.03	0.02	0.01	0.02	38.39	ppb
Molybdenum	97-1	0.02	0.03	0.02	0.02	37.76	ppb
Molybdenum	98-1	0.03	0.03	0.03	0.03	8.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.06	0.03	0.00	-0.01		ppb
Phosphorus	31-2	-12.46	-20.31	-7.51	-13.43		ppb
Potassium	39-2	1.78	0.91	3.30	2.00	60.45	ppb
Rhodium	103-1				96		%
Rhodium	103-2				100		%
Scandium	45-1				98		%
Scandium	45-2				99		%
Selenium	82-1	0.32	0.09	-0.47	-0.02		ppb
Selenium	77-2	0.00	0.00	0.95	0.32	173.21	ppb
Selenium	78-2	-0.11	0.48	0.47	0.28	120.78	ppb
Silicon	28-1	-0.10	0.34	0.47	0.24	126.53	ppb
Silver	107-1	0.01	0.00	0.01	0.01	13.81	ppb
Silver	109-1	0.01	0.01	0.01	0.01	12.20	ppb
Sodium	23-2	5.66	8.22	7.14	7.01	18.33	ppb
Strontium	86-1	0.01	0.01	0.00	0.01	62.22	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	11.43	ppb
Sulfur	34-1	-572.48	-276.43	-117.77	-322.23		ppb
Terbium	159-1				96		%
Terbium	159-2				101		%
Thallium	203-1	0.01	0.01	0.01	0.01	14.96	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	32.50	ppb
Tin	118-1	0.01	0.04	0.02	0.02	51.27	ppb
Titanium	47-1	0.01	0.01	0.02	0.01	41.63	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.00	0.00	58.17	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				100		%
Zinc	66-2	0.04	0.17	0.01	0.07	113.58	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	166.85	ppb
Zirconium	91-1	0.00	0.01	0.01	0.01	105.09	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	92246.08	90627.18	92950.22	91941.16	1.30	ppb
Antimony	121-1	1.08	1.03	1.08	1.06	2.83	ppb
Arsenic	75-2	0.33	0.40	0.23	0.32	26.65	ppb
Barium	135-1	1.44	1.30	1.32	1.36	5.81	ppb
Barium	137-1	1.38	1.40	1.43	1.40	1.89	ppb
Beryllium	9-1	0.28	0.26	0.27	0.27	3.45	ppb
Bismuth	209-1				93		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Cadmium	108-1	16.64	16.50	16.31	16.48	1.01	ppb
Cadmium	106-1	-0.61	-0.93	-1.26	-0.93		ppb
Cadmium	111-1	0.73	0.54	0.63	0.63	14.97	ppb
Calcium	43-1	97118.65	94237.41	99544.74	96966.93	2.74	ppb
Calcium	44-1	97603.52	93359.95	97556.87	96173.45	2.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	18.80	18.77	18.82	18.80	0.11	ppb
Cobalt	59-2	1.11	1.12	1.17	1.13	2.79	ppb
Copper	63-2	7.97	8.06	8.06	8.03	0.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				95		%
Iron	54-2	102975.95	101294.08	104686.06	102985.36	1.65	ppb
Iron	56-2	104971.93	102114.29	105517.25	104201.16	1.75	ppb
Iron	57-2	105186.97	103421.57	105744.53	104784.36	1.16	ppb
Krypton	83-1						cps
Lead	206-1	4.56	4.43	4.69	4.56	2.82	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4.18	4.02	4.31	4.17	3.47	ppb
Lead	208-1	4.30	4.16	4.42	4.29	3.06	ppb
Lithium	6-1				93		%
Magnesium	24-2	104131.72	101794.46	104354.36	103426.84	1.37	ppb
Manganese	55-2	7.29	7.58	7.37	7.41	2.02	ppb
Molybdenum	94-1	1616.76	1549.79	1607.44	1591.33	2.28	ppb
Molybdenum	95-1	1958.91	1873.51	1999.08	1943.83	3.30	ppb
Molybdenum	96-1	1940.71	1843.55	1962.69	1915.65	3.31	ppb
Molybdenum	97-1	1975.33	1900.72	1988.72	1954.92	2.43	ppb
Molybdenum	98-1	1966.80	1890.15	1989.94	1948.96	2.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.27	5.43	5.28	5.33	1.71	ppb
Phosphorus	31-2	108531.81	106250.79	109312.15	108031.58	1.47	ppb
Potassium	39-2	97898.58	97975.01	97015.89	97629.83	0.55	ppb
Rhodium	103-1				94		%
Rhodium	103-2				92		%
Scandium	45-1				103		%
Scandium	45-2				99		%
Selenium	82-1	0.33	0.37	0.20	0.30	30.40	ppb
Selenium	77-2	0.00	0.00	0.93	0.31	173.21	ppb
Selenium	78-2	-0.38	0.46	-0.10	-0.01		ppb
Silicon	28-1	6.63	6.29	7.09	6.67	6.01	ppb
Silver	107-1	0.09	0.07	0.06	0.08	20.39	ppb
Silver	109-1	0.09	0.08	0.07	0.08	15.09	ppb
Sodium	23-2	103913.68	101289.81	103834.34	103012.61	1.45	ppb
Strontium	86-1	30.88	30.27	31.52	30.89	2.03	ppb
Strontium	88-1	31.30	32.02	33.87	32.40	4.10	ppb
Sulfur	34-1	101695.47	98345.76	105397.70	101812.98	3.46	ppb
Terbium	159-1				102		%
Terbium	159-2				100		%
Thallium	203-1	0.15	0.16	0.21	0.18	18.46	ppb
Thallium	205-1	0.14	0.17	0.21	0.17	19.81	ppb
Tin	118-1	0.28	0.27	0.28	0.28	1.88	ppb
Titanium	47-1	2084.36	2002.03	2114.55	2066.98	2.82	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	13.20	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.13	0.12	0.16	0.14	14.94	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				100		%
Zinc	66-2	11.78	11.24	11.80	11.61	2.73	ppb
Zirconium	90-1	0.01	0.01	0.02	0.01	11.62	ppb
Zirconium	91-1	0.02	0.01	0.01	0.01	35.36	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	89438.56	90189.51	87892.25	89173.44	1.31	ppb
Antimony	121-1	20.52	19.73	20.68	20.31	2.51	ppb
Arsenic	75-2	20.43	21.38	20.72	20.84	2.34	ppb
Barium	135-1	21.18	20.61	21.80	21.20	2.80	ppb
Barium	137-1	21.37	20.73	22.16	21.42	3.35	ppb
Beryllium	9-1	19.90	20.18	20.62	20.23	1.79	ppb
Bismuth	209-1				94		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	32.46	31.05	34.92	32.81	5.97	ppb
Cadmium	106-1	16.07	13.94	13.83	14.61	8.62	ppb
Cadmium	111-1	19.90	18.79	19.46	19.38	2.89	ppb
Calcium	43-1	97228.28	96713.75	100112.31	98018.12	1.87	ppb
Calcium	44-1	98240.29	97016.35	99942.31	98399.65	1.49	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	36.85	37.68	36.69	37.07	1.44	ppb
Cobalt	59-2	20.24	20.32	20.13	20.23	0.47	ppb
Copper	63-2	27.49	27.41	26.87	27.25	1.24	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				104		%
Holmium	165-2				102		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	54-2	100251.05	100524.35	97967.21	99580.87	1.41	ppb
Iron	56-2	101278.76	101366.34	99079.74	100574.95	1.29	ppb
Iron	57-2	102584.94	104222.23	101185.34	102664.17	1.48	ppb
Krypton	83-1						cps
Lead	206-1	24.69	24.07	25.36	24.71	2.62	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	24.05	23.43	24.83	24.10	2.91	ppb
Lead	208-1	24.21	23.53	24.74	24.16	2.51	ppb
Lithium	6-1				94		%
Magnesium	24-2	101001.96	102477.68	98259.66	100579.76	2.13	ppb
Manganese	55-2	26.70	27.25	26.00	26.65	2.35	ppb
Molybdenum	94-1	1650.21	1572.14	1639.16	1620.50	2.61	ppb
Molybdenum	95-1	1990.17	1925.04	2000.34	1971.85	2.07	ppb
Molybdenum	96-1	1943.93	1886.53	1975.85	1935.44	2.34	ppb
Molybdenum	97-1	2002.16	1929.91	2023.01	1985.03	2.46	ppb
Molybdenum	98-1	2005.14	1936.98	2036.06	1992.73	2.54	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	25.14	25.72	24.96	25.27	1.58	ppb
Phosphorus	31-2	104196.27	106233.58	104203.64	104877.83	1.12	ppb
Potassium	39-2	95552.50	96429.71	93930.16	95304.13	1.33	ppb
Rhodium	103-1				95		%
Rhodium	103-2				95		%
Scandium	45-1				105		%
Scandium	45-2				104		%
Selenium	82-1	20.49	20.31	20.73	20.51	1.01	ppb
Selenium	77-2	15.29	18.53	18.95	17.59	11.39	ppb
Selenium	78-2	22.92	22.80	22.74	22.82	0.40	ppb
Silicon	28-1	7.25	7.35	7.83	7.48	4.10	ppb
Silver	107-1	18.06	17.41	18.24	17.91	2.44	ppb
Silver	109-1	18.19	17.71	18.55	18.15	2.33	ppb
Sodium	23-2	99844.86	100803.76	99362.82	100003.81	0.73	ppb
Strontium	86-1	31.54	30.42	31.86	31.27	2.42	ppb
Strontium	88-1	34.22	32.14	34.08	33.48	3.47	ppb
Sulfur	34-1	100687.65	101061.73	103745.79	101831.72	1.64	ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	19.84	19.39	20.38	19.87	2.48	ppb
Thallium	205-1	19.97	19.56	20.34	19.95	1.95	ppb
Tin	118-1	0.60	0.55	0.65	0.60	8.61	ppb
Titanium	47-1	2087.98	2105.06	2116.40	2103.15	0.68	ppb
Uranium	238-1	0.01	0.02	0.01	0.01	9.96	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	18.99	19.35	19.12	19.16	0.95	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				103		%
Yttrium	89-2				104		%
Zinc	66-2	29.49	30.46	29.58	29.84	1.79	ppb
Zirconium	90-1	0.02	0.02	0.01	0.01	18.39	ppb
Zirconium	91-1	0.02	0.02	0.02	0.02	8.25	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47592.00	47380.94	48227.09	47733.34	0.92	ppb
Antimony	121-1	488.15	492.57	489.25	489.99	0.47	ppb
Arsenic	75-2	498.12	500.87	478.84	492.61	2.44	ppb
Barium	135-1	2477.82	2496.60	2478.00	2484.14	0.43	ppb
Barium	137-1	2519.84	2497.26	2481.36	2499.49	0.77	ppb
Beryllium	9-1	493.68	511.53	506.17	503.79	1.82	ppb
Bismuth	209-1				87		%
Bismuth	209-2				85		%
Bromine	81-1						cps
Cadmium	108-1	484.14	486.54	477.26	482.65	1.00	ppb
Cadmium	106-1	478.45	481.27	481.41	480.38	0.35	ppb
Cadmium	111-1	478.42	483.03	479.40	480.28	0.51	ppb
Calcium	43-1	239702.83	241829.19	241977.54	241169.85	0.53	ppb
Calcium	44-1	241181.97	242191.82	240225.76	241199.85	0.41	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	502.32	499.97	492.54	498.28	1.02	ppb
Cobalt	59-2	498.21	492.13	491.12	493.82	0.78	ppb
Copper	63-2	4742.57	4654.06	4642.70	4679.77	1.17	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				99		%
Holmium	165-2				96		%
Indium	115-1				91		%
Indium	115-2				91		%
Iron	54-2	121433.57	119494.60	120944.11	120624.09	0.84	ppb
Iron	56-2	122301.58	121516.14	122082.61	121966.78	0.33	ppb
Iron	57-2	124582.52	124408.28	123373.72	124121.50	0.53	ppb
Krypton	83-1						cps
Lead	206-1	2508.54	2508.04	2567.58	2528.05	1.35	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2523.32	2525.04	2548.62	2532.33	0.56	ppb
Lead	208-1	2524.19	2506.61	2542.74	2524.51	0.72	ppb
Lithium	6-1				90		%
Magnesium	24-2	262562.14	258322.34	260465.10	260449.86	0.81	ppb
Manganese	55-2	4962.60	4896.68	4922.97	4927.42	0.67	ppb
Molybdenum	94-1	4925.12	4915.33	4957.23	4932.56	0.44	ppb
Molybdenum	95-1	4927.66	4915.15	4926.13	4922.98	0.14	ppb
Molybdenum	96-1	4908.09	5010.70	4939.96	4952.92	1.06	ppb
Molybdenum	97-1	4916.76	4965.24	4923.58	4935.19	0.53	ppb
Molybdenum	98-1	4903.36	4891.28	4908.51	4901.05	0.18	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	483.56	477.38	475.11	478.69	0.91	ppb
Phosphorus	31-2	10129.71	9984.51	10011.48	10041.90	0.77	ppb
Potassium	39-2	120277.04	119515.13	121062.24	120284.80	0.64	ppb
Rhodium	103-1				87		%
Rhodium	103-2				87		%
Scandium	45-1				99		%
Scandium	45-2				98		%
Selenium	82-1	465.63	479.39	472.32	472.44	1.46	ppb
Selenium	77-2	512.11	547.64	478.54	512.76	6.74	ppb
Selenium	78-2	483.01	487.62	463.93	478.19	2.63	ppb
Silicon	28-1	481.46	486.15	477.42	481.68	0.91	ppb
Silver	107-1	468.78	467.83	466.86	467.82	0.21	ppb
Silver	109-1	479.94	477.80	475.46	477.73	0.47	ppb
Sodium	23-2	248453.75	246125.61	245463.43	246680.93	0.64	ppb
Strontium	86-1	501.11	495.53	494.01	496.88	0.75	ppb
Strontium	88-1	492.08	500.05	495.88	496.00	0.80	ppb
Sulfur	34-1	10005.73	9827.96	9944.06	9925.92	0.91	ppb
Terbium	159-1				98		%
Terbium	159-2				96		%
Thallium	203-1	509.69	510.38	514.57	511.54	0.52	ppb
Thallium	205-1	503.39	503.78	509.63	505.60	0.69	ppb
Tin	118-1	492.19	493.00	487.99	491.06	0.55	ppb
Titanium	47-1	4966.32	4988.45	4976.82	4977.20	0.22	ppb
Uranium	238-1	518.57	510.97	517.25	515.59	0.79	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	490.05	487.32	482.47	486.61	0.79	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	4772.01	4724.77	4704.64	4733.80	0.73	ppb
Zirconium	90-1	495.97	502.18	500.27	499.47	0.64	ppb
Zirconium	91-1	507.18	501.29	499.92	502.80	0.77	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.04	0.02	0.35	0.14	136.12	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	9.34	ppb
Arsenic	75-2	-0.03	-0.01	0.00	-0.01		ppb
Barium	135-1	0.07	0.07	0.06	0.07	11.62	ppb
Barium	137-1	0.07	0.06	0.07	0.06	12.56	ppb
Beryllium	9-1	0.05	0.03	0.03	0.04	23.02	ppb
Bismuth	209-1				101		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.03	0.02	-0.03	0.00	966.55	ppb
Cadmium	106-1	-0.60	-0.13	-0.60	-0.44		ppb
Cadmium	111-1	-0.01	0.00	-0.01	-0.01		ppb
Calcium	43-1	3.32	2.90	3.52	3.25	9.69	ppb
Calcium	44-1	3.37	2.75	2.70	2.94	12.59	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.03	-0.01	-0.05	-0.01		ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	0.02	0.01	0.01	0.01	57.39	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				101		%
Holmium	165-2				101		%
Indium	115-1				102		%
Indium	115-2				101		%
Iron	54-2	1.61	0.94	1.04	1.20	30.41	ppb
Iron	56-2	0.89	0.53	0.45	0.62	37.52	ppb
Iron	57-2	0.58	1.61	1.54	1.24	46.35	ppb
Krypton	83-1						cps
Lead	206-1	0.08	0.07	0.06	0.07	10.72	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.07	0.06	0.06	0.06	9.72	ppb
Lead	208-1	0.07	0.06	0.06	0.06	4.36	ppb
Lithium	6-1				99		%
Magnesium	24-2	-0.17	-0.06	-0.51	-0.25		ppb
Manganese	55-2	0.08	0.04	0.06	0.06	35.55	ppb
Molybdenum	94-1	0.03	0.02	0.02	0.03	12.28	ppb
Molybdenum	95-1	0.02	0.02	0.02	0.02	26.04	ppb
Molybdenum	96-1	0.02	0.01	0.02	0.02	24.52	ppb
Molybdenum	97-1	0.01	0.02	0.01	0.02	14.86	ppb
Molybdenum	98-1	0.02	0.03	0.02	0.02	23.96	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.06	0.04	-0.02	0.03	142.06	ppb
Phosphorus	31-2	-20.06	-16.02	-18.04	-18.04		ppb
Potassium	39-2	12.63	9.42	5.70	9.25	37.53	ppb
Rhodium	103-1				102		%
Rhodium	103-2				102		%
Scandium	45-1				105		%
Scandium	45-2				101		%
Selenium	82-1	0.26	-0.01	0.18	0.14	95.43	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.09	-0.10	0.14	-0.02		ppb
Silicon	28-1	-0.35	-0.59	-0.44	-0.46		ppb
Silver	107-1	0.01	0.01	0.01	0.01	33.49	ppb
Silver	109-1	0.01	0.01	0.01	0.01	8.56	ppb
Sodium	23-2	24.04	19.36	17.03	20.14	17.73	ppb
Strontium	86-1	0.00	0.01	0.00	0.00	233.91	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	183.70	ppb
Sulfur	34-1	-667.30	-744.95	-677.35	-696.53		ppb
Terbium	159-1				101		%
Terbium	159-2				101		%
Thallium	203-1	0.05	0.04	0.05	0.05	12.86	ppb
Thallium	205-1	0.04	0.04	0.04	0.04	5.15	ppb
Tin	118-1	0.02	0.02	0.01	0.02	23.54	ppb
Titanium	47-1	0.02	0.03	0.01	0.02	61.14	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				103		%
Yttrium	89-2				102		%
Zinc	66-2	0.39	0.25	0.14	0.26	46.71	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	97.83	ppb
Zirconium	91-1	0.00	0.01	0.00	0.00	227.60	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.53	17.32	18.58	18.15	3.93	ppb
Antimony	121-1	1.86	1.90	1.90	1.89	1.15	ppb
Arsenic	75-2	1.05	1.28	1.05	1.13	11.89	ppb
Barium	135-1	9.29	9.58	9.49	9.45	1.59	ppb
Barium	137-1	9.56	9.69	9.46	9.57	1.24	ppb
Beryllium	9-1	0.93	0.95	0.94	0.94	1.30	ppb
Bismuth	209-1				97		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.92	1.10	1.15	1.06	11.67	ppb
Cadmium	106-1	0.18	0.18	0.06	0.14	48.88	ppb
Cadmium	111-1	0.97	0.97	0.98	0.97	0.15	ppb
Calcium	43-1	451.76	467.67	459.58	459.67	1.73	ppb
Calcium	44-1	455.75	463.36	460.11	459.74	0.83	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.88	1.90	1.76	1.85	4.02	ppb
Cobalt	59-2	1.07	1.04	0.98	1.03	4.42	ppb
Copper	63-2	2.05	2.07	2.05	2.06	0.47	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				97		%
Indium	115-1				98		%
Indium	115-2				97		%
Iron	54-2	52.25	52.85	50.54	51.88	2.31	ppb
Iron	56-2	50.92	50.91	49.49	50.44	1.63	ppb
Iron	57-2	51.09	55.03	54.57	53.56	4.03	ppb
Krypton	83-1						cps
Lead	206-1	0.91	0.88	0.93	0.91	2.60	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.91	0.96	0.95	0.94	2.47	ppb
Lead	208-1	0.92	0.91	0.92	0.92	0.72	ppb
Lithium	6-1				98		%
Magnesium	24-2	527.33	524.70	506.32	519.45	2.20	ppb
Manganese	55-2	1.03	0.95	0.96	0.98	4.42	ppb
Molybdenum	94-1	5.40	5.66	5.45	5.51	2.44	ppb
Molybdenum	95-1	4.44	4.62	4.46	4.50	2.19	ppb
Molybdenum	96-1	4.57	4.80	4.63	4.66	2.53	ppb
Molybdenum	97-1	4.44	4.68	4.49	4.54	2.83	ppb
Molybdenum	98-1	4.39	4.65	4.56	4.54	2.87	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.02	1.30	1.07	1.13	12.89	ppb
Phosphorus	31-2	6.07	21.86	18.44	15.46	53.76	ppb
Potassium	39-2	460.62	465.84	442.62	456.36	2.67	ppb
Rhodium	103-1				98		%
Rhodium	103-2				97		%
Scandium	45-1				101		%
Scandium	45-2				97		%
Selenium	82-1	5.66	5.41	5.06	5.38	5.63	ppb
Selenium	77-2	3.89	4.84	8.56	5.76	42.89	ppb
Selenium	78-2	4.77	4.18	7.46	5.47	31.99	ppb
Silicon	28-1	1.33	1.54	1.42	1.43	7.26	ppb
Silver	107-1	0.90	0.93	0.96	0.93	3.13	ppb
Silver	109-1	0.95	0.97	0.95	0.96	1.10	ppb
Sodium	23-2	493.26	490.30	470.39	484.65	2.57	ppb
Strontium	86-1	0.86	0.89	0.96	0.90	5.24	ppb
Strontium	88-1	0.90	0.91	0.89	0.90	1.08	ppb
Sulfur	34-1	-493.51	-437.10	-511.23	-480.62		ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.91	0.93	0.91	0.92	1.46	ppb
Thallium	205-1	0.91	0.90	0.90	0.90	0.65	ppb
Tin	118-1	4.23	4.38	4.36	4.33	1.92	ppb
Titanium	47-1	4.64	4.77	4.53	4.65	2.51	ppb
Uranium	238-1	0.86	0.87	0.86	0.86	0.83	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.93	4.79	4.69	4.80	2.57	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				98		%
Zinc	66-2	5.22	5.48	5.15	5.28	3.29	ppb
Zirconium	90-1	0.90	0.93	0.91	0.91	1.97	ppb
Zirconium	91-1	0.85	0.90	0.89	0.88	3.42	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8.13	7.78	7.48	7.80	4.17	ppb
Antimony	121-1	0.37	0.38	0.39	0.38	2.38	ppb
Arsenic	75-2	0.48	0.35	0.41	0.41	15.92	ppb
Barium	135-1	1.81	1.82	1.91	1.85	2.88	ppb
Barium	137-1	1.90	1.90	1.95	1.92	1.53	ppb
Beryllium	9-1	0.38	0.37	0.38	0.38	1.10	ppb
Bismuth	209-1				98		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.40	0.34	0.49	0.41	18.96	ppb
Cadmium	106-1	-1.67	0.17	-0.68	-0.72		ppb
Cadmium	111-1	0.34	0.39	0.32	0.35	10.03	ppb
Calcium	43-1	181.00	186.10	194.86	187.32	3.74	ppb
Calcium	44-1	180.40	184.63	192.23	185.76	3.23	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.44	0.46	0.45	0.45	1.99	ppb
Cobalt	59-2	0.42	0.44	0.42	0.43	2.65	ppb
Copper	63-2	0.84	0.88	0.84	0.85	2.37	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				98		%
Indium	115-1				100		%
Indium	115-2				97		%
Iron	54-2	31.86	33.12	33.48	32.82	2.59	ppb
Iron	56-2	33.42	32.97	33.22	33.20	0.68	ppb
Iron	57-2	33.46	32.19	32.15	32.60	2.29	ppb
Krypton	83-1						cps
Lead	206-1	0.39	0.37	0.41	0.39	4.96	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.37	0.36	0.43	0.39	9.49	ppb
Lead	208-1	0.38	0.36	0.40	0.38	4.26	ppb
Lithium	6-1				100		%
Magnesium	24-2	213.03	218.70	215.92	215.88	1.31	ppb
Manganese	55-2	0.87	0.86	0.95	0.89	5.56	ppb
Molybdenum	94-1	0.94	0.97	1.01	0.97	3.76	ppb
Molybdenum	95-1	0.36	0.34	0.36	0.35	4.33	ppb
Molybdenum	96-1	0.44	0.43	0.45	0.44	2.69	ppb
Molybdenum	97-1	0.34	0.36	0.36	0.36	2.82	ppb
Molybdenum	98-1	0.35	0.39	0.38	0.37	4.99	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.39	0.54	0.44	0.46	17.19	ppb
Phosphorus	31-2	-3.63	-1.20	-7.12	-3.98		ppb
Potassium	39-2	116.34	115.40	118.06	116.60	1.16	ppb
Rhodium	103-1				99		%
Rhodium	103-2				98		%
Scandium	45-1				102		%
Scandium	45-2				97		%
Selenium	82-1	4.89	4.52	4.68	4.70	3.98	ppb
Selenium	77-2	3.86	4.77	2.93	3.85	23.91	ppb
Selenium	78-2	2.18	3.83	3.93	3.32	29.63	ppb
Silicon	28-1	-0.43	-0.44	-0.10	-0.32		ppb
Silver	107-1	0.39	0.41	0.40	0.40	2.21	ppb
Silver	109-1	0.36	0.40	0.42	0.39	7.43	ppb
Sodium	23-2	201.02	198.63	205.60	201.75	1.76	ppb
Strontium	86-1	0.36	0.34	0.36	0.35	3.11	ppb
Strontium	88-1	0.35	0.35	0.37	0.36	3.42	ppb
Sulfur	34-1	-763.64	-704.04	-591.53	-686.40		ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	0.35	0.35	0.37	0.36	3.76	ppb
Thallium	205-1	0.37	0.36	0.39	0.37	3.45	ppb
Tin	118-1	0.36	0.36	0.39	0.37	4.48	ppb
Titanium	47-1	0.36	0.39	0.38	0.38	4.90	ppb
Uranium	238-1	0.35	0.34	0.35	0.35	1.35	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.36	0.37	0.40	0.38	5.21	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				98		%
Zinc	66-2	1.13	1.13	1.04	1.10	4.83	ppb
Zirconium	90-1	0.36	0.35	0.37	0.36	2.56	ppb
Zirconium	91-1	0.33	0.37	0.38	0.36	8.03	ppb

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21.29	21.17	17.61	20.02	10.44	ppb
Antimony	121-1	1.86	1.88	1.87	1.87	0.58	ppb
Arsenic	75-2	0.80	0.98	1.14	0.98	17.30	ppb
Barium	135-1	9.30	9.62	9.15	9.36	2.58	ppb
Barium	137-1	9.39	9.46	9.49	9.44	0.58	ppb
Beryllium	9-1	0.89	0.96	0.93	0.92	3.87	ppb
Bismuth	209-1				100		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.96	1.00	1.06	1.00	5.09	ppb
Cadmium	106-1	0.36	-0.19	-0.15	0.01	4200.56	ppb
Cadmium	111-1	0.98	0.95	0.95	0.96	1.91	ppb
Calcium	43-1	457.59	465.83	450.94	458.12	1.63	ppb
Calcium	44-1	457.25	455.97	455.27	456.16	0.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.94	1.90	1.83	1.89	2.91	ppb
Cobalt	59-2	1.00	1.02	1.03	1.01	1.32	ppb
Copper	63-2	1.94	2.06	1.99	2.00	2.83	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				99		%
Indium	115-1				101		%
Indium	115-2				99		%
Iron	54-2	49.18	50.13	49.57	49.63	0.96	ppb
Iron	56-2	50.26	50.12	48.99	49.79	1.40	ppb
Iron	57-2	51.17	48.44	48.28	49.30	3.30	ppb
Krypton	83-1						cps
Lead	206-1	0.90	0.88	0.88	0.89	1.39	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.88	0.89	0.90	0.89	1.32	ppb
Lead	208-1	0.90	0.89	0.90	0.89	0.66	ppb
Lithium	6-1				101		%
Magnesium	24-2	523.67	522.83	512.34	519.61	1.21	ppb
Manganese	55-2	0.99	0.98	1.01	0.99	1.83	ppb
Molybdenum	94-1	5.47	5.47	5.38	5.44	0.99	ppb
Molybdenum	95-1	4.48	4.53	4.49	4.50	0.62	ppb
Molybdenum	96-1	4.47	4.64	4.56	4.56	1.80	ppb
Molybdenum	97-1	4.58	4.62	4.62	4.61	0.52	ppb
Molybdenum	98-1	4.49	4.56	4.43	4.49	1.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.00	1.02	1.10	1.04	5.11	ppb
Phosphorus	31-2	22.95	-2.70	12.09	10.78	119.41	ppb
Potassium	39-2	453.07	445.69	447.92	448.90	0.84	ppb
Rhodium	103-1				101		%
Rhodium	103-2				100		%
Scandium	45-1				102		%
Scandium	45-2				99		%
Selenium	82-1	4.61	5.49	4.88	4.99	8.96	ppb
Selenium	77-2	6.56	2.84	3.83	4.41	43.70	ppb
Selenium	78-2	3.76	3.81	4.13	3.90	5.13	ppb
Silicon	28-1	1.32	1.26	1.18	1.25	5.62	ppb
Silver	107-1	0.95	0.90	0.93	0.92	2.53	ppb
Silver	109-1	0.96	0.95	0.94	0.95	0.89	ppb
Sodium	23-2	479.34	474.97	478.47	477.59	0.48	ppb
Strontium	86-1	0.86	0.89	0.88	0.88	1.92	ppb
Strontium	88-1	0.90	0.88	0.87	0.88	1.63	ppb
Sulfur	34-1	-564.89	-590.41	-700.11	-618.47		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.90	0.85	0.90	0.88	3.28	ppb
Thallium	205-1	0.86	0.87	0.87	0.87	0.22	ppb
Tin	118-1	4.31	4.29	4.36	4.32	0.91	ppb
Titanium	47-1	4.66	4.66	4.73	4.68	0.85	ppb
Uranium	238-1	0.84	0.84	0.85	0.84	0.57	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.88	4.71	4.71	4.77	2.00	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				100		%
Zinc	66-2	5.36	5.08	4.81	5.08	5.40	ppb
Zirconium	90-1	0.91	0.92	0.91	0.91	0.70	ppb
Zirconium	91-1	0.94	0.90	0.88	0.91	3.44	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8.47	6.34	6.71	7.17	15.86	ppb
Antimony	121-1	0.38	0.37	0.36	0.37	2.35	ppb
Arsenic	75-2	0.47	0.35	0.24	0.36	31.16	ppb
Barium	135-1	1.84	1.87	1.89	1.87	1.08	ppb
Barium	137-1	1.86	1.97	1.89	1.91	3.07	ppb
Beryllium	9-1	0.36	0.37	0.35	0.36	1.74	ppb
Bismuth	209-1				93		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Cadmium	108-1	0.49	0.36	0.46	0.44	15.36	ppb
Cadmium	106-1	-0.61	-0.77	-0.82	-0.74		ppb
Cadmium	111-1	0.36	0.35	0.37	0.36	2.96	ppb
Calcium	43-1	180.01	184.75	193.69	186.15	3.73	ppb
Calcium	44-1	186.98	185.40	189.39	187.26	1.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.36	0.36	0.41	0.38	7.10	ppb
Cobalt	59-2	0.39	0.38	0.40	0.39	2.50	ppb
Copper	63-2	0.81	0.84	0.81	0.82	1.89	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				91		%
Indium	115-1				93		%
Indium	115-2				91		%
Iron	54-2	32.46	31.48	32.59	32.17	1.89	ppb
Iron	56-2	31.80	31.94	32.30	32.01	0.81	ppb
Iron	57-2	31.88	31.74	33.37	32.33	2.79	ppb
Krypton	83-1						cps
Lead	206-1	0.36	0.38	0.37	0.37	2.60	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.35	0.38	0.36	0.36	3.20	ppb
Lead	208-1	0.35	0.37	0.37	0.37	3.28	ppb
Lithium	6-1				94		%
Magnesium	24-2	207.43	210.25	207.62	208.43	0.76	ppb
Manganese	55-2	0.77	0.87	0.75	0.80	8.11	ppb
Molybdenum	94-1	0.93	0.93	0.92	0.93	0.47	ppb
Molybdenum	95-1	0.34	0.36	0.38	0.36	4.50	ppb
Molybdenum	96-1	0.39	0.42	0.38	0.40	5.09	ppb
Molybdenum	97-1	0.35	0.33	0.37	0.35	5.41	ppb
Molybdenum	98-1	0.36	0.35	0.34	0.35	2.39	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.52	0.34	0.39	0.42	22.61	ppb
Phosphorus	31-2	-9.91	-13.84	8.41	-5.11		ppb
Potassium	39-2	121.46	120.55	126.80	122.94	2.75	ppb
Rhodium	103-1				93		%
Rhodium	103-2				91		%
Scandium	45-1				95		%
Scandium	45-2				91		%
Selenium	82-1	5.07	4.84	4.96	4.95	2.33	ppb
Selenium	77-2	5.14	6.31	4.16	5.20	20.66	ppb
Selenium	78-2	6.58	6.74	6.05	6.46	5.59	ppb
Silicon	28-1	-0.10	0.11	0.36	0.12	191.58	ppb
Silver	107-1	0.39	0.39	0.38	0.39	1.94	ppb
Silver	109-1	0.37	0.44	0.40	0.40	8.09	ppb
Sodium	23-2	197.87	202.29	200.26	200.14	1.10	ppb
Strontium	86-1	0.35	0.34	0.32	0.34	4.22	ppb
Strontium	88-1	0.34	0.35	0.36	0.35	3.11	ppb
Sulfur	34-1	-507.43	-234.31	-132.07	-291.27		ppb
Terbium	159-1				93		%
Terbium	159-2				92		%
Thallium	203-1	0.37	0.36	0.37	0.37	2.14	ppb
Thallium	205-1	0.36	0.36	0.36	0.36	0.30	ppb
Tin	118-1	0.37	0.35	0.38	0.36	3.85	ppb
Titanium	47-1	0.43	0.37	0.42	0.41	7.68	ppb
Uranium	238-1	0.34	0.35	0.35	0.34	2.18	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.38	0.40	0.40	0.40	2.81	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				91		%
Zinc	66-2	1.07	1.21	1.00	1.09	9.86	ppb
Zirconium	90-1	0.35	0.36	0.35	0.35	1.84	ppb
Zirconium	91-1	0.35	0.37	0.35	0.36	3.50	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.56	15.56	18.90	17.67	10.40	ppb
Antimony	121-1	1.90	1.89	1.84	1.88	1.79	ppb
Arsenic	75-2	0.86	0.83	1.12	0.94	16.97	ppb
Barium	135-1	9.54	9.48	9.76	9.59	1.58	ppb
Barium	137-1	9.68	9.43	9.62	9.58	1.33	ppb
Beryllium	9-1	0.92	0.92	0.91	0.92	0.54	ppb
Bismuth	209-1				100		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	1.17	1.06	0.78	1.00	20.42	ppb
Cadmium	106-1	0.48	0.22	0.10	0.27	73.25	ppb
Cadmium	111-1	0.96	0.99	1.00	0.98	1.85	ppb
Calcium	43-1	464.71	471.33	468.86	468.30	0.71	ppb
Calcium	44-1	462.69	462.71	463.08	462.83	0.05	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.08	1.69	2.03	1.94	11.03	ppb
Cobalt	59-2	1.11	0.94	1.13	1.06	10.30	ppb
Copper	63-2	2.18	1.84	2.22	2.08	9.98	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				101		%
Holmium	165-2				97		%
Indium	115-1				100		%
Indium	115-2				97		%
Iron	54-2	58.51	48.59	54.61	53.90	9.28	ppb
Iron	56-2	54.76	45.54	53.92	51.40	9.92	ppb
Iron	57-2	57.74	44.06	55.32	52.38	13.94	ppb
Krypton	83-1						cps
Lead	206-1	0.89	0.89	0.90	0.89	0.51	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.92	0.90	0.90	0.91	1.65	ppb
Lead	208-1	0.89	0.89	0.89	0.89	0.53	ppb
Lithium	6-1				100		%
Magnesium	24-2	570.78	484.87	571.93	542.52	9.20	ppb
Manganese	55-2	1.06	0.92	1.14	1.04	10.71	ppb
Molybdenum	94-1	5.31	5.65	5.43	5.47	3.17	ppb
Molybdenum	95-1	4.54	4.69	4.55	4.59	1.79	ppb
Molybdenum	96-1	4.60	4.67	4.67	4.65	0.92	ppb
Molybdenum	97-1	4.70	4.81	4.76	4.76	1.14	ppb
Molybdenum	98-1	4.50	4.66	4.55	4.57	1.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.21	0.93	1.18	1.11	14.15	ppb
Phosphorus	31-2	27.37	9.27	16.33	17.66	51.69	ppb
Potassium	39-2	495.40	407.30	484.54	462.41	10.39	ppb
Rhodium	103-1				100		%
Rhodium	103-2				97		%
Scandium	45-1				101		%
Scandium	45-2				96		%
Selenium	82-1	4.70	4.98	5.07	4.92	3.86	ppb
Selenium	77-2	3.06	4.39	10.24	5.90	64.75	ppb
Selenium	78-2	4.42	3.76	2.94	3.71	20.08	ppb
Silicon	28-1	1.21	1.36	1.13	1.23	9.43	ppb
Silver	107-1	0.94	0.95	0.93	0.94	1.21	ppb
Silver	109-1	0.96	0.94	0.96	0.95	1.07	ppb
Sodium	23-2	521.04	439.13	528.19	496.12	9.97	ppb
Strontium	86-1	0.84	0.94	0.89	0.89	5.54	ppb
Strontium	88-1	0.88	0.91	0.90	0.90	1.82	ppb
Sulfur	34-1	-503.29	-403.21	-485.35	-463.95		ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	0.90	0.86	0.88	0.88	1.96	ppb
Thallium	205-1	0.86	0.89	0.87	0.87	1.87	ppb
Tin	118-1	4.39	4.35	4.42	4.39	0.81	ppb
Titanium	47-1	4.65	4.92	4.65	4.74	3.25	ppb
Uranium	238-1	0.86	0.86	0.86	0.86	0.11	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.19	4.47	5.18	4.95	8.38	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				97		%
Zinc	66-2	5.14	4.57	5.43	5.05	8.68	ppb
Zirconium	90-1	0.91	0.93	0.92	0.92	1.00	ppb
Zirconium	91-1	0.91	0.93	0.91	0.92	1.67	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.81	9.01	8.20	8.01	13.90	ppb
Antimony	121-1	0.38	0.37	0.40	0.38	3.61	ppb
Arsenic	75-2	0.21	0.39	0.44	0.35	35.57	ppb
Barium	135-1	1.92	1.93	1.79	1.88	4.08	ppb
Barium	137-1	1.89	1.94	1.91	1.91	1.32	ppb
Beryllium	9-1	0.36	0.38	0.34	0.36	6.39	ppb
Bismuth	209-1				99		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.46	0.46	0.36	0.43	13.81	ppb
Cadmium	106-1	-0.08	-0.93	-0.77	-0.59		ppb
Cadmium	111-1	0.36	0.34	0.36	0.35	4.00	ppb
Calcium	43-1	181.51	189.58	181.96	184.35	2.46	ppb
Calcium	44-1	182.38	186.48	188.29	185.72	1.63	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.33	0.46	0.45	0.41	17.07	ppb
Cobalt	59-2	0.37	0.44	0.40	0.40	8.77	ppb
Copper	63-2	0.79	0.86	0.86	0.84	4.65	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				98		%
Indium	115-1				100		%
Indium	115-2				98		%
Iron	54-2	29.80	34.21	34.02	32.68	7.63	ppb
Iron	56-2	30.82	34.16	34.29	33.09	5.95	ppb
Iron	57-2	33.71	36.32	34.83	34.95	3.75	ppb
Krypton	83-1						cps
Lead	206-1	0.35	0.36	0.38	0.36	3.22	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.38	0.37	0.37	0.37	2.83	ppb
Lead	208-1	0.37	0.36	0.36	0.36	0.29	ppb
Lithium	6-1				101		%
Magnesium	24-2	197.47	219.62	215.76	210.95	5.61	ppb
Manganese	55-2	0.79	0.83	0.91	0.84	7.16	ppb
Molybdenum	94-1	1.00	0.96	1.02	0.99	3.04	ppb
Molybdenum	95-1	0.36	0.38	0.36	0.37	3.84	ppb
Molybdenum	96-1	0.45	0.41	0.45	0.44	5.96	ppb
Molybdenum	97-1	0.35	0.34	0.39	0.36	6.56	ppb
Molybdenum	98-1	0.36	0.38	0.39	0.38	3.14	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.39	0.35	0.41	0.38	7.59	ppb
Phosphorus	31-2	11.93	-5.33	-13.50	-2.30		ppb
Potassium	39-2	105.43	119.88	123.79	116.37	8.31	ppb
Rhodium	103-1				101		%
Rhodium	103-2				99		%
Scandium	45-1				102		%
Scandium	45-2				97		%
Selenium	82-1	5.30	4.66	4.97	4.98	6.36	ppb
Selenium	77-2	1.79	5.94	11.72	6.49	76.88	ppb
Selenium	78-2	5.43	3.70	4.22	4.45	19.86	ppb
Silicon	28-1	-0.48	-0.39	-0.24	-0.37		ppb
Silver	107-1	0.38	0.40	0.39	0.39	2.63	ppb
Silver	109-1	0.40	0.40	0.39	0.40	0.78	ppb
Sodium	23-2	183.21	206.26	203.52	197.66	6.37	ppb
Strontium	86-1	0.39	0.34	0.37	0.36	6.89	ppb
Strontium	88-1	0.35	0.37	0.36	0.36	2.07	ppb
Sulfur	34-1	-531.34	-460.16	-425.55	-472.35		ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	0.37	0.37	0.37	0.37	0.52	ppb
Thallium	205-1	0.37	0.36	0.37	0.37	0.92	ppb
Tin	118-1	0.39	0.39	0.38	0.39	1.99	ppb
Titanium	47-1	0.35	0.44	0.43	0.40	12.13	ppb
Uranium	238-1	0.35	0.36	0.35	0.35	1.10	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.34	0.41	0.40	0.38	9.50	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				99		%
Zinc	66-2	0.99	1.16	1.13	1.09	8.23	ppb
Zirconium	90-1	0.36	0.38	0.37	0.37	2.36	ppb
Zirconium	91-1	0.34	0.35	0.33	0.34	2.31	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	7.60	7.83	6.54	7.32	9.35	ppb
Antimony	121-1	0.37	0.39	0.37	0.38	2.38	ppb
Arsenic	75-2	0.30	0.34	0.40	0.35	13.98	ppb
Barium	135-1	1.91	1.84	1.88	1.88	1.84	ppb
Barium	137-1	1.87	1.85	1.86	1.86	0.43	ppb
Beryllium	9-1	0.36	0.36	0.36	0.36	0.80	ppb
Bismuth	209-1				98		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.43	0.45	0.35	0.41	12.48	ppb
Cadmium	106-1	-0.69	-0.13	-0.12	-0.31		ppb
Cadmium	111-1	0.33	0.37	0.37	0.36	6.62	ppb
Calcium	43-1	183.48	190.09	187.37	186.98	1.78	ppb
Calcium	44-1	186.26	188.04	186.98	187.09	0.48	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.32	0.39	0.38	0.36	9.39	ppb
Cobalt	59-2	0.37	0.39	0.37	0.37	3.91	ppb
Copper	63-2	0.85	0.77	0.76	0.80	5.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				98		%
Iron	54-2	31.03	34.40	29.90	31.78	7.36	ppb
Iron	56-2	32.22	32.42	30.94	31.86	2.53	ppb
Iron	57-2	33.89	33.17	33.81	33.62	1.17	ppb
Krypton	83-1						cps
Lead	206-1	0.34	0.36	0.36	0.36	3.85	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.38	0.33	0.36	0.36	8.04	ppb
Lead	208-1	0.35	0.34	0.36	0.35	3.30	ppb
Lithium	6-1				99		%
Magnesium	24-2	216.18	214.52	205.15	211.95	2.81	ppb
Manganese	55-2	0.89	0.79	0.77	0.82	8.01	ppb
Molybdenum	94-1	0.96	0.95	0.98	0.96	1.80	ppb
Molybdenum	95-1	0.38	0.38	0.33	0.36	8.83	ppb
Molybdenum	96-1	0.42	0.42	0.43	0.42	1.30	ppb
Molybdenum	97-1	0.38	0.35	0.36	0.36	3.75	ppb
Molybdenum	98-1	0.36	0.38	0.37	0.37	1.89	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.41	0.48	0.39	0.43	10.68	ppb
Phosphorus	31-2	-17.61	-10.98	-12.09	-13.56		ppb
Potassium	39-2	117.54	114.04	114.80	115.46	1.60	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				100		%
Scandium	45-2				97		%
Selenium	82-1	4.35	4.63	4.79	4.59	4.79	ppb
Selenium	77-2	4.91	5.90	1.89	4.23	49.36	ppb
Selenium	78-2	4.54	3.10	5.18	4.27	24.98	ppb
Silicon	28-1	-0.19	-0.26	-0.37	-0.27		ppb
Silver	107-1	0.36	0.38	0.39	0.38	4.41	ppb
Silver	109-1	0.37	0.39	0.39	0.39	3.11	ppb
Sodium	23-2	202.23	199.64	186.90	196.26	4.18	ppb
Strontium	86-1	0.36	0.36	0.35	0.36	1.32	ppb
Strontium	88-1	0.36	0.35	0.36	0.36	1.09	ppb
Sulfur	34-1	-342.45	-349.96	-354.21	-348.87		ppb
Terbium	159-1				98		%
Terbium	159-2				100		%
Thallium	203-1	0.36	0.35	0.35	0.35	2.20	ppb
Thallium	205-1	0.36	0.34	0.37	0.35	3.48	ppb
Tin	118-1	0.36	0.36	0.37	0.36	1.95	ppb
Titanium	47-1	0.37	0.41	0.37	0.38	6.14	ppb
Uranium	238-1	0.36	0.34	0.35	0.35	2.91	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.36	0.33	0.38	0.36	6.66	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	1.16	0.82	1.06	1.02	17.06	ppb
Zirconium	90-1	0.37	0.35	0.36	0.36	2.43	ppb
Zirconium	91-1	0.35	0.35	0.35	0.35	0.91	ppb

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	7.92	7.29	8.13	7.78	5.63	ppb
Antimony	121-1	0.35	0.37	0.39	0.37	5.45	ppb
Arsenic	75-2	0.42	0.34	0.33	0.36	13.98	ppb
Barium	135-1	1.78	1.82	1.86	1.82	2.13	ppb
Barium	137-1	1.83	1.90	1.88	1.87	1.99	ppb
Beryllium	9-1	0.32	0.35	0.35	0.34	5.43	ppb
Bismuth	209-1				99		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.30	0.48	0.44	0.41	23.20	ppb
Cadmium	106-1	-0.39	-0.67	0.53	-0.18		ppb
Cadmium	111-1	0.34	0.36	0.38	0.36	5.61	ppb
Calcium	43-1	171.12	187.20	182.70	180.34	4.60	ppb
Calcium	44-1	181.75	186.89	184.50	184.38	1.39	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.38	0.32	0.38	0.36	10.54	ppb
Cobalt	59-2	0.41	0.38	0.39	0.39	4.11	ppb
Copper	63-2	0.85	0.74	0.76	0.79	7.47	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				97		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	54-2	33.22	33.30	32.18	32.90	1.90	ppb
Iron	56-2	32.18	31.41	31.79	31.79	1.20	ppb
Iron	57-2	32.18	32.49	34.77	33.15	4.28	ppb
Krypton	83-1						cps
Lead	206-1	0.34	0.35	0.36	0.35	2.24	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.36	0.35	0.35	0.35	0.91	ppb
Lead	208-1	0.36	0.35	0.35	0.35	1.37	ppb
Lithium	6-1				101		%
Magnesium	24-2	214.40	212.98	212.47	213.29	0.47	ppb
Manganese	55-2	0.75	0.68	0.85	0.76	11.19	ppb
Molybdenum	94-1	0.93	0.96	0.92	0.94	2.29	ppb
Molybdenum	95-1	0.35	0.38	0.35	0.36	4.46	ppb
Molybdenum	96-1	0.42	0.43	0.40	0.42	3.34	ppb
Molybdenum	97-1	0.36	0.37	0.34	0.36	3.12	ppb
Molybdenum	98-1	0.36	0.36	0.35	0.36	2.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.32	0.52	0.37	0.41	25.50	ppb
Phosphorus	31-2	-15.28	-6.26	-4.59	-8.71		ppb
Potassium	39-2	114.57	115.83	119.25	116.55	2.08	ppb
Rhodium	103-1				99		%
Rhodium	103-2				98		%
Scandium	45-1				101		%
Scandium	45-2				97		%
Selenium	82-1	4.79	4.06	4.39	4.41	8.22	ppb
Selenium	77-2	6.71	3.87	2.91	4.50	43.90	ppb
Selenium	78-2	4.98	3.89	5.34	4.74	15.87	ppb
Silicon	28-1	-0.48	-0.24	-0.46	-0.39		ppb
Silver	107-1	0.37	0.39	0.40	0.38	4.47	ppb
Silver	109-1	0.37	0.38	0.40	0.38	4.05	ppb
Sodium	23-2	196.35	194.58	195.61	195.51	0.45	ppb
Strontium	86-1	0.37	0.34	0.36	0.36	3.48	ppb
Strontium	88-1	0.35	0.36	0.34	0.35	2.73	ppb
Sulfur	34-1	-499.81	-321.13	-390.20	-403.71		ppb
Terbium	159-1				99		%
Terbium	159-2				99		%
Thallium	203-1	0.35	0.35	0.36	0.35	2.35	ppb
Thallium	205-1	0.34	0.36	0.36	0.35	4.15	ppb
Tin	118-1	0.34	0.35	0.38	0.36	5.26	ppb
Titanium	47-1	0.36	0.41	0.38	0.38	6.66	ppb
Uranium	238-1	0.35	0.36	0.35	0.35	0.66	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.41	0.39	0.38	0.40	4.00	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				98		%
Zinc	66-2	1.05	1.02	1.11	1.06	4.58	ppb
Zirconium	90-1	0.35	0.37	0.36	0.36	2.71	ppb
Zirconium	91-1	0.32	0.35	0.35	0.34	4.85	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.02	0.04	0.52	0.18	163.41	ppb
Antimony	121-1	0.00	0.00	0.00	0.00		ppb
Arsenic	75-2	-0.03	-0.03	-0.01	-0.02		ppb
Barium	135-1	-0.03	-0.03	-0.03	-0.03		ppb
Barium	137-1	-0.01	-0.01	-0.02	-0.01		ppb
Beryllium	9-1	-0.02	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				98		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	-0.03	0.02	-0.02	-0.01		ppb
Cadmium	106-1	-1.58	-1.30	-1.23	-1.37		ppb
Cadmium	111-1	-0.04	-0.03	-0.03	-0.03		ppb
Calcium	43-1	1.68	1.09	3.56	2.11	60.91	ppb
Calcium	44-1	2.61	2.66	2.44	2.57	4.51	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	0.02	0.04	0.01	246.06	ppb
Cobalt	59-2	0.00	-0.01	-0.01	-0.01		ppb
Copper	63-2	-0.05	-0.06	-0.07	-0.06		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				98		%
Holmium	165-2				96		%
Indium	115-1				98		%
Indium	115-2				95		%
Iron	54-2	0.33	-0.11	0.07	0.10	228.71	ppb
Iron	56-2	0.10	0.39	0.43	0.31	58.53	ppb
Iron	57-2	1.05	-0.04	0.64	0.55	100.17	ppb
Krypton	83-1						cps
Lead	206-1	-0.01	-0.03	-0.02	-0.02		ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	-0.03	-0.02	-0.03	-0.03		ppb
Lead	208-1	-0.03	-0.03	-0.03	-0.03		ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.12	0.08	0.17	0.04	362.82	ppb
Manganese	55-2	0.01	0.03	0.02	0.02	56.09	ppb
Molybdenum	94-1	-0.01	0.00	0.00	0.00		ppb
Molybdenum	95-1	-0.01	-0.01	-0.01	-0.01		ppb
Molybdenum	96-1	-0.01	-0.01	-0.01	-0.01		ppb
Molybdenum	97-1	-0.01	-0.02	-0.02	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	0.00	0.00		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	0.00	-0.08	-0.03		ppb
Phosphorus	31-2	-17.50	-18.64	-18.73	-18.29		ppb
Potassium	39-2	-1.13	-1.71	0.48	-0.79		ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				94		%
Selenium	82-1	0.15	0.01	0.07	0.08	87.25	ppb
Selenium	77-2	1.00	0.00	0.00	0.33	173.21	ppb
Selenium	78-2	0.21	-0.38	0.21	0.01	2363.77	ppb
Silicon	28-1	-0.42	-0.55	-0.27	-0.41		ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00		ppb
Sodium	23-2	1.01	1.12	0.22	0.79	62.31	ppb
Strontium	86-1	-0.01	0.00	0.00	0.00		ppb
Strontium	88-1	0.00	0.00	0.00	0.00	26.53	ppb
Sulfur	34-1	-375.28	-551.97	-336.70	-421.32		ppb
Terbium	159-1				97		%
Terbium	159-2				96		%
Thallium	203-1	0.00	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	0.01	0.01	0.01	0.01	41.60	ppb
Titanium	47-1	0.02	0.02	0.00	0.01	90.12	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				95		%
Zinc	66-2	0.27	0.18	0.32	0.26	26.56	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00		ppb
Zirconium	91-1	0.00	0.00	0.00	0.00	116.80	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47500.07	47479.74	47377.23	47452.35	0.14	ppb
Antimony	121-1	487.19	492.29	484.01	487.83	0.86	ppb
Arsenic	75-2	488.16	482.93	488.81	486.63	0.66	ppb
Barium	135-1	2421.20	2473.41	2445.75	2446.79	1.07	ppb
Barium	137-1	2442.99	2463.36	2419.09	2441.81	0.91	ppb
Beryllium	9-1	484.55	487.22	510.29	494.02	2.86	ppb
Bismuth	209-1				82		%
Bismuth	209-2				81		%
Bromine	81-1						cps
Cadmium	108-1	516.60	517.53	518.09	517.41	0.15	ppb
Cadmium	106-1	509.75	522.39	512.82	514.99	1.28	ppb
Cadmium	111-1	518.05	529.84	514.40	520.76	1.55	ppb
Calcium	43-1	237226.34	241254.51	241613.73	240031.53	1.01	ppb
Calcium	44-1	238695.04	240520.16	243908.68	241041.29	1.10	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	461.31	464.24	460.04	461.86	0.47	ppb
Cobalt	59-2	487.98	493.10	493.94	491.67	0.66	ppb
Copper	63-2	4690.71	4728.07	4674.93	4697.90	0.58	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				91		%
Indium	115-1				86		%
Indium	115-2				86		%
Iron	54-2	121038.72	122133.71	121615.81	121596.08	0.45	ppb
Iron	56-2	122438.94	121965.36	121064.58	121822.96	0.57	ppb
Iron	57-2	121336.05	124121.08	123428.92	122962.02	1.18	ppb
Krypton	83-1						cps
Lead	206-1	2459.81	2526.76	2522.15	2502.91	1.49	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2422.73	2569.79	2534.59	2509.04	3.06	ppb
Lead	208-1	2447.13	2554.36	2522.24	2507.91	2.19	ppb
Lithium	6-1				87		%
Magnesium	24-2	258437.30	265673.71	257057.83	260389.61	1.78	ppb
Manganese	55-2	4902.29	4922.09	4933.91	4919.43	0.32	ppb
Molybdenum	94-1	4842.95	4982.14	4891.10	4905.40	1.44	ppb
Molybdenum	95-1	4846.78	4997.47	4894.43	4912.89	1.57	ppb
Molybdenum	96-1	4794.04	5014.50	4947.00	4918.51	2.30	ppb
Molybdenum	97-1	4824.83	4998.11	4950.27	4924.40	1.82	ppb
Molybdenum	98-1	4857.48	4964.97	4876.89	4899.78	1.17	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	476.42	481.25	475.14	477.60	0.68	ppb
Phosphorus	31-2	9867.87	9971.11	9792.16	9877.05	0.91	ppb
Potassium	39-2	119258.58	119349.36	118219.54	118942.49	0.53	ppb
Rhodium	103-1				83		%
Rhodium	103-2				81		%
Scandium	45-1				92		%
Scandium	45-2				91		%
Selenium	82-1	465.60	479.99	473.56	473.05	1.52	ppb
Selenium	77-2	507.59	473.60	463.05	481.41	4.84	ppb
Selenium	78-2	486.38	486.37	498.21	490.32	1.39	ppb
Silicon	28-1	487.09	482.01	476.93	482.01	1.05	ppb
Silver	107-1	466.34	468.48	458.68	464.50	1.11	ppb
Silver	109-1	466.41	475.02	475.87	472.43	1.11	ppb
Sodium	23-2	243528.77	248066.38	243146.00	244913.72	1.12	ppb
Strontium	86-1	493.21	503.51	495.51	497.41	1.09	ppb
Strontium	88-1	481.80	498.66	502.25	494.24	2.21	ppb
Sulfur	34-1	10033.50	10034.35	9832.84	9966.90	1.16	ppb
Terbium	159-1				92		%
Terbium	159-2				92		%
Thallium	203-1	489.96	507.97	509.81	502.58	2.18	ppb
Thallium	205-1	496.99	495.87	502.49	498.45	0.71	ppb
Tin	118-1	484.80	496.87	486.00	489.22	1.36	ppb
Titanium	47-1	4914.83	4985.80	4939.51	4946.71	0.73	ppb
Uranium	238-1	501.11	527.20	517.50	515.27	2.56	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	483.82	488.68	482.11	484.87	0.70	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				91		%
Yttrium	89-2				92		%
Zinc	66-2	4750.47	4755.45	4744.26	4750.06	0.12	ppb
Zirconium	90-1	490.60	502.87	493.12	495.53	1.31	ppb
Zirconium	91-1	494.09	513.07	493.67	500.28	2.22	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.51	0.42	0.26	0.40	31.29	ppb
Antimony	121-1	0.06	0.05	0.05	0.05	11.78	ppb
Arsenic	75-2	-0.01	-0.01	0.03	0.00	2095.22	ppb
Barium	135-1	0.13	0.12	0.12	0.12	5.71	ppb
Barium	137-1	0.13	0.13	0.10	0.12	11.23	ppb
Beryllium	9-1	0.05	0.05	0.05	0.05	3.90	ppb
Bismuth	209-1				95		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	-0.02	0.04	0.05	0.02	152.20	ppb
Cadmium	106-1	-0.88	-0.27	-0.92	-0.69		ppb
Cadmium	111-1	0.00	0.00	-0.02	0.00		ppb
Calcium	43-1	7.94	5.27	3.89	5.70	36.15	ppb
Calcium	44-1	5.19	4.86	4.40	4.82	8.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	-0.02	0.05	0.00	2021.90	ppb
Cobalt	59-2	0.00	0.00	0.01	0.01	156.86	ppb
Copper	63-2	-0.01	0.07	0.04	0.03	135.90	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				95		%
Holmium	165-2				96		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	1.51	1.99	0.93	1.48	35.90	ppb
Iron	56-2	1.28	1.44	1.20	1.31	9.21	ppb
Iron	57-2	1.87	1.00	1.13	1.33	35.32	ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.09	0.08	0.09	6.15	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.11	0.08	0.09	0.09	16.22	ppb
Lead	208-1	0.10	0.09	0.09	0.09	6.86	ppb
Lithium	6-1				95		%
Magnesium	24-2	0.86	1.28	0.93	1.02	22.03	ppb
Manganese	55-2	0.09	0.12	0.12	0.11	17.64	ppb
Molybdenum	94-1	0.14	0.07	0.11	0.10	32.58	ppb
Molybdenum	95-1	0.10	0.07	0.07	0.08	23.41	ppb
Molybdenum	96-1	0.11	0.06	0.07	0.08	32.03	ppb
Molybdenum	97-1	0.10	0.08	0.05	0.08	38.16	ppb
Molybdenum	98-1	0.11	0.07	0.07	0.08	23.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.05	0.00	-0.14	-0.06		ppb
Phosphorus	31-2	-6.91	-14.53	-19.94	-13.79		ppb
Potassium	39-2	6.60	8.18	7.03	7.27	11.20	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				97		%
Scandium	45-2				94		%
Selenium	82-1	0.33	-0.10	0.45	0.22	129.27	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.09	0.49	0.50	0.30	111.22	ppb
Silicon	28-1	-0.27	-0.15	-0.24	-0.22		ppb
Silver	107-1	0.02	0.02	0.02	0.02	6.89	ppb
Silver	109-1	0.02	0.02	0.02	0.02	6.32	ppb
Sodium	23-2	19.98	20.92	19.33	20.08	3.99	ppb
Strontium	86-1	0.00	0.00	0.01	0.01	77.59	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	11.26	ppb
Sulfur	34-1	-552.92	-497.79	-516.71	-522.47		ppb
Terbium	159-1				95		%
Terbium	159-2				96		%
Thallium	203-1	0.03	0.03	0.02	0.02	22.34	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.75	ppb
Tin	118-1	0.03	0.03	0.03	0.03	8.79	ppb
Titanium	47-1	0.05	0.02	0.07	0.05	47.18	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	63.09	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.00	0.00	329.42	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	0.30	0.35	0.20	0.28	25.59	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	3.41	ppb
Zirconium	91-1	0.00	0.00	0.02	0.01	86.26	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	37.17	35.28	33.59	35.35	5.07	ppb
Antimony	121-1	3.68	3.64	3.61	3.64	0.91	ppb
Arsenic	75-2	2.30	1.45	1.83	1.86	22.88	ppb
Barium	135-1	18.27	18.15	18.23	18.22	0.34	ppb
Barium	137-1	18.57	18.13	18.62	18.44	1.45	ppb
Beryllium	9-1	1.85	1.86	1.89	1.87	1.27	ppb
Bismuth	209-1				95		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	1.88	1.89	2.02	1.93	3.94	ppb
Cadmium	106-1	0.44	0.95	0.42	0.60	49.36	ppb
Cadmium	111-1	1.92	1.88	1.87	1.89	1.51	ppb
Calcium	43-1	892.14	900.94	889.18	894.09	0.68	ppb
Calcium	44-1	898.19	889.65	900.13	895.99	0.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.65	3.43	3.39	3.49	3.94	ppb
Cobalt	59-2	1.91	1.94	1.85	1.90	2.55	ppb
Copper	63-2	4.29	4.31	4.21	4.27	1.25	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				96		%
Holmium	165-2				96		%
Indium	115-1				96		%
Indium	115-2				97		%
Iron	54-2	381.72	386.42	376.49	381.54	1.30	ppb
Iron	56-2	382.79	381.71	375.34	379.95	1.06	ppb
Iron	57-2	381.39	377.20	376.79	378.46	0.67	ppb
Krypton	83-1						cps
Lead	206-1	1.93	1.86	1.87	1.89	1.87	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.88	1.88	1.89	1.88	0.55	ppb
Lead	208-1	1.89	1.86	1.89	1.88	0.74	ppb
Lithium	6-1				96		%
Magnesium	24-2	943.14	951.78	944.38	946.43	0.49	ppb
Manganese	55-2	2.01	1.92	1.87	1.93	3.60	ppb
Molybdenum	94-1	10.46	10.42	10.49	10.46	0.35	ppb
Molybdenum	95-1	8.91	8.74	8.79	8.81	0.97	ppb
Molybdenum	96-1	9.15	8.95	9.09	9.06	1.14	ppb
Molybdenum	97-1	9.15	8.79	8.78	8.91	2.34	ppb
Molybdenum	98-1	8.90	8.75	8.77	8.81	0.94	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.08	2.08	1.96	2.04	3.60	ppb
Phosphorus	31-2	33.65	36.18	45.82	38.55	16.65	ppb
Potassium	39-2	892.74	887.20	877.14	885.69	0.89	ppb
Rhodium	103-1				96		%
Rhodium	103-2				96		%
Scandium	45-1				98		%
Scandium	45-2				96		%
Selenium	82-1	9.05	9.43	9.61	9.37	3.04	ppb
Selenium	77-2	8.79	5.87	4.88	6.51	31.25	ppb
Selenium	78-2	7.96	11.14	8.52	9.21	18.44	ppb
Silicon	28-1	6.16	6.07	6.22	6.15	1.21	ppb
Silver	107-1	1.80	1.81	1.85	1.82	1.34	ppb
Silver	109-1	1.87	1.86	1.88	1.87	0.62	ppb
Sodium	23-2	916.46	922.51	911.98	916.98	0.58	ppb
Strontium	86-1	1.77	1.69	1.70	1.72	2.58	ppb
Strontium	88-1	1.73	1.69	1.73	1.72	1.46	ppb
Sulfur	34-1	-653.54	-662.46	-718.27	-678.09		ppb
Terbium	159-1				96		%
Terbium	159-2				97		%
Thallium	203-1	1.76	1.76	1.80	1.77	1.28	ppb
Thallium	205-1	1.81	1.75	1.79	1.78	1.68	ppb
Tin	118-1	8.49	8.26	8.44	8.40	1.48	ppb
Titanium	47-1	9.91	10.13	10.07	10.04	1.10	ppb
Uranium	238-1	1.74	1.69	1.74	1.72	1.76	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	9.31	9.45	9.16	9.31	1.57	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	9.64	9.82	9.81	9.76	1.04	ppb
Zirconium	90-1	1.78	1.78	1.80	1.79	0.70	ppb
Zirconium	91-1	1.76	1.72	1.76	1.75	1.57	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.10	0.20	-0.08	0.01	3099.22	ppb
Antimony	121-1	0.00	0.01	0.01	0.01	38.30	ppb
Arsenic	75-2	0.05	0.00	-0.03	0.01	573.99	ppb
Barium	135-1	0.01	0.02	-0.01	0.01	249.95	ppb
Barium	137-1	0.01	0.01	0.01	0.01	21.22	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00		ppb
Bismuth	209-1				99		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.06	-0.02	0.02	0.02	215.81	ppb
Cadmium	106-1	-0.82	-1.14	-0.70	-0.89		ppb
Cadmium	111-1	-0.02	-0.03	-0.02	-0.02		ppb
Calcium	43-1	5.06	2.07	1.93	3.02	58.49	ppb
Calcium	44-1	2.63	1.96	2.50	2.36	15.21	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	0.00	-0.02	0.00		ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	-0.02	-0.03	-0.09	-0.05		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				95		%
Indium	115-1				100		%
Indium	115-2				96		%
Iron	54-2	0.16	0.40	0.59	0.38	55.07	ppb
Iron	56-2	0.80	0.54	0.42	0.58	33.14	ppb
Iron	57-2	1.20	-0.18	1.19	0.74	107.44	ppb
Krypton	83-1						cps
Lead	206-1	0.04	0.02	0.03	0.03	38.36	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.02	0.00	0.00	0.01	94.50	ppb
Lead	208-1	0.02	0.01	0.01	0.01	38.26	ppb
Lithium	6-1				99		%
Magnesium	24-2	0.08	-0.20	-0.49	-0.20		ppb
Manganese	55-2	0.07	0.09	0.04	0.06	37.68	ppb
Molybdenum	94-1	0.01	0.01	0.01	0.01	36.82	ppb
Molybdenum	95-1	0.01	0.00	0.01	0.01	53.66	ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	97-1	0.00	-0.02	0.00	-0.01		ppb
Molybdenum	98-1	0.01	0.01	0.00	0.01	33.28	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	0.01	-0.04	0.00	1110.59	ppb
Phosphorus	31-2	-19.70	-18.69	-18.99	-19.13		ppb
Potassium	39-2	1.73	3.59	0.80	2.04	69.79	ppb
Rhodium	103-1				99		%
Rhodium	103-2				96		%
Scandium	45-1				101		%
Scandium	45-2				94		%
Selenium	82-1	0.28	0.30	-0.17	0.13	197.69	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.08	-0.09	0.47	0.10	318.40	ppb
Silicon	28-1	-0.53	-0.94	-0.51	-0.66		ppb
Silver	107-1	0.02	0.01	0.01	0.01	45.24	ppb
Silver	109-1	0.01	0.01	0.01	0.01	26.06	ppb
Sodium	23-2	10.84	7.95	7.26	8.68	21.87	ppb
Strontium	86-1	-0.01	-0.01	0.00	-0.01		ppb
Strontium	88-1	0.00	0.00	0.00	0.00	46.03	ppb
Sulfur	34-1	-918.90	-1222.77	-899.25	-1013.64		ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	0.02	0.01	0.01	0.01	14.51	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	42.96	ppb
Tin	118-1	0.02	0.09	0.01	0.04	98.70	ppb
Titanium	47-1	-0.01	0.01	0.00	0.00		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	-0.01	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				96		%
Zinc	66-2	0.26	0.30	0.26	0.27	8.56	ppb
Zirconium	90-1	0.00	0.00	0.01	0.00	39.31	ppb
Zirconium	91-1	0.00	0.01	0.00	0.00	180.69	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	37.75	39.30	42.33	39.79	5.86	ppb
Antimony	121-1	3.94	4.00	4.00	3.98	0.85	ppb
Arsenic	75-2	2.29	2.03	1.89	2.07	9.88	ppb
Barium	135-1	19.56	20.30	20.16	20.01	1.95	ppb
Barium	137-1	19.90	20.10	20.17	20.06	0.70	ppb
Beryllium	9-1	2.04	1.94	1.98	1.99	2.60	ppb
Bismuth	209-1				92		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	1.89	1.86	2.18	1.98	8.81	ppb
Cadmium	106-1	0.14	1.15	0.50	0.60	85.60	ppb
Cadmium	111-1	2.07	2.00	1.92	2.00	3.58	ppb
Calcium	43-1	952.87	955.10	955.72	954.56	0.16	ppb
Calcium	44-1	950.17	976.24	979.78	968.73	1.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.89	3.83	3.88	3.87	0.74	ppb
Cobalt	59-2	2.07	2.21	2.16	2.15	3.23	ppb
Copper	63-2	4.81	4.58	4.86	4.75	3.17	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				92		%
Holmium	165-2				91		%
Indium	115-1				93		%
Indium	115-2				91		%
Iron	54-2	416.39	409.02	434.42	419.95	3.11	ppb
Iron	56-2	419.22	421.52	429.15	423.30	1.23	ppb
Iron	57-2	418.33	418.81	428.91	422.02	1.42	ppb
Krypton	83-1						cps
Lead	206-1	1.96	1.97	2.07	2.00	3.08	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.99	2.05	2.05	2.03	1.78	ppb
Lead	208-1	1.95	2.00	2.04	2.00	2.22	ppb
Lithium	6-1				92		%
Magnesium	24-2	1050.61	1047.95	1076.35	1058.30	1.48	ppb
Manganese	55-2	2.25	2.13	2.20	2.19	2.71	ppb
Molybdenum	94-1	11.54	11.56	11.54	11.55	0.11	ppb
Molybdenum	95-1	9.54	9.58	9.71	9.61	0.92	ppb
Molybdenum	96-1	9.72	9.82	9.94	9.82	1.11	ppb
Molybdenum	97-1	9.72	9.72	9.65	9.70	0.41	ppb
Molybdenum	98-1	9.57	9.67	9.79	9.68	1.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.24	2.19	2.52	2.31	7.79	ppb
Phosphorus	31-2	24.91	33.70	49.65	36.08	34.75	ppb
Potassium	39-2	967.96	968.84	1013.50	983.43	2.65	ppb
Rhodium	103-1				92		%
Rhodium	103-2				91		%
Scandium	45-1				94		%
Scandium	45-2				90		%
Selenium	82-1	10.90	10.59	10.95	10.81	1.76	ppb
Selenium	77-2	17.93	20.05	10.45	16.14	31.24	ppb
Selenium	78-2	9.30	12.05	11.31	10.89	13.08	ppb
Silicon	28-1	6.69	6.89	7.29	6.96	4.36	ppb
Silver	107-1	2.01	2.00	2.05	2.02	1.36	ppb
Silver	109-1	1.97	2.02	2.06	2.01	2.15	ppb
Sodium	23-2	1016.64	1016.26	1035.39	1022.76	1.07	ppb
Strontium	86-1	1.83	1.86	1.90	1.86	1.89	ppb
Strontium	88-1	1.89	1.89	1.89	1.89	0.17	ppb
Sulfur	34-1	-758.50	-542.01	-427.84	-576.12		ppb
Terbium	159-1				92		%
Terbium	159-2				92		%
Thallium	203-1	1.89	1.86	1.92	1.89	1.67	ppb
Thallium	205-1	1.93	1.88	1.93	1.91	1.40	ppb
Tin	118-1	9.08	9.17	9.16	9.14	0.53	ppb
Titanium	47-1	10.18	10.21	10.40	10.26	1.16	ppb
Uranium	238-1	1.83	1.85	1.86	1.85	0.77	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	10.40	10.50	10.63	10.51	1.09	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				91		%
Zinc	66-2	10.96	10.62	10.99	10.86	1.90	ppb
Zirconium	90-1	1.95	2.00	1.98	1.97	1.34	ppb
Zirconium	91-1	1.88	1.97	1.99	1.95	3.03	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.45	0.56	0.61	0.54	15.15	ppb
Antimony	121-1	0.01	0.00	0.00	0.00	50.90	ppb
Arsenic	75-2	-0.03	0.00	-0.01	-0.01		ppb
Barium	135-1	0.01	-0.01	0.00	0.00	338.02	ppb
Barium	137-1	-0.01	0.00	0.00	0.00		ppb
Beryllium	9-1	0.00	0.00	0.00	0.00		ppb
Bismuth	209-1				98		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.06	0.06	0.01	0.04	73.89	ppb
Cadmium	106-1	-1.11	-0.72	-1.14	-0.99		ppb
Cadmium	111-1	-0.03	-0.02	-0.03	-0.03		ppb
Calcium	43-1	3.44	3.87	2.93	3.42	13.80	ppb
Calcium	44-1	2.24	2.75	2.72	2.57	11.15	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	-0.04	0.02	0.00	1370.85	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	-0.02	-0.03	-0.05	-0.03		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				97		%
Indium	115-1				98		%
Indium	115-2				97		%
Iron	54-2	0.72	-0.14	0.44	0.34	127.91	ppb
Iron	56-2	0.30	0.31	0.44	0.35	22.71	ppb
Iron	57-2	0.35	0.55	1.05	0.65	55.33	ppb
Krypton	83-1						cps
Lead	206-1	0.01	0.00	0.01	0.01	132.01	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	-0.01	0.00	0.00	2441.45	ppb
Lead	208-1	0.01	-0.01	0.00	0.00	569.78	ppb
Lithium	6-1				97		%
Magnesium	24-2	-0.48	-0.51	-0.26	-0.42		ppb
Manganese	55-2	0.04	0.14	0.04	0.07	74.48	ppb
Molybdenum	94-1	0.01	0.02	0.00	0.01	77.28	ppb
Molybdenum	95-1	0.00	-0.01	0.00	0.00		ppb
Molybdenum	96-1	-0.01	0.00	0.00	0.00		ppb
Molybdenum	97-1	0.00	-0.01	0.00	0.00		ppb
Molybdenum	98-1	0.00	0.01	0.00	0.01	114.64	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.04	-0.07	-0.01	-0.04		ppb
Phosphorus	31-2	-18.86	-13.53	-13.54	-15.31		ppb
Potassium	39-2	-0.54	-0.53	1.20	0.04	2362.00	ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				95		%
Selenium	82-1	0.34	-0.05	0.26	0.18	113.68	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.38	1.04	0.50	0.39	184.50	ppb
Silicon	28-1	-0.51	-0.40	-0.44	-0.45		ppb
Silver	107-1	0.01	0.01	0.01	0.01	32.28	ppb
Silver	109-1	0.01	0.01	0.01	0.01	3.67	ppb
Sodium	23-2	7.12	6.14	6.23	6.50	8.39	ppb
Strontium	86-1	0.01	0.01	0.01	0.01	3.86	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	36.71	ppb
Sulfur	34-1	-812.74	-647.68	-700.04	-720.15		ppb
Terbium	159-1				97		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.01	0.01	0.01	36.91	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	36.32	ppb
Tin	118-1	0.02	0.03	0.01	0.02	52.32	ppb
Titanium	47-1	-0.01	0.01	0.01	0.00		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	0.12	0.27	0.26	0.21	39.44	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	341.91	ppb
Zirconium	91-1	0.00	0.01	0.00	0.00	127.23	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9155.95	9131.97	9075.70	9121.21	0.45	ppb
Antimony	121-1	493.48	512.54	506.37	504.13	1.93	ppb
Arsenic	75-2	510.34	505.16	513.09	509.53	0.79	ppb
Barium	135-1	2417.27	2519.93	2498.31	2478.50	2.18	ppb
Barium	137-1	2472.95	2545.91	2508.93	2509.26	1.45	ppb
Beryllium	9-1	502.15	495.50	495.99	497.88	0.74	ppb
Bismuth	209-1				92		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	511.60	517.76	505.66	511.67	1.18	ppb
Cadmium	106-1	502.25	516.54	508.14	508.98	1.41	ppb
Cadmium	111-1	508.57	527.31	518.28	518.05	1.81	ppb
Calcium	43-1	48274.59	48233.18	48350.46	48286.08	0.12	ppb
Calcium	44-1	48478.74	48237.51	48362.90	48359.72	0.25	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	516.17	516.15	507.17	513.16	1.01	ppb
Cobalt	59-2	515.93	514.37	510.71	513.67	0.52	ppb
Copper	63-2	5192.08	5156.87	5154.01	5167.65	0.41	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				94		%
Indium	115-2				94		%
Iron	54-2	25252.10	25749.41	25618.68	25540.06	1.01	ppb
Iron	56-2	25418.01	25484.77	25068.89	25323.89	0.88	ppb
Iron	57-2	24292.73	24470.62	24144.81	24302.72	0.67	ppb
Krypton	83-1						cps
Lead	206-1	2465.90	2529.40	2502.11	2499.14	1.27	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2475.07	2552.10	2511.84	2513.00	1.53	ppb
Lead	208-1	2484.23	2542.89	2515.49	2514.20	1.17	ppb
Lithium	6-1				94		%
Magnesium	24-2	53867.89	53098.57	52822.78	53263.08	1.02	ppb
Manganese	55-2	5133.85	5169.96	5125.65	5143.15	0.46	ppb
Molybdenum	94-1	4913.14	4981.43	5007.81	4967.46	0.98	ppb
Molybdenum	95-1	4874.62	4987.53	5020.24	4960.79	1.54	ppb
Molybdenum	96-1	4877.68	5054.81	4968.67	4967.05	1.78	ppb
Molybdenum	97-1	4929.09	5009.32	4962.08	4966.83	0.81	ppb
Molybdenum	98-1	4896.78	5011.76	4984.05	4964.19	1.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	518.11	522.98	518.16	519.75	0.54	ppb
Phosphorus	31-2	10049.01	9949.17	10076.80	10024.99	0.67	ppb
Potassium	39-2	24175.75	24008.47	24156.05	24113.42	0.38	ppb
Rhodium	103-1				92		%
Rhodium	103-2				92		%
Scandium	45-1				99		%
Scandium	45-2				97		%
Selenium	82-1	486.90	507.86	505.44	500.07	2.29	ppb
Selenium	77-2	477.30	529.01	512.45	506.26	5.22	ppb
Selenium	78-2	509.82	503.83	529.20	514.28	2.58	ppb
Silicon	28-1	556.11	555.32	556.50	555.98	0.11	ppb
Silver	107-1	506.65	513.30	504.55	508.17	0.90	ppb
Silver	109-1	508.36	521.72	507.00	512.36	1.59	ppb
Sodium	23-2	49953.19	50231.69	49037.29	49740.72	1.26	ppb
Strontium	86-1	502.00	513.78	504.98	506.92	1.21	ppb
Strontium	88-1	490.88	507.26	499.08	499.07	1.64	ppb
Sulfur	34-1	9950.21	9466.20	9575.63	9664.01	2.63	ppb
Terbium	159-1				97		%
Terbium	159-2				98		%
Thallium	203-1	501.15	511.55	495.76	502.82	1.60	ppb
Thallium	205-1	496.79	500.63	491.14	496.19	0.96	ppb
Tin	118-1	500.39	513.80	500.29	504.83	1.54	ppb
Titanium	47-1	4990.31	5006.04	5023.12	5006.49	0.33	ppb
Uranium	238-1	486.96	496.73	487.86	490.52	1.10	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	492.45	495.18	491.62	493.08	0.38	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				98		%
Zinc	66-2	5227.40	5226.48	5090.09	5181.33	1.53	ppb
Zirconium	90-1	495.30	503.13	498.02	498.81	0.80	ppb
Zirconium	91-1	498.68	500.21	497.51	498.80	0.27	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.54	1.11	0.69	0.78	38.22	ppb
Antimony	121-1	0.10	0.09	0.08	0.09	9.58	ppb
Arsenic	75-2	0.01	0.03	0.01	0.02	42.74	ppb
Barium	135-1	0.21	0.18	0.20	0.20	7.72	ppb
Barium	137-1	0.22	0.20	0.20	0.21	6.17	ppb
Beryllium	9-1	0.07	0.07	0.06	0.07	8.46	ppb
Bismuth	209-1				99		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.09	0.07	0.02	0.06	62.36	ppb
Cadmium	106-1	-1.30	-0.04	-1.39	-0.91		ppb
Cadmium	111-1	0.01	0.03	0.01	0.02	93.10	ppb
Calcium	43-1	5.87	4.07	5.46	5.14	18.37	ppb
Calcium	44-1	4.57	4.31	4.18	4.35	4.50	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	0.05	0.00	0.01	540.13	ppb
Cobalt	59-2	0.02	0.01	0.03	0.02	44.73	ppb
Copper	63-2	0.20	0.19	0.13	0.17	21.90	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				98		%
Holmium	165-2				97		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	54-2	1.61	1.68	1.46	1.58	7.10	ppb
Iron	56-2	1.25	1.25	1.04	1.18	10.11	ppb
Iron	57-2	0.92	1.42	1.29	1.21	21.42	ppb
Krypton	83-1						cps
Lead	206-1	0.17	0.14	0.12	0.14	15.98	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.16	0.13	0.12	0.14	14.82	ppb
Lead	208-1	0.16	0.14	0.12	0.14	14.18	ppb
Lithium	6-1				97		%
Magnesium	24-2	0.90	1.56	0.95	1.14	32.26	ppb
Manganese	55-2	0.37	0.48	0.31	0.39	21.66	ppb
Molybdenum	94-1	0.28	0.26	0.22	0.25	12.09	ppb
Molybdenum	95-1	0.29	0.23	0.23	0.25	13.45	ppb
Molybdenum	96-1	0.28	0.25	0.24	0.26	8.07	ppb
Molybdenum	97-1	0.25	0.26	0.23	0.25	6.03	ppb
Molybdenum	98-1	0.29	0.26	0.22	0.26	14.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.13	0.05	-0.04	-0.04		ppb
Phosphorus	31-2	-12.54	-22.96	-17.79	-17.76		ppb
Potassium	39-2	2.22	1.24	1.77	1.74	28.27	ppb
Rhodium	103-1				99		%
Rhodium	103-2				98		%
Scandium	45-1				99		%
Scandium	45-2				97		%
Selenium	82-1	0.29	0.15	0.09	0.18	57.69	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.48	0.20	0.19	0.29	56.91	ppb
Silicon	28-1	0.22	0.09	-0.02	0.10	127.80	ppb
Silver	107-1	0.06	0.06	0.05	0.05	10.29	ppb
Silver	109-1	0.06	0.05	0.05	0.05	13.71	ppb
Sodium	23-2	10.79	10.71	10.57	10.69	1.06	ppb
Strontium	86-1	0.01	0.01	0.01	0.01	11.06	ppb
Strontium	88-1	0.02	0.02	0.01	0.02	25.21	ppb
Sulfur	34-1	-917.49	-911.25	-861.10	-896.61		ppb
Terbium	159-1				98		%
Terbium	159-2				100		%
Thallium	203-1	0.04	0.04	0.03	0.04	21.95	ppb
Thallium	205-1	0.04	0.04	0.03	0.04	1.62	ppb
Tin	118-1	0.05	0.05	0.05	0.05	7.06	ppb
Titanium	47-1	0.21	0.21	0.19	0.20	6.33	ppb
Uranium	238-1	0.02	0.02	0.01	0.01	15.94	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.01	0.02	0.01	42.58	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				97		%
Zinc	66-2	0.62	0.67	0.44	0.58	20.83	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	9.45	ppb
Zirconium	91-1	0.03	0.03	0.02	0.03	13.94	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9172.59	9109.37	9043.51	9108.49	0.71	ppb
Antimony	121-1	506.42	506.45	504.71	505.86	0.20	ppb
Arsenic	75-2	524.46	519.56	504.63	516.21	2.00	ppb
Barium	135-1	2495.19	2507.49	2474.16	2492.28	0.68	ppb
Barium	137-1	2550.63	2544.32	2500.34	2531.77	1.08	ppb
Beryllium	9-1	478.34	490.55	491.93	486.94	1.54	ppb
Bismuth	209-1				94		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	515.80	515.41	506.71	512.64	1.00	ppb
Cadmium	106-1	505.68	512.07	510.84	509.53	0.67	ppb
Cadmium	111-1	520.96	522.56	520.30	521.27	0.22	ppb
Calcium	43-1	48470.26	47893.19	47850.80	48071.42	0.72	ppb
Calcium	44-1	47921.99	47857.68	48236.43	48005.37	0.42	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	520.92	502.78	509.01	510.90	1.80	ppb
Cobalt	59-2	527.47	515.56	516.06	519.70	1.30	ppb
Copper	63-2	5255.62	5116.65	5126.39	5166.22	1.50	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				99		%
Holmium	165-2				97		%
Indium	115-1				95		%
Indium	115-2				93		%
Iron	54-2	25655.06	25200.56	25576.64	25477.42	0.95	ppb
Iron	56-2	25263.65	24982.51	24961.22	25069.13	0.67	ppb
Iron	57-2	24436.22	23947.80	24148.23	24177.42	1.02	ppb
Krypton	83-1						cps
Lead	206-1	2480.21	2449.88	2434.59	2454.89	0.95	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2440.19	2455.91	2453.77	2449.95	0.35	ppb
Lead	208-1	2450.87	2461.33	2448.83	2453.68	0.27	ppb
Lithium	6-1				97		%
Magnesium	24-2	54073.62	52899.54	52392.50	53121.89	1.62	ppb
Manganese	55-2	5183.44	5121.80	5053.53	5119.59	1.27	ppb
Molybdenum	94-1	5004.32	4966.99	4948.19	4973.16	0.57	ppb
Molybdenum	95-1	4951.72	4987.34	4959.12	4966.06	0.38	ppb
Molybdenum	96-1	4969.49	4980.80	4951.81	4967.37	0.29	ppb
Molybdenum	97-1	4894.82	4968.81	4941.86	4935.16	0.76	ppb
Molybdenum	98-1	4927.96	4938.74	4896.67	4921.12	0.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	524.52	516.87	517.95	519.78	0.80	ppb
Phosphorus	31-2	9933.35	10278.27	10071.90	10094.51	1.72	ppb
Potassium	39-2	24117.02	24388.12	23785.12	24096.75	1.25	ppb
Rhodium	103-1				92		%
Rhodium	103-2				92		%
Scandium	45-1				100		%
Scandium	45-2				97		%
Selenium	82-1	507.68	498.04	496.66	500.79	1.20	ppb
Selenium	77-2	500.56	488.16	527.74	505.49	4.01	ppb
Selenium	78-2	516.09	502.59	497.04	505.24	1.94	ppb
Silicon	28-1	513.87	507.94	504.22	508.68	0.96	ppb
Silver	107-1	516.13	509.54	501.42	509.03	1.45	ppb
Silver	109-1	513.74	514.96	516.59	515.10	0.28	ppb
Sodium	23-2	50975.77	49286.41	49084.62	49782.27	2.09	ppb
Strontium	86-1	496.62	500.56	501.76	499.65	0.54	ppb
Strontium	88-1	501.26	504.32	490.74	498.77	1.43	ppb
Sulfur	34-1	9748.42	9674.75	9480.10	9634.42	1.44	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	488.55	493.34	485.64	489.18	0.80	ppb
Thallium	205-1	485.86	487.92	484.74	486.17	0.33	ppb
Tin	118-1	506.51	504.43	506.49	505.81	0.24	ppb
Titanium	47-1	4969.29	4948.60	4923.96	4947.29	0.46	ppb
Uranium	238-1	472.18	487.52	482.89	480.86	1.64	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	499.21	492.84	491.17	494.41	0.86	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	5320.40	5170.43	5177.84	5222.89	1.62	ppb
Zirconium	90-1	502.82	501.94	490.83	498.53	1.34	ppb
Zirconium	91-1	496.96	509.00	491.74	499.23	1.77	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.10	0.83	0.34	0.43	87.81	ppb
Antimony	121-1	0.11	0.10	0.08	0.10	15.41	ppb
Arsenic	75-2	-0.03	0.04	0.02	0.01	321.28	ppb
Barium	135-1	0.32	0.27	0.23	0.27	16.61	ppb
Barium	137-1	0.35	0.28	0.24	0.29	19.23	ppb
Beryllium	9-1	0.12	0.10	0.08	0.10	16.95	ppb
Bismuth	209-1				99		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.10	0.17	0.07	0.11	45.05	ppb
Cadmium	106-1	-1.22	-1.03	-1.44	-1.23		ppb
Cadmium	111-1	0.02	0.01	-0.01	0.00	393.36	ppb
Calcium	43-1	8.24	5.53	5.93	6.57	22.24	ppb
Calcium	44-1	6.26	4.67	4.50	5.14	18.88	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.04	-0.04	0.10	0.03	201.07	ppb
Cobalt	59-2	0.01	0.02	0.02	0.01	57.25	ppb
Copper	63-2	0.10	0.06	0.16	0.11	45.04	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				96		%
Indium	115-1				100		%
Indium	115-2				96		%
Iron	54-2	0.44	0.57	1.42	0.81	66.31	ppb
Iron	56-2	0.61	0.51	1.04	0.72	38.69	ppb
Iron	57-2	0.60	0.45	1.42	0.82	63.49	ppb
Krypton	83-1						cps
Lead	206-1	0.26	0.21	0.16	0.21	22.00	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.26	0.17	0.15	0.19	29.59	ppb
Lead	208-1	0.26	0.19	0.15	0.20	26.95	ppb
Lithium	6-1				96		%
Magnesium	24-2	0.18	0.19	-0.06	0.10	137.32	ppb
Manganese	55-2	0.33	0.28	0.38	0.33	16.47	ppb
Molybdenum	94-1	0.41	0.28	0.25	0.31	27.15	ppb
Molybdenum	95-1	0.38	0.30	0.23	0.30	24.87	ppb
Molybdenum	96-1	0.43	0.30	0.24	0.32	29.57	ppb
Molybdenum	97-1	0.42	0.28	0.23	0.31	32.14	ppb
Molybdenum	98-1	0.39	0.28	0.24	0.30	26.89	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	0.01	0.08	0.02	349.26	ppb
Phosphorus	31-2	-24.45	-21.78	-21.91	-22.71		ppb
Potassium	39-2	3.00	0.45	6.33	3.26	90.35	ppb
Rhodium	103-1				99		%
Rhodium	103-2				96		%
Scandium	45-1				100		%
Scandium	45-2				95		%
Selenium	82-1	0.06	-0.05	0.32	0.11	168.70	ppb
Selenium	77-2	0.94	0.00	0.00	0.31	173.21	ppb
Selenium	78-2	-0.38	0.19	0.25	0.02	1831.84	ppb
Silicon	28-1	0.48	0.21	0.04	0.24	89.69	ppb
Silver	107-1	0.08	0.06	0.04	0.06	25.47	ppb
Silver	109-1	0.08	0.05	0.05	0.06	28.67	ppb
Sodium	23-2	10.43	10.71	15.78	12.30	24.47	ppb
Strontium	86-1	0.03	0.02	0.02	0.02	25.85	ppb
Strontium	88-1	0.04	0.02	0.02	0.03	33.33	ppb
Sulfur	34-1	-832.90	-906.16	-840.73	-859.93		ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	0.05	0.05	0.04	0.05	17.96	ppb
Thallium	205-1	0.05	0.05	0.04	0.04	14.91	ppb
Tin	118-1	0.09	0.05	0.05	0.06	33.83	ppb
Titanium	47-1	0.34	0.20	0.16	0.24	40.78	ppb
Uranium	238-1	0.03	0.02	0.01	0.02	37.66	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.00	0.00	0.00	48.94	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				96		%
Zinc	66-2	0.28	0.52	0.39	0.40	31.34	ppb
Zirconium	90-1	0.04	0.02	0.02	0.03	42.87	ppb
Zirconium	91-1	0.05	0.03	0.03	0.04	35.83	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9218.83	9125.45	9168.32	9170.87	0.51	ppb
Antimony	121-1	535.00	530.41	517.15	527.52	1.76	ppb
Arsenic	75-2	505.85	507.03	528.49	513.79	2.48	ppb
Barium	135-1	2645.84	2622.43	2549.63	2605.97	1.93	ppb
Barium	137-1	2607.16	2642.43	2598.74	2616.11	0.89	ppb
Beryllium	9-1	511.93	511.89	504.25	509.36	0.87	ppb
Bismuth	209-1				91		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	533.27	534.81	524.65	530.91	1.03	ppb
Cadmium	106-1	536.76	530.35	521.51	529.54	1.45	ppb
Cadmium	111-1	533.09	545.36	528.75	535.73	1.61	ppb
Calcium	43-1	50780.02	50560.17	49001.26	50113.82	1.94	ppb
Calcium	44-1	50625.55	50472.46	49286.18	50128.06	1.46	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	523.59	519.83	516.37	519.93	0.69	ppb
Cobalt	59-2	527.08	535.75	530.10	530.98	0.83	ppb
Copper	63-2	5270.54	5210.27	5177.37	5219.39	0.91	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				94		%
Indium	115-2				95		%
Iron	54-2	26327.18	25966.90	25912.31	26068.79	0.86	ppb
Iron	56-2	25471.83	25751.27	25473.52	25565.54	0.63	ppb
Iron	57-2	25979.28	26058.54	24425.57	25487.79	3.61	ppb
Krypton	83-1						cps
Lead	206-1	2637.64	2553.08	2565.95	2585.56	1.76	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2676.42	2569.29	2550.83	2598.85	2.61	ppb
Lead	208-1	2659.14	2557.08	2562.11	2592.78	2.22	ppb
Lithium	6-1				91		%
Magnesium	24-2	53551.13	53088.69	53656.32	53432.05	0.57	ppb
Manganese	55-2	5202.54	5206.15	5191.06	5199.92	0.15	ppb
Molybdenum	94-1	5079.46	5214.52	5107.14	5133.71	1.39	ppb
Molybdenum	95-1	5093.00	5126.83	5040.57	5086.80	0.85	ppb
Molybdenum	96-1	5109.30	5134.82	5094.01	5112.71	0.40	ppb
Molybdenum	97-1	5171.96	5159.86	5098.09	5143.30	0.77	ppb
Molybdenum	98-1	5063.38	5175.54	5082.68	5107.20	1.17	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	523.97	523.61	527.49	525.02	0.41	ppb
Phosphorus	31-2	10078.56	10178.39	10383.73	10213.56	1.52	ppb
Potassium	39-2	24484.65	24321.56	23933.67	24246.63	1.17	ppb
Rhodium	103-1				92		%
Rhodium	103-2				94		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	510.31	518.26	505.86	511.48	1.23	ppb
Selenium	77-2	539.28	479.74	532.03	517.02	6.28	ppb
Selenium	78-2	505.78	499.30	528.82	511.30	3.03	ppb
Silicon	28-1	515.06	510.05	496.29	507.13	1.92	ppb
Silver	107-1	537.90	530.93	522.65	530.49	1.44	ppb
Silver	109-1	540.04	528.85	525.58	531.49	1.43	ppb
Sodium	23-2	50288.85	49558.60	50111.62	49986.36	0.76	ppb
Strontium	86-1	515.01	530.25	501.42	515.56	2.80	ppb
Strontium	88-1	513.48	519.82	509.05	514.12	1.05	ppb
Sulfur	34-1	10437.50	10055.67	9518.24	10003.80	4.62	ppb
Terbium	159-1				96		%
Terbium	159-2				100		%
Thallium	203-1	520.09	510.50	511.08	513.89	1.05	ppb
Thallium	205-1	525.97	507.21	510.64	514.61	1.94	ppb
Tin	118-1	539.20	522.52	526.22	529.31	1.65	ppb
Titanium	47-1	5251.56	5168.70	5088.92	5169.73	1.57	ppb
Uranium	238-1	513.61	500.88	502.78	505.76	1.36	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	499.14	495.11	498.84	497.70	0.45	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				99		%
Zinc	66-2	5296.92	5264.23	5338.12	5299.75	0.70	ppb
Zirconium	90-1	506.75	523.04	506.80	512.20	1.83	ppb
Zirconium	91-1	520.09	517.76	511.67	516.51	0.84	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	45572.33	47723.13	47461.79	46919.08	2.50	ppb
Antimony	121-1	520.01	491.41	486.43	499.28	3.63	ppb
Arsenic	75-2	463.08	490.63	469.58	474.43	3.04	ppb
Barium	135-1	2601.92	2477.80	2428.22	2502.65	3.58	ppb
Barium	137-1	2604.03	2513.03	2404.60	2507.22	3.98	ppb
Beryllium	9-1	513.98	494.55	500.57	503.03	1.98	ppb
Bismuth	209-1				82		%
Bismuth	209-2				82		%
Bromine	81-1						cps
Cadmium	108-1	546.90	522.39	513.79	527.70	3.26	ppb
Cadmium	106-1	545.16	525.74	515.09	528.66	2.88	ppb
Cadmium	111-1	553.78	533.09	516.78	534.55	3.47	ppb
Calcium	43-1	260767.09	244697.35	243484.93	249649.79	3.86	ppb
Calcium	44-1	260590.15	246181.02	247777.04	251516.07	3.14	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	453.37	464.02	464.81	460.74	1.39	ppb
Cobalt	59-2	477.73	491.34	483.88	484.32	1.41	ppb
Copper	63-2	4596.24	4710.55	4694.35	4667.05	1.33	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				93		%
Indium	115-1				84		%
Indium	115-2				87		%
Iron	54-2	119127.02	122864.63	122885.08	121625.57	1.78	ppb
Iron	56-2	119420.55	123421.64	123277.55	122039.92	1.86	ppb
Iron	57-2	120191.39	125363.64	123591.61	123048.88	2.14	ppb
Krypton	83-1						cps
Lead	206-1	2632.81	2580.17	2472.07	2561.68	3.20	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2628.59	2581.16	2546.41	2585.39	1.60	ppb
Lead	208-1	2635.86	2577.23	2533.44	2582.18	1.99	ppb
Lithium	6-1				83		%
Magnesium	24-2	251700.24	258555.76	258894.32	256383.44	1.58	ppb
Manganese	55-2	4816.83	4992.50	4943.94	4917.76	1.84	ppb
Molybdenum	94-1	5221.37	5028.91	4902.85	5051.04	3.18	ppb
Molybdenum	95-1	5203.04	5052.15	4853.99	5036.39	3.48	ppb
Molybdenum	96-1	5250.62	5043.74	4937.49	5077.29	3.14	ppb
Molybdenum	97-1	5219.14	4988.19	4951.01	5052.78	2.88	ppb
Molybdenum	98-1	5228.41	5005.01	4886.90	5040.11	3.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	467.80	478.16	476.84	474.27	1.19	ppb
Phosphorus	31-2	9776.27	9923.11	9882.55	9860.64	0.77	ppb
Potassium	39-2	116497.20	119418.77	116528.81	117481.59	1.43	ppb
Rhodium	103-1				80		%
Rhodium	103-2				83		%
Scandium	45-1				89		%
Scandium	45-2				92		%
Selenium	82-1	507.12	474.81	469.30	483.74	4.22	ppb
Selenium	77-2	467.05	462.39	434.11	454.51	3.92	ppb
Selenium	78-2	456.54	465.34	462.75	461.55	0.98	ppb
Silicon	28-1	515.19	482.25	489.67	495.70	3.49	ppb
Silver	107-1	498.64	472.49	464.76	478.63	3.71	ppb
Silver	109-1	498.41	475.83	466.69	480.31	3.40	ppb
Sodium	23-2	238508.49	244959.17	244906.22	242791.29	1.53	ppb
Strontium	86-1	529.80	505.35	500.64	511.93	3.06	ppb
Strontium	88-1	521.94	501.67	499.50	507.71	2.44	ppb
Sulfur	34-1	10839.05	9928.15	9939.53	10235.58	5.11	ppb
Terbium	159-1				91		%
Terbium	159-2				93		%
Thallium	203-1	524.75	517.65	495.87	512.76	2.94	ppb
Thallium	205-1	524.80	510.28	493.86	509.65	3.04	ppb
Tin	118-1	521.84	488.96	484.28	498.36	4.11	ppb
Titanium	47-1	5353.07	5064.03	5004.29	5140.46	3.63	ppb
Uranium	238-1	544.84	519.39	519.61	527.94	2.77	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	473.48	485.00	484.30	480.93	1.34	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				90		%
Yttrium	89-2				94		%
Zinc	66-2	4702.82	4711.49	4756.55	4723.62	0.61	ppb
Zirconium	90-1	526.51	513.41	496.28	512.06	2.96	ppb
Zirconium	91-1	538.95	514.36	489.94	514.42	4.76	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.32	1.28	1.34	1.32	2.24	ppb
Antimony	121-1	0.13	0.13	0.10	0.12	15.56	ppb
Arsenic	75-2	0.03	0.04	0.03	0.03	20.27	ppb
Barium	135-1	0.40	0.33	0.29	0.34	15.92	ppb
Barium	137-1	0.38	0.37	0.29	0.35	14.97	ppb
Beryllium	9-1	0.18	0.14	0.15	0.16	15.63	ppb
Bismuth	209-1				97		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Cadmium	108-1	0.11	0.19	0.07	0.12	48.18	ppb
Cadmium	106-1	-1.04	0.86	-1.06	-0.41		ppb
Cadmium	111-1	0.03	0.04	0.00	0.02	90.85	ppb
Calcium	43-1	14.94	10.77	10.73	12.15	19.89	ppb
Calcium	44-1	13.91	9.94	7.60	10.49	30.40	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.00	-0.08	-0.02		ppb
Cobalt	59-2	0.02	0.03	0.02	0.02	28.33	ppb
Copper	63-2	0.17	0.21	0.09	0.16	39.82	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				104		%
Indium	115-1				98		%
Indium	115-2				105		%
Iron	54-2	3.56	3.35	1.99	2.97	28.72	ppb
Iron	56-2	3.39	3.56	2.78	3.25	12.63	ppb
Iron	57-2	4.41	4.15	3.44	4.00	12.57	ppb
Krypton	83-1						cps
Lead	206-1	0.29	0.24	0.18	0.24	22.38	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.30	0.26	0.20	0.25	19.26	ppb
Lead	208-1	0.30	0.25	0.20	0.25	18.58	ppb
Lithium	6-1				95		%
Magnesium	24-2	5.70	5.26	4.97	5.31	6.92	ppb
Manganese	55-2	0.32	0.36	0.27	0.32	14.94	ppb
Molybdenum	94-1	0.40	0.26	0.21	0.29	33.15	ppb
Molybdenum	95-1	0.34	0.27	0.21	0.27	24.48	ppb
Molybdenum	96-1	0.38	0.27	0.19	0.28	34.92	ppb
Molybdenum	97-1	0.36	0.26	0.21	0.28	27.82	ppb
Molybdenum	98-1	0.36	0.28	0.22	0.29	23.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	0.04	-0.06	-0.01		ppb
Phosphorus	31-2	-24.26	-16.32	-28.88	-23.15		ppb
Potassium	39-2	9.86	10.03	2.08	7.32	62.02	ppb
Rhodium	103-1				97		%
Rhodium	103-2				104		%
Scandium	45-1				98		%
Scandium	45-2				101		%
Selenium	82-1	0.39	0.14	0.03	0.18	100.68	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.10	-0.38	-0.13	-0.20		ppb
Silicon	28-1	0.63	0.22	-0.02	0.28	119.75	ppb
Silver	107-1	0.08	0.06	0.05	0.06	25.82	ppb
Silver	109-1	0.07	0.06	0.05	0.06	18.92	ppb
Sodium	23-2	28.69	27.86	16.59	24.38	27.74	ppb
Strontium	86-1	0.03	0.02	0.01	0.02	63.93	ppb
Strontium	88-1	0.03	0.02	0.01	0.02	49.69	ppb
Sulfur	34-1	-694.68	-887.91	-944.38	-842.32		ppb
Terbium	159-1				96		%
Terbium	159-2				104		%
Thallium	203-1	0.06	0.06	0.05	0.06	12.90	ppb
Thallium	205-1	0.06	0.05	0.05	0.05	14.84	ppb
Tin	118-1	0.47	0.42	0.29	0.39	24.41	ppb
Titanium	47-1	0.28	0.18	0.13	0.20	38.85	ppb
Uranium	238-1	0.03	0.02	0.01	0.02	46.10	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.01	0.01	68.13	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				104		%
Zinc	66-2	0.63	0.62	0.52	0.59	10.54	ppb
Zirconium	90-1	0.04	0.03	0.02	0.03	28.30	ppb
Zirconium	91-1	0.05	0.04	0.03	0.04	30.80	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.92	0.50	0.28	0.57	57.80	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	11.82	ppb
Arsenic	75-2	-0.01	-0.01	0.02	0.00		ppb
Barium	135-1	0.04	0.07	0.04	0.05	38.84	ppb
Barium	137-1	0.06	0.04	0.06	0.05	27.21	ppb
Beryllium	9-1	0.03	0.03	0.03	0.03	3.35	ppb
Bismuth	209-1				96		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.13	-0.02	0.10	0.07	110.21	ppb
Cadmium	106-1	-0.75	-0.53	-1.59	-0.96		ppb
Cadmium	111-1	-0.02	-0.01	-0.04	-0.02		ppb
Calcium	43-1	3.74	3.11	3.39	3.42	9.23	ppb
Calcium	44-1	2.65	1.93	2.38	2.32	15.61	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	-0.02	-0.01	0.00		ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	82.06	ppb
Copper	63-2	-0.06	-0.04	-0.03	-0.04		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				96		%
Holmium	165-2				95		%
Indium	115-1				95		%
Indium	115-2				93		%
Iron	54-2	0.00	0.92	0.63	0.51	90.98	ppb
Iron	56-2	0.50	0.42	0.45	0.46	9.26	ppb
Iron	57-2	0.64	0.47	1.51	0.88	63.94	ppb
Krypton	83-1						cps
Lead	206-1	0.04	0.02	0.03	0.03	35.23	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.03	0.02	0.03	0.03	27.13	ppb
Lead	208-1	0.03	0.02	0.03	0.03	30.37	ppb
Lithium	6-1				96		%
Magnesium	24-2	-0.24	-0.22	-0.57	-0.34		ppb
Manganese	55-2	0.15	0.17	0.23	0.18	23.27	ppb
Molybdenum	94-1	0.02	0.01	0.01	0.02	25.80	ppb
Molybdenum	95-1	0.02	0.01	0.01	0.01	48.80	ppb
Molybdenum	96-1	0.02	0.02	0.00	0.01	106.83	ppb
Molybdenum	97-1	0.00	-0.01	0.00	-0.01		ppb
Molybdenum	98-1	0.02	0.01	0.02	0.01	24.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	0.04	-0.04	0.00		ppb
Phosphorus	31-2	-19.83	-18.39	-11.54	-16.59		ppb
Potassium	39-2	3.27	4.38	2.38	3.34	29.86	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				97		%
Scandium	45-2				92		%
Selenium	82-1	0.36	0.21	0.34	0.31	26.08	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.52	-0.08	-0.08	0.12	287.44	ppb
Silicon	28-1	-0.31	-0.60	-0.44	-0.45		ppb
Silver	107-1	0.00	0.00	0.00	0.00	39.92	ppb
Silver	109-1	0.00	0.00	0.00	0.00	44.25	ppb
Sodium	23-2	11.14	10.67	10.15	10.65	4.64	ppb
Strontium	86-1	0.01	0.00	-0.01	0.00	7440.44	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	51.43	ppb
Sulfur	34-1	-599.89	-827.82	-722.87	-716.86		ppb
Terbium	159-1				95		%
Terbium	159-2				94		%
Thallium	203-1	0.01	0.02	0.02	0.02	3.92	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	23.83	ppb
Tin	118-1	0.02	0.02	0.02	0.02	15.60	ppb
Titanium	47-1	0.00	0.01	-0.01	0.00		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				93		%
Zinc	66-2	0.27	0.43	0.35	0.35	23.52	ppb
Zirconium	90-1	0.00	0.01	0.00	0.00	100.41	ppb
Zirconium	91-1	0.00	0.01	0.01	0.00	177.78	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	36.50	34.15	36.33	35.66	3.66	ppb
Antimony	121-1	3.81	3.69	3.73	3.74	1.67	ppb
Arsenic	75-2	1.82	2.15	1.89	1.95	8.80	ppb
Barium	135-1	18.36	18.41	18.30	18.36	0.29	ppb
Barium	137-1	18.96	18.81	18.89	18.89	0.40	ppb
Beryllium	9-1	1.91	1.87	1.85	1.88	1.61	ppb
Bismuth	209-1				94		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	2.29	2.07	2.06	2.14	5.96	ppb
Cadmium	106-1	1.21	1.16	0.92	1.09	14.18	ppb
Cadmium	111-1	1.86	1.87	1.85	1.86	0.49	ppb
Calcium	43-1	914.82	890.68	909.40	904.97	1.40	ppb
Calcium	44-1	909.32	894.93	902.01	902.09	0.80	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.50	3.65	3.54	3.56	2.08	ppb
Cobalt	59-2	1.95	1.91	1.88	1.91	1.88	ppb
Copper	63-2	4.31	4.42	4.38	4.37	1.34	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				94		%
Holmium	165-2				95		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	399.78	384.77	378.56	387.70	2.81	ppb
Iron	56-2	389.92	390.34	380.76	387.00	1.40	ppb
Iron	57-2	392.39	384.41	381.62	386.14	1.45	ppb
Krypton	83-1						cps
Lead	206-1	1.83	1.87	1.86	1.85	0.97	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.91	1.89	1.93	1.91	1.04	ppb
Lead	208-1	1.85	1.88	1.90	1.88	1.18	ppb
Lithium	6-1				94		%
Magnesium	24-2	953.64	963.95	940.37	952.65	1.24	ppb
Manganese	55-2	2.13	1.99	2.09	2.07	3.38	ppb
Molybdenum	94-1	10.72	10.78	10.77	10.76	0.31	ppb
Molybdenum	95-1	8.94	8.97	8.91	8.94	0.31	ppb
Molybdenum	96-1	9.16	9.11	9.00	9.09	0.88	ppb
Molybdenum	97-1	9.01	9.12	9.05	9.06	0.59	ppb
Molybdenum	98-1	9.03	8.88	8.97	8.96	0.86	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.15	2.19	2.08	2.14	2.63	ppb
Phosphorus	31-2	19.44	45.04	31.76	32.08	39.91	ppb
Potassium	39-2	896.88	894.29	878.32	889.83	1.13	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				96		%
Scandium	45-2				94		%
Selenium	82-1	9.71	9.12	9.74	9.52	3.68	ppb
Selenium	77-2	6.95	4.99	6.99	6.31	18.17	ppb
Selenium	78-2	10.44	10.48	9.03	9.99	8.26	ppb
Silicon	28-1	6.40	6.12	6.20	6.24	2.32	ppb
Silver	107-1	1.84	1.85	1.86	1.85	0.61	ppb
Silver	109-1	1.87	1.88	1.88	1.88	0.32	ppb
Sodium	23-2	932.27	925.19	913.91	923.79	1.00	ppb
Strontium	86-1	1.73	1.77	1.72	1.74	1.51	ppb
Strontium	88-1	1.77	1.73	1.73	1.74	1.30	ppb
Sulfur	34-1	-409.30	-609.42	-530.50	-516.41		ppb
Terbium	159-1				94		%
Terbium	159-2				96		%
Thallium	203-1	1.76	1.79	1.79	1.78	1.01	ppb
Thallium	205-1	1.77	1.79	1.80	1.79	0.95	ppb
Tin	118-1	8.55	8.56	8.47	8.53	0.57	ppb
Titanium	47-1	10.06	9.95	10.57	10.19	3.22	ppb
Uranium	238-1	1.74	1.72	1.75	1.73	1.01	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	9.43	9.33	9.18	9.31	1.32	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				95		%
Yttrium	89-2				95		%
Zinc	66-2	10.53	10.00	10.40	10.31	2.68	ppb
Zirconium	90-1	1.83	1.79	1.81	1.81	1.00	ppb
Zirconium	91-1	1.78	1.76	1.81	1.78	1.38	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3.02	3.56	2.65	3.08	14.86	ppb
Antimony	121-1	0.06	0.06	0.06	0.06	1.56	ppb
Arsenic	75-2	0.02	0.06	-0.01	0.02	174.55	ppb
Barium	135-1	0.04	0.05	0.05	0.05	19.81	ppb
Barium	137-1	0.07	0.08	0.07	0.08	2.74	ppb
Beryllium	9-1	0.02	0.02	0.02	0.02	5.46	ppb
Bismuth	209-1				95		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	0.05	0.10	0.15	0.10	51.33	ppb
Cadmium	106-1	-0.86	-1.09	-0.92	-0.96		ppb
Cadmium	111-1	0.00	-0.02	-0.02	-0.01		ppb
Calcium	43-1	8.36	12.19	12.82	11.12	21.72	ppb
Calcium	44-1	10.72	11.19	11.13	11.01	2.33	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.39	-0.38	-0.38	-0.38		ppb
Cobalt	59-2	0.02	0.02	0.02	0.02	4.59	ppb
Copper	63-2	-0.02	-0.01	0.01	-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				94		%
Holmium	165-2				95		%
Indium	115-1				96		%
Indium	115-2				94		%
Iron	54-2	6.65	7.69	7.85	7.40	8.80	ppb
Iron	56-2	7.03	6.92	7.11	7.02	1.41	ppb
Iron	57-2	8.75	6.68	7.67	7.70	13.42	ppb
Krypton	83-1						cps
Lead	206-1	0.07	0.06	0.07	0.07	7.16	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.06	0.08	0.06	0.07	11.87	ppb
Lead	208-1	0.06	0.06	0.06	0.06	2.58	ppb
Lithium	6-1				95		%
Magnesium	24-2	0.81	0.80	0.92	0.85	7.82	ppb
Manganese	55-2	5.18	4.96	5.40	5.18	4.27	ppb
Molybdenum	94-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	95-1	-0.02	-0.02	-0.03	-0.03		ppb
Molybdenum	96-1	-0.02	-0.02	-0.02	-0.02		ppb
Molybdenum	97-1	-0.02	-0.03	-0.03	-0.03		ppb
Molybdenum	98-1	-0.02	-0.02	-0.02	-0.02		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.08	-0.02	-0.07	0.00		ppb
Phosphorus	31-2	-19.72	-18.71	-14.42	-17.62		ppb
Potassium	39-2	2.15	2.10	2.96	2.40	19.96	ppb
Rhodium	103-1				94		%
Rhodium	103-2				94		%
Scandium	45-1				96		%
Scandium	45-2				93		%
Selenium	82-1	0.17	0.28	0.15	0.20	35.30	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.08	0.21	-0.08	0.02	1076.23	ppb
Silicon	28-1	34.68	31.18	31.66	32.51	5.84	ppb
Silver	107-1	0.01	0.01	0.01	0.01	12.50	ppb
Silver	109-1	0.01	0.01	0.01	0.01	18.74	ppb
Sodium	23-2	37.86	36.73	39.72	38.10	3.96	ppb
Strontium	86-1	0.02	0.02	0.02	0.02	16.76	ppb
Strontium	88-1	0.02	0.02	0.02	0.02	4.87	ppb
Sulfur	34-1	-540.97	-460.13	-513.02	-504.71		ppb
Terbium	159-1				93		%
Terbium	159-2				96		%
Thallium	203-1	0.01	0.01	0.02	0.01	13.81	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	33.33	ppb
Tin	118-1	0.09	0.09	0.10	0.09	7.03	ppb
Titanium	47-1	0.07	0.04	0.05	0.05	22.18	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.01	0.00	43.66	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				95		%
Yttrium	89-2				94		%
Zinc	66-2	0.49	0.65	0.73	0.62	19.85	ppb
Zirconium	90-1	0.00	0.01	0.01	0.01	63.59	ppb
Zirconium	91-1	0.01	0.01	0.00	0.01	93.18	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1815.51	1788.29	1825.19	1809.66	1.06	ppb
Antimony	121-1	2.04	2.09	2.10	2.08	1.42	ppb
Arsenic	75-2	15.87	15.12	14.61	15.20	4.16	ppb
Barium	135-1	8.28	8.59	8.57	8.48	2.05	ppb
Barium	137-1	8.54	8.46	8.75	8.58	1.77	ppb
Beryllium	9-1	0.07	0.06	0.07	0.07	5.50	ppb
Bismuth	209-1				77		%
Bismuth	209-2				76		%
Bromine	81-1						cps
Cadmium	108-1	0.61	0.55	0.48	0.54	11.25	ppb
Cadmium	106-1	0.30	-0.33	-0.01	-0.01		ppb
Cadmium	111-1	0.07	0.05	0.07	0.06	20.62	ppb
Calcium	43-1	34629.06	35690.27	35843.73	35387.69	1.87	ppb
Calcium	44-1	34623.03	35685.08	35654.53	35320.88	1.71	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.52	2.33	2.38	2.41	4.16	ppb
Cobalt	59-2	0.66	0.68	0.73	0.69	4.78	ppb
Copper	63-2	104.66	102.73	105.89	104.43	1.53	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				86		%
Holmium	165-2				85		%
Indium	115-1				81		%
Indium	115-2				81		%
Iron	54-2	1407.38	1362.47	1390.84	1386.90	1.64	ppb
Iron	56-2	1485.65	1457.48	1487.92	1477.02	1.15	ppb
Iron	57-2	1409.15	1398.30	1425.83	1411.09	0.98	ppb
Krypton	83-1						cps
Lead	206-1	3.52	3.45	3.52	3.49	1.17	ppb

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	3.38	3.42	3.36	3.39	0.89	ppb
Lead	208-1	3.46	3.42	3.45	3.44	0.53	ppb
Lithium	6-1				80		%
Magnesium	24-2	91352.13	90071.16	91459.05	90960.78	0.85	ppb
Manganese	55-2	53.50	51.59	51.96	52.35	1.94	ppb
Molybdenum	94-1	6.95	7.29	7.18	7.14	2.39	ppb
Molybdenum	95-1	4.51	4.61	4.61	4.58	1.30	ppb
Molybdenum	96-1	4.75	4.83	4.78	4.78	0.80	ppb
Molybdenum	97-1	4.45	4.63	4.59	4.56	2.14	ppb
Molybdenum	98-1	4.53	4.52	4.50	4.52	0.36	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	3.89	4.00	3.94	3.94	1.39	ppb
Phosphorus	31-2	182.85	174.31	210.82	189.33	10.09	ppb
Potassium	39-2	38228.67	37773.49	37928.65	37976.93	0.61	ppb
Rhodium	103-1				76		%
Rhodium	103-2				76		%
Scandium	45-1				87		%
Scandium	45-2				84		%
Selenium	82-1	6.49	8.02	7.41	7.31	10.56	ppb
Selenium	77-2	2.34	7.04	2.37	3.92	69.08	ppb
Selenium	78-2	1.69	2.04	1.01	1.58	32.96	ppb
Silicon	28-1	3966.80	4114.77	4052.93	4044.83	1.84	ppb
Silver	107-1	0.11	0.09	0.10	0.10	6.59	ppb
Silver	109-1	0.11	0.09	0.09	0.10	9.96	ppb
Sodium	23-2	896929.54	875737.50	901958.06	891541.70	1.56	ppb
Strontium	86-1	513.50	515.38	514.56	514.48	0.18	ppb
Strontium	88-1	501.49	515.69	510.86	509.35	1.42	ppb
Sulfur	34-1	84588.00	88137.37	86590.49	86438.62	2.06	ppb
Terbium	159-1				86		%
Terbium	159-2				86		%
Thallium	203-1	0.25	0.24	0.23	0.24	4.28	ppb
Thallium	205-1	0.24	0.24	0.24	0.24	1.80	ppb
Tin	118-1	0.31	0.29	0.32	0.31	4.77	ppb
Titanium	47-1	79.73	80.27	79.87	79.96	0.35	ppb
Uranium	238-1	0.50	0.50	0.50	0.50	0.57	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	16.97	16.77	16.90	16.88	0.61	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				85		%
Yttrium	89-2				80		%
Zinc	66-2	8.99	9.06	9.78	9.28	4.71	ppb
Zirconium	90-1	1.84	1.86	1.85	1.85	0.50	ppb
Zirconium	91-1	1.81	1.86	1.79	1.82	1.77	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1841.49	1816.96	1844.78	1834.41	0.83	ppb
Antimony	121-1	2.04	2.03	2.11	2.06	2.08	ppb
Arsenic	75-2	14.54	14.48	14.43	14.48	0.38	ppb
Barium	135-1	8.58	8.58	8.32	8.49	1.77	ppb
Barium	137-1	8.61	8.68	8.65	8.65	0.38	ppb
Beryllium	9-1	0.07	0.08	0.10	0.09	16.04	ppb
Bismuth	209-1				76		%
Bismuth	209-2				77		%
Bromine	81-1						cps
Cadmium	108-1	0.44	0.40	0.44	0.43	5.66	ppb
Cadmium	106-1	-0.18	0.25	-0.07	0.00		ppb
Cadmium	111-1	0.05	0.07	0.05	0.06	26.86	ppb
Calcium	43-1	35940.73	35407.19	35382.59	35576.84	0.89	ppb
Calcium	44-1	35111.94	35123.13	35225.79	35153.62	0.18	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.41	2.50	2.29	2.40	4.32	ppb
Cobalt	59-2	0.64	0.63	0.73	0.67	8.62	ppb
Copper	63-2	106.15	104.91	104.59	105.22	0.78	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				85		%
Holmium	165-2				86		%
Indium	115-1				79		%
Indium	115-2				81		%
Iron	54-2	1397.69	1404.02	1396.38	1399.36	0.29	ppb
Iron	56-2	1501.68	1453.79	1472.43	1475.97	1.64	ppb
Iron	57-2	1451.89	1416.87	1429.66	1432.81	1.24	ppb
Krypton	83-1						cps
Lead	206-1	3.31	3.37	3.43	3.37	1.70	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	3.29	3.40	3.38	3.35	1.73	ppb
Lead	208-1	3.30	3.38	3.37	3.35	1.38	ppb
Lithium	6-1				79		%
Magnesium	24-2	92749.63	91674.78	91724.06	92049.49	0.66	ppb
Manganese	55-2	26.43	26.20	26.03	26.22	0.76	ppb
Molybdenum	94-1	7.15	7.08	7.18	7.14	0.73	ppb
Molybdenum	95-1	4.63	4.68	4.73	4.68	1.10	ppb
Molybdenum	96-1	4.84	4.82	4.87	4.84	0.56	ppb
Molybdenum	97-1	4.59	4.61	4.69	4.63	1.15	ppb
Molybdenum	98-1	4.50	4.52	4.52	4.51	0.23	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	4.13	4.05	3.77	3.98	4.79	ppb
Phosphorus	31-2	182.94	194.69	213.89	197.17	7.92	ppb
Potassium	39-2	38527.96	38331.09	38410.31	38423.12	0.26	ppb
Rhodium	103-1				75		%
Rhodium	103-2				76		%
Scandium	45-1				85		%
Scandium	45-2				83		%
Selenium	82-1	6.43	8.43	8.59	7.82	15.41	ppb
Selenium	77-2	4.70	3.52	3.54	3.92	17.15	ppb
Selenium	78-2	2.04	3.08	3.10	2.74	22.04	ppb
Silicon	28-1	4004.00	4044.57	4023.93	4024.16	0.50	ppb
Silver	107-1	0.06	0.07	0.07	0.07	5.44	ppb
Silver	109-1	0.06	0.07	0.07	0.07	7.78	ppb
Sodium	23-2	900021.47	903023.33	879318.75	894121.18	1.44	ppb
Strontium	86-1	524.95	525.53	509.24	519.91	1.78	ppb
Strontium	88-1	512.92	515.23	508.67	512.27	0.65	ppb
Sulfur	34-1	86861.74	86850.11	85576.83	86429.56	0.85	ppb
Terbium	159-1				84		%
Terbium	159-2				85		%
Thallium	203-1	0.14	0.17	0.18	0.16	12.83	ppb
Thallium	205-1	0.14	0.16	0.19	0.16	15.14	ppb
Tin	118-1	0.29	0.29	0.31	0.30	3.62	ppb
Titanium	47-1	79.01	79.29	79.76	79.35	0.48	ppb
Uranium	238-1	0.49	0.51	0.51	0.50	1.67	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	17.13	16.71	16.92	16.92	1.24	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				84		%
Yttrium	89-2				80		%
Zinc	66-2	8.51	8.42	8.15	8.36	2.23	ppb
Zirconium	90-1	1.92	1.82	1.81	1.85	3.15	ppb
Zirconium	91-1	1.89	1.91	1.83	1.88	2.10	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	353.56	376.57	375.20	368.44	3.50	ppb
Antimony	121-1	0.42	0.42	0.40	0.42	3.07	ppb
Arsenic	75-2	3.32	2.55	2.85	2.90	13.37	ppb
Barium	135-1	1.77	1.75	1.76	1.76	0.38	ppb
Barium	137-1	1.84	1.64	1.78	1.75	5.82	ppb
Beryllium	9-1	0.05	0.04	0.04	0.04	9.76	ppb
Bismuth	209-1				85		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	0.07	0.05	0.07	0.07	14.97	ppb
Cadmium	106-1	-1.03	-0.58	-0.62	-0.74		ppb
Cadmium	111-1	-0.02	0.00	0.00	0.00		ppb
Calcium	43-1	7025.28	6805.16	7017.52	6949.32	1.80	ppb
Calcium	44-1	7355.54	7121.63	7258.44	7245.20	1.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.17	0.25	0.20	0.21	19.74	ppb
Cobalt	59-2	0.12	0.13	0.14	0.13	7.57	ppb
Copper	63-2	21.79	23.27	22.88	22.65	3.39	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				89		%
Holmium	165-2				92		%
Indium	115-1				87		%
Indium	115-2				88		%
Iron	54-2	279.51	293.69	291.63	288.28	2.66	ppb
Iron	56-2	281.34	300.57	291.70	291.20	3.30	ppb
Iron	57-2	284.21	299.93	294.22	292.79	2.72	ppb
Krypton	83-1						cps
Lead	206-1	0.68	0.66	0.67	0.67	2.01	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.66	0.66	0.66	0.66	0.79	ppb
Lead	208-1	0.66	0.65	0.66	0.66	1.23	ppb
Lithium	6-1				86		%
Magnesium	24-2	18255.70	19310.40	19287.03	18951.04	3.18	ppb
Manganese	55-2	5.21	5.64	5.44	5.43	4.00	ppb
Molybdenum	94-1	1.43	1.38	1.44	1.42	2.34	ppb
Molybdenum	95-1	0.94	0.86	0.90	0.90	4.17	ppb
Molybdenum	96-1	0.96	0.89	0.92	0.92	4.18	ppb
Molybdenum	97-1	0.92	0.89	0.92	0.91	1.87	ppb
Molybdenum	98-1	0.93	0.86	0.86	0.88	4.89	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.59	0.67	0.57	0.61	8.37	ppb
Phosphorus	31-2	28.18	34.42	4.28	22.29	71.37	ppb
Potassium	39-2	7075.63	7528.32	7350.14	7318.03	3.12	ppb
Rhodium	103-1				84		%
Rhodium	103-2				86		%
Scandium	45-1				88		%
Scandium	45-2				87		%
Selenium	82-1	2.49	2.17	2.02	2.23	10.82	ppb
Selenium	77-2	2.05	0.00	0.00	0.68	173.21	ppb
Selenium	78-2	0.83	0.62	0.24	0.56	52.85	ppb
Silicon	28-1	839.42	820.08	834.50	831.33	1.21	ppb
Silver	107-1	0.02	0.02	0.02	0.02	18.08	ppb
Silver	109-1	0.02	0.02	0.02	0.02	3.83	ppb
Sodium	23-2	175706.90	184181.53	181372.24	180420.22	2.39	ppb
Strontium	86-1	99.59	95.43	97.31	97.44	2.14	ppb
Strontium	88-1	106.77	101.75	104.29	104.27	2.41	ppb
Sulfur	34-1	17991.08	17176.70	17857.62	17675.13	2.47	ppb
Terbium	159-1				89		%
Terbium	159-2				92		%
Thallium	203-1	0.08	0.07	0.06	0.07	13.04	ppb
Thallium	205-1	0.07	0.06	0.06	0.06	3.21	ppb
Tin	118-1	0.07	0.08	0.07	0.07	8.60	ppb
Titanium	47-1	16.02	15.63	16.19	15.95	1.80	ppb
Uranium	238-1	0.10	0.09	0.09	0.09	4.28	ppb

Reviewed By:Mohan
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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	3.42	3.47	3.40	3.43	1.07	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				89		%
Yttrium	89-2				88		%
Zinc	66-2	2.13	1.78	1.86	1.92	9.50	ppb
Zirconium	90-1	0.35	0.36	0.91	0.54	59.36	ppb
Zirconium	91-1	0.37	0.34	0.35	0.35	4.02	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3733.32	3667.40	3650.66	3683.79	1.19	ppb
Antimony	121-1	98.58	99.54	99.49	99.20	0.54	ppb
Arsenic	75-2	57.04	56.73	55.65	56.48	1.29	ppb
Barium	135-1	2085.44	2098.00	2069.65	2084.37	0.68	ppb
Barium	137-1	2083.50	2093.21	2119.37	2098.69	0.88	ppb
Beryllium	9-1	50.24	49.08	48.44	49.25	1.86	ppb
Bismuth	209-1				75		%
Bismuth	209-2				76		%
Bromine	81-1						cps
Cadmium	108-1	39.24	40.91	39.65	39.93	2.17	ppb
Cadmium	106-1	36.19	38.34	38.50	37.68	3.42	ppb
Cadmium	111-1	45.81	45.77	46.26	45.95	0.60	ppb
Calcium	43-1	35340.91	35291.34	35659.91	35430.72	0.56	ppb
Calcium	44-1	34836.87	35035.94	35451.24	35108.02	0.89	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	198.85	198.16	198.36	198.46	0.18	ppb
Cobalt	59-2	533.23	519.59	519.60	524.14	1.50	ppb
Copper	63-2	354.46	353.22	353.82	353.83	0.18	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				84		%
Holmium	165-2				86		%
Indium	115-1				80		%
Indium	115-2				82		%
Iron	54-2	2545.61	2554.15	2564.13	2554.63	0.36	ppb
Iron	56-2	2496.41	2526.15	2521.01	2514.52	0.63	ppb
Iron	57-2	2410.47	2405.18	2435.91	2417.18	0.68	ppb
Krypton	83-1						cps
Lead	206-1	23.81	23.64	24.45	23.97	1.80	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	23.95	23.74	24.36	24.01	1.31	ppb
Lead	208-1	23.85	23.66	24.30	23.94	1.39	ppb
Lithium	6-1				80		%
Magnesium	24-2	90860.98	91334.54	89839.13	90678.22	0.84	ppb
Manganese	55-2	523.02	522.71	520.33	522.02	0.28	ppb
Molybdenum	94-1	7.41	7.30	7.49	7.40	1.30	ppb
Molybdenum	95-1	4.55	4.70	4.81	4.69	2.79	ppb
Molybdenum	96-1	4.84	4.89	4.88	4.87	0.51	ppb
Molybdenum	97-1	4.65	4.77	4.69	4.70	1.36	ppb
Molybdenum	98-1	4.54	4.50	4.62	4.56	1.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	510.33	508.93	507.18	508.81	0.31	ppb
Phosphorus	31-2	181.38	191.88	196.65	189.97	4.11	ppb
Potassium	39-2	37979.53	37769.41	37779.85	37842.93	0.31	ppb
Rhodium	103-1				75		%
Rhodium	103-2				76		%
Scandium	45-1				85		%
Scandium	45-2				84		%
Selenium	82-1	104.58	101.55	110.31	105.48	4.22	ppb
Selenium	77-2	124.29	86.59	104.90	105.26	17.91	ppb
Selenium	78-2	112.11	118.45	110.57	113.71	3.67	ppb
Silicon	28-1	4075.45	4026.38	4043.44	4048.42	0.62	ppb
Silver	107-1	44.19	45.09	44.98	44.75	1.09	ppb
Silver	109-1	44.55	45.14	45.68	45.12	1.26	ppb
Sodium	23-2	886166.44	880907.14	877174.08	881415.89	0.51	ppb
Strontium	86-1	512.27	506.76	519.14	512.72	1.21	ppb
Strontium	88-1	504.92	505.43	509.79	506.71	0.53	ppb
Sulfur	34-1	85861.74	83712.86	86371.22	85315.27	1.65	ppb
Terbium	159-1				84		%
Terbium	159-2				87		%
Thallium	203-1	49.17	49.14	50.95	49.75	2.08	ppb
Thallium	205-1	49.55	49.18	51.03	49.92	1.96	ppb
Tin	118-1	0.79	0.81	0.81	0.81	1.43	ppb
Titanium	47-1	83.39	82.12	81.45	82.32	1.20	ppb
Uranium	238-1	0.50	0.50	0.51	0.50	1.11	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	531.26	525.87	525.97	527.70	0.58	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				83		%
Yttrium	89-2				81		%
Zinc	66-2	496.02	497.09	491.92	495.01	0.55	ppb
Zirconium	90-1	1.93	1.93	1.98	1.95	1.50	ppb
Zirconium	91-1	1.93	1.97	2.00	1.96	1.69	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19.46	20.26	18.07	19.26	5.76	ppb
Antimony	121-1	0.34	0.33	0.33	0.33	2.74	ppb
Arsenic	75-2	3.16	3.20	3.16	3.17	0.62	ppb
Barium	135-1	2.83	2.72	2.69	2.75	2.64	ppb
Barium	137-1	2.86	2.80	2.84	2.83	1.12	ppb
Beryllium	9-1	0.05	0.06	0.05	0.06	9.71	ppb
Bismuth	209-1				77		%
Bismuth	209-2				80		%
Bromine	81-1						cps
Cadmium	108-1	0.14	0.12	0.08	0.11	29.72	ppb
Cadmium	106-1	-1.11	-0.84	-2.05	-1.34		ppb
Cadmium	111-1	-0.01	-0.01	-0.01	-0.01		ppb
Calcium	43-1	30586.86	29715.64	29170.16	29824.22	2.40	ppb
Calcium	44-1	30253.93	29715.53	29274.15	29747.87	1.65	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.62	0.60	0.50	0.57	11.29	ppb
Cobalt	59-2	0.04	0.05	0.06	0.05	21.74	ppb
Copper	63-2	10.78	10.49	10.50	10.59	1.55	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				84		%
Holmium	165-2				88		%
Indium	115-1				81		%
Indium	115-2				84		%
Iron	54-2	28.36	27.05	27.80	27.74	2.38	ppb
Iron	56-2	27.66	27.55	27.16	27.46	0.96	ppb
Iron	57-2	27.15	30.63	28.36	28.71	6.14	ppb
Krypton	83-1						cps
Lead	206-1	0.20	0.19	0.18	0.19	5.48	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.20	0.19	0.19	0.19	4.08	ppb
Lead	208-1	0.20	0.18	0.18	0.19	6.34	ppb
Lithium	6-1				82		%
Magnesium	24-2	74772.39	74625.47	73813.38	74403.74	0.69	ppb
Manganese	55-2	5.14	5.08	4.92	5.04	2.29	ppb
Molybdenum	94-1	1.33	1.32	1.29	1.31	1.63	ppb
Molybdenum	95-1	1.47	1.46	1.44	1.45	1.21	ppb
Molybdenum	96-1	1.41	1.37	1.41	1.40	1.65	ppb
Molybdenum	97-1	1.49	1.47	1.36	1.44	4.73	ppb
Molybdenum	98-1	1.47	1.40	1.44	1.44	2.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.68	1.60	1.41	1.56	8.72	ppb
Phosphorus	31-2	57.83	64.87	52.20	58.30	10.89	ppb
Potassium	39-2	25794.29	25665.76	25788.18	25749.41	0.28	ppb
Rhodium	103-1				76		%
Rhodium	103-2				79		%
Scandium	45-1				86		%
Scandium	45-2				85		%
Selenium	82-1	4.76	5.05	5.96	5.26	11.82	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	1.32	0.29	0.98	0.86	60.65	ppb
Silicon	28-1	5689.37	5665.12	5622.85	5659.11	0.59	ppb
Silver	107-1	0.09	0.05	0.05	0.06	32.37	ppb
Silver	109-1	0.09	0.06	0.05	0.07	35.77	ppb
Sodium	23-2	592273.96	590288.49	585068.07	589210.17	0.63	ppb
Strontium	86-1	399.55	387.75	386.12	391.14	1.87	ppb
Strontium	88-1	394.45	391.10	382.68	389.41	1.56	ppb
Sulfur	34-1	55013.06	54513.41	52748.96	54091.81	2.20	ppb
Terbium	159-1				85		%
Terbium	159-2				89		%
Thallium	203-1	0.08	0.08	0.07	0.08	9.38	ppb
Thallium	205-1	0.07	0.07	0.08	0.07	1.48	ppb
Tin	118-1	13.40	13.08	13.16	13.21	1.28	ppb
Titanium	47-1	2.73	2.83	2.88	2.81	2.86	ppb
Uranium	238-1	0.27	0.27	0.26	0.27	1.49	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	8.07	8.03	8.32	8.14	1.96	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				85		%
Yttrium	89-2				82		%
Zinc	66-2	3.97	4.15	4.19	4.10	2.77	ppb
Zirconium	90-1	0.09	0.08	0.08	0.08	3.94	ppb
Zirconium	91-1	0.10	0.08	0.09	0.09	9.77	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21.28	21.09	24.95	22.44	9.71	ppb
Antimony	121-1	0.32	0.33	0.32	0.32	1.55	ppb
Arsenic	75-2	2.88	2.99	3.31	3.06	7.29	ppb
Barium	135-1	2.74	2.57	2.74	2.68	3.62	ppb
Barium	137-1	2.70	2.71	2.77	2.73	1.29	ppb
Beryllium	9-1	0.06	0.05	0.06	0.06	5.99	ppb
Bismuth	209-1				77		%
Bismuth	209-2				82		%
Bromine	81-1						cps
Cadmium	108-1	0.16	0.09	0.13	0.13	28.78	ppb
Cadmium	106-1	-1.04	-1.26	-1.04	-1.11		ppb
Cadmium	111-1	-0.01	-0.01	0.00	-0.01		ppb
Calcium	43-1	28354.14	29196.57	29875.16	29141.96	2.61	ppb
Calcium	44-1	28991.55	29229.92	29394.47	29205.31	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	-0.01	0.05	0.00	1043.57	ppb
Cobalt	59-2	0.01	0.02	0.03	0.02	57.04	ppb
Copper	63-2	9.91	10.28	10.48	10.23	2.83	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				87		%
Holmium	165-2				91		%
Indium	115-1				83		%
Indium	115-2				87		%
Iron	54-2	25.32	23.66	27.77	25.59	8.09	ppb
Iron	56-2	24.61	24.94	25.44	25.00	1.68	ppb
Iron	57-2	27.94	27.56	27.57	27.69	0.79	ppb
Krypton	83-1						cps
Lead	206-1	0.32	0.29	0.31	0.31	4.64	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.29	0.26	0.28	0.28	5.33	ppb
Lead	208-1	0.29	0.29	0.29	0.29	0.75	ppb
Lithium	6-1				81		%
Magnesium	24-2	70108.31	69716.84	71428.64	70417.93	1.27	ppb
Manganese	55-2	7.03	6.91	7.44	7.13	3.95	ppb
Molybdenum	94-1	1.27	1.31	1.32	1.30	1.93	ppb
Molybdenum	95-1	1.39	1.40	1.45	1.41	2.05	ppb
Molybdenum	96-1	1.36	1.39	1.31	1.35	3.14	ppb
Molybdenum	97-1	1.45	1.47	1.45	1.46	1.00	ppb
Molybdenum	98-1	1.38	1.39	1.36	1.38	1.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.99	0.78	0.88	0.88	11.51	ppb
Phosphorus	31-2	59.22	51.77	45.74	52.24	12.92	ppb
Potassium	39-2	24156.52	24360.36	24819.69	24445.53	1.39	ppb
Rhodium	103-1				78		%
Rhodium	103-2				82		%
Scandium	45-1				88		%
Scandium	45-2				89		%
Selenium	82-1	4.55	5.81	5.69	5.35	12.95	ppb
Selenium	77-2	0.00	0.00	3.37	1.12	173.21	ppb
Selenium	78-2	-0.07	0.54	0.95	0.47	109.28	ppb
Silicon	28-1	5506.68	5552.23	5606.42	5555.11	0.90	ppb
Silver	107-1	0.03	0.03	0.03	0.03	5.03	ppb
Silver	109-1	0.03	0.03	0.03	0.03	1.79	ppb
Sodium	23-2	551067.33	549585.43	561075.06	553909.27	1.13	ppb
Strontium	86-1	385.06	377.40	382.16	381.54	1.01	ppb
Strontium	88-1	379.01	381.46	382.30	380.92	0.45	ppb
Sulfur	34-1	53385.80	52611.25	53623.67	53206.91	0.99	ppb
Terbium	159-1				86		%
Terbium	159-2				92		%
Thallium	203-1	0.05	0.06	0.06	0.05	3.69	ppb
Thallium	205-1	0.05	0.05	0.05	0.05	2.00	ppb
Tin	118-1	0.39	0.23	0.22	0.28	32.53	ppb
Titanium	47-1	3.09	2.92	2.96	2.99	3.07	ppb
Uranium	238-1	0.26	0.26	0.27	0.26	1.43	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	7.27	7.65	7.82	7.58	3.68	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				86		%
Yttrium	89-2				89		%
Zinc	66-2	2.63	2.43	2.60	2.56	4.19	ppb
Zirconium	90-1	0.12	0.08	0.08	0.09	27.97	ppb
Zirconium	91-1	0.08	0.06	0.08	0.08	15.99	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	56.53	60.86	53.82	57.07	6.22	ppb
Antimony	121-1	0.20	0.21	0.23	0.22	7.98	ppb
Arsenic	75-2	3.16	3.42	2.69	3.09	12.08	ppb
Barium	135-1	3.06	3.13	3.34	3.17	4.59	ppb
Barium	137-1	3.08	3.13	3.32	3.17	3.96	ppb
Beryllium	9-1	0.06	0.06	0.06	0.06	6.06	ppb
Bismuth	209-1				78		%
Bismuth	209-2				80		%
Bromine	81-1						cps
Cadmium	108-1	0.09	0.09	0.17	0.11	39.61	ppb
Cadmium	106-1	-0.44	-1.45	-1.03	-0.98		ppb
Cadmium	111-1	-0.01	-0.02	-0.01	-0.01		ppb
Calcium	43-1	17720.68	18469.41	18818.60	18336.23	3.06	ppb
Calcium	44-1	18887.70	19395.07	19852.76	19378.51	2.49	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.11	-0.13	-0.14	-0.12		ppb
Cobalt	59-2	0.14	0.15	0.15	0.15	4.15	ppb
Copper	63-2	8.30	7.90	8.19	8.13	2.50	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				89		%
Indium	115-1				84		%
Indium	115-2				85		%
Iron	54-2	100.33	101.18	99.30	100.27	0.94	ppb
Iron	56-2	101.75	101.21	102.67	101.87	0.73	ppb
Iron	57-2	104.48	101.97	104.82	103.76	1.50	ppb
Krypton	83-1						cps
Lead	206-1	1.07	1.06	1.12	1.09	2.86	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.02	1.05	1.11	1.06	4.02	ppb
Lead	208-1	1.03	1.04	1.11	1.06	3.90	ppb
Lithium	6-1				83		%
Magnesium	24-2	46152.59	44608.31	45206.88	45322.59	1.72	ppb
Manganese	55-2	8.83	8.83	8.67	8.78	1.03	ppb
Molybdenum	94-1	1.33	1.37	1.45	1.38	4.61	ppb
Molybdenum	95-1	1.30	1.28	1.30	1.29	0.86	ppb
Molybdenum	96-1	1.28	1.31	1.36	1.32	3.25	ppb
Molybdenum	97-1	1.23	1.24	1.33	1.27	4.17	ppb
Molybdenum	98-1	1.26	1.29	1.31	1.28	1.96	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.09	1.02	1.21	1.10	8.94	ppb
Phosphorus	31-2	69.72	49.05	71.18	63.32	19.55	ppb
Potassium	39-2	21261.34	21347.56	20954.98	21187.96	0.97	ppb
Rhodium	103-1				79		%
Rhodium	103-2				81		%
Scandium	45-1				87		%
Scandium	45-2				86		%
Selenium	82-1	3.52	4.67	4.80	4.33	16.27	ppb
Selenium	77-2	0.00	0.00	1.13	0.38	173.21	ppb
Selenium	78-2	0.59	0.97	0.29	0.62	55.50	ppb
Silicon	28-1	5549.00	5755.93	5831.54	5712.16	2.56	ppb
Silver	107-1	0.02	0.02	0.02	0.02	10.70	ppb
Silver	109-1	0.01	0.02	0.02	0.02	28.95	ppb
Sodium	23-2	485317.77	484052.68	486048.46	485139.64	0.21	ppb
Strontium	86-1	216.67	221.74	227.24	221.88	2.38	ppb
Strontium	88-1	231.23	231.83	236.41	233.16	1.21	ppb
Sulfur	34-1	41805.06	43181.84	44474.87	43153.92	3.09	ppb
Terbium	159-1				86		%
Terbium	159-2				89		%
Thallium	203-1	0.05	0.05	0.04	0.05	6.90	ppb
Thallium	205-1	0.04	0.04	0.04	0.04	7.31	ppb
Tin	118-1	0.11	0.11	0.12	0.11	8.31	ppb
Titanium	47-1	4.84	5.25	5.04	5.04	4.04	ppb
Uranium	238-1	0.61	0.63	0.66	0.63	3.68	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	8.46	8.27	8.16	8.29	1.81	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				86		%
Yttrium	89-2				84		%
Zinc	66-2	1.11	1.01	1.02	1.05	5.14	ppb
Zirconium	90-1	0.18	0.18	0.19	0.18	5.21	ppb
Zirconium	91-1	0.19	0.20	0.22	0.20	8.68	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	15.40	15.11	15.92	15.48	2.67	ppb
Antimony	121-1	0.27	0.26	0.28	0.27	2.90	ppb
Arsenic	75-2	1.62	1.55	1.29	1.49	11.62	ppb
Barium	135-1	4.69	4.67	4.78	4.71	1.17	ppb
Barium	137-1	4.68	4.70	4.91	4.77	2.66	ppb
Beryllium	9-1	0.04	0.07	0.05	0.05	21.21	ppb
Bismuth	209-1				81		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Cadmium	108-1	0.11	0.12	0.09	0.11	17.04	ppb
Cadmium	106-1	-0.91	-0.62	-0.59	-0.71		ppb
Cadmium	111-1	0.00	0.01	0.00	0.00		ppb
Calcium	43-1	25226.61	24835.86	25766.41	25276.29	1.85	ppb
Calcium	44-1	25447.95	25130.20	25641.63	25406.59	1.02	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.21	-0.28	-0.30	-0.26		ppb
Cobalt	59-2	0.03	0.04	0.04	0.04	22.00	ppb
Copper	63-2	2.71	2.63	2.72	2.69	1.74	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				86		%
Indium	115-2				89		%
Iron	54-2	14.98	13.52	14.82	14.44	5.55	ppb
Iron	56-2	13.85	13.79	13.69	13.78	0.62	ppb
Iron	57-2	14.39	13.65	14.60	14.22	3.50	ppb
Krypton	83-1						cps
Lead	206-1	0.39	0.36	0.37	0.37	3.62	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.39	0.38	0.37	0.38	3.31	ppb
Lead	208-1	0.39	0.37	0.37	0.38	2.52	ppb
Lithium	6-1				85		%
Magnesium	24-2	49004.45	48476.85	49561.52	49014.27	1.11	ppb
Manganese	55-2	4.61	4.54	4.61	4.59	0.95	ppb
Molybdenum	94-1	0.78	0.68	0.75	0.74	6.45	ppb
Molybdenum	95-1	0.84	0.85	0.83	0.84	1.40	ppb
Molybdenum	96-1	0.79	0.77	0.81	0.79	2.48	ppb
Molybdenum	97-1	0.84	0.84	0.84	0.84	0.29	ppb
Molybdenum	98-1	0.80	0.82	0.84	0.82	2.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.24	1.11	1.21	1.18	5.77	ppb
Phosphorus	31-2	34.22	19.70	11.86	21.93	51.73	ppb
Potassium	39-2	14762.76	14473.35	14753.21	14663.11	1.12	ppb
Rhodium	103-1				83		%
Rhodium	103-2				85		%
Scandium	45-1				90		%
Scandium	45-2				90		%
Selenium	82-1	3.02	2.94	3.18	3.05	3.91	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.38	0.23	-0.38	-0.17		ppb
Silicon	28-1	4762.76	4765.86	4860.04	4796.22	1.15	ppb
Silver	107-1	0.02	0.02	0.02	0.02	8.58	ppb
Silver	109-1	0.01	0.01	0.02	0.01	27.15	ppb
Sodium	23-2	307125.89	305466.42	310247.05	307613.12	0.79	ppb
Strontium	86-1	264.36	263.05	269.67	265.69	1.32	ppb
Strontium	88-1	279.20	277.07	284.51	280.26	1.37	ppb
Sulfur	34-1	30567.12	29803.02	30142.54	30170.89	1.27	ppb
Terbium	159-1				89		%
Terbium	159-2				94		%
Thallium	203-1	0.03	0.04	0.03	0.03	11.34	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	3.43	ppb
Tin	118-1	0.10	0.10	0.10	0.10	3.25	ppb
Titanium	47-1	2.14	2.39	2.22	2.25	5.76	ppb
Uranium	238-1	0.12	0.12	0.12	0.12	2.35	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	6.79	6.59	6.82	6.73	1.87	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				88		%
Yttrium	89-2				91		%
Zinc	66-2	1.40	1.26	1.17	1.28	8.99	ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	6.36	ppb
Zirconium	91-1	0.02	0.03	0.05	0.03	39.54	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3.68	3.48	3.80	3.65	4.53	ppb
Antimony	121-1	0.06	0.06	0.06	0.06	0.07	ppb
Arsenic	75-2	0.00	-0.03	0.02	0.00		ppb
Barium	135-1	0.04	0.06	0.03	0.05	35.48	ppb
Barium	137-1	0.04	0.04	0.04	0.04	9.07	ppb
Beryllium	9-1	0.04	0.04	0.04	0.04	8.63	ppb
Bismuth	209-1				94		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	0.05	-0.02	0.00	0.01	331.14	ppb
Cadmium	106-1	-0.21	-0.76	-1.13	-0.70		ppb
Cadmium	111-1	0.00	-0.01	-0.03	-0.01		ppb
Calcium	43-1	15.63	11.24	12.69	13.19	16.99	ppb
Calcium	44-1	15.43	14.95	14.67	15.02	2.55	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.08	-0.11	-0.01	-0.07		ppb
Cobalt	59-2	0.01	0.01	0.02	0.01	42.01	ppb
Copper	63-2	0.52	0.51	0.50	0.51	2.26	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				94		%
Holmium	165-2				95		%
Indium	115-1				94		%
Indium	115-2				94		%
Iron	54-2	4.79	4.76	3.08	4.21	23.27	ppb
Iron	56-2	3.51	3.75	3.82	3.69	4.30	ppb
Iron	57-2	4.10	4.72	4.40	4.41	7.04	ppb
Krypton	83-1						cps
Lead	206-1	0.02	0.02	0.02	0.02	7.98	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	0.01	0.01	0.01	79.71	ppb
Lead	208-1	0.01	0.01	0.01	0.01	20.88	ppb
Lithium	6-1				91		%
Magnesium	24-2	3.16	3.07	3.31	3.18	3.80	ppb
Manganese	55-2	2.57	2.43	2.55	2.52	2.85	ppb
Molybdenum	94-1	0.00	0.00	-0.01	-0.01		ppb
Molybdenum	95-1	-0.02	-0.01	-0.01	-0.01		ppb
Molybdenum	96-1	0.00	-0.02	-0.01	-0.01		ppb
Molybdenum	97-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.09	0.08	0.09	0.09	10.80	ppb
Phosphorus	31-2	-19.52	-20.87	-13.70	-18.03		ppb
Potassium	39-2	23.38	24.11	26.08	24.52	5.70	ppb
Rhodium	103-1				94		%
Rhodium	103-2				93		%
Scandium	45-1				93		%
Scandium	45-2				90		%
Selenium	82-1	0.62	0.44	0.86	0.64	32.96	ppb
Selenium	77-2	0.00	1.02	0.00	0.34	173.21	ppb
Selenium	78-2	-0.38	-0.08	-0.38	-0.28		ppb
Silicon	28-1	6.47	6.33	6.15	6.32	2.51	ppb
Silver	107-1	0.01	0.01	0.01	0.01	9.21	ppb
Silver	109-1	0.01	0.01	0.01	0.01	25.41	ppb
Sodium	23-2	191.29	186.47	184.93	187.56	1.77	ppb
Strontium	86-1	0.03	0.03	0.02	0.03	22.36	ppb
Strontium	88-1	0.05	0.04	0.05	0.05	4.58	ppb
Sulfur	34-1	-1024.23	-1034.35	-1087.42	-1048.66		ppb
Terbium	159-1				94		%
Terbium	159-2				96		%
Thallium	203-1	0.03	0.02	0.02	0.02	2.17	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	9.17	ppb
Tin	118-1	0.15	0.15	0.14	0.15	3.87	ppb
Titanium	47-1	0.10	0.07	0.11	0.09	17.55	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.01	0.00	0.01	79.49	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				93		%
Zinc	66-2	0.83	0.81	0.81	0.81	1.62	ppb
Zirconium	90-1	0.01	0.00	0.00	0.00	32.93	ppb
Zirconium	91-1	0.00	0.01	0.00	0.00	747.76	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	28.57	27.83	31.29	29.23	6.24	ppb
Antimony	121-1	1.92	2.00	1.99	1.97	2.29	ppb
Arsenic	75-2	11.58	11.35	11.57	11.50	1.13	ppb
Barium	135-1	3.63	3.71	3.85	3.73	3.02	ppb
Barium	137-1	3.73	3.79	3.79	3.77	1.00	ppb
Beryllium	9-1	0.06	0.06	0.05	0.05	15.16	ppb
Bismuth	209-1				77		%
Bismuth	209-2				76		%
Bromine	81-1						cps
Cadmium	108-1	0.26	0.22	0.26	0.25	9.56	ppb
Cadmium	106-1	-1.03	0.56	-1.44	-0.64		ppb
Cadmium	111-1	0.00	0.05	0.01	0.02	135.94	ppb
Calcium	43-1	32602.69	33896.87	33728.25	33409.27	2.11	ppb
Calcium	44-1	32828.56	33702.39	33554.89	33361.95	1.40	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.57	0.45	0.49	0.50	12.23	ppb
Cobalt	59-2	0.18	0.19	0.21	0.19	6.39	ppb
Copper	63-2	87.71	87.18	87.82	87.57	0.39	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				86		%
Holmium	165-2				87		%
Indium	115-1				82		%
Indium	115-2				82		%
Iron	54-2	65.06	65.22	67.15	65.81	1.76	ppb
Iron	56-2	65.33	65.03	66.00	65.46	0.76	ppb
Iron	57-2	68.33	68.72	66.03	67.70	2.15	ppb
Krypton	83-1						cps
Lead	206-1	0.14	0.14	0.15	0.14	5.38	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.15	0.14	0.14	0.15	1.80	ppb
Lead	208-1	0.13	0.14	0.14	0.14	4.56	ppb
Lithium	6-1				82		%
Magnesium	24-2	89572.25	89809.89	89270.37	89550.84	0.30	ppb
Manganese	55-2	10.28	9.74	9.87	9.96	2.84	ppb
Molybdenum	94-1	4.72	4.84	4.86	4.81	1.55	ppb
Molybdenum	95-1	4.33	4.61	4.59	4.51	3.41	ppb
Molybdenum	96-1	4.37	4.56	4.49	4.47	2.19	ppb
Molybdenum	97-1	4.50	4.64	4.59	4.58	1.51	ppb
Molybdenum	98-1	4.43	4.54	4.59	4.52	1.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.58	2.40	2.61	2.53	4.54	ppb
Phosphorus	31-2	127.00	128.77	146.92	134.23	8.21	ppb
Potassium	39-2	37350.72	36479.74	36935.24	36921.90	1.18	ppb
Rhodium	103-1				78		%
Rhodium	103-2				78		%
Scandium	45-1				88		%
Scandium	45-2				85		%
Selenium	82-1	6.36	7.63	7.75	7.24	10.62	ppb
Selenium	77-2	1.15	0.00	0.00	0.38	173.21	ppb
Selenium	78-2	1.32	0.99	-0.03	0.76	93.19	ppb
Silicon	28-1	3167.87	3267.43	3208.08	3214.46	1.56	ppb
Silver	107-1	0.03	0.03	0.02	0.03	9.86	ppb
Silver	109-1	0.03	0.03	0.03	0.03	14.95	ppb
Sodium	23-2	870399.75	863276.30	870275.53	867983.86	0.47	ppb
Strontium	86-1	482.18	501.80	490.23	491.40	2.01	ppb
Strontium	88-1	474.32	491.61	489.75	485.23	1.96	ppb
Sulfur	34-1	81506.54	83786.04	83787.14	83026.57	1.59	ppb
Terbium	159-1				86		%
Terbium	159-2				88		%
Thallium	203-1	0.05	0.04	0.05	0.05	10.94	ppb
Thallium	205-1	0.05	0.05	0.05	0.05	8.91	ppb
Tin	118-1	0.27	0.26	0.26	0.27	2.26	ppb
Titanium	47-1	3.83	4.09	4.03	3.98	3.41	ppb
Uranium	238-1	0.39	0.39	0.41	0.40	2.29	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	11.46	11.64	11.45	11.52	0.95	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				86		%
Yttrium	89-2				82		%
Zinc	66-2	4.48	4.71	4.52	4.57	2.68	ppb
Zirconium	90-1	0.56	0.58	0.57	0.57	2.11	ppb
Zirconium	91-1	0.56	0.56	0.57	0.56	1.57	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	29.67	28.62	30.48	29.59	3.14	ppb
Antimony	121-1	2.68	2.05	1.97	2.23	17.33	ppb
Arsenic	75-2	10.82	13.02	11.67	11.83	9.38	ppb
Barium	135-1	5.08	3.87	3.77	4.24	17.20	ppb
Barium	137-1	5.04	3.86	3.96	4.28	15.25	ppb
Beryllium	9-1	0.10	0.07	0.07	0.08	25.13	ppb
Bismuth	209-1				70		%
Bismuth	209-2				77		%
Bromine	81-1						cps
Cadmium	108-1	0.34	0.21	0.18	0.24	34.85	ppb
Cadmium	106-1	-0.87	-0.55	-0.16	-0.53		ppb
Cadmium	111-1	0.04	0.03	0.03	0.03	12.74	ppb
Calcium	43-1	45431.90	35870.58	33794.53	38365.67	16.18	ppb
Calcium	44-1	46211.53	34700.00	33536.89	38149.47	18.36	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.36	0.36	0.43	0.38	10.66	ppb
Cobalt	59-2	0.20	0.18	0.19	0.19	4.93	ppb
Copper	63-2	86.89	88.18	87.43	87.50	0.74	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				79		%
Holmium	165-2				87		%
Indium	115-1				74		%
Indium	115-2				83		%
Iron	54-2	65.87	66.47	63.04	65.12	2.81	ppb
Iron	56-2	64.97	65.71	64.35	65.01	1.05	ppb
Iron	57-2	66.81	67.39	68.00	67.40	0.89	ppb
Krypton	83-1						cps
Lead	206-1	0.22	0.15	0.12	0.16	30.99	ppb

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.17	0.14	0.13	0.15	15.96	ppb
Lead	208-1	0.19	0.13	0.13	0.15	23.08	ppb
Lithium	6-1				76		%
Magnesium	24-2	89291.50	89270.15	89046.29	89202.65	0.15	ppb
Manganese	55-2	9.76	9.35	9.54	9.55	2.15	ppb
Molybdenum	94-1	6.44	4.86	4.88	5.39	16.85	ppb
Molybdenum	95-1	6.24	4.72	4.57	5.18	17.85	ppb
Molybdenum	96-1	6.16	4.66	4.51	5.11	17.80	ppb
Molybdenum	97-1	6.15	4.69	4.67	5.17	16.49	ppb
Molybdenum	98-1	6.09	4.56	4.44	5.03	18.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.46	2.47	2.47	2.47	0.24	ppb
Phosphorus	31-2	103.53	141.10	110.42	118.35	16.90	ppb
Potassium	39-2	37456.95	37304.32	37020.57	37260.61	0.59	ppb
Rhodium	103-1				70		%
Rhodium	103-2				78		%
Scandium	45-1				80		%
Scandium	45-2				85		%
Selenium	82-1	9.90	7.53	8.17	8.53	14.35	ppb
Selenium	77-2	1.15	0.00	1.14	0.76	86.60	ppb
Selenium	78-2	2.32	2.33	0.63	1.76	55.70	ppb
Silicon	28-1	4476.34	3343.16	3237.94	3685.81	18.63	ppb
Silver	107-1	0.04	0.03	0.03	0.03	20.21	ppb
Silver	109-1	0.03	0.03	0.03	0.03	7.00	ppb
Sodium	23-2	869140.50	872818.28	864571.90	868843.56	0.48	ppb
Strontium	86-1	670.83	503.17	488.65	554.22	18.27	ppb
Strontium	88-1	663.77	502.37	491.39	552.51	17.47	ppb
Sulfur	34-1	115677.54	85553.82	83525.72	94919.02	18.97	ppb
Terbium	159-1				78		%
Terbium	159-2				87		%
Thallium	203-1	0.06	0.05	0.06	0.05	12.83	ppb
Thallium	205-1	0.06	0.04	0.05	0.05	15.86	ppb
Tin	118-1	0.38	0.27	0.29	0.31	18.99	ppb
Titanium	47-1	5.43	3.87	4.02	4.44	19.36	ppb
Uranium	238-1	0.52	0.40	0.39	0.44	16.35	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	11.59	11.68	11.46	11.58	0.94	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				78		%
Yttrium	89-2				82		%
Zinc	66-2	4.49	4.43	5.02	4.64	7.01	ppb
Zirconium	90-1	0.76	0.58	0.58	0.64	16.14	ppb
Zirconium	91-1	0.79	0.62	0.56	0.66	18.63	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.81	6.72	6.15	6.56	5.40	ppb
Antimony	121-1	0.39	0.41	0.39	0.39	2.81	ppb
Arsenic	75-2	2.27	1.95	2.27	2.16	8.29	ppb
Barium	135-1	0.72	0.74	0.75	0.73	2.06	ppb
Barium	137-1	0.75	0.79	0.72	0.75	4.18	ppb
Beryllium	9-1	0.04	0.03	0.04	0.04	11.25	ppb
Bismuth	209-1				87		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	0.08	0.05	0.11	0.08	37.64	ppb
Cadmium	106-1	-1.31	-0.18	-1.05	-0.84		ppb
Cadmium	111-1	-0.03	0.00	-0.02	-0.01		ppb
Calcium	43-1	6660.81	6387.67	6256.94	6435.14	3.20	ppb
Calcium	44-1	6964.32	6629.04	6540.15	6711.17	3.33	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.20	-0.20	-0.21	-0.20		ppb
Cobalt	59-2	0.03	0.03	0.03	0.03	3.19	ppb
Copper	63-2	18.74	19.53	19.61	19.29	2.50	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				93		%
Holmium	165-2				92		%
Indium	115-1				91		%
Indium	115-2				89		%
Iron	54-2	12.56	12.41	13.03	12.67	2.54	ppb
Iron	56-2	12.39	12.97	12.56	12.64	2.36	ppb
Iron	57-2	12.70	13.39	13.69	13.26	3.80	ppb
Krypton	83-1						cps
Lead	206-1	-0.01	-0.02	-0.02	-0.02		ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	-0.01	-0.02	-0.02	-0.02		ppb
Lead	208-1	-0.01	-0.03	-0.02	-0.02		ppb
Lithium	6-1				90		%
Magnesium	24-2	17866.53	18305.04	18224.34	18131.97	1.29	ppb
Manganese	55-2	2.11	1.96	2.02	2.03	3.77	ppb
Molybdenum	94-1	0.93	0.88	0.82	0.88	6.22	ppb
Molybdenum	95-1	0.89	0.87	0.87	0.87	1.44	ppb
Molybdenum	96-1	0.84	0.82	0.84	0.84	1.52	ppb
Molybdenum	97-1	0.84	0.91	0.84	0.86	4.72	ppb
Molybdenum	98-1	0.87	0.83	0.85	0.85	2.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.29	0.40	0.29	0.33	20.41	ppb
Phosphorus	31-2	11.45	24.11	8.34	14.63	57.06	ppb
Potassium	39-2	7086.09	7175.86	7183.60	7148.52	0.76	ppb
Rhodium	103-1				88		%
Rhodium	103-2				87		%
Scandium	45-1				93		%
Scandium	45-2				88		%
Selenium	82-1	1.69	1.79	2.36	1.95	18.50	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.38	1.17	0.24	0.34	225.98	ppb
Silicon	28-1	669.37	647.64	639.78	652.26	2.35	ppb
Silver	107-1	0.01	0.01	0.01	0.01	3.65	ppb
Silver	109-1	0.01	0.01	0.01	0.01	5.78	ppb
Sodium	23-2	174844.16	176407.27	177102.44	176117.96	0.66	ppb
Strontium	86-1	91.05	89.44	88.97	89.82	1.22	ppb
Strontium	88-1	98.78	96.18	93.11	96.02	2.96	ppb
Sulfur	34-1	16833.07	16449.20	15700.65	16327.64	3.53	ppb
Terbium	159-1				92		%
Terbium	159-2				94		%
Thallium	203-1	0.03	0.02	0.02	0.02	7.23	ppb
Thallium	205-1	0.03	0.02	0.02	0.02	17.33	ppb
Tin	118-1	0.07	0.28	0.04	0.13	101.62	ppb
Titanium	47-1	0.81	0.75	0.67	0.74	9.69	ppb
Uranium	238-1	0.07	0.07	0.07	0.07	6.05	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	2.14	2.34	2.27	2.25	4.53	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				91		%
Zinc	66-2	0.83	1.05	1.20	1.03	17.98	ppb
Zirconium	90-1	0.12	0.11	0.10	0.11	8.79	ppb
Zirconium	91-1	0.11	0.11	0.10	0.11	5.02	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1863.64	1876.36	1816.91	1852.30	1.69	ppb
Antimony	121-1	106.12	101.97	99.66	102.58	3.19	ppb
Arsenic	75-2	52.33	51.83	48.37	50.84	4.24	ppb
Barium	135-1	2244.57	2138.52	2092.37	2158.49	3.62	ppb
Barium	137-1	2248.44	2135.34	2059.26	2147.68	4.43	ppb
Beryllium	9-1	52.35	49.45	49.36	50.39	3.37	ppb
Bismuth	209-1				74		%
Bismuth	209-2				78		%
Bromine	81-1						cps
Cadmium	108-1	41.73	40.80	40.23	40.92	1.85	ppb
Cadmium	106-1	40.68	39.60	38.27	39.52	3.04	ppb
Cadmium	111-1	50.00	47.91	45.74	47.88	4.45	ppb
Calcium	43-1	37677.03	34349.36	33948.25	35324.88	5.79	ppb
Calcium	44-1	36770.62	34541.92	33761.87	35024.80	4.46	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	193.06	193.54	189.71	192.11	1.09	ppb
Cobalt	59-2	515.74	509.30	504.94	509.99	1.07	ppb
Copper	63-2	333.15	330.62	327.99	330.59	0.78	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				83		%
Holmium	165-2				88		%
Indium	115-1				79		%
Indium	115-2				85		%
Iron	54-2	1202.82	1198.04	1191.02	1197.29	0.50	ppb
Iron	56-2	1124.33	1086.46	1088.30	1099.70	1.94	ppb
Iron	57-2	1077.01	1062.00	1027.92	1055.64	2.38	ppb
Krypton	83-1						cps
Lead	206-1	22.14	20.73	20.57	21.15	4.08	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	22.23	20.61	20.60	21.14	4.43	ppb
Lead	208-1	22.09	20.66	20.56	21.10	4.06	ppb
Lithium	6-1				79		%
Magnesium	24-2	87621.26	87908.74	86565.80	87365.27	0.81	ppb
Manganese	55-2	501.54	500.95	488.69	497.06	1.46	ppb
Molybdenum	94-1	5.44	4.91	4.84	5.07	6.47	ppb
Molybdenum	95-1	4.95	4.67	4.66	4.76	3.43	ppb
Molybdenum	96-1	4.95	4.64	4.66	4.75	3.68	ppb
Molybdenum	97-1	5.09	4.73	4.61	4.81	5.23	ppb
Molybdenum	98-1	4.99	4.61	4.48	4.69	5.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	503.61	501.06	492.03	498.90	1.22	ppb
Phosphorus	31-2	115.27	135.20	112.59	121.02	10.21	ppb
Potassium	39-2	36128.98	36053.78	36230.25	36137.67	0.25	ppb
Rhodium	103-1				74		%
Rhodium	103-2				80		%
Scandium	45-1				85		%
Scandium	45-2				87		%
Selenium	82-1	111.44	103.80	104.76	106.67	3.90	ppb
Selenium	77-2	94.02	102.81	101.89	99.57	4.85	ppb
Selenium	78-2	95.65	100.05	95.16	96.95	2.78	ppb
Silicon	28-1	3526.12	3277.14	3263.95	3355.74	4.40	ppb
Silver	107-1	47.60	45.64	44.95	46.06	2.99	ppb
Silver	109-1	48.50	46.52	45.51	46.84	3.25	ppb
Sodium	23-2	862294.95	854817.06	843989.52	853700.51	1.08	ppb
Strontium	86-1	535.90	502.06	490.70	509.55	4.61	ppb
Strontium	88-1	539.39	496.24	479.36	505.00	6.13	ppb
Sulfur	34-1	91966.45	85725.32	83773.56	87155.11	4.91	ppb
Terbium	159-1				82		%
Terbium	159-2				88		%
Thallium	203-1	53.08	49.31	49.81	50.73	4.04	ppb
Thallium	205-1	53.01	50.01	49.47	50.83	3.75	ppb
Tin	118-1	0.84	0.81	0.80	0.82	2.41	ppb
Titanium	47-1	4.36	3.97	4.20	4.18	4.72	ppb
Uranium	238-1	0.44	0.41	0.40	0.41	5.04	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	516.66	512.26	503.49	510.80	1.31	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				83		%
Yttrium	89-2				86		%
Zinc	66-2	483.24	482.52	480.58	482.11	0.29	ppb
Zirconium	90-1	0.63	0.57	0.58	0.59	5.18	ppb
Zirconium	91-1	0.60	0.62	0.58	0.60	3.33	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5.76	5.89	5.57	5.74	2.84	ppb
Antimony	121-1	0.38	0.36	0.34	0.36	4.91	ppb
Arsenic	75-2	3.40	3.15	2.82	3.12	9.21	ppb
Barium	135-1	2.99	2.68	2.58	2.75	7.63	ppb
Barium	137-1	2.98	2.68	2.71	2.79	5.92	ppb
Beryllium	9-1	0.08	0.06	0.06	0.07	14.51	ppb
Bismuth	209-1				77		%
Bismuth	209-2				81		%
Bromine	81-1						cps
Cadmium	108-1	0.13	0.04	0.10	0.09	48.96	ppb
Cadmium	106-1	-1.25	-0.74	-0.81	-0.93		ppb
Cadmium	111-1	-0.01	-0.01	0.00	-0.01		ppb
Calcium	43-1	33180.66	29791.86	29626.42	30866.31	6.50	ppb
Calcium	44-1	32499.05	29828.88	29459.39	30595.78	5.42	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	-0.01	-0.03	-0.02		ppb
Cobalt	59-2	0.02	0.04	0.03	0.03	25.44	ppb
Copper	63-2	10.65	10.82	10.98	10.82	1.53	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				85		%
Holmium	165-2				90		%
Indium	115-1				81		%
Indium	115-2				87		%
Iron	54-2	6.33	5.41	5.34	5.69	9.72	ppb
Iron	56-2	5.93	5.49	5.64	5.69	3.98	ppb
Iron	57-2	7.14	8.67	7.00	7.60	12.13	ppb
Krypton	83-1						cps
Lead	206-1	0.02	0.02	0.02	0.02	18.32	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.02	0.01	0.01	0.02	53.56	ppb
Lead	208-1	0.02	0.01	0.01	0.01	11.05	ppb
Lithium	6-1				81		%
Magnesium	24-2	73870.52	73414.24	73156.01	73480.25	0.49	ppb
Manganese	55-2	2.61	2.53	2.54	2.56	1.70	ppb
Molybdenum	94-1	1.48	1.27	1.25	1.33	9.54	ppb
Molybdenum	95-1	1.63	1.48	1.47	1.53	5.87	ppb
Molybdenum	96-1	1.51	1.36	1.41	1.43	5.27	ppb
Molybdenum	97-1	1.58	1.41	1.45	1.48	6.02	ppb
Molybdenum	98-1	1.58	1.41	1.41	1.46	6.69	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.91	1.18	1.12	1.07	13.41	ppb
Phosphorus	31-2	58.65	51.86	63.47	57.99	10.06	ppb
Potassium	39-2	25585.00	25151.54	25256.09	25330.88	0.89	ppb
Rhodium	103-1				77		%
Rhodium	103-2				82		%
Scandium	45-1				88		%
Scandium	45-2				89		%
Selenium	82-1	5.73	5.35	5.61	5.56	3.53	ppb
Selenium	77-2	0.00	0.00	1.05	0.35	173.21	ppb
Selenium	78-2	-0.07	1.15	-0.07	0.34	208.16	ppb
Silicon	28-1	6209.03	5697.77	5670.35	5859.05	5.18	ppb
Silver	107-1	0.08	0.06	0.05	0.06	25.97	ppb
Silver	109-1	0.08	0.05	0.04	0.06	29.31	ppb
Sodium	23-2	582053.30	584403.06	588160.47	584872.28	0.53	ppb
Strontium	86-1	431.87	394.89	387.56	404.77	5.87	ppb
Strontium	88-1	418.87	390.35	384.58	397.93	4.61	ppb
Sulfur	34-1	60303.62	54540.05	53635.76	56159.81	6.44	ppb
Terbium	159-1				86		%
Terbium	159-2				91		%
Thallium	203-1	0.04	0.04	0.04	0.04	6.29	ppb
Thallium	205-1	0.04	0.04	0.04	0.04	4.20	ppb
Tin	118-1	0.15	0.11	0.14	0.13	14.19	ppb
Titanium	47-1	2.58	2.46	2.44	2.49	3.04	ppb
Uranium	238-1	0.28	0.26	0.26	0.27	5.03	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	8.07	8.17	8.19	8.14	0.77	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				86		%
Yttrium	89-2				90		%
Zinc	66-2	2.20	2.16	1.84	2.07	9.35	ppb
Zirconium	90-1	0.06	0.06	0.06	0.06	6.40	ppb
Zirconium	91-1	0.05	0.05	0.08	0.06	26.31	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.66	5.40	6.65	6.24	11.64	ppb
Antimony	121-1	0.37	0.30	0.35	0.34	10.56	ppb
Arsenic	75-2	3.15	3.11	3.84	3.37	12.07	ppb
Barium	135-1	2.74	2.28	2.47	2.49	9.25	ppb
Barium	137-1	2.81	2.30	2.55	2.55	10.01	ppb
Beryllium	9-1	0.07	0.04	0.05	0.05	27.59	ppb
Bismuth	209-1				82		%
Bismuth	209-2				78		%
Bromine	81-1						cps
Cadmium	108-1	0.21	0.05	0.08	0.12	74.78	ppb
Cadmium	106-1	-1.21	0.59	-0.90	-0.51		ppb
Cadmium	111-1	-0.02	0.02	0.00	0.00	3136.81	ppb
Calcium	43-1	31324.87	25612.60	29318.21	28751.89	10.08	ppb
Calcium	44-1	31476.36	25718.72	28697.17	28630.75	10.06	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.85	0.86	1.06	0.92	12.87	ppb
Cobalt	59-2	0.02	0.02	0.04	0.03	35.57	ppb
Copper	63-2	10.61	10.63	11.91	11.05	6.73	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				92		%
Holmium	165-2				87		%
Indium	115-1				88		%
Indium	115-2				83		%
Iron	54-2	13.10	13.22	16.34	14.22	12.91	ppb
Iron	56-2	12.55	12.40	14.38	13.11	8.40	ppb
Iron	57-2	14.15	14.32	16.09	14.85	7.22	ppb
Krypton	83-1						cps
Lead	206-1	0.01	0.00	-0.01	0.00	907680.90	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.01	-0.02	0.00	0.00		ppb
Lead	208-1	0.01	-0.02	0.00	0.00		ppb
Lithium	6-1				87		%
Magnesium	24-2	74176.07	72864.96	83097.07	76712.70	7.26	ppb
Manganese	55-2	1.90	1.63	1.86	1.79	8.11	ppb
Molybdenum	94-1	1.35	1.10	1.28	1.25	10.59	ppb
Molybdenum	95-1	1.57	1.27	1.45	1.43	10.62	ppb
Molybdenum	96-1	1.43	1.21	1.40	1.35	8.90	ppb
Molybdenum	97-1	1.44	1.19	1.40	1.34	10.11	ppb
Molybdenum	98-1	1.51	1.22	1.36	1.36	10.67	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.30	1.39	1.73	1.47	15.14	ppb
Phosphorus	31-2	60.07	72.03	100.32	77.47	26.68	ppb
Potassium	39-2	25837.07	25259.13	28702.13	26599.45	6.93	ppb
Rhodium	103-1				83		%
Rhodium	103-2				80		%
Scandium	45-1				94		%
Scandium	45-2				85		%
Selenium	82-1	4.92	5.08	5.83	5.28	9.24	ppb
Selenium	77-2	1.04	1.06	0.00	0.70	86.61	ppb
Selenium	78-2	0.85	0.87	1.71	1.14	42.95	ppb
Silicon	28-1	5972.96	4938.03	5389.89	5433.63	9.55	ppb
Silver	107-1	0.03	0.02	0.03	0.03	17.37	ppb
Silver	109-1	0.02	0.02	0.02	0.02	8.35	ppb
Sodium	23-2	595338.86	583539.67	660331.05	613069.86	6.75	ppb
Strontium	86-1	414.98	339.51	376.91	377.14	10.01	ppb
Strontium	88-1	407.15	334.93	378.55	373.54	9.74	ppb
Sulfur	34-1	57470.99	46703.05	51677.49	51950.51	10.37	ppb
Terbium	159-1				91		%
Terbium	159-2				88		%
Thallium	203-1	0.03	0.02	0.02	0.03	14.53	ppb
Thallium	205-1	0.03	0.02	0.02	0.02	25.03	ppb
Tin	118-1	0.13	0.08	0.10	0.10	20.23	ppb
Titanium	47-1	2.43	2.03	2.31	2.26	9.09	ppb
Uranium	238-1	0.28	0.23	0.25	0.25	10.34	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	8.15	7.98	9.05	8.39	6.85	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				91		%
Yttrium	89-2				87		%
Zinc	66-2	1.65	1.49	2.06	1.73	16.97	ppb
Zirconium	90-1	0.05	0.05	0.05	0.05	9.13	ppb
Zirconium	91-1	0.06	0.05	0.07	0.06	10.67	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5.14	4.66	4.49	4.76	7.07	ppb
Antimony	121-1	0.21	0.23	0.22	0.22	3.35	ppb
Arsenic	75-2	3.07	3.21	3.35	3.21	4.44	ppb
Barium	135-1	2.96	2.94	3.00	2.97	1.13	ppb
Barium	137-1	3.03	2.97	3.04	3.01	1.25	ppb
Beryllium	9-1	0.05	0.05	0.06	0.05	10.32	ppb
Bismuth	209-1				82		%
Bismuth	209-2				78		%
Bromine	81-1						cps
Cadmium	108-1	0.03	0.08	0.08	0.07	46.67	ppb
Cadmium	106-1	-0.44	-0.70	-0.11	-0.41		ppb
Cadmium	111-1	0.00	0.00	0.00	0.00	2729.51	ppb
Calcium	43-1	18635.35	18827.84	18839.09	18767.43	0.61	ppb
Calcium	44-1	19468.26	20027.58	19887.58	19794.48	1.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.15	-0.12	-0.12	-0.13		ppb
Cobalt	59-2	0.01	0.00	0.01	0.01	107.16	ppb
Copper	63-2	7.44	8.06	8.35	7.95	5.86	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				90		%
Holmium	165-2				87		%
Indium	115-1				87		%
Indium	115-2				83		%
Iron	54-2	4.28	5.70	6.51	5.49	20.55	ppb
Iron	56-2	5.03	5.59	5.97	5.53	8.55	ppb
Iron	57-2	4.65	5.46	7.33	5.82	23.67	ppb
Krypton	83-1						cps
Lead	206-1	-0.02	-0.02	-0.01	-0.02		ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	-0.02	-0.02	-0.02	-0.02		ppb
Lead	208-1	-0.02	-0.02	-0.02	-0.02		ppb
Lithium	6-1				85		%
Magnesium	24-2	46601.33	49248.48	53307.10	49718.97	6.79	ppb
Manganese	55-2	1.95	1.85	2.06	1.95	5.32	ppb
Molybdenum	94-1	1.22	1.26	1.30	1.26	3.30	ppb
Molybdenum	95-1	1.46	1.43	1.44	1.44	1.23	ppb
Molybdenum	96-1	1.36	1.42	1.37	1.38	2.43	ppb
Molybdenum	97-1	1.46	1.42	1.38	1.42	2.60	ppb
Molybdenum	98-1	1.36	1.37	1.40	1.37	1.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.05	1.23	1.28	1.19	9.90	ppb
Phosphorus	31-2	77.49	52.75	59.46	63.23	20.23	ppb
Potassium	39-2	21820.20	22767.00	24969.40	23185.53	6.97	ppb
Rhodium	103-1				82		%
Rhodium	103-2				80		%
Scandium	45-1				92		%
Scandium	45-2				85		%
Selenium	82-1	3.41	4.43	4.37	4.07	14.00	ppb
Selenium	77-2	3.13	0.00	1.16	1.43	110.62	ppb
Selenium	78-2	-0.38	0.27	0.99	0.29	231.83	ppb
Silicon	28-1	5727.50	5767.40	5726.18	5740.36	0.41	ppb
Silver	107-1	0.02	0.02	0.02	0.02	12.54	ppb
Silver	109-1	0.02	0.02	0.02	0.02	8.74	ppb
Sodium	23-2	500178.70	527312.69	557513.60	528334.99	5.43	ppb
Strontium	86-1	227.41	227.84	227.19	227.48	0.14	ppb
Strontium	88-1	240.13	242.39	240.46	240.99	0.51	ppb
Sulfur	34-1	42990.92	43661.72	43317.15	43323.26	0.77	ppb
Terbium	159-1				89		%
Terbium	159-2				88		%
Thallium	203-1	0.02	0.02	0.02	0.02	3.86	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	11.24	ppb
Tin	118-1	0.13	0.13	0.14	0.13	5.67	ppb
Titanium	47-1	2.17	2.25	2.17	2.20	1.88	ppb
Uranium	238-1	0.53	0.54	0.53	0.54	0.93	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	8.06	8.42	8.87	8.45	4.80	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				90		%
Yttrium	89-2				86		%
Zinc	66-2	0.82	0.71	0.77	0.77	7.33	ppb
Zirconium	90-1	0.06	0.06	0.06	0.06	4.21	ppb
Zirconium	91-1	0.07	0.07	0.05	0.06	22.00	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3.76	4.03	3.51	3.76	6.81	ppb
Antimony	121-1	0.25	0.25	0.25	0.25	1.77	ppb
Arsenic	75-2	1.25	1.47	1.29	1.34	8.63	ppb
Barium	135-1	4.26	3.93	4.13	4.11	3.96	ppb
Barium	137-1	4.44	4.19	4.18	4.27	3.43	ppb
Beryllium	9-1	0.04	0.04	0.04	0.04	7.13	ppb
Bismuth	209-1				85		%
Bismuth	209-2				85		%
Bromine	81-1						cps
Cadmium	108-1	0.05	0.03	0.05	0.04	18.81	ppb
Cadmium	106-1	-0.40	-0.32	-0.28	-0.33		ppb
Cadmium	111-1	0.00	0.00	0.00	0.00	230.44	ppb
Calcium	43-1	22513.72	20785.03	21708.02	21668.92	3.99	ppb
Calcium	44-1	23659.19	22208.40	22920.83	22929.47	3.16	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.26	-0.26	-0.29	-0.27		ppb
Cobalt	59-2	0.01	0.00	0.00	0.00	195.68	ppb
Copper	63-2	2.78	2.80	2.85	2.81	1.30	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				91		%
Indium	115-2				90		%
Iron	54-2	4.89	6.73	6.11	5.91	15.84	ppb
Iron	56-2	5.76	5.58	5.81	5.72	2.12	ppb
Iron	57-2	6.27	6.54	8.45	7.09	16.78	ppb
Krypton	83-1						cps
Lead	206-1	0.03	0.03	0.02	0.03	21.93	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.04	0.00	0.01	0.02	96.29	ppb
Lead	208-1	0.03	0.01	0.02	0.02	63.28	ppb
Lithium	6-1				88		%
Magnesium	24-2	44765.28	43893.24	44547.11	44401.88	1.02	ppb
Manganese	55-2	2.70	2.48	2.73	2.64	5.21	ppb
Molybdenum	94-1	0.67	0.64	0.64	0.65	3.07	ppb
Molybdenum	95-1	0.81	0.76	0.76	0.78	3.92	ppb
Molybdenum	96-1	0.75	0.72	0.71	0.73	2.53	ppb
Molybdenum	97-1	0.71	0.68	0.75	0.71	5.13	ppb
Molybdenum	98-1	0.75	0.72	0.71	0.73	3.11	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.19	0.92	1.26	1.12	15.76	ppb
Phosphorus	31-2	17.55	16.94	19.32	17.93	6.89	ppb
Potassium	39-2	13242.52	13483.71	13422.82	13383.01	0.94	ppb
Rhodium	103-1				86		%
Rhodium	103-2				87		%
Scandium	45-1				95		%
Scandium	45-2				92		%
Selenium	82-1	2.65	2.38	2.62	2.55	5.96	ppb
Selenium	77-2	1.01	0.00	0.00	0.34	173.21	ppb
Selenium	78-2	-0.08	-0.07	0.22	0.02	754.63	ppb
Silicon	28-1	4529.88	4298.29	4435.63	4421.27	2.63	ppb
Silver	107-1	0.01	0.02	0.01	0.01	35.06	ppb
Silver	109-1	0.01	0.01	0.01	0.01	28.65	ppb
Sodium	23-2	273296.82	270728.33	274904.73	272976.63	0.77	ppb
Strontium	86-1	239.84	230.26	235.97	235.36	2.05	ppb
Strontium	88-1	256.29	240.65	252.56	249.83	3.27	ppb
Sulfur	34-1	27838.39	24986.47	26277.28	26367.38	5.42	ppb
Terbium	159-1				92		%
Terbium	159-2				94		%
Thallium	203-1	0.01	0.00	0.01	0.01	45.60	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	31.93	ppb
Tin	118-1	0.16	0.15	0.16	0.16	1.64	ppb
Titanium	47-1	1.63	1.55	1.57	1.58	2.67	ppb
Uranium	238-1	0.11	0.09	0.10	0.10	8.60	ppb

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	6.04	6.10	6.41	6.18	3.21	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				93		%
Zinc	66-2	1.80	1.53	2.05	1.79	14.59	ppb
Zirconium	90-1	0.01	0.01	0.02	0.01	25.28	ppb
Zirconium	91-1	0.02	0.01	0.00	0.01	60.20	ppb

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47721.35	47847.73	47545.11	47704.73	0.32	ppb
Antimony	121-1	491.70	483.27	494.33	489.77	1.18	ppb
Arsenic	75-2	485.25	479.36	492.68	485.76	1.37	ppb
Barium	135-1	2466.05	2440.63	2448.75	2451.81	0.53	ppb
Barium	137-1	2414.77	2416.73	2474.47	2435.32	1.39	ppb
Beryllium	9-1	486.53	490.84	493.87	490.41	0.75	ppb
Bismuth	209-1				79		%
Bismuth	209-2				80		%
Bromine	81-1						cps
Cadmium	108-1	479.65	484.09	491.19	484.98	1.20	ppb
Cadmium	106-1	478.57	488.81	487.01	484.80	1.13	ppb
Cadmium	111-1	449.71	453.90	456.21	453.27	0.73	ppb
Calcium	43-1	242516.00	237079.31	241163.27	240252.86	1.18	ppb
Calcium	44-1	239189.60	237385.86	239739.77	238771.74	0.52	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	459.89	463.84	465.40	463.05	0.61	ppb
Cobalt	59-2	494.37	483.29	497.21	491.62	1.50	ppb
Copper	63-2	4727.25	4693.92	4731.88	4717.69	0.44	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				91		%
Indium	115-1				84		%
Indium	115-2				86		%
Iron	54-2	121775.69	121761.63	123413.18	122316.83	0.78	ppb
Iron	56-2	122704.61	123093.14	124503.00	123433.59	0.77	ppb
Iron	57-2	124534.96	123385.06	125491.62	124470.55	0.85	ppb
Krypton	83-1						cps
Lead	206-1	2532.12	2500.54	2548.96	2527.20	0.97	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2581.12	2549.52	2540.89	2557.18	0.83	ppb
Lead	208-1	2541.47	2516.87	2522.65	2527.00	0.51	ppb
Lithium	6-1				83		%
Magnesium	24-2	258109.81	258404.18	257486.82	258000.27	0.18	ppb
Manganese	55-2	4955.15	4955.56	5017.68	4976.13	0.72	ppb
Molybdenum	94-1	4915.36	4880.88	4896.36	4897.53	0.35	ppb
Molybdenum	95-1	4872.64	4885.20	4871.70	4876.51	0.15	ppb
Molybdenum	96-1	4831.15	4860.63	4882.15	4857.98	0.53	ppb
Molybdenum	97-1	4829.50	4824.38	4867.74	4840.54	0.49	ppb
Molybdenum	98-1	4850.80	4898.47	4879.53	4876.27	0.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	479.01	477.16	482.75	479.64	0.59	ppb
Phosphorus	31-2	9781.29	9842.58	9893.91	9839.26	0.57	ppb
Potassium	39-2	120072.09	119566.54	119663.85	119767.49	0.22	ppb
Rhodium	103-1				80		%
Rhodium	103-2				81		%
Scandium	45-1				90		%
Scandium	45-2				90		%
Selenium	82-1	464.51	465.24	464.74	464.83	0.08	ppb
Selenium	77-2	509.70	437.79	497.55	481.68	7.99	ppb
Selenium	78-2	479.45	496.93	481.57	485.99	1.96	ppb
Silicon	28-1	472.92	476.46	483.74	477.71	1.15	ppb
Silver	107-1	468.83	474.36	465.30	469.50	0.97	ppb
Silver	109-1	468.47	473.24	472.34	471.35	0.54	ppb
Sodium	23-2	245351.70	242296.49	243290.14	243646.11	0.64	ppb
Strontium	86-1	492.05	494.05	494.91	493.67	0.30	ppb
Strontium	88-1	481.80	486.89	489.78	486.16	0.83	ppb
Sulfur	34-1	9562.43	9225.81	9918.72	9568.99	3.62	ppb
Terbium	159-1				89		%
Terbium	159-2				92		%
Thallium	203-1	510.63	508.28	505.91	508.27	0.46	ppb
Thallium	205-1	503.25	506.10	500.04	503.13	0.60	ppb
Tin	118-1	487.26	489.28	489.92	488.82	0.28	ppb
Titanium	47-1	4967.30	4914.77	5007.45	4963.18	0.94	ppb
Uranium	238-1	513.37	514.83	508.37	512.19	0.66	ppb

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	482.08	483.47	485.64	483.73	0.37	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				90		%
Yttrium	89-2				91		%
Zinc	66-2	4766.11	4727.17	4776.44	4756.57	0.55	ppb
Zirconium	90-1	498.48	491.15	494.06	494.56	0.75	ppb
Zirconium	91-1	497.87	498.18	499.96	498.67	0.23	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.94	1.04	0.87	0.95	9.16	ppb
Antimony	121-1	0.11	0.10	0.08	0.09	15.57	ppb
Arsenic	75-2	-0.03	0.03	-0.01	0.00		ppb
Barium	135-1	0.22	0.17	0.12	0.17	30.31	ppb
Barium	137-1	0.19	0.14	0.13	0.15	22.72	ppb
Beryllium	9-1	0.14	0.12	0.11	0.12	14.83	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.12	0.07	0.00	0.06	97.18	ppb
Cadmium	106-1	0.22	-0.30	-0.74	-0.27		ppb
Cadmium	111-1	0.05	0.00	0.00	0.02	134.70	ppb
Calcium	43-1	10.78	6.43	4.98	7.39	40.82	ppb
Calcium	44-1	12.44	6.07	4.01	7.51	58.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.31	-0.34	-0.29	-0.32		ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	214.68	ppb
Copper	63-2	0.62	0.69	0.64	0.65	5.81	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				96		%
Indium	115-1				94		%
Indium	115-2				96		%
Iron	54-2	1.30	1.25	1.07	1.21	9.75	ppb
Iron	56-2	1.25	1.28	1.59	1.38	13.69	ppb
Iron	57-2	1.40	1.97	1.81	1.73	17.16	ppb
Krypton	83-1						cps
Lead	206-1	0.22	0.14	0.11	0.16	35.66	ppb

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.19	0.14	0.10	0.14	31.56	ppb
Lead	208-1	0.21	0.14	0.11	0.15	32.61	ppb
Lithium	6-1				91		%
Magnesium	24-2	4.55	3.80	4.39	4.25	9.33	ppb
Manganese	55-2	0.18	0.18	0.18	0.18	0.72	ppb
Molybdenum	94-1	0.32	0.20	0.14	0.22	41.82	ppb
Molybdenum	95-1	0.32	0.18	0.12	0.21	48.23	ppb
Molybdenum	96-1	0.33	0.17	0.13	0.21	51.11	ppb
Molybdenum	97-1	0.31	0.18	0.10	0.19	53.37	ppb
Molybdenum	98-1	0.31	0.17	0.13	0.20	46.61	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.30	-0.34	-0.26	-0.30		ppb
Phosphorus	31-2	-12.85	-17.01	-19.81	-16.56		ppb
Potassium	39-2	19.99	23.99	20.23	21.40	10.48	ppb
Rhodium	103-1				94		%
Rhodium	103-2				97		%
Scandium	45-1				96		%
Scandium	45-2				92		%
Selenium	82-1	0.29	0.34	0.36	0.33	10.23	ppb
Selenium	77-2	0.00	0.99	0.00	0.33	173.21	ppb
Selenium	78-2	0.19	-0.38	-0.08	-0.09		ppb
Silicon	28-1	3.65	3.26	2.90	3.27	11.48	ppb
Silver	107-1	0.06	0.06	0.06	0.06	6.99	ppb
Silver	109-1	0.07	0.05	0.05	0.06	22.46	ppb
Sodium	23-2	183.37	179.44	174.33	179.04	2.53	ppb
Strontium	86-1	0.04	0.03	0.01	0.03	61.46	ppb
Strontium	88-1	0.03	0.02	0.01	0.02	47.57	ppb
Sulfur	34-1	-984.39	-985.28	-1036.64	-1002.10		ppb
Terbium	159-1				94		%
Terbium	159-2				97		%
Thallium	203-1	0.07	0.06	0.05	0.06	19.67	ppb
Thallium	205-1	0.06	0.05	0.04	0.05	17.99	ppb
Tin	118-1	0.06	0.05	0.04	0.05	20.42	ppb
Titanium	47-1	0.30	0.17	0.15	0.21	40.45	ppb
Uranium	238-1	0.02	0.01	0.01	0.01	67.32	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.00	0.00	0.01	106.15	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				95		%
Yttrium	89-2				96		%
Zinc	66-2	0.09	0.21	0.19	0.16	38.67	ppb
Zirconium	90-1	0.04	0.03	0.02	0.03	33.21	ppb
Zirconium	91-1	0.05	0.02	0.02	0.03	61.99	ppb

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	57	57	70	61	12.59	cps
Antimony	121-1	97	83	107	96	12.25	cps
Arsenic	75-2	10	7	3	7	50.03	cps
Barium	135-1	220	297	343	287	21.72	cps
Barium	137-1	447	450	437	444	1.56	cps
Beryllium	9-1	402	334	384	373	9.52	cps
Bismuth	209-1	10360344	10276771	10310994	10316036	0.41	cps
Bismuth	209-2	3969538	3982016	4120843	4024132	2.09	cps
Bromine	81-1	6251	5881	5845	5992	3.76	cps
Cadmium	108-1	23	23	30	26	15.07	cps
Cadmium	106-1	7489	7289	7502	7426	1.61	cps
Cadmium	111-1	1528	1478	1519	1509	1.77	cps
Calcium	43-1	453	483	383	440	11.66	cps
Calcium	44-1	8539	8553	8456	8516	0.62	cps
Carbon	12-1	2831338	2776281	2735677	2781099	1.73	cps
Carbon	12-2	18629	17898	18034	18187	2.14	cps
Chlorine	35-1	59719	59251	59167	59379	0.50	cps
Chlorine	35-2	263	233	220	239	9.29	cps
Chromium	52-2	1740	1883	1850	1825	4.11	cps
Cobalt	59-2	180	217	133	177	23.64	cps
Copper	63-2	2900	2820	2837	2853	1.48	cps
Dysprosium	156-1	153	137	127	139	9.70	cps
Dysprosium	156-2	13	3	3	7	86.65	cps
Erbium	164-1	103	87	110	100	12.02	cps
Erbium	164-2	20	27	33	27	24.99	cps
Gadolinium	160-1	53	57	57	56	3.47	cps
Gadolinium	160-2	13	20	7	13	49.99	cps
Holmium	165-1	16662208	16537576	16583473	16594419	0.38	cps
Holmium	165-2	5545473	5489596	5705492	5580187	2.01	cps
Indium	115-1	12879648	12968941	12803603	12884064	0.64	cps
Indium	115-2	1202031	1191813	1249139	1214327	2.52	cps
Iron	54-2	543	567	537	549	2.87	cps
Iron	56-2	8246	7912	8049	8069	2.08	cps
Iron	57-2	153	190	207	183	14.88	cps
Krypton	83-1	197	177	213	196	9.39	cps
Lead	206-1	1623	1610	1560	1598	2.09	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1553	1383	1460	1466	5.81	cps
Lead	208-1	6664	6564	6637	6622	0.78	cps
Lithium	6-1	8101442	8014166	8184085	8099898	1.05	cps
Magnesium	24-2	537	507	570	538	5.89	cps
Manganese	55-2	187	230	150	189	21.20	cps
Molybdenum	94-1	503	523	540	522	3.52	cps
Molybdenum	95-1	510	547	540	532	3.67	cps
Molybdenum	96-1	627	677	603	636	5.90	cps
Molybdenum	97-1	330	327	340	332	2.09	cps
Molybdenum	98-1	823	720	793	779	6.83	cps
Neodymium	150-1	13	13	30	19	50.96	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	1510	1603	1473	1529	4.38	cps
Phosphorus	31-2	40	57	47	48	17.56	cps
Potassium	39-2	6562	6241	6712	6505	3.69	cps
Rhodium	103-1	11920730	11929124	12029071	11959642	0.50	cps
Rhodium	103-2	4433933	4333887	4615175	4460998	3.20	cps
Scandium	45-1	9396702	9407804	9457164	9420556	0.34	cps
Scandium	45-2	164981	160188	168580	164583	2.56	cps
Selenium	82-1	-67	-20	-33	-40	-60.09	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	10	0	4	114.60	cps
Silicon	28-1	398313	397272	400188	398591	0.37	cps
Silver	107-1	170	167	157	164	4.22	cps
Silver	109-1	63	53	87	68	25.24	cps
Sodium	23-2	18822	18609	18599	18676	0.68	cps
Strontium	86-1	320	310	300	310	3.23	cps
Strontium	88-1	420	410	393	408	3.30	cps
Sulfur	34-1	453463	452031	452297	452597	0.17	cps
Terbium	159-1	17057031	16879024	17043503	16993186	0.58	cps
Terbium	159-2	5377687	5199563	5428875	5335375	2.26	cps
Thallium	203-1	273	247	273	264	5.82	cps
Thallium	205-1	740	710	660	703	5.75	cps
Tin	118-1	882	829	860	857	3.08	cps
Titanium	47-1	103	177	150	143	25.90	cps
Uranium	238-1	173	190	223	196	13.02	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S00	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:20:04	DataFile Name :	003CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3	23	13	13	75.02	cps
Ytterbium	172-1	93	110	77	93	17.86	cps
Ytterbium	172-2	60	40	33	44	31.23	cps
Ytterbium	176-1	2254	1997	2087	2112	6.17	cps
Ytterbium	176-2	373	300	403	359	14.81	cps
Yttrium	89-1	23477573	23426208	23339401	23414394	0.30	cps
Yttrium	89-2	1631182	1595044	1672464	1632897	2.37	cps
Zinc	66-2	220	257	267	248	9.92	cps
Zirconium	90-1	713	770	700	728	5.11	cps
Zirconium	91-1	173	140	147	153	11.51	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1333	1413	1310	1352	4.01	cps
Antimony	121-1	28119	28777	28493	28463	1.16	cps
Arsenic	75-2	360	290	290	313	12.90	cps
Barium	135-1	36506	37164	36920	36863	0.90	cps
Barium	137-1	63414	64392	64566	64124	0.97	cps
Beryllium	9-1	6108	5965	6117	6063	1.40	cps
Bismuth	209-1	10766012	10536128	10306987	10536376	2.18	cps
Bismuth	209-2	4021281	4004073	3989802	4005052	0.39	cps
Bromine	81-1	6008	5875	5898	5927	1.20	cps
Cadmium	108-1	267	337	330	311	12.42	cps
Cadmium	106-1	8172	7902	7582	7886	3.75	cps
Cadmium	111-1	5175	5375	5263	5271	1.91	cps
Calcium	43-1	28956	28241	29139	28779	1.65	cps
Calcium	44-1	465232	469367	468154	467584	0.45	cps
Carbon	12-1	3137300	3113331	3144056	3131562	0.52	cps
Carbon	12-2	20501	20501	20281	20428	0.62	cps
Chlorine	35-1	61868	62243	62387	62166	0.43	cps
Chlorine	35-2	200	267	267	244	15.75	cps
Chromium	52-2	8139	8279	8212	8210	0.85	cps
Cobalt	59-2	6231	6261	6438	6310	1.77	cps
Copper	63-2	12085	12045	12225	12119	0.78	cps
Dysprosium	156-1	93	113	127	111	15.10	cps
Dysprosium	156-2	0	7	3	3	100.05	cps
Erbium	164-1	87	137	80	101	30.63	cps
Erbium	164-2	30	30	27	29	6.65	cps
Gadolinium	160-1	83	73	60	72	16.21	cps
Gadolinium	160-2	3	13	23	13	75.02	cps
Holmium	165-1	17070193	17258683	16817696	17048857	1.30	cps
Holmium	165-2	5617549	5553932	5533170	5568217	0.79	cps
Indium	115-1	13422671	13243966	12881339	13182659	2.09	cps
Indium	115-2	1216836	1219028	1223628	1219830	0.28	cps
Iron	54-2	7522	7579	7559	7553	0.38	cps
Iron	56-2	130826	129861	129101	129929	0.67	cps
Iron	57-2	3107	3170	3224	3167	1.84	cps
Krypton	83-1	207	170	190	189	9.72	cps
Lead	206-1	13901	14128	13631	13886	1.79	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	11972	12309	11966	12082	1.63	cps
Lead	208-1	55029	55784	55247	55353	0.70	cps
Lithium	6-1	8279760	8288900	8124333	8230998	1.12	cps
Magnesium	24-2	118590	118557	119495	118881	0.45	cps
Manganese	55-2	1550	1660	1530	1580	4.43	cps
Molybdenum	94-1	31168	30871	32097	31379	2.04	cps
Molybdenum	95-1	37628	37340	37450	37473	0.39	cps
Molybdenum	96-1	41719	41545	41682	41649	0.22	cps
Molybdenum	97-1	22599	23013	23226	22946	1.39	cps
Molybdenum	98-1	60277	60066	61040	60461	0.85	cps
Neodymium	150-1	20	17	23	20	16.65	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	3204	3030	3030	3088	3.24	cps
Phosphorus	31-2	123	137	127	129	5.39	cps
Potassium	39-2	70116	68652	69175	69314	1.07	cps
Rhodium	103-1	12317633	12407604	11936423	12220554	2.05	cps
Rhodium	103-2	4461692	4484761	4433811	4460088	0.57	cps
Scandium	45-1	9908506	9790530	9577666	9758900	1.72	cps
Scandium	45-2	164637	164455	164874	164655	0.13	cps
Selenium	82-1	1120	1230	1160	1170	4.76	cps
Selenium	77-2	17	10	20	16	32.73	cps
Selenium	78-2	67	77	53	66	17.86	cps
Silicon	28-1	484192	487411	490139	487247	0.61	cps
Silver	107-1	18219	18489	18452	18387	0.80	cps
Silver	109-1	17541	17928	17865	17778	1.17	cps
Sodium	23-2	246590	245505	245434	245843	0.26	cps
Strontium	86-1	5591	5408	5708	5569	2.72	cps
Strontium	88-1	43006	43989	44223	43739	1.48	cps
Sulfur	34-1	459952	458586	455854	458131	0.46	cps
Terbium	159-1	17332498	17575129	17094800	17334143	1.39	cps
Terbium	159-2	5300843	5479113	5411320	5397092	1.67	cps
Thallium	203-1	14652	15770	15362	15261	3.71	cps
Thallium	205-1	36869	36715	36551	36712	0.43	cps
Tin	118-1	63259	63150	63251	63220	0.10	cps
Titanium	47-1	12279	12285	12359	12308	0.36	cps
Uranium	238-1	46756	47234	46803	46931	0.56	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S02	Instrumnet Name :	P8
Client Sample ID :	S02	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:30:11	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	12132	11955	12209	12099	1.07	cps
Ytterbium	172-1	110	83	103	99	14.04	cps
Ytterbium	172-2	40	37	37	38	5.09	cps
Ytterbium	176-1	2287	2110	2117	2171	4.61	cps
Ytterbium	176-2	317	323	340	327	3.68	cps
Yttrium	89-1	24101161	24321025	23249551	23890579	2.37	cps
Yttrium	89-2	1622392	1647703	1616898	1628998	1.01	cps
Zinc	66-2	2680	2827	2674	2727	3.18	cps
Zirconium	90-1	26405	26572	26305	26427	0.51	cps
Zirconium	91-1	5985	5635	5811	5810	3.01	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	64104	64690	64777	64523	0.57	cps
Antimony	121-1	693512	695743	702904	697386	0.70	cps
Arsenic	75-2	12606	13063	12743	12804	1.83	cps
Barium	135-1	879333	881596	889983	883637	0.63	cps
Barium	137-1	1603745	1602781	1593072	1599866	0.37	cps
Beryllium	9-1	277290	273777	275292	275453	0.64	cps
Bismuth	209-1	10333275	12236255	11159973	11243168	8.49	cps
Bismuth	209-2	4140200	4067051	4067267	4091506	1.03	cps
Bromine	81-1	5985	5891	5748	5875	2.03	cps
Cadmium	108-1	15339	15132	14988	15153	1.16	cps
Cadmium	106-1	28403	29695	29121	29073	2.23	cps
Cadmium	111-1	179014	178144	181069	179409	0.84	cps
Calcium	43-1	271512	271184	274092	272263	0.58	cps
Calcium	44-1	4630869	4547543	4561858	4580090	0.97	cps
Carbon	12-1	3351921	3337591	3359528	3349680	0.33	cps
Carbon	12-2	21866	21519	21850	21745	0.90	cps
Chlorine	35-1	65055	66227	66271	65851	1.05	cps
Chlorine	35-2	270	220	173	221	21.86	cps
Chromium	52-2	153840	152391	152584	152938	0.51	cps
Cobalt	59-2	283781	286701	287574	286019	0.69	cps
Copper	63-2	2274785	2248813	2261761	2261786	0.57	cps
Dysprosium	156-1	110	137	137	128	12.05	cps
Dysprosium	156-2	7	10	10	9	21.63	cps
Erbium	164-1	103	83	80	89	14.20	cps
Erbium	164-2	27	13	20	20	33.35	cps
Gadolinium	160-1	57	97	83	79	25.82	cps
Gadolinium	160-2	17	7	13	12	41.65	cps
Holmium	165-1	16639140	19814233	17935125	18129499	8.81	cps
Holmium	165-2	5818280	5663691	5657281	5713084	1.60	cps
Indium	115-1	12704583	14881424	13855767	13813925	7.88	cps
Indium	115-2	1248956	1232669	1252212	1244612	0.84	cps
Iron	54-2	316623	316306	314615	315848	0.34	cps
Iron	56-2	5903450	5905091	5975575	5928039	0.69	cps
Iron	57-2	143857	144941	143137	143978	0.63	cps
Krypton	83-1	203	133	167	168	20.87	cps
Lead	206-1	3152263	3084530	3140872	3125888	1.16	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2732879	2734416	2748110	2738468	0.31	cps
Lead	208-1	12548467	12472018	12534272	12518252	0.32	cps
Lithium	6-1	8049911	9107102	8602123	8586378	6.16	cps
Magnesium	24-2	1192193	1168196	1168712	1176367	1.17	cps
Manganese	55-2	653229	648293	649370	650298	0.40	cps
Molybdenum	94-1	2639829	2631370	2640266	2637155	0.19	cps
Molybdenum	95-1	3828059	3774600	3792382	3798347	0.72	cps
Molybdenum	96-1	4135778	4106301	4165437	4135839	0.71	cps
Molybdenum	97-1	2353353	2336499	2310984	2333612	0.91	cps
Molybdenum	98-1	6047462	6041541	6073556	6054186	0.28	cps
Neodymium	150-1	103	73	107	94	19.44	cps
Neodymium	150-2	7	10	10	9	21.63	cps
Nickel	60-2	78314	79648	79956	79306	1.10	cps
Phosphorus	31-2	2880	2924	2990	2931	1.89	cps
Potassium	39-2	313650	312947	311011	312536	0.44	cps
Rhodium	103-1	11543449	13918609	12704456	12722171	9.34	cps
Rhodium	103-2	4518559	4490380	4448215	4485718	0.79	cps
Scandium	45-1	9411453	11072587	10358908	10280982	8.11	cps
Scandium	45-2	167803	166268	166795	166956	0.47	cps
Selenium	82-1	11472	11755	11668	11632	1.25	cps
Selenium	77-2	170	173	147	163	8.90	cps
Selenium	78-2	633	670	643	649	2.92	cps
Silicon	28-1	2570246	2547391	2539634	2552424	0.62	cps
Silver	107-1	937090	938165	950397	941884	0.78	cps
Silver	109-1	898489	898100	906945	901178	0.55	cps
Sodium	23-2	2345194	2328162	2348827	2340728	0.47	cps
Strontium	86-1	254106	254149	256603	254953	0.56	cps
Strontium	88-1	2338222	2338355	2316199	2330925	0.55	cps
Sulfur	34-1	538463	530836	529004	532768	0.94	cps
Terbium	159-1	16696466	19955269	18292812	18314849	8.90	cps
Terbium	159-2	5609864	5333380	5535045	5492763	2.60	cps
Thallium	203-1	748143	744020	759034	750399	1.03	cps
Thallium	205-1	1885553	1867267	1913657	1888826	1.24	cps
Tin	118-1	670018	668969	674965	671317	0.48	cps
Titanium	47-1	1156133	1148947	1153536	1152872	0.32	cps
Uranium	238-1	2477562	2469810	2487665	2478345	0.36	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S03	Instrumnet Name :	P8
Client Sample ID :	S03	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:33:31	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	116909	116475	114845	116077	0.94	cps
Ytterbium	172-1	107	127	107	113	10.19	cps
Ytterbium	172-2	43	43	27	38	25.46	cps
Ytterbium	176-1	5318	5788	5675	5593	4.39	cps
Ytterbium	176-2	1497	1423	1413	1445	3.15	cps
Yttrium	89-1	23252165	27453575	25143935	25283225	8.32	cps
Yttrium	89-2	1652742	1657404	1658660	1656269	0.19	cps
Zinc	66-2	227399	225998	226142	226513	0.34	cps
Zirconium	90-1	1238633	1234486	1230389	1234503	0.33	cps
Zirconium	91-1	271316	273662	274199	273059	0.56	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	160268	154186	145923	153459	4.69	cps
Antimony	121-1	1840449	1889828	1809914	1846730	2.18	cps
Arsenic	75-2	31759	31285	29932	30992	3.06	cps
Barium	135-1	2392594	2393175	2343574	2376447	1.20	cps
Barium	137-1	4022746	4072144	4062800	4052563	0.65	cps
Beryllium	9-1	685776	689384	679389	684850	0.74	cps
Bismuth	209-1	10419036	10138337	10828946	10462106	3.32	cps
Bismuth	209-2	3962501	3848116	3747253	3852624	2.80	cps
Bromine	81-1	5981	6342	6128	6150	2.94	cps
Cadmium	108-1	38139	39353	37992	38495	1.94	cps
Cadmium	106-1	60636	60462	60355	60484	0.23	cps
Cadmium	111-1	445263	448364	446192	446607	0.36	cps
Calcium	43-1	680474	686847	683598	683640	0.47	cps
Calcium	44-1	11289987	11374921	11374314	11346407	0.43	cps
Carbon	12-1	3417055	3449679	3463522	3443419	0.69	cps
Carbon	12-2	22988	22507	22040	22512	2.11	cps
Chlorine	35-1	69164	70309	69948	69807	0.84	cps
Chlorine	35-2	233	320	263	272	16.17	cps
Chromium	52-2	382274	368366	349884	366841	4.43	cps
Cobalt	59-2	710570	691765	657849	686728	3.89	cps
Copper	63-2	5568992	5422985	5194028	5395335	3.50	cps
Dysprosium	156-1	133	147	103	128	17.37	cps
Dysprosium	156-2	10	7	7	8	24.71	cps
Erbium	164-1	100	103	103	102	1.88	cps
Erbium	164-2	33	23	27	28	18.33	cps
Gadolinium	160-1	80	87	97	88	9.56	cps
Gadolinium	160-2	17	7	13	12	41.65	cps
Holmium	165-1	16978399	16672126	17701912	17117479	3.09	cps
Holmium	165-2	5712401	5495267	5306339	5504669	3.69	cps
Indium	115-1	12865562	12553840	13441645	12953682	3.48	cps
Indium	115-2	1219831	1180497	1146672	1182334	3.10	cps
Iron	54-2	783216	759215	724577	755669	3.90	cps
Iron	56-2	14868724	14269242	13640668	14259545	4.31	cps
Iron	57-2	360230	346654	328535	345139	4.61	cps
Krypton	83-1	183	153	200	179	13.22	cps
Lead	206-1	7822711	7814272	7698989	7778657	0.89	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	6708271	6831809	6747544	6762541	0.93	cps
Lead	208-1	31062461	31154995	31049388	31088948	0.19	cps
Lithium	6-1	7938107	7877415	8279520	8031680	2.70	cps
Magnesium	24-2	2903167	2846467	2695025	2814887	3.82	cps
Manganese	55-2	1713556	1666297	1573263	1651039	4.32	cps
Molybdenum	94-1	6547877	6705620	6559378	6604291	1.33	cps
Molybdenum	95-1	9519625	9693941	9506686	9573417	1.09	cps
Molybdenum	96-1	10282391	10338632	10389148	10336723	0.52	cps
Molybdenum	97-1	5791965	5793996	5817350	5801104	0.24	cps
Molybdenum	98-1	15291942	15404811	15506265	15401006	0.70	cps
Neodymium	150-1	213	250	220	228	8.58	cps
Neodymium	150-2	10	13	13	12	15.73	cps
Nickel	60-2	196997	192239	182244	190493	3.95	cps
Phosphorus	31-2	7315	6692	6602	6869	5.66	cps
Potassium	39-2	770400	749461	711138	743666	4.04	cps
Rhodium	103-1	11686999	11368111	12323368	11792826	4.12	cps
Rhodium	103-2	4411389	4189174	4143212	4247925	3.38	cps
Scandium	45-1	9450048	9205311	10235936	9630431	5.59	cps
Scandium	45-2	165467	161007	154179	160217	3.55	cps
Selenium	82-1	28710	29612	29375	29232	1.60	cps
Selenium	77-2	430	483	427	447	7.12	cps
Selenium	78-2	1657	1607	1503	1589	4.92	cps
Silicon	28-1	5816897	5800907	5823021	5813608	0.20	cps
Silver	107-1	2513311	2579605	2518630	2537182	1.45	cps
Silver	109-1	2403353	2424748	2427188	2418430	0.54	cps
Sodium	23-2	5635719	5562971	5255300	5484663	3.68	cps
Strontium	86-1	642359	641409	643238	642335	0.14	cps
Strontium	88-1	5815475	5792362	5691869	5766569	1.14	cps
Sulfur	34-1	660687	652018	644496	652400	1.24	cps
Terbium	159-1	17178246	16482721	18244924	17301963	5.13	cps
Terbium	159-2	5479751	5418619	5142263	5346878	3.36	cps
Thallium	203-1	2011572	2036451	1971789	2006604	1.63	cps
Thallium	205-1	4829523	4812015	4692977	4778172	1.55	cps
Tin	118-1	1785171	1786168	1779839	1783726	0.19	cps
Titanium	47-1	3007425	3040469	3036071	3027988	0.59	cps
Uranium	238-1	6195922	6110920	6229581	6178808	0.99	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P8
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:36:39	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	295759	284052	270012	283274	4.55	cps
Ytterbium	172-1	130	107	147	128	15.72	cps
Ytterbium	172-2	40	23	33	32	26.04	cps
Ytterbium	176-1	10568	10504	10564	10545	0.34	cps
Ytterbium	176-2	3177	3000	2967	3048	3.70	cps
Yttrium	89-1	23491453	22745254	24658205	23631637	4.08	cps
Yttrium	89-2	1634510	1556159	1533724	1574798	3.36	cps
Zinc	66-2	561544	546217	522466	543409	3.62	cps
Zirconium	90-1	3288320	3276823	3250353	3271832	0.60	cps
Zirconium	91-1	682269	696471	691601	690114	1.05	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	294197	295722	298558	296159	0.75	cps
Antimony	121-1	3506521	3660501	3653357	3606793	2.41	cps
Arsenic	75-2	60151	60850	60047	60350	0.72	cps
Barium	135-1	4497031	4661671	4627628	4595443	1.89	cps
Barium	137-1	7647199	7913763	8015046	7858670	2.42	cps
Beryllium	9-1	1330275	1365247	1421396	1372306	3.35	cps
Bismuth	209-1	10097430	10035337	10315333	10149366	1.45	cps
Bismuth	209-2	3592696	3829509	3828523	3750243	3.64	cps
Bromine	81-1	5748	5868	6078	5898	2.83	cps
Cadmium	108-1	70539	74346	74755	73213	3.18	cps
Cadmium	106-1	107495	111069	111992	110185	2.16	cps
Cadmium	111-1	839349	867024	868766	858380	1.92	cps
Calcium	43-1	1362435	1390306	1404407	1385716	1.54	cps
Calcium	44-1	21368731	22547774	22442304	22119603	2.95	cps
Carbon	12-1	3391954	3503597	3484038	3459863	1.72	cps
Carbon	12-2	22898	23385	23285	23189	1.11	cps
Chlorine	35-1	69298	72272	72269	71280	2.41	cps
Chlorine	35-2	247	230	240	239	3.51	cps
Chromium	52-2	698560	704340	706396	703098	0.58	cps
Cobalt	59-2	1301387	1326821	1324270	1317493	1.06	cps
Copper	63-2	10302115	10307102	10394310	10334509	0.50	cps
Dysprosium	156-1	160	153	193	169	12.69	cps
Dysprosium	156-2	17	13	13	14	13.35	cps
Erbium	164-1	153	120	127	133	13.23	cps
Erbium	164-2	27	43	30	33	26.45	cps
Gadolinium	160-1	80	113	100	98	17.16	cps
Gadolinium	160-2	37	37	17	30	38.49	cps
Holmium	165-1	16515518	16989235	16852114	16785622	1.45	cps
Holmium	165-2	5154078	5394467	5403703	5317416	2.66	cps
Indium	115-1	12434148	12598568	12678978	12570565	0.99	cps
Indium	115-2	1093737	1147826	1142273	1127946	2.64	cps
Iron	54-2	1514006	1538179	1495936	1516040	1.40	cps
Iron	56-2	27021720	27240325	27313136	27191727	0.56	cps
Iron	57-2	654279	665326	663837	661148	0.91	cps
Krypton	83-1	177	190	167	178	6.58	cps
Lead	206-1	14544437	15365460	15178096	15029331	2.86	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	12663336	13303198	13219751	13062095	2.66	cps
Lead	208-1	58617100	60974689	61255594	60282461	2.40	cps
Lithium	6-1	7877363	7793739	7930772	7867291	0.88	cps
Magnesium	24-2	5403330	5339787	5388661	5377259	0.62	cps
Manganese	55-2	3178268	3175408	3194620	3182765	0.33	cps
Molybdenum	94-1	12410724	13030308	13050204	12830412	2.83	cps
Molybdenum	95-1	17970880	18882570	18875666	18576372	2.82	cps
Molybdenum	96-1	19618410	20645367	20650451	20304742	2.93	cps
Molybdenum	97-1	10936027	11498997	11663011	11366012	3.35	cps
Molybdenum	98-1	29032160	30387013	30367926	29929033	2.60	cps
Neodymium	150-1	410	380	440	410	7.32	cps
Neodymium	150-2	7	10	13	10	33.30	cps
Nickel	60-2	355116	363560	360360	359679	1.19	cps
Phosphorus	31-2	13193	13079	12986	13086	0.79	cps
Potassium	39-2	1513761	1512291	1506346	1510799	0.26	cps
Rhodium	103-1	11359943	11610966	11579979	11516962	1.19	cps
Rhodium	103-2	3973259	4114910	4109886	4066018	1.98	cps
Scandium	45-1	9368815	9439578	9363257	9390550	0.45	cps
Scandium	45-2	150044	158415	155599	154686	2.75	cps
Selenium	82-1	55527	56022	57632	56394	1.95	cps
Selenium	77-2	847	863	910	873	3.76	cps
Selenium	78-2	2867	2960	2897	2908	1.64	cps
Silicon	28-1	12053839	12680823	12703191	12479284	2.95	cps
Silver	107-1	4644540	4944810	4914633	4834661	3.42	cps
Silver	109-1	4483844	4696214	4717809	4632622	2.79	cps
Sodium	23-2	10584349	10635987	10656409	10625582	0.35	cps
Strontium	86-1	1200620	1265064	1274309	1246664	3.22	cps
Strontium	88-1	10831528	11282846	11473234	11195869	2.94	cps
Sulfur	34-1	825271	847238	847675	840061	1.52	cps
Terbium	159-1	16860311	17198736	17105661	17054903	1.03	cps
Terbium	159-2	4967715	5192063	5214162	5124647	2.66	cps
Thallium	203-1	3738413	3955158	3898670	3864081	2.91	cps
Thallium	205-1	8789633	9250360	9422293	9154095	3.57	cps
Tin	118-1	3317456	3490140	3509873	3439156	3.08	cps
Titanium	47-1	5695307	5997875	5982296	5891826	2.89	cps
Uranium	238-1	11834667	12090908	12333378	12086318	2.06	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S05	Instrumnet Name :	P8
Client Sample ID :	S05	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:39:36	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	542059	551205	550964	548076	0.95	cps
Ytterbium	172-1	167	123	120	137	19.05	cps
Ytterbium	172-2	50	33	63	49	30.75	cps
Ytterbium	176-1	17759	18740	18967	18489	3.47	cps
Ytterbium	176-2	5738	5585	5618	5647	1.43	cps
Yttrium	89-1	23107844	23116741	23569067	23264551	1.13	cps
Yttrium	89-2	1478207	1547622	1570576	1532135	3.14	cps
Zinc	66-2	1033639	1046495	1046312	1042149	0.71	cps
Zirconium	90-1	6185692	6448072	6420011	6351258	2.27	cps
Zirconium	91-1	1305435	1433195	1454323	1397651	5.76	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	580359	588570	587016	585315	0.75	cps
Antimony	121-1	6793970	7078597	7150833	7007800	2.69	cps
Arsenic	75-2	117679	118332	118543	118185	0.38	cps
Barium	135-1	8672382	9097805	9181451	8983879	3.04	cps
Barium	137-1	15161001	15702016	15886090	15583036	2.42	cps
Beryllium	9-1	2522029	2615853	2590813	2576232	1.89	cps
Bismuth	209-1	9724929	9873097	9929053	9842360	1.07	cps
Bismuth	209-2	3610219	3647908	3604759	3620962	0.65	cps
Bromine	81-1	5731	5975	6108	5938	3.22	cps
Cadmium	108-1	136451	141652	144902	141002	3.02	cps
Cadmium	106-1	195113	205777	208529	203139	3.49	cps
Cadmium	111-1	1676939	1758182	1778783	1737968	3.10	cps
Calcium	43-1	2592399	2735602	2789450	2705817	3.76	cps
Calcium	44-1	41506967	44153504	44300758	43320410	3.63	cps
Carbon	12-1	3395564	3517919	3599423	3504302	2.93	cps
Carbon	12-2	24394	24140	24457	24330	0.69	cps
Chlorine	35-1	75050	80984	81172	79069	4.40	cps
Chlorine	35-2	313	313	290	306	4.41	cps
Chromium	52-2	1469265	1468022	1497620	1478302	1.13	cps
Cobalt	59-2	2703709	2739207	2691420	2711445	0.92	cps
Copper	63-2	20332495	20094831	20098463	20175263	0.67	cps
Dysprosium	156-1	250	360	233	281	24.48	cps
Dysprosium	156-2	50	37	30	39	26.18	cps
Erbium	164-1	177	193	163	178	8.45	cps
Erbium	164-2	80	50	40	57	36.74	cps
Gadolinium	160-1	170	127	127	141	17.73	cps
Gadolinium	160-2	47	43	53	48	10.66	cps
Holmium	165-1	16420879	16934632	16802691	16719400	1.60	cps
Holmium	165-2	5344778	5367480	5263023	5325094	1.03	cps
Indium	115-1	12236449	12493673	12382393	12370838	1.04	cps
Indium	115-2	1105388	1106528	1106050	1105988	0.05	cps
Iron	54-2	3024677	3000241	2991461	3005460	0.57	cps
Iron	56-2	54031104	53842073	53652753	53841976	0.35	cps
Iron	57-2	1299964	1304723	1301589	1302092	0.19	cps
Krypton	83-1	217	223	217	219	1.76	cps
Lead	206-1	28378392	29656373	29819205	29284657	2.69	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24346600	25609382	26010572	25322185	3.43	cps
Lead	208-1	112631912	117593212	119600416	116608513	3.08	cps
Lithium	6-1	7667901	7734362	7554301	7652188	1.19	cps
Magnesium	24-2	10595995	10556819	10489847	10547554	0.51	cps
Manganese	55-2	6193619	6285347	6238519	6239162	0.74	cps
Molybdenum	94-1	23972061	25675316	25707523	25118300	3.95	cps
Molybdenum	95-1	35405400	37126554	37195994	36575983	2.77	cps
Molybdenum	96-1	38325007	40063439	40666774	39685073	3.06	cps
Molybdenum	97-1	21388639	23024190	23040508	22484446	4.22	cps
Molybdenum	98-1	56770579	60592964	60443696	59269080	3.65	cps
Neodymium	150-1	677	813	837	776	11.14	cps
Neodymium	150-2	30	33	27	30	11.10	cps
Nickel	60-2	688657	692612	696892	692720	0.59	cps
Phosphorus	31-2	25903	26134	25589	25875	1.06	cps
Potassium	39-2	2936267	2966612	2929408	2944095	0.67	cps
Rhodium	103-1	10951170	11293085	11424454	11222903	2.18	cps
Rhodium	103-2	3986299	3984461	4030721	4000494	0.65	cps
Scandium	45-1	9186462	9384043	9439648	9336718	1.43	cps
Scandium	45-2	151576	155551	154213	153780	1.32	cps
Selenium	82-1	104624	111598	111813	109345	3.74	cps
Selenium	77-2	1707	1727	1783	1739	2.29	cps
Selenium	78-2	5821	5725	5885	5810	1.39	cps
Silicon	28-1	27132909	28114749	28271670	27839776	2.22	cps
Silver	107-1	8912352	9395475	9529215	9279014	3.50	cps
Silver	109-1	8583353	8863460	9044074	8830295	2.63	cps
Sodium	23-2	20796187	20957241	20895175	20882868	0.39	cps
Strontium	86-1	2464650	2650358	2660821	2591943	4.26	cps
Strontium	88-1	20841324	22280616	22204521	21775487	3.72	cps
Sulfur	34-1	1077608	1110075	1146227	1111303	3.09	cps
Terbium	159-1	16733910	17128780	17203921	17022204	1.48	cps
Terbium	159-2	5143211	5151004	5140237	5144817	0.11	cps
Thallium	203-1	7259456	7617225	7676957	7517879	3.00	cps
Thallium	205-1	17186298	17996475	17946283	17709685	2.56	cps
Tin	118-1	6464954	6726562	6845010	6678842	2.91	cps
Titanium	47-1	10827119	11686858	11826346	11446774	4.73	cps
Uranium	238-1	22789454	23800570	24191389	23593804	3.07	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P8
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:42:30	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1079633	1088808	1089285	1085909	0.50	cps
Ytterbium	172-1	153	227	230	203	21.31	cps
Ytterbium	172-2	77	97	47	73	34.32	cps
Ytterbium	176-1	33305	35187	35421	34638	3.35	cps
Ytterbium	176-2	10758	11088	11302	11049	2.48	cps
Yttrium	89-1	22491047	23253877	23234683	22993202	1.89	cps
Yttrium	89-2	1532619	1529120	1528799	1530179	0.14	cps
Zinc	66-2	2149234	2143822	2133779	2142278	0.37	cps
Zirconium	90-1	12108973	12808920	12763700	12560531	3.12	cps
Zirconium	91-1	2727692	2896665	2902789	2842382	3.50	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1120907	1194102	1192514	1169174	3.58	cps
Antimony	121-1	13206732	13765554	13872727	13615004	2.63	cps
Arsenic	75-2	230271	235411	234801	233494	1.20	cps
Barium	135-1	17016343	17875703	17826262	17572769	2.75	cps
Barium	137-1	28856510	30581585	30650752	30029615	3.39	cps
Beryllium	9-1	4803799	4931343	4983059	4906067	1.88	cps
Bismuth	209-1	9364058	9764976	9786553	9638529	2.47	cps
Bismuth	209-2	3584792	3505394	3954991	3681726	6.52	cps
Bromine	81-1	6368	6435	6318	6374	0.92	cps
Cadmium	108-1	263310	271304	277375	270663	2.61	cps
Cadmium	106-1	373247	389172	395084	385834	2.93	cps
Cadmium	111-1	3218542	3412375	3437938	3356285	3.57	cps
Calcium	43-1	5099688	5293443	5180523	5191218	1.87	cps
Calcium	44-1	82240452	85519982	84479722	84080052	1.99	cps
Carbon	12-1	3703789	3852937	3941561	3832762	3.14	cps
Carbon	12-2	27800	27516	27583	27633	0.54	cps
Chlorine	35-1	90755	95985	98012	94918	3.94	cps
Chlorine	35-2	427	390	397	404	4.83	cps
Chromium	52-2	2877940	2911772	2918734	2902815	0.75	cps
Cobalt	59-2	5156653	5240038	5211180	5202624	0.81	cps
Copper	63-2	37513911	38487914	38428734	38143520	1.43	cps
Dysprosium	156-1	383	413	460	419	9.22	cps
Dysprosium	156-2	40	37	40	39	4.94	cps
Erbium	164-1	173	267	297	246	26.19	cps
Erbium	164-2	40	83	80	68	35.58	cps
Gadolinium	160-1	210	210	193	204	4.70	cps
Gadolinium	160-2	60	57	43	53	16.54	cps
Holmium	165-1	16244912	16952264	17053443	16750206	2.63	cps
Holmium	165-2	5334453	5266163	5918691	5506436	6.51	cps
Indium	115-1	11802924	12169953	12240936	12071271	1.95	cps
Indium	115-2	1086809	1067056	1210069	1121311	6.91	cps
Iron	54-2	5717745	5847442	5747000	5770729	1.18	cps
Iron	56-2	103238708	104868998	105102248	104403318	0.97	cps
Iron	57-2	2633118	2677935	2694173	2668409	1.19	cps
Krypton	83-1	217	253	190	220	14.45	cps
Lead	206-1	54626916	57296017	57304749	56409227	2.74	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	47037943	48945196	48770191	48251110	2.18	cps
Lead	208-1	216858130	226023362	227279498	223386997	2.55	cps
Lithium	6-1	7230833	7420732	7465742	7372436	1.69	cps
Magnesium	24-2	20390417	20735995	20540711	20555708	0.84	cps
Manganese	55-2	12051230	12284451	12194161	12176614	0.97	cps
Molybdenum	94-1	47750178	49909454	50552038	49403890	2.97	cps
Molybdenum	95-1	68813801	72690366	73989487	71831218	3.75	cps
Molybdenum	96-1	74639082	78949674	79497750	77695502	3.43	cps
Molybdenum	97-1	42073584	44175601	44823953	43691046	3.29	cps
Molybdenum	98-1	111516252	116355502	117534285	115135346	2.77	cps
Neodymium	150-1	1360	1470	1567	1466	7.06	cps
Neodymium	150-2	30	43	27	33	26.45	cps
Nickel	60-2	1309083	1326531	1340178	1325264	1.18	cps
Phosphorus	31-2	50079	51511	51702	51097	1.74	cps
Potassium	39-2	5700578	5816829	5734338	5750582	1.04	cps
Rhodium	103-1	10514486	11046581	10986015	10849027	2.69	cps
Rhodium	103-2	3927209	3814264	4352650	4031374	7.04	cps
Scandium	45-1	9210265	9334626	9334669	9293187	0.77	cps
Scandium	45-2	157006	154740	172501	161416	5.99	cps
Selenium	82-1	205013	213376	217074	211821	2.92	cps
Selenium	77-2	3154	3347	3697	3399	8.10	cps
Selenium	78-2	11231	11989	11488	11569	3.33	cps
Silicon	28-1	36095011	37689809	38390595	37391805	3.15	cps
Silver	107-1	17163297	17987561	18037057	17729305	2.77	cps
Silver	109-1	16088176	16968720	16967536	16674811	3.05	cps
Sodium	23-2	40721415	40919746	40707285	40782816	0.29	cps
Strontium	86-1	4917393	5102420	5159832	5059882	2.50	cps
Strontium	88-1	41055277	43654691	44087919	42932629	3.82	cps
Sulfur	34-1	1667514	1760690	1788388	1738864	3.64	cps
Terbium	159-1	16552875	17166278	17140421	16953192	2.05	cps
Terbium	159-2	5102517	5035399	5681270	5273062	6.73	cps
Thallium	203-1	14100473	14719571	14634448	14484830	2.32	cps
Thallium	205-1	33533862	34744769	35401042	34559891	2.74	cps
Tin	118-1	12414646	12908152	13104675	12809158	2.78	cps
Titanium	47-1	21870352	22637369	22409753	22305825	1.77	cps
Uranium	238-1	44327254	46030901	46573724	45643960	2.57	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P8
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:45:16	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	2193147	2251637	2254382	2233055	1.55	cps
Ytterbium	172-1	193	263	263	240	16.84	cps
Ytterbium	172-2	113	87	110	103	14.06	cps
Ytterbium	176-1	63595	66101	66299	65332	2.31	cps
Ytterbium	176-2	21084	20860	21114	21019	0.66	cps
Yttrium	89-1	22324950	22956844	23349467	22877087	2.26	cps
Yttrium	89-2	1550192	1521702	1722302	1598065	6.79	cps
Zinc	66-2	4065504	4096034	4119992	4093844	0.67	cps
Zirconium	90-1	23823153	24777425	25371301	24657293	3.17	cps
Zirconium	91-1	5302083	5588083	5619914	5503360	3.18	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5512854	5634878	5472005	5539912	1.53	cps
Antimony	121-1	9353	8710	8119	8727	7.07	cps
Arsenic	75-2	140	97	90	109	24.93	cps
Barium	135-1	7939	6992	6775	7235	8.56	cps
Barium	137-1	13877	12449	11528	12618	9.38	cps
Beryllium	9-1	1627	1339	1212	1393	15.27	cps
Bismuth	209-1	7971895	7931183	7481696	7794925	3.49	cps
Bismuth	209-2	2932345	3072986	2994199	2999843	2.35	cps
Bromine	81-1	6161	6365	6605	6377	3.48	cps
Cadmium	108-1	153	213	133	167	24.98	cps
Cadmium	106-1	6091	6208	5708	6002	4.36	cps
Cadmium	111-1	2024	1932	1855	1937	4.38	cps
Calcium	43-1	23502448	23755010	22416411	23224623	3.06	cps
Calcium	44-1	381110114	378908434	362633341	374217297	2.70	cps
Carbon	12-1	4258368	4908252	5357160	4841260	11.41	cps
Carbon	12-2	44006	45524	44938	44823	1.71	cps
Chlorine	35-1	58842	57152	56456	57484	2.13	cps
Chlorine	35-2	293	237	193	241	20.80	cps
Chromium	52-2	7700	5388	6653	6580	17.59	cps
Cobalt	59-2	9580	9553	9383	9505	1.12	cps
Copper	63-2	9106	9053	8689	8950	2.54	cps
Dysprosium	156-1	607	570	597	591	3.21	cps
Dysprosium	156-2	150	160	197	169	14.55	cps
Erbium	164-1	543	587	520	550	6.15	cps
Erbium	164-2	147	233	167	182	24.90	cps
Gadolinium	160-1	450	443	517	470	8.63	cps
Gadolinium	160-2	193	173	243	203	17.73	cps
Holmium	165-1	14786976	14706735	14131913	14541875	2.46	cps
Holmium	165-2	4774634	4909754	4858550	4847646	1.41	cps
Indium	115-1	10481585	10416568	9739195	10212450	4.03	cps
Indium	115-2	981481	995889	983956	987108	0.78	cps
Iron	54-2	25242772	25518582	25196370	25319242	0.69	cps
Iron	56-2	461558166	465307633	462207166	463024322	0.43	cps
Iron	57-2	11610250	11596829	11562665	11589915	0.21	cps
Krypton	83-1	267	403	390	353	21.33	cps
Lead	206-1	18460	16564	15523	16849	8.84	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	16017	14468	12947	14477	10.60	cps
Lead	208-1	73325	65849	60596	66590	9.61	cps
Lithium	6-1	6221688	6183606	6041930	6149075	1.54	cps
Magnesium	24-2	85351579	87274169	85274282	85966676	1.32	cps
Manganese	55-2	4251	3967	3977	4065	3.96	cps
Molybdenum	94-1	13770	11615	10447	11944	14.11	cps
Molybdenum	95-1	12776	10514	8983	10758	17.74	cps
Molybdenum	96-1	16830	14521	12909	14754	13.36	cps
Molybdenum	97-1	6785	5231	4688	5568	19.55	cps
Molybdenum	98-1	16717	13260	10781	13586	21.94	cps
Neodymium	150-1	320	347	287	318	9.46	cps
Neodymium	150-2	67	83	53	68	22.18	cps
Nickel	60-2	5765	5938	5678	5793	2.29	cps
Phosphorus	31-2	83	57	87	76	21.76	cps
Potassium	39-2	26771566	27007393	26548600	26775853	0.86	cps
Rhodium	103-1	9083060	9049136	8547194	8893130	3.37	cps
Rhodium	103-2	3280236	3262698	3258515	3267149	0.35	cps
Scandium	45-1	8019644	8157536	7584386	7920522	3.78	cps
Scandium	45-2	136541	138045	136683	137089	0.61	cps
Selenium	82-1	53	-70	-63	-27	-260.13	cps
Selenium	77-2	0	0	7	2	173.21	cps
Selenium	78-2	10	13	7	10	33.30	cps
Silicon	28-1	525069	507036	483691	505265	4.11	cps
Silver	107-1	2794	2334	1977	2368	17.29	cps
Silver	109-1	2594	2260	1920	2258	14.91	cps
Sodium	23-2	183707364	182802077	182270157	182926533	0.40	cps
Strontium	86-1	12883	12826	11965	12558	4.09	cps
Strontium	88-1	106069	104974	99780	103608	3.24	cps
Sulfur	34-1	347199	343517	333993	341570	2.00	cps
Terbium	159-1	15087246	15132178	14360769	14860064	2.91	cps
Terbium	159-2	4689315	4679661	4621011	4663329	0.79	cps
Thallium	203-1	1967	1710	1250	1642	22.11	cps
Thallium	205-1	4874	3954	3144	3991	21.70	cps
Tin	118-1	4429	3809	3385	3874	13.56	cps
Titanium	47-1	8046	7729	6995	7590	7.10	cps
Uranium	238-1	4227	2874	2137	3079	34.43	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P8
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 13:48:03	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	280	360	317	319	12.56	cps
Ytterbium	172-1	703	633	653	663	5.44	cps
Ytterbium	172-2	230	253	267	250	7.42	cps
Ytterbium	176-1	2324	2144	2114	2194	5.18	cps
Ytterbium	176-2	387	367	397	383	3.98	cps
Yttrium	89-1	20224221	19996101	19242893	19821072	2.59	cps
Yttrium	89-2	1317331	1339078	1320400	1325603	0.89	cps
Zinc	66-2	5371	5001	5158	5177	3.59	cps
Zirconium	90-1	13600	13116	12259	12992	5.23	cps
Zirconium	91-1	3140	2887	2867	2965	5.14	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	29607	30088	30619	30104	1.68	cps
Antimony	121-1	2748992	2823236	2785918	2786049	1.33	cps
Arsenic	75-2	48978	49162	49162	49101	0.22	cps
Barium	135-1	341304	354314	352137	349252	2.00	cps
Barium	137-1	599128	616409	611360	608966	1.46	cps
Beryllium	9-1	499706	513177	508524	507136	1.35	cps
Bismuth	209-1	11258575	8906792	10300655	10155341	11.65	cps
Bismuth	209-2	4008291	3979473	4044185	4010650	0.81	cps
Bromine	81-1	6258	6368	6338	6321	0.90	cps
Cadmium	108-1	49920	51462	52078	51153	2.17	cps
Cadmium	106-1	83141	83487	82608	83079	0.53	cps
Cadmium	111-1	339477	350511	346036	345341	1.61	cps
Calcium	43-1	111746	115381	114786	113971	1.71	cps
Calcium	44-1	1827730	1910648	1882355	1873578	2.25	cps
Carbon	12-1	3422225	3498699	3521470	3480798	1.49	cps
Carbon	12-2	23299	23489	23182	23323	0.66	cps
Chlorine	35-1	67958	69023	68631	68538	0.79	cps
Chlorine	35-2	297	247	280	274	9.28	cps
Chromium	52-2	291373	292777	292303	292151	0.24	cps
Cobalt	59-2	546443	546238	546427	546369	0.02	cps
Copper	63-2	427033	430573	425317	427641	0.63	cps
Dysprosium	156-1	93	100	87	93	7.14	cps
Dysprosium	156-2	7	3	7	6	34.70	cps
Erbium	164-1	73	30	93	66	49.38	cps
Erbium	164-2	13	30	43	29	52.03	cps
Gadolinium	160-1	87	47	53	62	34.44	cps
Gadolinium	160-2	10	20	10	13	43.30	cps
Holmium	165-1	18706647	14614537	16274445	16531876	12.45	cps
Holmium	165-2	5597082	5550755	5646863	5598234	0.86	cps
Indium	115-1	14172246	11080007	12378530	12543595	12.38	cps
Indium	115-2	1200025	1205435	1214277	1206579	0.60	cps
Iron	54-2	250377	250737	248732	249949	0.43	cps
Iron	56-2	4652515	4584500	4513331	4583448	1.52	cps
Iron	57-2	110484	111841	109493	110606	1.07	cps
Krypton	83-1	167	170	163	167	2.00	cps
Lead	206-1	2503849	2551166	2588147	2547721	1.66	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2052761	2083083	2113613	2083152	1.46	cps
Lead	208-1	9601632	9831864	9889613	9774370	1.56	cps
Lithium	6-1	8629625	7171425	7947402	7916151	9.22	cps
Magnesium	24-2	243782	247273	246815	245956	0.77	cps
Manganese	55-2	127045	125657	126128	126277	0.56	cps
Molybdenum	94-1	24359300	24590738	24186401	24378813	0.83	cps
Molybdenum	95-1	35267332	35700911	35445822	35471355	0.61	cps
Molybdenum	96-1	37998439	38758616	38619764	38458940	1.05	cps
Molybdenum	97-1	21305332	21717806	21601329	21541489	0.99	cps
Molybdenum	98-1	56269149	57306406	56608012	56727856	0.93	cps
Neodymium	150-1	63	77	80	73	12.03	cps
Neodymium	150-2	3	10	0	4	114.60	cps
Nickel	60-2	152695	152241	150574	151837	0.74	cps
Phosphorus	31-2	27	77	43	49	52.08	cps
Potassium	39-2	237073	236744	238212	237343	0.32	cps
Rhodium	103-1	13102402	10273126	11648661	11674730	12.12	cps
Rhodium	103-2	4449861	4395147	4456774	4433927	0.76	cps
Scandium	45-1	10361897	8299089	9214461	9291816	11.12	cps
Scandium	45-2	164469	164530	164277	164425	0.08	cps
Selenium	82-1	44060	44478	43889	44142	0.69	cps
Selenium	77-2	790	713	700	734	6.61	cps
Selenium	78-2	2457	2484	2554	2498	2.00	cps
Silicon	28-1	5524216	5661456	5674638	5620104	1.48	cps
Silver	107-1	848842	868362	870594	862599	1.39	cps
Silver	109-1	789092	825942	825684	813573	2.61	cps
Sodium	23-2	845009	848689	846567	846755	0.22	cps
Strontium	86-1	2524803	2558584	2556126	2546504	0.74	cps
Strontium	88-1	21418600	21559026	21685568	21554398	0.62	cps
Sulfur	34-1	398629	398118	394253	397000	0.60	cps
Terbium	159-1	18817529	14701696	16677210	16732145	12.30	cps
Terbium	159-2	5396702	5369475	5397998	5388058	0.30	cps
Thallium	203-1	3064352	3094668	3106571	3088531	0.70	cps
Thallium	205-1	7098079	7213577	7170312	7160656	0.81	cps
Tin	118-1	6320934	6429865	6444853	6398551	1.06	cps
Titanium	47-1	10857775	11189854	11100483	11049371	1.56	cps
Uranium	238-1	23628570	24152868	24117689	23966376	1.22	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICV001	Instrumnet Name :	P8
Client Sample ID :	ICV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:25:05	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	218472	218574	216421	217822	0.56	cps
Ytterbium	172-1	73	53	93	73	27.27	cps
Ytterbium	172-2	33	50	47	43	20.36	cps
Ytterbium	176-1	34415	34535	35290	34747	1.37	cps
Ytterbium	176-2	11248	11689	11428	11455	1.93	cps
Yttrium	89-1	25883706	20262198	22866418	23004107	12.23	cps
Yttrium	89-2	1648932	1619680	1637173	1635262	0.90	cps
Zinc	66-2	85995	85418	87058	86157	0.97	cps
Zirconium	90-1	12735365	13013794	12721149	12823436	1.29	cps
Zirconium	91-1	2876210	2936460	2906424	2906365	1.04	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	80	70	73	74	6.84	cps
Antimony	121-1	213	257	243	238	9.33	cps
Arsenic	75-2	7	0	0	2	173.21	cps
Barium	135-1	330	347	383	353	7.72	cps
Barium	137-1	547	697	630	624	12.04	cps
Beryllium	9-1	431	424	425	427	0.94	cps
Bismuth	209-1	10323815	9934310	9747425	10001850	2.94	cps
Bismuth	209-2	4155022	3869227	3994178	4006142	3.58	cps
Bromine	81-1	6378	6562	5915	6285	5.31	cps
Cadmium	108-1	43	40	40	41	4.68	cps
Cadmium	106-1	6948	6895	6578	6807	2.94	cps
Cadmium	111-1	1403	1398	1341	1380	2.48	cps
Calcium	43-1	470	533	493	499	6.42	cps
Calcium	44-1	8616	8286	8583	8495	2.14	cps
Carbon	12-1	2835798	2879325	2820369	2845164	1.07	cps
Carbon	12-2	19176	18395	18575	18715	2.18	cps
Chlorine	35-1	58166	57299	57624	57697	0.76	cps
Chlorine	35-2	240	183	207	210	13.56	cps
Chromium	52-2	1787	1783	1783	1785	0.11	cps
Cobalt	59-2	190	153	187	177	11.47	cps
Copper	63-2	2890	2864	2647	2800	4.77	cps
Dysprosium	156-1	113	63	87	88	28.51	cps
Dysprosium	156-2	3	3	3	3	0.00	cps
Erbium	164-1	113	57	60	77	41.48	cps
Erbium	164-2	33	27	10	23	51.50	cps
Gadolinium	160-1	57	50	53	53	6.25	cps
Gadolinium	160-2	33	13	20	22	45.83	cps
Holmium	165-1	16379829	15525531	15594974	15833445	3.00	cps
Holmium	165-2	5764638	5398753	5508917	5557436	3.38	cps
Indium	115-1	12879247	12455526	12100025	12478266	3.13	cps
Indium	115-2	1264936	1171897	1196812	1211215	3.98	cps
Iron	54-2	577	533	613	574	6.97	cps
Iron	56-2	8146	8226	8102	8158	0.77	cps
Iron	57-2	187	170	197	184	7.30	cps
Krypton	83-1	197	180	240	206	15.07	cps
Lead	206-1	1797	1687	1787	1757	3.46	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1470	1333	1347	1383	5.45	cps
Lead	208-1	6894	6521	6641	6685	2.85	cps
Lithium	6-1	8017286	7699994	7556586	7757955	3.04	cps
Magnesium	24-2	400	457	437	431	6.67	cps
Manganese	55-2	223	237	227	229	3.03	cps
Molybdenum	94-1	657	590	627	624	5.35	cps
Molybdenum	95-1	703	747	627	692	8.78	cps
Molybdenum	96-1	857	727	707	763	10.67	cps
Molybdenum	97-1	427	457	377	420	9.62	cps
Molybdenum	98-1	1183	1093	1060	1112	5.74	cps
Neodymium	150-1	23	13	17	18	28.64	cps
Neodymium	150-2	0	0	7	2	173.21	cps
Nickel	60-2	1477	1517	1493	1496	1.34	cps
Phosphorus	31-2	57	33	67	52	32.76	cps
Potassium	39-2	6885	6368	6742	6665	4.00	cps
Rhodium	103-1	11809834	11397290	11176264	11461129	2.81	cps
Rhodium	103-2	4689859	4337668	4418303	4481943	4.12	cps
Scandium	45-1	9553961	9144498	8964756	9221072	3.27	cps
Scandium	45-2	168332	158304	160191	162276	3.28	cps
Selenium	82-1	30	-20	-133	-41	-203.57	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	3	10	10	8	49.52	cps
Silicon	28-1	400016	400540	397804	399453	0.36	cps
Silver	107-1	270	237	260	256	6.69	cps
Silver	109-1	177	147	157	160	9.55	cps
Sodium	23-2	21649	21439	21232	21440	0.97	cps
Strontium	86-1	373	347	303	341	10.36	cps
Strontium	88-1	540	503	483	509	5.65	cps
Sulfur	34-1	415029	416429	418324	416594	0.40	cps
Terbium	159-1	16847963	16152148	16143244	16381118	2.47	cps
Terbium	159-2	5671161	5190384	5255312	5372286	4.86	cps
Thallium	203-1	393	417	410	407	2.96	cps
Thallium	205-1	1173	1110	893	1059	13.87	cps
Tin	118-1	1003	1252	1082	1112	11.43	cps
Titanium	47-1	173	157	177	169	6.34	cps
Uranium	238-1	70	100	87	86	17.57	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICB001	Instrumnet Name :	P8
Client Sample ID :	ICB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:33:33	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	23	27	17	22	22.91	cps
Ytterbium	172-1	93	67	57	72	26.24	cps
Ytterbium	172-2	27	40	23	30	29.40	cps
Ytterbium	176-1	2054	2054	1887	1998	4.82	cps
Ytterbium	176-2	280	317	273	290	8.04	cps
Yttrium	89-1	23320980	22354291	21987606	22554292	3.05	cps
Yttrium	89-2	1700338	1580109	1612340	1630929	3.82	cps
Zinc	66-2	270	307	247	274	11.02	cps
Zirconium	90-1	757	777	663	732	8.26	cps
Zirconium	91-1	147	190	187	174	13.82	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6009974	6005724	6059714	6025137	0.50	cps
Antimony	121-1	14898	14868	15169	14978	1.10	cps
Arsenic	75-2	87	103	63	84	23.79	cps
Barium	135-1	5391	5111	5054	5185	3.48	cps
Barium	137-1	8793	9337	9287	9139	3.29	cps
Beryllium	9-1	1754	1696	1727	1726	1.67	cps
Bismuth	209-1	9552330	9821968	9404808	9593036	2.21	cps
Bismuth	209-2	3570107	3609116	3611067	3596763	0.64	cps
Bromine	81-1	8012	8082	8129	8075	0.73	cps
Cadmium	108-1	4581	4764	4577	4641	2.30	cps
Cadmium	106-1	7172	7395	7059	7209	2.38	cps
Cadmium	111-1	3962	3485	3709	3719	6.42	cps
Calcium	43-1	5506377	5488958	5574780	5523371	0.82	cps
Calcium	44-1	89190289	87642929	88055589	88296269	0.91	cps
Carbon	12-1	41391279	42090969	42355594	41945947	1.19	cps
Carbon	12-2	273665	272357	272893	272972	0.24	cps
Chlorine	35-1	70805847	73903026	75746549	73485141	3.40	cps
Chlorine	35-2	288835	292676	295519	292343	1.15	cps
Chromium	52-2	57351	58255	57435	57680	0.87	cps
Cobalt	59-2	6081	6288	6415	6261	2.69	cps
Copper	63-2	34225	35190	34605	34673	1.40	cps
Dysprosium	156-1	113	107	90	103	11.63	cps
Dysprosium	156-2	10	17	10	12	31.50	cps
Erbium	164-1	110	140	107	119	15.44	cps
Erbium	164-2	30	33	57	40	36.33	cps
Gadolinium	160-1	120	140	130	130	7.69	cps
Gadolinium	160-2	27	37	27	30	19.24	cps
Holmium	165-1	16945799	17585912	16808403	17113371	2.42	cps
Holmium	165-2	5571480	5500162	5374628	5482090	1.82	cps
Indium	115-1	12603778	12889126	12497471	12663458	1.60	cps
Indium	115-2	1150906	1166286	1149473	1155555	0.81	cps
Iron	54-2	12317136	12323681	12529668	12390162	0.98	cps
Iron	56-2	229469170	227049337	230808417	229108974	0.83	cps
Iron	57-2	5757604	5758023	5791817	5769148	0.34	cps
Krypton	83-1	177	180	173	177	1.88	cps
Lead	206-1	52660	52696	53299	52885	0.68	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	41597	41189	42178	41655	1.19	cps
Lead	208-1	197688	196615	199759	198021	0.81	cps
Lithium	6-1	7519443	7673827	7519777	7571016	1.18	cps
Magnesium	24-2	21193544	21073035	21252413	21172997	0.43	cps
Manganese	55-2	9280	9807	9386	9491	2.94	cps
Molybdenum	94-1	8246701	8244889	8287544	8259711	0.29	cps
Molybdenum	95-1	14527130	14490977	14984839	14667649	1.88	cps
Molybdenum	96-1	15584635	15440735	15931044	15652138	1.61	cps
Molybdenum	97-1	8930516	8962581	9087949	8993682	0.93	cps
Molybdenum	98-1	23435908	23490569	23967196	23631224	1.24	cps
Neodymium	150-1	77	90	100	89	13.17	cps
Neodymium	150-2	3	17	20	13	66.16	cps
Nickel	60-2	8699	9076	8723	8833	2.39	cps
Phosphorus	31-2	282603	281408	284816	282942	0.61	cps
Potassium	39-2	12348380	12569873	12244910	12387721	1.34	cps
Rhodium	103-1	11092739	11448889	11199951	11247193	1.62	cps
Rhodium	103-2	4116467	4131537	4056923	4101642	0.96	cps
Scandium	45-1	9684428	9948926	9565792	9733048	2.02	cps
Scandium	45-2	161972	164748	162075	162932	0.97	cps
Selenium	82-1	33	43	3	27	78.08	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	0	10	3	4	114.60	cps
Silicon	28-1	692135	696086	702858	697026	0.78	cps
Silver	107-1	1847	1493	1347	1562	16.45	cps
Silver	109-1	1620	1460	1240	1440	13.25	cps
Sodium	23-2	44856646	44474039	44851019	44727235	0.49	cps
Strontium	86-1	161356	164933	166451	164246	1.59	cps
Strontium	88-1	1387348	1480307	1517539	1461732	4.59	cps
Sulfur	34-1	7440029	7407036	7599884	7482317	1.38	cps
Terbium	159-1	16946259	17775239	17276868	17332789	2.41	cps
Terbium	159-2	5282795	5362121	5306682	5317199	0.77	cps
Thallium	203-1	2437	2647	3254	2779	15.26	cps
Thallium	205-1	5418	6575	7612	6535	16.80	cps
Tin	118-1	4431	4554	4560	4515	1.61	cps
Titanium	47-1	4877001	4812310	4887024	4858778	0.83	cps
Uranium	238-1	843	727	707	759	9.73	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSA001	Instrumnet Name :	P8
Client Sample ID :	ICSA001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:43:16	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	303	300	380	328	13.81	cps
Ytterbium	172-1	77	103	140	107	29.81	cps
Ytterbium	172-2	23	60	20	34	64.44	cps
Ytterbium	176-1	2077	2150	2064	2097	2.23	cps
Ytterbium	176-2	247	290	313	283	11.94	cps
Yttrium	89-1	23537110	24548784	23790855	23958917	2.20	cps
Yttrium	89-2	1640833	1625039	1650763	1638878	0.79	cps
Zinc	66-2	5198	5058	5211	5155	1.65	cps
Zirconium	90-1	1103	1107	1160	1123	2.83	cps
Zirconium	91-1	267	220	230	239	10.29	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6137580	6143337	6127438	6136118	0.13	cps
Antimony	121-1	287596	288389	290538	288841	0.53	cps
Arsenic	75-2	5211	5294	5268	5258	0.81	cps
Barium	135-1	76736	77899	79166	77933	1.56	cps
Barium	137-1	132659	134215	137907	134927	2.00	cps
Beryllium	9-1	102095	103764	103326	103061	0.84	cps
Bismuth	209-1	9589857	9862347	9490120	9647441	2.00	cps
Bismuth	209-2	3736215	3628019	3823457	3729230	2.63	cps
Bromine	81-1	8339	8496	8903	8579	3.39	cps
Cadmium	108-1	9103	9083	9817	9334	4.48	cps
Cadmium	106-1	13837	13567	13000	13468	3.17	cps
Cadmium	111-1	70155	69180	68844	69393	0.98	cps
Calcium	43-1	5639271	5630052	5757597	5675640	1.25	cps
Calcium	44-1	91835079	91024445	92638612	91832712	0.88	cps
Carbon	12-1	44135154	45358649	45454956	44982920	1.64	cps
Carbon	12-2	292744	296388	295454	294862	0.64	cps
Chlorine	35-1	73458821	76573024	78675645	76235830	3.44	cps
Chlorine	35-2	300677	301600	305051	302443	0.76	cps
Chromium	52-2	116577	118307	117945	117610	0.78	cps
Cobalt	59-2	114025	113625	115211	114287	0.72	cps
Copper	63-2	117138	115941	116378	116486	0.52	cps
Dysprosium	156-1	133	110	103	116	13.64	cps
Dysprosium	156-2	13	20	13	16	24.76	cps
Erbium	164-1	120	177	120	139	23.56	cps
Erbium	164-2	40	40	50	43	13.32	cps
Gadolinium	160-1	87	113	123	108	17.59	cps
Gadolinium	160-2	50	53	33	46	23.52	cps
Holmium	165-1	17168010	17318539	17063471	17183340	0.75	cps
Holmium	165-2	5746388	5600204	5753149	5699914	1.52	cps
Indium	115-1	12615630	12905369	12546207	12689069	1.50	cps
Indium	115-2	1205493	1182716	1215559	1201256	1.40	cps
Iron	54-2	12630221	12570983	12538891	12580031	0.37	cps
Iron	56-2	233194143	231669577	231761003	232208241	0.37	cps
Iron	57-2	5914409	5964361	5926543	5935104	0.44	cps
Krypton	83-1	210	197	217	208	4.90	cps
Lead	206-1	279707	280408	284233	281449	0.87	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	233871	234347	238912	235710	1.18	cps
Lead	208-1	1088254	1088059	1100461	1092258	0.65	cps
Lithium	6-1	7645740	7665522	7469759	7593674	1.42	cps
Magnesium	24-2	21652012	21805876	21399316	21619068	0.95	cps
Manganese	55-2	35294	35755	34923	35324	1.18	cps
Molybdenum	94-1	8522573	8450269	8497145	8489995	0.43	cps
Molybdenum	95-1	14943518	15043468	15075956	15020980	0.46	cps
Molybdenum	96-1	15805683	15964059	16125264	15965002	1.00	cps
Molybdenum	97-1	9164999	9194269	9295032	9218100	0.74	cps
Molybdenum	98-1	24191531	24321421	24656315	24389756	0.98	cps
Neodymium	150-1	87	93	67	82	16.87	cps
Neodymium	150-2	13	27	33	24	41.66	cps
Nickel	60-2	37733	38288	38067	38030	0.73	cps
Phosphorus	31-2	285775	289206	290343	288442	0.82	cps
Potassium	39-2	12694884	12716613	12678026	12696508	0.15	cps
Rhodium	103-1	11159093	11595481	11342685	11365753	1.93	cps
Rhodium	103-2	4266186	4181525	4262178	4236630	1.13	cps
Scandium	45-1	9906976	9943396	9823483	9891285	0.62	cps
Scandium	45-2	170603	169341	173318	171087	1.19	cps
Selenium	82-1	4518	4661	4588	4589	1.56	cps
Selenium	77-2	57	67	70	64	10.76	cps
Selenium	78-2	293	283	290	289	1.76	cps
Silicon	28-1	735270	742258	753852	743794	1.26	cps
Silver	107-1	331501	333301	335650	333484	0.62	cps
Silver	109-1	314929	319871	322080	318960	1.15	cps
Sodium	23-2	45397774	45494596	45897559	45596643	0.58	cps
Strontium	86-1	166832	167470	169166	167823	0.72	cps
Strontium	88-1	1535930	1501190	1535034	1524051	1.30	cps
Sulfur	34-1	7540238	7594320	7689606	7608055	0.99	cps
Terbium	159-1	17309833	18055077	17355146	17573352	2.38	cps
Terbium	159-2	5433820	5427105	5552527	5471150	1.29	cps
Thallium	203-1	287231	288767	291931	289310	0.83	cps
Thallium	205-1	687925	693037	693353	691438	0.44	cps
Tin	118-1	8754	8520	9557	8943	6.08	cps
Titanium	47-1	4997741	5057140	5023064	5025982	0.59	cps
Uranium	238-1	817	933	773	841	9.84	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	ICSAB001	Instrumnet Name :	P8
Client Sample ID :	ICSAB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:46:23	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	45148	45659	46184	45664	1.14	cps
Ytterbium	172-1	73	143	117	111	31.80	cps
Ytterbium	172-2	37	50	43	43	15.38	cps
Ytterbium	176-1	2020	2220	2014	2085	5.63	cps
Ytterbium	176-2	310	233	283	276	14.12	cps
Yttrium	89-1	23831463	24802578	23920491	24184844	2.22	cps
Yttrium	89-2	1713573	1663451	1707494	1694839	1.61	cps
Zinc	66-2	13323	13650	13577	13517	1.27	cps
Zirconium	90-1	1153	1183	1033	1123	7.07	cps
Zirconium	91-1	277	277	287	280	2.06	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3051667	3083343	3121557	3085522	1.13	cps
Antimony	121-1	6494932	6630928	6602442	6576100	1.09	cps
Arsenic	75-2	116578	116113	114652	115781	0.87	cps
Barium	135-1	8493113	8658291	8614944	8588783	1.00	cps
Barium	137-1	14802763	14842942	14784734	14810147	0.20	cps
Beryllium	9-1	2427543	2502477	2476474	2468831	1.54	cps
Bismuth	209-1	8932884	9014248	8935385	8960839	0.52	cps
Bismuth	209-2	3450281	3386101	3366705	3401029	1.29	cps
Bromine	81-1	6648	6982	6888	6840	2.52	cps
Cadmium	108-1	128593	130752	128576	129307	0.97	cps
Cadmium	106-1	184583	187816	188329	186910	1.09	cps
Cadmium	111-1	1568348	1602091	1593960	1588133	1.11	cps
Calcium	43-1	13016344	13143568	13157257	13105723	0.59	cps
Calcium	44-1	211079157	212152784	210520670	211250870	0.39	cps
Carbon	12-1	3470749	3609838	3660997	3580528	2.75	cps
Carbon	12-2	28344	28064	28063	28157	0.58	cps
Chlorine	35-1	816272	803696	789871	803280	1.64	cps
Chlorine	35-2	2917	3017	2940	2958	1.77	cps
Chromium	52-2	1462709	1477527	1447799	1462678	1.02	cps
Cobalt	59-2	2618656	2625197	2605755	2616536	0.38	cps
Copper	63-2	18410270	18335572	18192623	18312822	0.60	cps
Dysprosium	156-1	517	483	497	499	3.36	cps
Dysprosium	156-2	100	67	83	83	20.00	cps
Erbium	164-1	357	357	340	351	2.74	cps
Erbium	164-2	117	163	107	129	23.47	cps
Gadolinium	160-1	327	367	297	330	10.64	cps
Gadolinium	160-2	93	110	137	113	19.29	cps
Holmium	165-1	16246345	16462642	16385193	16364727	0.67	cps
Holmium	165-2	5323204	5364211	5313321	5333579	0.51	cps
Indium	115-1	11680728	11843984	11808138	11777617	0.73	cps
Indium	115-2	1095625	1109622	1108887	1104711	0.71	cps
Iron	54-2	14295005	14276083	14371675	14314254	0.35	cps
Iron	56-2	263121043	265321563	265127276	264523294	0.46	cps
Iron	57-2	6711342	6801685	6708912	6740646	0.78	cps
Krypton	83-1	227	260	313	267	16.39	cps
Lead	206-1	26328826	26563405	26955994	26616075	1.19	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	22724683	22947249	22958880	22876937	0.58	cps
Lead	208-1	105104392	105323203	105906498	105444698	0.39	cps
Lithium	6-1	7354062	7316596	7317201	7329286	0.29	cps
Magnesium	24-2	52592114	52512843	52664158	52589705	0.14	cps
Manganese	55-2	6095540	6104072	6103898	6101170	0.08	cps
Molybdenum	94-1	24405918	24225805	24518435	24383386	0.61	cps
Molybdenum	95-1	35502341	35220923	35424030	35382431	0.41	cps
Molybdenum	96-1	38291191	38880475	38466718	38546128	0.78	cps
Molybdenum	97-1	21595706	21690796	21584638	21623713	0.27	cps
Molybdenum	98-1	56763201	56317444	56715091	56598579	0.43	cps
Neodymium	150-1	763	857	803	808	5.80	cps
Neodymium	150-2	83	60	57	67	21.79	cps
Nickel	60-2	651171	652437	645858	649822	0.54	cps
Phosphorus	31-2	26037	26047	25977	26020	0.15	cps
Potassium	39-2	14929627	15055849	15168785	15051420	0.79	cps
Rhodium	103-1	10462923	10395214	10443806	10433981	0.33	cps
Rhodium	103-2	3859473	3872356	3871130	3867653	0.18	cps
Scandium	45-1	9275723	9284031	9288003	9282586	0.07	cps
Scandium	45-2	159409	161781	160913	160701	0.75	cps
Selenium	82-1	99367	101751	100603	100573	1.19	cps
Selenium	77-2	1743	1847	1667	1752	5.16	cps
Selenium	78-2	5591	5591	5494	5559	1.00	cps
Silicon	28-1	20034373	20243877	19895896	20058048	0.87	cps
Silver	107-1	8165551	8245078	8248094	8219575	0.57	cps
Silver	109-1	7889649	7946953	7927506	7921369	0.37	cps
Sodium	23-2	105528688	106095622	105242155	105622155	0.41	cps
Strontium	86-1	2539003	2497152	2498298	2511484	0.95	cps
Strontium	88-1	21185173	21411707	21308311	21301730	0.53	cps
Sulfur	34-1	1098354	1087641	1095749	1093915	0.51	cps
Terbium	159-1	16438205	16631842	16672785	16580944	0.76	cps
Terbium	159-2	5108393	5092681	5166880	5122651	0.76	cps
Thallium	203-1	6868244	6940212	6936030	6914829	0.58	cps
Thallium	205-1	16140710	16300504	16345326	16262180	0.66	cps
Tin	118-1	6182832	6266025	6217556	6222138	0.67	cps
Titanium	47-1	11129646	11189240	11167937	11162274	0.27	cps
Uranium	238-1	21989977	21865105	21940173	21931751	0.29	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P8
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 14:57:26	DataFile Name :	024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1088191	1098236	1081466	1089298	0.77	cps
Ytterbium	172-1	463	413	457	444	6.11	cps
Ytterbium	172-2	167	257	200	208	21.90	cps
Ytterbium	176-1	32517	33770	33342	33209	1.92	cps
Ytterbium	176-2	10441	10317	10598	10452	1.34	cps
Yttrium	89-1	22867289	22743739	22823935	22811654	0.27	cps
Yttrium	89-2	1574001	1559143	1610341	1581161	1.67	cps
Zinc	66-2	1975777	1985329	1966260	1975789	0.48	cps
Zirconium	90-1	12263753	12349980	12346604	12320112	0.40	cps
Zirconium	91-1	2802646	2755127	2757260	2771677	0.97	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	60	63	90	71	23.12	cps
Antimony	121-1	447	380	410	412	8.10	cps
Arsenic	75-2	0	3	7	3	100.05	cps
Barium	135-1	553	523	490	522	6.07	cps
Barium	137-1	863	783	880	842	6.14	cps
Beryllium	9-1	627	552	550	577	7.64	cps
Bismuth	209-1	10387003	10519242	10413251	10439832	0.67	cps
Bismuth	209-2	3756182	3961733	4144260	3954058	4.91	cps
Bromine	81-1	6662	6568	6802	6677	1.76	cps
Cadmium	108-1	33	30	17	27	33.06	cps
Cadmium	106-1	7339	7385	7205	7310	1.28	cps
Cadmium	111-1	1491	1513	1479	1494	1.13	cps
Calcium	43-1	647	637	660	648	1.81	cps
Calcium	44-1	11945	11625	11365	11645	2.50	cps
Carbon	12-1	2444846	2319394	2317701	2360647	3.09	cps
Carbon	12-2	14707	15131	15198	15012	1.77	cps
Chlorine	35-1	464347	456914	448328	456530	1.76	cps
Chlorine	35-2	1543	1590	1547	1560	1.67	cps
Chromium	52-2	1813	1817	1783	1805	1.02	cps
Cobalt	59-2	150	193	193	179	13.99	cps
Copper	63-2	2767	2930	3074	2924	5.25	cps
Dysprosium	156-1	43	57	60	53	16.54	cps
Dysprosium	156-2	7	7	0	4	86.60	cps
Erbium	164-1	80	70	103	84	20.25	cps
Erbium	164-2	13	37	20	23	51.52	cps
Gadolinium	160-1	97	73	50	73	31.82	cps
Gadolinium	160-2	3	13	13	10	57.75	cps
Holmium	165-1	16765738	16727500	16923962	16805733	0.62	cps
Holmium	165-2	5335543	5609440	5898243	5614408	5.01	cps
Indium	115-1	13233129	13199177	13169411	13200572	0.24	cps
Indium	115-2	1156500	1224466	1289730	1223565	5.44	cps
Iron	54-2	703	673	720	699	3.38	cps
Iron	56-2	9477	9397	9660	9511	1.42	cps
Iron	57-2	203	277	287	256	17.80	cps
Krypton	83-1	160	167	163	163	2.04	cps
Lead	206-1	2557	2527	2380	2488	3.80	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2227	2124	2147	2166	2.50	cps
Lead	208-1	9922	9938	9675	9845	1.50	cps
Lithium	6-1	7993675	8013978	8121651	8043102	0.86	cps
Magnesium	24-2	473	533	460	489	7.99	cps
Manganese	55-2	273	240	287	267	9.01	cps
Molybdenum	94-1	687	660	653	667	2.65	cps
Molybdenum	95-1	667	673	723	688	4.50	cps
Molybdenum	96-1	843	773	820	812	4.39	cps
Molybdenum	97-1	410	430	403	414	3.35	cps
Molybdenum	98-1	1070	1197	1047	1105	7.31	cps
Neodymium	150-1	13	27	20	20	33.35	cps
Neodymium	150-2	0	7	0	2	173.21	cps
Nickel	60-2	1523	1613	1607	1581	3.17	cps
Phosphorus	31-2	33	47	43	41	16.89	cps
Potassium	39-2	7665	7826	7712	7734	1.06	cps
Rhodium	103-1	12255972	12250585	12230685	12245747	0.11	cps
Rhodium	103-2	4317417	4526050	4768937	4537468	4.98	cps
Scandium	45-1	9779064	9994160	9804438	9859221	1.19	cps
Scandium	45-2	155330	167028	175479	165946	6.10	cps
Selenium	82-1	17	-43	0	-9	-348.52	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	3	7	4	43.40	cps
Silicon	28-1	398674	396911	396009	397198	0.34	cps
Silver	107-1	300	423	353	359	17.24	cps
Silver	109-1	267	283	250	267	6.25	cps
Sodium	23-2	27583	27576	27883	27681	0.63	cps
Strontium	86-1	323	350	307	327	6.69	cps
Strontium	88-1	400	480	440	440	9.09	cps
Sulfur	34-1	418236	421935	418623	419598	0.48	cps
Terbium	159-1	17325246	17013875	17012551	17117224	1.05	cps
Terbium	159-2	5153960	5406046	5684281	5414762	4.90	cps
Thallium	203-1	1073	927	1097	1032	8.93	cps
Thallium	205-1	2354	2220	2287	2287	2.92	cps
Tin	118-1	1115	1150	1038	1101	5.18	cps
Titanium	47-1	187	233	173	198	15.93	cps
Uranium	238-1	110	70	80	87	24.02	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB001	Instrumnet Name :	P8
Client Sample ID :	CCB001	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:04:21	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3	10	23	12	83.33	cps
Ytterbium	172-1	120	127	103	117	10.30	cps
Ytterbium	172-2	67	43	30	47	39.77	cps
Ytterbium	176-1	2060	2077	2057	2065	0.52	cps
Ytterbium	176-2	287	317	307	303	5.04	cps
Yttrium	89-1	24106079	24219070	23811776	24045642	0.87	cps
Yttrium	89-2	1583574	1659349	1761750	1668225	5.36	cps
Zinc	66-2	390	360	330	360	8.33	cps
Zirconium	90-1	870	883	730	828	10.26	cps
Zirconium	91-1	137	233	167	179	27.66	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1233	1157	1287	1226	5.33	cps
Antimony	121-1	25604	25270	25557	25477	0.71	cps
Arsenic	75-2	253	310	260	274	11.29	cps
Barium	135-1	33040	32963	33044	33016	0.14	cps
Barium	137-1	58235	57127	56357	57239	1.65	cps
Beryllium	9-1	5305	5382	5409	5365	1.00	cps
Bismuth	209-1	9967302	9967419	10094557	10009759	0.73	cps
Bismuth	209-2	3918604	3828227	3957751	3901528	1.70	cps
Bromine	81-1	6141	6118	5921	6060	2.00	cps
Cadmium	108-1	277	317	333	309	9.43	cps
Cadmium	106-1	7462	7219	7255	7312	1.79	cps
Cadmium	111-1	4783	4629	4688	4700	1.65	cps
Calcium	43-1	25606	26267	25903	25926	1.28	cps
Calcium	44-1	417713	420946	419389	419349	0.39	cps
Carbon	12-1	3164828	3127215	3099901	3130648	1.04	cps
Carbon	12-2	19964	19339	20307	19870	2.47	cps
Chlorine	35-1	156792	156149	154744	155895	0.67	cps
Chlorine	35-2	563	493	547	534	6.84	cps
Chromium	52-2	7149	7225	7098	7157	0.89	cps
Cobalt	59-2	5728	5581	5478	5596	2.25	cps
Copper	63-2	10611	10664	11021	10765	2.07	cps
Dysprosium	156-1	97	60	83	80	23.20	cps
Dysprosium	156-2	3	7	7	6	34.70	cps
Erbium	164-1	87	77	67	77	13.04	cps
Erbium	164-2	23	7	33	21	63.80	cps
Gadolinium	160-1	70	40	57	56	27.06	cps
Gadolinium	160-2	7	17	7	10	57.72	cps
Holmium	165-1	16230073	16331380	16513756	16358403	0.88	cps
Holmium	165-2	5332606	5371285	5485828	5396573	1.48	cps
Indium	115-1	12799950	12504880	12763839	12689556	1.27	cps
Indium	115-2	1168978	1164324	1209563	1180955	2.11	cps
Iron	54-2	6608	6678	6668	6652	0.57	cps
Iron	56-2	116060	116030	117579	116557	0.76	cps
Iron	57-2	2897	3107	3207	3070	5.15	cps
Krypton	83-1	170	163	147	160	7.51	cps
Lead	206-1	12206	11865	12570	12214	2.88	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	10584	11015	11095	10898	2.52	cps
Lead	208-1	49331	48763	49888	49327	1.14	cps
Lithium	6-1	7963533	7886481	7995605	7948540	0.71	cps
Magnesium	24-2	104961	104437	104874	104757	0.27	cps
Manganese	55-2	1430	1330	1407	1389	3.77	cps
Molybdenum	94-1	27921	28305	27865	28030	0.86	cps
Molybdenum	95-1	33230	33500	33029	33253	0.71	cps
Molybdenum	96-1	37093	37718	37186	37332	0.90	cps
Molybdenum	97-1	20265	20705	20282	20417	1.22	cps
Molybdenum	98-1	52833	54155	54178	53722	1.43	cps
Neodymium	150-1	17	17	30	21	36.45	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	2824	3187	3007	3006	6.05	cps
Phosphorus	31-2	100	140	137	126	17.68	cps
Potassium	39-2	62742	63382	62980	63035	0.51	cps
Rhodium	103-1	11986892	11505179	11781941	11758004	2.06	cps
Rhodium	103-2	4288940	4278141	4396460	4321180	1.51	cps
Scandium	45-1	9514313	9433627	9463774	9470571	0.43	cps
Scandium	45-2	157630	157626	164001	159753	2.30	cps
Selenium	82-1	1197	1107	1053	1119	6.48	cps
Selenium	77-2	13	17	30	20	44.10	cps
Selenium	78-2	60	53	93	69	31.11	cps
Silicon	28-1	458188	462891	459568	460216	0.53	cps
Silver	107-1	16273	16323	16937	16511	2.24	cps
Silver	109-1	16176	15926	15782	15962	1.25	cps
Sodium	23-2	225029	223780	224135	224315	0.29	cps
Strontium	86-1	4784	4788	5208	4926	4.94	cps
Strontium	88-1	40211	39208	39185	39535	1.48	cps
Sulfur	34-1	418632	418853	415219	417568	0.49	cps
Terbium	159-1	16915869	16368232	16549829	16611310	1.68	cps
Terbium	159-2	5201698	5142938	5306062	5216899	1.58	cps
Thallium	203-1	13908	14251	14074	14078	1.22	cps
Thallium	205-1	33159	32768	33246	33058	0.77	cps
Tin	118-1	55536	55657	55998	55731	0.43	cps
Titanium	47-1	10814	11008	10511	10777	2.32	cps
Uranium	238-1	40692	41370	41531	41198	1.08	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-01	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-SOIL-01-QT2-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:29:20	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	10844	10541	10721	10702	1.43	cps
Ytterbium	172-1	100	107	107	104	3.69	cps
Ytterbium	172-2	67	30	23	40	58.34	cps
Ytterbium	176-1	2107	2000	2144	2084	3.57	cps
Ytterbium	176-2	293	287	320	300	5.88	cps
Yttrium	89-1	23397163	22675633	23138615	23070470	1.58	cps
Yttrium	89-2	1585818	1592830	1619826	1599491	1.12	cps
Zinc	66-2	2374	2480	2440	2431	2.22	cps
Zirconium	90-1	23396	23557	23577	23510	0.42	cps
Zirconium	91-1	4938	5098	5138	5058	2.09	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	583	563	533	560	4.49	cps
Antimony	121-1	5311	5181	5321	5271	1.48	cps
Arsenic	75-2	120	90	103	104	14.39	cps
Barium	135-1	6785	6628	6852	6755	1.70	cps
Barium	137-1	12172	11752	11955	11960	1.76	cps
Beryllium	9-1	2497	2359	2379	2412	3.11	cps
Bismuth	209-1	10250796	10330753	9899208	10160253	2.26	cps
Bismuth	209-2	3990708	3981010	3879714	3950477	1.56	cps
Bromine	81-1	6115	6055	6058	6076	0.56	cps
Cadmium	108-1	137	117	157	137	14.63	cps
Cadmium	106-1	6882	7362	6972	7072	3.61	cps
Cadmium	111-1	2701	2781	2528	2670	4.84	cps
Calcium	43-1	10737	10984	11198	10973	2.10	cps
Calcium	44-1	173978	177150	179562	176897	1.58	cps
Carbon	12-1	2663606	2584662	2628643	2625637	1.51	cps
Carbon	12-2	16279	16686	16706	16557	1.46	cps
Chlorine	35-1	138565	137597	137310	137824	0.48	cps
Chlorine	35-2	580	500	487	522	9.67	cps
Chromium	52-2	3074	3140	3060	3091	1.39	cps
Cobalt	59-2	2407	2517	2360	2428	3.31	cps
Copper	63-2	6058	6225	5968	6084	2.14	cps
Dysprosium	156-1	47	73	73	64	23.88	cps
Dysprosium	156-2	3	3	7	4	43.40	cps
Erbium	164-1	73	87	93	84	12.07	cps
Erbium	164-2	13	17	23	18	28.64	cps
Gadolinium	160-1	63	33	70	56	35.16	cps
Gadolinium	160-2	0	20	20	13	86.60	cps
Holmium	165-1	16809799	16318928	15895461	16341396	2.80	cps
Holmium	165-2	5544605	5515659	5352463	5470909	1.89	cps
Indium	115-1	13108168	12920855	12449754	12826259	2.64	cps
Indium	115-2	1192620	1196742	1157913	1182425	1.80	cps
Iron	54-2	4304	4474	4427	4402	2.00	cps
Iron	56-2	80113	79517	78487	79372	1.04	cps
Iron	57-2	1990	1930	1890	1937	2.60	cps
Krypton	83-1	140	203	170	171	18.52	cps
Lead	206-1	6258	6088	6282	6209	1.70	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5271	5211	5668	5383	4.61	cps
Lead	208-1	24880	24119	24596	24531	1.57	cps
Lithium	6-1	8305646	7990274	8000290	8098736	2.21	cps
Magnesium	24-2	43408	44758	43327	43831	1.83	cps
Manganese	55-2	1257	1247	1333	1279	3.71	cps
Molybdenum	94-1	5354	5451	5504	5437	1.40	cps
Molybdenum	95-1	3254	3014	3130	3133	3.83	cps
Molybdenum	96-1	4191	4047	4127	4122	1.74	cps
Molybdenum	97-1	1910	1967	1903	1927	1.81	cps
Molybdenum	98-1	5038	5391	5148	5192	3.48	cps
Neodymium	150-1	20	13	10	14	35.26	cps
Neodymium	150-2	7	3	3	4	43.40	cps
Nickel	60-2	2010	2230	2057	2099	5.52	cps
Phosphorus	31-2	77	83	67	76	11.10	cps
Potassium	39-2	20839	20818	20735	20797	0.26	cps
Rhodium	103-1	12126829	11778795	11551373	11818999	2.45	cps
Rhodium	103-2	4403793	4381687	4272032	4352504	1.62	cps
Scandium	45-1	9705929	9667993	9430329	9601417	1.56	cps
Scandium	45-2	160208	160966	157795	159657	1.04	cps
Selenium	82-1	1047	950	960	986	5.39	cps
Selenium	77-2	13	17	10	13	25.01	cps
Selenium	78-2	30	50	50	43	26.65	cps
Silicon	28-1	392231	390419	394691	392447	0.55	cps
Silver	107-1	7275	7359	7089	7241	1.91	cps
Silver	109-1	6308	6732	7009	6683	5.28	cps
Sodium	23-2	103983	103450	104343	103925	0.43	cps
Strontium	86-1	2217	2077	2107	2134	3.46	cps
Strontium	88-1	16046	15999	16400	16148	1.36	cps
Sulfur	34-1	408481	410968	408385	409278	0.36	cps
Terbium	159-1	17227947	16699276	16533655	16820293	2.16	cps
Terbium	159-2	5329237	5282101	5150675	5254005	1.76	cps
Thallium	203-1	5735	5661	5815	5737	1.34	cps
Thallium	205-1	14285	14101	14405	14263	1.07	cps
Tin	118-1	5655	5389	5734	5593	3.23	cps
Titanium	47-1	983	1063	1013	1020	3.96	cps
Uranium	238-1	17135	17032	16761	16976	1.14	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-03	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-03-QT2-2024	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:33:12	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	810	850	883	848	4.33	cps
Ytterbium	172-1	97	90	80	89	9.44	cps
Ytterbium	172-2	23	50	33	36	37.90	cps
Ytterbium	176-1	1944	2024	2014	1994	2.19	cps
Ytterbium	176-2	243	250	297	263	11.03	cps
Yttrium	89-1	23800330	23457441	22858671	23372147	2.04	cps
Yttrium	89-2	1595029	1615877	1579623	1596843	1.14	cps
Zinc	66-2	713	713	663	697	4.14	cps
Zirconium	90-1	9950	9643	9847	9814	1.59	cps
Zirconium	91-1	2034	2270	2244	2182	5.94	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1447	1440	1223	1370	9.28	cps
Antimony	121-1	25551	25955	25915	25807	0.86	cps
Arsenic	75-2	203	243	280	242	15.83	cps
Barium	135-1	33074	34360	32770	33401	2.53	cps
Barium	137-1	57167	57836	58214	57739	0.92	cps
Beryllium	9-1	5305	5540	5453	5433	2.19	cps
Bismuth	209-1	10243018	10388723	10204632	10278791	0.94	cps
Bismuth	209-2	4001057	3949452	3915036	3955182	1.09	cps
Bromine	81-1	6128	6201	6145	6158	0.62	cps
Cadmium	108-1	287	300	317	301	4.99	cps
Cadmium	106-1	7529	7349	7385	7421	1.28	cps
Cadmium	111-1	4809	4714	4746	4756	1.02	cps
Calcium	43-1	26004	26588	25970	26187	1.33	cps
Calcium	44-1	420234	421046	423965	421748	0.47	cps
Carbon	12-1	3078930	3125158	3089742	3097944	0.78	cps
Carbon	12-2	19436	20050	19633	19707	1.59	cps
Chlorine	35-1	134239	133704	134222	134055	0.23	cps
Chlorine	35-2	480	493	527	500	4.81	cps
Chromium	52-2	7522	7409	7299	7410	1.51	cps
Cobalt	59-2	5508	5604	5725	5612	1.93	cps
Copper	63-2	10474	10924	10778	10725	2.14	cps
Dysprosium	156-1	73	60	103	79	28.14	cps
Dysprosium	156-2	7	10	3	7	50.03	cps
Erbium	164-1	67	87	57	70	21.82	cps
Erbium	164-2	23	7	20	17	52.90	cps
Gadolinium	160-1	70	53	43	56	24.25	cps
Gadolinium	160-2	20	13	10	14	35.26	cps
Holmium	165-1	16816245	16575924	16819256	16737142	0.83	cps
Holmium	165-2	5538841	5485791	5529088	5517907	0.51	cps
Indium	115-1	13079593	12851186	13014466	12981748	0.91	cps
Indium	115-2	1197541	1196372	1206635	1200182	0.47	cps
Iron	54-2	6422	6542	6555	6506	1.13	cps
Iron	56-2	117768	117586	116554	117303	0.56	cps
Iron	57-2	2980	2834	2860	2891	2.70	cps
Krypton	83-1	170	157	147	158	7.42	cps
Lead	206-1	12449	12346	12172	12323	1.14	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	10528	10771	10728	10676	1.22	cps
Lead	208-1	49394	49604	49207	49402	0.40	cps
Lithium	6-1	8318406	8088494	8159274	8188725	1.44	cps
Magnesium	24-2	107073	107009	106186	106756	0.46	cps
Manganese	55-2	1423	1407	1470	1433	2.29	cps
Molybdenum	94-1	28439	28406	28175	28340	0.51	cps
Molybdenum	95-1	33774	34112	34119	34001	0.58	cps
Molybdenum	96-1	36555	37808	37524	37295	1.76	cps
Molybdenum	97-1	21056	21210	21397	21221	0.80	cps
Molybdenum	98-1	54276	55049	53971	54432	1.02	cps
Neodymium	150-1	23	7	10	13	66.12	cps
Neodymium	150-2	0	17	3	7	132.33	cps
Nickel	60-2	2870	2907	3050	2943	3.23	cps
Phosphorus	31-2	147	80	120	116	29.04	cps
Potassium	39-2	63499	62632	63700	63277	0.90	cps
Rhodium	103-1	12097770	11857887	12109623	12021760	1.18	cps
Rhodium	103-2	4447568	4423484	4446430	4439161	0.31	cps
Scandium	45-1	9540965	9585848	9666842	9597885	0.66	cps
Scandium	45-2	161920	162083	164111	162705	0.75	cps
Selenium	82-1	973	1163	1040	1059	9.10	cps
Selenium	77-2	23	10	13	16	44.60	cps
Selenium	78-2	50	50	53	51	3.76	cps
Silicon	28-1	459108	458840	459203	459050	0.04	cps
Silver	107-1	17114	16353	16900	16789	2.34	cps
Silver	109-1	16263	16180	16086	16176	0.55	cps
Sodium	23-2	225148	223490	227818	225485	0.97	cps
Strontium	86-1	4804	4968	4961	4911	1.88	cps
Strontium	88-1	40241	39542	39248	39677	1.29	cps
Sulfur	34-1	414978	415196	411188	413787	0.54	cps
Terbium	159-1	16912170	16985751	17027946	16975289	0.35	cps
Terbium	159-2	5252466	5274455	5399184	5308702	1.49	cps
Thallium	203-1	14108	13530	14064	13901	2.31	cps
Thallium	205-1	32424	32999	32431	32618	1.01	cps
Tin	118-1	56492	56479	57609	56860	1.14	cps
Titanium	47-1	10888	10938	11191	11005	1.48	cps
Uranium	238-1	41223	41581	41307	41371	0.45	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-07	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-01-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:36:34	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	11011	10644	10787	10814	1.71	cps
Ytterbium	172-1	107	87	93	96	10.66	cps
Ytterbium	172-2	33	50	33	39	24.75	cps
Ytterbium	176-1	2127	2054	2150	2110	2.39	cps
Ytterbium	176-2	260	313	373	316	17.97	cps
Yttrium	89-1	23540350	23500697	23713192	23584747	0.48	cps
Yttrium	89-2	1643010	1625830	1609911	1626251	1.02	cps
Zinc	66-2	2497	2384	2297	2392	4.19	cps
Zirconium	90-1	23817	24101	24141	24020	0.74	cps
Zirconium	91-1	5498	5271	5184	5318	3.04	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	567	433	457	486	14.67	cps
Antimony	121-1	5091	4744	4574	4803	5.48	cps
Arsenic	75-2	110	83	60	84	29.63	cps
Barium	135-1	6558	6285	6298	6380	2.42	cps
Barium	137-1	11275	11315	10781	11124	2.67	cps
Beryllium	9-1	2221	2172	2116	2170	2.42	cps
Bismuth	209-1	10049330	9412958	9166520	9542936	4.77	cps
Bismuth	209-2	3662376	3662218	3599477	3641357	1.00	cps
Bromine	81-1	6021	6245	5918	6061	2.76	cps
Cadmium	108-1	153	113	137	134	14.95	cps
Cadmium	106-1	6912	6495	6428	6612	3.96	cps
Cadmium	111-1	2605	2453	2497	2518	3.11	cps
Calcium	43-1	10207	10017	10160	10128	0.98	cps
Calcium	44-1	172009	163327	161562	165633	3.38	cps
Carbon	12-1	2849244	2784903	2788620	2807589	1.29	cps
Carbon	12-2	18175	17734	17601	17836	1.68	cps
Chlorine	35-1	125048	122493	120691	122744	1.78	cps
Chlorine	35-2	480	547	563	530	8.32	cps
Chromium	52-2	2640	2634	2754	2676	2.52	cps
Cobalt	59-2	2087	2034	2134	2085	2.40	cps
Copper	63-2	5578	5591	5498	5556	0.91	cps
Dysprosium	156-1	73	43	70	62	26.43	cps
Dysprosium	156-2	0	0	3	1	173.21	cps
Erbium	164-1	77	90	90	86	9.00	cps
Erbium	164-2	33	40	27	33	20.00	cps
Gadolinium	160-1	63	80	50	64	23.32	cps
Gadolinium	160-2	7	13	7	9	43.25	cps
Holmium	165-1	16020001	15151763	15013154	15394973	3.54	cps
Holmium	165-2	5140095	5062421	5051135	5084550	0.95	cps
Indium	115-1	12343230	11749726	11701440	11931465	3.00	cps
Indium	115-2	1110033	1094285	1099607	1101308	0.73	cps
Iron	54-2	4097	3944	4077	4040	2.06	cps
Iron	56-2	71746	71240	72161	71716	0.64	cps
Iron	57-2	1783	1757	1843	1795	2.47	cps
Krypton	83-1	167	143	140	150	9.69	cps
Lead	206-1	5805	5645	5438	5629	3.27	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5004	4908	4658	4857	3.68	cps
Lead	208-1	22968	22418	21851	22412	2.49	cps
Lithium	6-1	7781135	7485910	7507205	7591417	2.17	cps
Magnesium	24-2	39597	39680	39303	39527	0.50	cps
Manganese	55-2	1067	1167	1030	1088	6.50	cps
Molybdenum	94-1	5128	4881	4734	4914	4.05	cps
Molybdenum	95-1	3014	2947	3014	2991	1.29	cps
Molybdenum	96-1	3701	3727	3360	3596	5.69	cps
Molybdenum	97-1	1877	1687	1803	1789	5.36	cps
Molybdenum	98-1	4941	4534	4427	4634	5.85	cps
Neodymium	150-1	13	27	10	17	52.93	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	2054	1803	1870	1909	6.78	cps
Phosphorus	31-2	57	47	100	68	41.82	cps
Potassium	39-2	20114	19784	20565	20154	1.95	cps
Rhodium	103-1	11612582	11055687	10652684	11106985	4.34	cps
Rhodium	103-2	4129857	4021637	4063364	4071619	1.34	cps
Scandium	45-1	9274993	8878105	8606183	8919761	3.77	cps
Scandium	45-2	150044	148367	148794	149068	0.58	cps
Selenium	82-1	1047	947	950	981	5.79	cps
Selenium	77-2	17	20	13	17	20.01	cps
Selenium	78-2	77	77	70	74	5.17	cps
Silicon	28-1	388167	379906	377650	381908	1.45	cps
Silver	107-1	6888	6595	6308	6597	4.40	cps
Silver	109-1	6131	6822	6238	6397	5.81	cps
Sodium	23-2	96127	96798	96274	96400	0.37	cps
Strontium	86-1	2087	1920	1803	1937	7.35	cps
Strontium	88-1	15068	14831	14861	14920	0.86	cps
Sulfur	34-1	407187	406948	400720	404952	0.91	cps
Terbium	159-1	16333055	15481410	15362551	15725672	3.37	cps
Terbium	159-2	4960105	4821635	4866454	4882731	1.45	cps
Thallium	203-1	5818	5321	5398	5512	4.85	cps
Thallium	205-1	13510	12650	12383	12848	4.59	cps
Tin	118-1	5386	4893	5179	5152	4.81	cps
Titanium	47-1	1097	930	1010	1012	8.24	cps
Uranium	238-1	16231	15666	15439	15779	2.58	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-09	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-03-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:39:57	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	813	847	843	834	2.20	cps
Ytterbium	172-1	83	80	80	81	2.37	cps
Ytterbium	172-2	30	23	40	31	26.97	cps
Ytterbium	176-1	1914	1857	1787	1852	3.43	cps
Ytterbium	176-2	303	233	270	269	13.02	cps
Yttrium	89-1	22953324	21788530	21311106	22017653	3.84	cps
Yttrium	89-2	1498788	1466402	1481997	1482396	1.09	cps
Zinc	66-2	643	690	610	648	6.20	cps
Zirconium	90-1	9363	9196	8836	9132	2.95	cps
Zirconium	91-1	2097	2097	1933	2042	4.62	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1177	1160	1197	1178	1.56	cps
Antimony	121-1	25998	26115	25250	25788	1.82	cps
Arsenic	75-2	200	223	257	227	12.57	cps
Barium	135-1	33698	33829	34637	34055	1.49	cps
Barium	137-1	58539	57662	58445	58215	0.83	cps
Beryllium	9-1	5342	5315	5394	5350	0.75	cps
Bismuth	209-1	10287149	10327782	10398280	10337737	0.54	cps
Bismuth	209-2	3659143	4259651	3695747	3871514	8.70	cps
Bromine	81-1	5985	5678	5968	5877	2.94	cps
Cadmium	108-1	343	317	237	299	18.57	cps
Cadmium	106-1	7525	7502	7412	7480	0.80	cps
Cadmium	111-1	4715	4849	4854	4806	1.64	cps
Calcium	43-1	26568	26538	26721	26609	0.37	cps
Calcium	44-1	427818	421447	426891	425385	0.81	cps
Carbon	12-1	3035767	3013491	2995568	3014942	0.67	cps
Carbon	12-2	19436	18996	19106	19179	1.20	cps
Chlorine	35-1	123085	122667	124106	123286	0.60	cps
Chlorine	35-2	510	423	420	451	11.31	cps
Chromium	52-2	7369	7339	7239	7315	0.93	cps
Cobalt	59-2	5678	5588	5778	5681	1.67	cps
Copper	63-2	10581	10884	10717	10727	1.42	cps
Dysprosium	156-1	53	63	80	66	20.55	cps
Dysprosium	156-2	3	13	3	7	86.65	cps
Erbium	164-1	63	70	67	67	5.00	cps
Erbium	164-2	37	23	23	28	27.73	cps
Gadolinium	160-1	73	53	47	58	24.02	cps
Gadolinium	160-2	13	30	13	19	50.96	cps
Holmium	165-1	16606871	16775711	16675285	16685956	0.51	cps
Holmium	165-2	5115693	5946676	5215902	5426090	8.36	cps
Indium	115-1	12909582	12904283	12916193	12910020	0.05	cps
Indium	115-2	1113459	1292590	1119620	1175223	8.65	cps
Iron	54-2	6988	6862	6555	6802	3.28	cps
Iron	56-2	118329	116108	116595	117011	1.00	cps
Iron	57-2	3097	2800	2974	2957	5.04	cps
Krypton	83-1	183	163	150	166	10.14	cps
Lead	206-1	12339	12406	12576	12441	0.98	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	11051	10841	10885	10926	1.02	cps
Lead	208-1	49484	49297	49607	49463	0.32	cps
Lithium	6-1	8089381	8019017	8218787	8109062	1.25	cps
Magnesium	24-2	108174	107173	108372	107906	0.60	cps
Manganese	55-2	1403	1447	1497	1449	3.22	cps
Molybdenum	94-1	27614	28573	28085	28091	1.71	cps
Molybdenum	95-1	34175	34346	34112	34211	0.35	cps
Molybdenum	96-1	37557	37109	37942	37536	1.11	cps
Molybdenum	97-1	21593	21490	21714	21599	0.52	cps
Molybdenum	98-1	54456	54808	54687	54650	0.33	cps
Neodymium	150-1	27	23	30	27	12.51	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	2934	2997	2894	2941	1.77	cps
Phosphorus	31-2	147	120	120	129	11.95	cps
Potassium	39-2	63827	62384	62548	62920	1.26	cps
Rhodium	103-1	12003715	11984024	11875788	11954509	0.58	cps
Rhodium	103-2	4123888	4690104	4140306	4318099	7.46	cps
Scandium	45-1	9601286	9457992	9572655	9543978	0.79	cps
Scandium	45-2	150144	174974	150119	158413	9.05	cps
Selenium	82-1	993	1027	1067	1029	3.57	cps
Selenium	77-2	10	17	33	20	60.08	cps
Selenium	78-2	53	53	37	48	20.13	cps
Silicon	28-1	457533	456638	452469	455547	0.59	cps
Silver	107-1	16960	17187	16710	16953	1.41	cps
Silver	109-1	16273	16093	16186	16184	0.56	cps
Sodium	23-2	225456	224558	228279	226098	0.86	cps
Strontium	86-1	4691	5064	4921	4892	3.85	cps
Strontium	88-1	39452	39760	40231	39814	0.99	cps
Sulfur	34-1	421793	422206	421752	421917	0.06	cps
Terbium	159-1	16802994	16974926	16874219	16884046	0.51	cps
Terbium	159-2	4942970	5577618	4929995	5150195	7.19	cps
Thallium	203-1	14181	13701	14101	13994	1.84	cps
Thallium	205-1	32277	33610	33283	33057	2.10	cps
Tin	118-1	57209	57248	57815	57424	0.59	cps
Titanium	47-1	10934	11381	10904	11073	2.41	cps
Uranium	238-1	42156	42394	42591	42381	0.51	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-10	Instrumnet Name :	P8
Client Sample ID :	LOD-MDL-WATER-04-QT	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:43:19	DataFile Name :	037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	10871	10904	10844	10873	0.28	cps
Ytterbium	172-1	77	113	83	91	21.44	cps
Ytterbium	172-2	47	33	37	39	17.85	cps
Ytterbium	176-1	1894	2057	2020	1990	4.31	cps
Ytterbium	176-2	280	327	277	294	9.50	cps
Yttrium	89-1	23539512	22906845	23403412	23283256	1.43	cps
Yttrium	89-2	1511520	1754327	1505309	1590385	8.93	cps
Zinc	66-2	2230	2340	2344	2305	2.80	cps
Zirconium	90-1	23961	23757	23937	23885	0.47	cps
Zirconium	91-1	5324	5318	5274	5306	0.51	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	527	620	573	573	8.14	cps
Antimony	121-1	5358	5271	5558	5396	2.73	cps
Arsenic	75-2	60	97	110	89	29.13	cps
Barium	135-1	7135	7189	6595	6973	4.71	cps
Barium	137-1	12035	12366	11979	12127	1.72	cps
Beryllium	9-1	2344	2436	2219	2333	4.68	cps
Bismuth	209-1	10144298	10267272	10182214	10197928	0.62	cps
Bismuth	209-2	4242916	3855055	3822097	3973356	5.89	cps
Bromine	81-1	6275	6188	6311	6258	1.01	cps
Cadmium	108-1	153	153	123	143	12.08	cps
Cadmium	106-1	7455	7145	7095	7232	2.70	cps
Cadmium	111-1	2764	2682	2719	2722	1.51	cps
Calcium	43-1	10761	11041	10541	10781	2.33	cps
Calcium	44-1	175696	176597	176981	176425	0.37	cps
Carbon	12-1	2634161	2566285	2614355	2604933	1.34	cps
Carbon	12-2	16680	16546	16633	16619	0.41	cps
Chlorine	35-1	118378	117539	117643	117853	0.39	cps
Chlorine	35-2	410	460	370	413	10.91	cps
Chromium	52-2	2907	3014	3030	2984	2.24	cps
Cobalt	59-2	2224	2397	2230	2284	4.30	cps
Copper	63-2	6201	5921	5995	6039	2.41	cps
Dysprosium	156-1	70	67	70	69	2.79	cps
Dysprosium	156-2	7	0	3	3	100.05	cps
Erbium	164-1	80	87	90	86	5.95	cps
Erbium	164-2	40	40	30	37	15.75	cps
Gadolinium	160-1	47	53	53	51	7.52	cps
Gadolinium	160-2	10	17	13	13	25.01	cps
Holmium	165-1	16695616	16636092	16561672	16631127	0.40	cps
Holmium	165-2	5723816	5341103	5376993	5480637	3.86	cps
Indium	115-1	12787179	12924600	12787691	12833157	0.62	cps
Indium	115-2	1264681	1144921	1161719	1190440	5.45	cps
Iron	54-2	4291	4437	4447	4392	2.00	cps
Iron	56-2	78715	79134	79989	79280	0.82	cps
Iron	57-2	2117	2077	2014	2069	2.52	cps
Krypton	83-1	143	197	153	164	17.24	cps
Lead	206-1	5788	5905	6071	5921	2.41	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5365	5241	5198	5268	1.64	cps
Lead	208-1	23799	24029	23789	23872	0.57	cps
Lithium	6-1	8212193	8093106	8205432	8170244	0.82	cps
Magnesium	24-2	42559	43318	42876	42917	0.89	cps
Manganese	55-2	1220	1173	1270	1221	3.96	cps
Molybdenum	94-1	5575	5361	5665	5533	2.82	cps
Molybdenum	95-1	3197	3347	3154	3233	3.14	cps
Molybdenum	96-1	4237	3884	4261	4127	5.12	cps
Molybdenum	97-1	1917	1857	2064	1946	5.47	cps
Molybdenum	98-1	5078	5284	5334	5232	2.60	cps
Neodymium	150-1	27	7	30	21	59.77	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	2127	1903	1993	2008	5.60	cps
Phosphorus	31-2	123	70	50	81	46.74	cps
Potassium	39-2	20581	20605	21232	20806	1.77	cps
Rhodium	103-1	11961953	12091844	12022763	12025520	0.54	cps
Rhodium	103-2	4724147	4181630	4276951	4394243	6.59	cps
Scandium	45-1	9700694	9546803	9479858	9575785	1.18	cps
Scandium	45-2	169290	155133	156270	160231	4.91	cps
Selenium	82-1	1117	977	1043	1046	6.70	cps
Selenium	77-2	7	20	40	22	75.49	cps
Selenium	78-2	73	47	53	58	24.02	cps
Silicon	28-1	390095	387610	391221	389642	0.47	cps
Silver	107-1	6999	7382	7122	7167	2.73	cps
Silver	109-1	6888	6925	6722	6845	1.58	cps
Sodium	23-2	101845	102856	102467	102389	0.50	cps
Strontium	86-1	2310	2050	2217	2192	6.01	cps
Strontium	88-1	15913	16533	16306	16251	1.93	cps
Sulfur	34-1	424232	422318	421682	422744	0.31	cps
Terbium	159-1	17132824	17170268	16912261	17071784	0.82	cps
Terbium	159-2	5587382	5052096	5131386	5256955	5.50	cps
Thallium	203-1	5941	5968	5908	5939	0.51	cps
Thallium	205-1	14108	14094	14211	14138	0.45	cps
Tin	118-1	5944	6003	5723	5890	2.51	cps
Titanium	47-1	960	1150	1120	1077	9.49	cps
Uranium	238-1	17162	17632	17122	17305	1.64	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2403-12	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-06-QT2-20	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:46:43	DataFile Name :	038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	820	900	877	866	4.75	cps
Ytterbium	172-1	107	67	77	83	24.98	cps
Ytterbium	172-2	47	30	50	42	25.38	cps
Ytterbium	176-1	2024	2084	2050	2052	1.46	cps
Ytterbium	176-2	267	260	323	283	12.28	cps
Yttrium	89-1	23384893	23342395	23363069	23363452	0.09	cps
Yttrium	89-2	1719016	1555916	1577415	1617449	5.48	cps
Zinc	66-2	690	700	693	694	0.73	cps
Zirconium	90-1	9840	10224	10190	10085	2.11	cps
Zirconium	91-1	2074	2114	2027	2071	2.09	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	540	553	497	530	5.59	cps
Antimony	121-1	5184	5308	5061	5184	2.38	cps
Arsenic	75-2	77	87	103	89	15.15	cps
Barium	135-1	6999	6675	6792	6822	2.40	cps
Barium	137-1	11692	11455	11472	11539	1.15	cps
Beryllium	9-1	2304	2321	2280	2302	0.90	cps
Bismuth	209-1	9996384	10250972	10091645	10113000	1.27	cps
Bismuth	209-2	3901100	3913105	4122302	3978836	3.13	cps
Bromine	81-1	6175	6091	6028	6098	1.21	cps
Cadmium	108-1	143	147	120	137	10.63	cps
Cadmium	106-1	7112	7235	7212	7186	0.91	cps
Cadmium	111-1	2605	2721	2682	2669	2.20	cps
Calcium	43-1	10547	10918	10811	10759	1.77	cps
Calcium	44-1	173871	175557	175314	174914	0.52	cps
Carbon	12-1	2836343	2862666	2793221	2830743	1.24	cps
Carbon	12-2	18065	18098	18235	18132	0.50	cps
Chlorine	35-1	106001	107226	108365	107197	1.10	cps
Chlorine	35-2	450	453	400	434	6.88	cps
Chromium	52-2	2680	2854	2977	2837	5.25	cps
Cobalt	59-2	2074	2197	2170	2147	3.02	cps
Copper	63-2	5995	5688	5938	5873	2.78	cps
Dysprosium	156-1	17	67	60	48	56.82	cps
Dysprosium	156-2	3	3	10	6	69.34	cps
Erbium	164-1	87	67	83	79	13.58	cps
Erbium	164-2	20	23	23	22	8.65	cps
Gadolinium	160-1	77	37	50	54	37.41	cps
Gadolinium	160-2	23	3	3	10	115.51	cps
Holmium	165-1	16613814	16109536	16582261	16435204	1.72	cps
Holmium	165-2	5439464	5306357	5598652	5448158	2.69	cps
Indium	115-1	12695524	12795646	12547899	12679690	0.98	cps
Indium	115-2	1164517	1164053	1227966	1185512	3.10	cps
Iron	54-2	4137	4517	4204	4286	4.74	cps
Iron	56-2	76255	76493	77156	76635	0.61	cps
Iron	57-2	1980	1937	2074	1997	3.50	cps
Krypton	83-1	170	180	140	163	12.74	cps
Lead	206-1	5538	5958	5878	5791	3.85	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5294	4838	5054	5062	4.51	cps
Lead	208-1	22825	22728	23452	23001	1.71	cps
Lithium	6-1	8023535	8056056	8016378	8031990	0.26	cps
Magnesium	24-2	43321	42883	43170	43125	0.52	cps
Manganese	55-2	1267	1140	1173	1193	5.50	cps
Molybdenum	94-1	5298	5228	5414	5313	1.78	cps
Molybdenum	95-1	3270	3287	2887	3148	7.19	cps
Molybdenum	96-1	3887	3894	3977	3919	1.28	cps
Molybdenum	97-1	1987	1870	1920	1926	3.04	cps
Molybdenum	98-1	4991	5148	5138	5092	1.72	cps
Neodymium	150-1	13	13	10	12	15.73	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	2007	2094	2084	2061	2.30	cps
Phosphorus	31-2	40	57	57	51	18.83	cps
Potassium	39-2	20645	20164	21312	20707	2.78	cps
Rhodium	103-1	11775146	11670784	11651633	11699188	0.57	cps
Rhodium	103-2	4313706	4365602	4533261	4404190	2.61	cps
Scandium	45-1	9410175	9415551	9453346	9426357	0.25	cps
Scandium	45-2	157589	157188	165381	160053	2.89	cps
Selenium	82-1	893	953	990	946	5.16	cps
Selenium	77-2	17	20	7	14	48.02	cps
Selenium	78-2	57	40	67	54	24.75	cps
Silicon	28-1	390217	387695	384625	387512	0.72	cps
Silver	107-1	6552	6875	7012	6813	3.47	cps
Silver	109-1	6345	6625	6575	6515	2.29	cps
Sodium	23-2	102792	101446	101117	101785	0.87	cps
Strontium	86-1	2150	2154	2117	2140	0.95	cps
Strontium	88-1	15826	15736	16109	15890	1.23	cps
Sulfur	34-1	424125	423866	425282	424424	0.18	cps
Terbium	159-1	16875687	16669576	16601488	16715584	0.85	cps
Terbium	159-2	5292284	5168194	5467762	5309413	2.83	cps
Thallium	203-1	5738	5675	5588	5667	1.33	cps
Thallium	205-1	13447	13237	13914	13533	2.56	cps
Tin	118-1	5478	5457	5563	5499	1.02	cps
Titanium	47-1	973	1067	980	1007	5.17	cps
Uranium	238-1	17339	16861	16734	16978	1.88	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-02	Instrumnet Name :	P8
Client Sample ID :	MDL-WATER-QT2-2024-	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 15:56:41	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	810	740	887	812	9.03	cps
Ytterbium	172-1	93	83	80	86	8.11	cps
Ytterbium	172-2	37	27	33	32	15.80	cps
Ytterbium	176-1	2040	2037	2100	2059	1.73	cps
Ytterbium	176-2	217	327	287	277	20.12	cps
Yttrium	89-1	22953883	22976185	23039540	22989869	0.19	cps
Yttrium	89-2	1568721	1566766	1632104	1589197	2.34	cps
Zinc	66-2	713	573	703	663	11.77	cps
Zirconium	90-1	9814	9427	9807	9682	2.29	cps
Zirconium	91-1	2084	2100	2127	2104	1.04	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	570	530	577	559	4.52	cps
Antimony	121-1	5028	5154	5318	5167	2.81	cps
Arsenic	75-2	107	87	83	92	13.69	cps
Barium	135-1	6705	6658	6638	6667	0.51	cps
Barium	137-1	11702	11825	11442	11656	1.68	cps
Beryllium	9-1	2162	2314	2261	2246	3.42	cps
Bismuth	209-1	10212137	10188000	10130148	10176761	0.41	cps
Bismuth	209-2	4028101	3982824	3923808	3978244	1.31	cps
Bromine	81-1	6118	5838	6195	6050	3.10	cps
Cadmium	108-1	110	157	140	136	17.45	cps
Cadmium	106-1	7382	7085	7355	7274	2.26	cps
Cadmium	111-1	2693	2681	2690	2688	0.23	cps
Calcium	43-1	10104	10731	10587	10474	3.14	cps
Calcium	44-1	173958	174092	173681	173910	0.12	cps
Carbon	12-1	2846007	2847254	2850954	2848071	0.09	cps
Carbon	12-2	18445	18281	18659	18462	1.02	cps
Chlorine	35-1	104379	104510	104635	104508	0.12	cps
Chlorine	35-2	373	360	400	378	5.39	cps
Chromium	52-2	2897	2707	2860	2821	3.57	cps
Cobalt	59-2	2337	2174	2197	2236	3.95	cps
Copper	63-2	6101	5685	5675	5820	4.19	cps
Dysprosium	156-1	73	47	53	58	24.02	cps
Dysprosium	156-2	3	3	13	7	86.65	cps
Erbium	164-1	107	103	77	96	17.21	cps
Erbium	164-2	17	40	27	28	42.13	cps
Gadolinium	160-1	70	40	43	51	32.17	cps
Gadolinium	160-2	7	7	10	8	24.71	cps
Holmium	165-1	16564354	16148234	16745149	16485912	1.86	cps
Holmium	165-2	5504539	5389000	5411368	5434969	1.13	cps
Indium	115-1	12972592	12618095	12662040	12750909	1.52	cps
Indium	115-2	1188156	1190257	1180833	1186415	0.42	cps
Iron	54-2	4464	4481	4291	4412	2.39	cps
Iron	56-2	77415	75867	75682	76321	1.25	cps
Iron	57-2	1920	1940	2037	1966	3.17	cps
Krypton	83-1	187	147	157	163	12.74	cps
Lead	206-1	5718	5761	5855	5778	1.21	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5111	5068	5004	5061	1.06	cps
Lead	208-1	23632	23115	23205	23317	1.18	cps
Lithium	6-1	8336654	8214071	8080711	8210478	1.56	cps
Magnesium	24-2	43678	43455	42786	43306	1.07	cps
Manganese	55-2	1113	1020	1213	1116	8.67	cps
Molybdenum	94-1	5208	5288	5134	5210	1.47	cps
Molybdenum	95-1	3080	3230	3064	3125	2.94	cps
Molybdenum	96-1	3971	3977	3791	3913	2.71	cps
Molybdenum	97-1	1937	1940	1857	1911	2.47	cps
Molybdenum	98-1	5058	4981	4844	4961	2.18	cps
Neodymium	150-1	17	13	23	18	28.64	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	1927	2197	1967	2030	7.18	cps
Phosphorus	31-2	47	70	73	63	22.94	cps
Potassium	39-2	20615	20802	20952	20789	0.81	cps
Rhodium	103-1	11948467	11589503	11888926	11808966	1.63	cps
Rhodium	103-2	4417953	4353350	4336110	4369138	0.99	cps
Scandium	45-1	9636471	9391635	9484770	9504292	1.30	cps
Scandium	45-2	160189	160417	158324	159643	0.72	cps
Selenium	82-1	1003	830	907	913	9.51	cps
Selenium	77-2	23	13	10	16	44.60	cps
Selenium	78-2	63	50	67	60	14.70	cps
Silicon	28-1	387469	387376	382036	385627	0.81	cps
Silver	107-1	6852	7022	7105	6993	1.85	cps
Silver	109-1	6382	6512	6572	6488	1.50	cps
Sodium	23-2	101976	101365	100479	101274	0.74	cps
Strontium	86-1	2217	2050	2130	2132	3.91	cps
Strontium	88-1	15776	15939	15232	15649	2.37	cps
Sulfur	34-1	423577	424708	424276	424187	0.13	cps
Terbium	159-1	17237575	16790827	16383174	16803859	2.54	cps
Terbium	159-2	5244181	5304583	5227702	5258822	0.77	cps
Thallium	203-1	5598	5678	5805	5694	1.83	cps
Thallium	205-1	13000	13811	13881	13564	3.61	cps
Tin	118-1	5382	5367	5571	5440	2.09	cps
Titanium	47-1	980	1070	1013	1021	4.46	cps
Uranium	238-1	17335	17445	17125	17302	0.94	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	P2409-04	Instrumnet Name :	P8
Client Sample ID :	MDL-SOIL-QT2-2024-04	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:01:03	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	937	893	857	896	4.47	cps
Ytterbium	172-1	87	107	73	89	18.88	cps
Ytterbium	172-2	13	47	40	33	52.92	cps
Ytterbium	176-1	1957	1917	2014	1962	2.48	cps
Ytterbium	176-2	283	290	320	298	6.56	cps
Yttrium	89-1	23350290	22920200	23094867	23121785	0.94	cps
Yttrium	89-2	1608372	1593143	1587884	1596466	0.67	cps
Zinc	66-2	677	667	697	680	2.25	cps
Zirconium	90-1	9663	9974	9780	9806	1.60	cps
Zirconium	91-1	1963	2100	2080	2048	3.60	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	57	60	90	69	26.65	cps
Antimony	121-1	87	73	103	88	17.12	cps
Arsenic	75-2	0	0	3	1	173.21	cps
Barium	135-1	187	173	183	181	3.83	cps
Barium	137-1	370	393	327	363	9.31	cps
Beryllium	9-1	267	251	241	253	5.23	cps
Bismuth	209-1	10038718	10260647	10092094	10130486	1.14	cps
Bismuth	209-2	3810507	3826434	3847485	3828142	0.48	cps
Bromine	81-1	5688	5878	5861	5809	1.81	cps
Cadmium	108-1	17	30	20	22	31.22	cps
Cadmium	106-1	6602	6818	6728	6716	1.62	cps
Cadmium	111-1	1335	1373	1355	1354	1.38	cps
Calcium	43-1	527	503	620	550	11.22	cps
Calcium	44-1	10704	10944	10411	10686	2.50	cps
Carbon	12-1	2664663	2647177	2644989	2652276	0.41	cps
Carbon	12-2	17167	17170	17060	17132	0.37	cps
Chlorine	35-1	87298	87200	87180	87226	0.07	cps
Chlorine	35-2	367	350	310	342	8.51	cps
Chromium	52-2	1680	1760	1833	1758	4.36	cps
Cobalt	59-2	150	103	123	126	18.65	cps
Copper	63-2	2530	2467	2414	2470	2.37	cps
Dysprosium	156-1	67	63	53	61	11.36	cps
Dysprosium	156-2	10	0	0	3	173.21	cps
Erbium	164-1	53	97	73	74	29.14	cps
Erbium	164-2	10	17	20	16	32.73	cps
Gadolinium	160-1	33	60	53	49	28.39	cps
Gadolinium	160-2	17	17	13	16	12.40	cps
Holmium	165-1	16216261	16541929	15975225	16244472	1.75	cps
Holmium	165-2	5333437	5319251	5369383	5340690	0.48	cps
Indium	115-1	12635615	12815999	12340582	12597399	1.91	cps
Indium	115-2	1150607	1148241	1157102	1151983	0.40	cps
Iron	54-2	560	503	527	530	5.37	cps
Iron	56-2	7886	8396	8529	8270	4.11	cps
Iron	57-2	230	170	207	202	14.96	cps
Krypton	83-1	130	187	173	163	18.14	cps
Lead	206-1	1393	1280	1367	1347	4.40	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1093	1217	1137	1149	5.45	cps
Lead	208-1	5197	5214	5194	5202	0.21	cps
Lithium	6-1	8028867	8169719	8133932	8110839	0.90	cps
Magnesium	24-2	487	520	540	516	5.23	cps
Manganese	55-2	190	213	203	202	5.79	cps
Molybdenum	94-1	453	537	483	491	8.59	cps
Molybdenum	95-1	450	480	467	466	3.23	cps
Molybdenum	96-1	570	517	527	538	5.27	cps
Molybdenum	97-1	273	233	233	247	9.36	cps
Molybdenum	98-1	670	703	750	708	5.68	cps
Neodymium	150-1	13	20	10	14	35.26	cps
Neodymium	150-2	0	0	7	2	173.21	cps
Nickel	60-2	1443	1440	1343	1409	4.03	cps
Phosphorus	31-2	40	37	37	38	5.09	cps
Potassium	39-2	6045	5898	6201	6048	2.51	cps
Rhodium	103-1	11620663	11794976	11427930	11614523	1.58	cps
Rhodium	103-2	4271192	4288695	4256262	4272050	0.38	cps
Scandium	45-1	9309729	9475633	9180259	9321874	1.59	cps
Scandium	45-2	156437	154466	155453	155452	0.63	cps
Selenium	82-1	-7	-37	-23	-22	-67.66	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	7	0	7	4	86.60	cps
Silicon	28-1	376587	378169	377609	377455	0.21	cps
Silver	107-1	133	127	177	146	18.65	cps
Silver	109-1	47	90	57	64	35.20	cps
Sodium	23-2	18181	17998	17741	17973	1.23	cps
Strontium	86-1	263	310	293	289	8.19	cps
Strontium	88-1	443	460	467	457	2.63	cps
Sulfur	34-1	417431	413004	414136	414857	0.55	cps
Terbium	159-1	16447743	16727600	16439910	16538418	0.99	cps
Terbium	159-2	5144252	5177245	5112116	5144538	0.63	cps
Thallium	203-1	220	227	243	230	5.23	cps
Thallium	205-1	550	547	560	552	1.26	cps
Tin	118-1	930	911	984	942	4.01	cps
Titanium	47-1	193	180	140	171	16.22	cps
Uranium	238-1	40	23	27	30	29.40	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BL	Instrumnet Name :	P8
Client Sample ID :	PBS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:16:11	DataFile Name :	041CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	7	13	17	12	41.65	cps
Ytterbium	172-1	133	110	83	109	22.98	cps
Ytterbium	172-2	40	30	40	37	15.75	cps
Ytterbium	176-1	2017	1903	1833	1918	4.82	cps
Ytterbium	176-2	277	317	337	310	9.85	cps
Yttrium	89-1	22895184	23253450	22570717	22906450	1.49	cps
Yttrium	89-2	1537524	1536699	1555204	1543142	0.68	cps
Zinc	66-2	343	307	363	338	8.51	cps
Zirconium	90-1	780	640	707	709	9.88	cps
Zirconium	91-1	160	150	163	158	4.40	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2871322	2837305	2870649	2859759	0.68	cps
Antimony	121-1	6160851	6147327	6129024	6145734	0.26	cps
Arsenic	75-2	108651	107960	108860	108490	0.43	cps
Barium	135-1	7887758	7956776	7978611	7941048	0.60	cps
Barium	137-1	13640091	13581279	13525060	13582143	0.42	cps
Beryllium	9-1	2318866	2296750	2349870	2321829	1.15	cps
Bismuth	209-1	8677631	8403244	8421675	8500850	1.80	cps
Bismuth	209-2	3275422	3221333	3282518	3259758	1.03	cps
Bromine	81-1	6342	6698	6842	6627	3.89	cps
Cadmium	108-1	130413	129010	130969	130131	0.78	cps
Cadmium	106-1	186465	188524	187804	187598	0.56	cps
Cadmium	111-1	1613960	1629969	1604791	1616240	0.79	cps
Calcium	43-1	12065644	12263479	12319575	12216233	1.09	cps
Calcium	44-1	195666150	197049130	200440724	197718668	1.24	cps
Carbon	12-1	3354935	3459797	3455147	3423293	1.73	cps
Carbon	12-2	26845	26544	26511	26633	0.69	cps
Chlorine	35-1	98398	99327	100244	99323	0.93	cps
Chlorine	35-2	423	377	467	422	10.66	cps
Chromium	52-2	1266490	1259960	1265988	1264146	0.29	cps
Cobalt	59-2	2417991	2415447	2453307	2428915	0.87	cps
Copper	63-2	17166057	17105069	17148646	17139924	0.18	cps
Dysprosium	156-1	360	457	327	381	17.72	cps
Dysprosium	156-2	110	87	87	94	14.26	cps
Erbium	164-1	323	393	367	361	9.78	cps
Erbium	164-2	93	127	143	121	21.02	cps
Gadolinium	160-1	270	287	317	291	8.12	cps
Gadolinium	160-2	110	120	100	110	9.09	cps
Holmium	165-1	15403783	15298435	15324257	15342158	0.36	cps
Holmium	165-2	5115712	5066023	5111962	5097899	0.54	cps
Indium	115-1	11232732	10993642	11027045	11084473	1.17	cps
Indium	115-2	1034790	1042508	1049529	1042276	0.71	cps
Iron	54-2	13432423	13399096	13528285	13453268	0.50	cps
Iron	56-2	248329016	244542610	246120583	246330736	0.77	cps
Iron	57-2	6162073	6231496	6283137	6225568	0.98	cps
Krypton	83-1	170	220	190	193	13.02	cps
Lead	206-1	25079685	24947682	24956770	24994712	0.29	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	21195297	21770949	21519828	21495358	1.34	cps
Lead	208-1	98984243	100054444	99012884	99350524	0.61	cps
Lithium	6-1	7157183	7050177	6887113	7031491	1.93	cps
Magnesium	24-2	48800941	49594274	48654906	49016707	1.03	cps
Manganese	55-2	5676573	5634390	5726655	5679206	0.81	cps
Molybdenum	94-1	22597004	22559850	22539194	22565349	0.13	cps
Molybdenum	95-1	32880065	32901000	32792347	32857804	0.18	cps
Molybdenum	96-1	35216894	35748329	35890698	35618640	1.00	cps
Molybdenum	97-1	19954141	20060251	20219536	20077976	0.67	cps
Molybdenum	98-1	52947764	52520964	52501329	52656686	0.48	cps
Neodymium	150-1	753	857	770	793	6.99	cps
Neodymium	150-2	73	43	50	56	28.35	cps
Nickel	60-2	604828	603973	604634	604478	0.07	cps
Phosphorus	31-2	23913	23886	23786	23862	0.28	cps
Potassium	39-2	13955386	13806456	13866469	13876104	0.54	cps
Rhodium	103-1	10003090	9790405	9832497	9875331	1.14	cps
Rhodium	103-2	3610234	3629802	3604808	3614948	0.36	cps
Scandium	45-1	8687991	8683009	8709759	8693586	0.16	cps
Scandium	45-2	150279	148562	150633	149825	0.74	cps
Selenium	82-1	93557	93601	93980	93713	0.25	cps
Selenium	77-2	1643	1540	1500	1561	4.74	cps
Selenium	78-2	5354	5378	5488	5407	1.32	cps
Silicon	28-1	18979981	18775344	18638591	18797972	0.91	cps
Silver	107-1	7720428	7658721	7604070	7661073	0.76	cps
Silver	109-1	7287300	7328597	7445152	7353683	1.11	cps
Sodium	23-2	97512695	98194575	97589012	97765427	0.38	cps
Strontium	86-1	2352997	2331207	2334712	2339639	0.50	cps
Strontium	88-1	19531061	19617503	20107869	19752144	1.57	cps
Sulfur	34-1	1030470	1029932	1020665	1027022	0.54	cps
Terbium	159-1	15623550	15427574	15644874	15565333	0.77	cps
Terbium	159-2	4864738	4928955	4969503	4921066	1.07	cps
Thallium	203-1	6413782	6439231	6476778	6443264	0.49	cps
Thallium	205-1	15480096	14957019	15189766	15208960	1.72	cps
Tin	118-1	5788191	5857938	5810402	5818844	0.61	cps
Titanium	47-1	10316365	10459315	10394137	10389939	0.69	cps
Uranium	238-1	20642575	21030356	20688885	20787272	1.02	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV002	Instrumnet Name :	P8
Client Sample ID :	CCV002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:30:38	DataFile Name :	044CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1012832	1011319	1011622	1011924	0.08	cps
Ytterbium	172-1	377	370	373	373	0.89	cps
Ytterbium	172-2	157	150	133	147	8.19	cps
Ytterbium	176-1	31270	30856	31521	31216	1.08	cps
Ytterbium	176-2	9690	10191	10671	10184	4.82	cps
Yttrium	89-1	21531661	20895704	21265169	21230844	1.50	cps
Yttrium	89-2	1496929	1503483	1497797	1499403	0.24	cps
Zinc	66-2	1854206	1834946	1856150	1848434	0.63	cps
Zirconium	90-1	11422259	11362196	11338879	11374445	0.38	cps
Zirconium	91-1	2570821	2590743	2536842	2566135	1.06	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	90	83	73	82	10.20	cps
Antimony	121-1	853	690	760	768	10.67	cps
Arsenic	75-2	3	3	13	7	86.65	cps
Barium	135-1	707	677	667	683	3.05	cps
Barium	137-1	1143	1157	1033	1111	6.09	cps
Beryllium	9-1	600	611	624	612	1.94	cps
Bismuth	209-1	9879156	9795994	9646399	9773849	1.21	cps
Bismuth	209-2	3820737	3824817	3813523	3819692	0.15	cps
Bromine	81-1	6512	6585	6225	6440	2.96	cps
Cadmium	108-1	20	33	37	30	29.40	cps
Cadmium	106-1	6722	6885	6778	6795	1.22	cps
Cadmium	111-1	1424	1430	1393	1416	1.39	cps
Calcium	43-1	857	700	630	729	15.92	cps
Calcium	44-1	12812	12299	11965	12359	3.45	cps
Carbon	12-1	2557901	2500845	2479396	2512714	1.61	cps
Carbon	12-2	15642	16312	15698	15884	2.34	cps
Chlorine	35-1	83043	81548	82936	82509	1.01	cps
Chlorine	35-2	327	287	267	293	10.41	cps
Chromium	52-2	1670	1653	1843	1722	6.11	cps
Cobalt	59-2	157	187	233	192	20.10	cps
Copper	63-2	2664	2914	2804	2794	4.49	cps
Dysprosium	156-1	27	40	47	38	26.95	cps
Dysprosium	156-2	0	3	3	2	86.60	cps
Erbium	164-1	80	107	87	91	15.23	cps
Erbium	164-2	13	20	27	20	33.35	cps
Gadolinium	160-1	47	70	53	57	21.21	cps
Gadolinium	160-2	23	20	13	19	26.96	cps
Holmium	165-1	15825872	15742876	15595580	15721442	0.74	cps
Holmium	165-2	5352980	5389757	5272776	5338504	1.12	cps
Indium	115-1	12348324	12263953	12250511	12287596	0.43	cps
Indium	115-2	1160995	1154366	1158027	1157796	0.29	cps
Iron	54-2	697	740	620	686	8.86	cps
Iron	56-2	10391	10527	10040	10319	2.43	cps
Iron	57-2	273	223	230	242	11.21	cps
Krypton	83-1	173	203	120	166	25.50	cps
Lead	206-1	2607	2527	2424	2519	3.65	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2464	2157	2224	2281	7.07	cps
Lead	208-1	10859	10228	10178	10422	3.64	cps
Lithium	6-1	7679638	7581553	7792278	7684490	1.37	cps
Magnesium	24-2	680	750	683	704	5.61	cps
Manganese	55-2	287	323	320	310	6.54	cps
Molybdenum	94-1	1157	837	1030	1008	15.99	cps
Molybdenum	95-1	1227	987	1040	1084	11.62	cps
Molybdenum	96-1	1443	1070	1187	1233	15.49	cps
Molybdenum	97-1	767	643	530	647	18.30	cps
Molybdenum	98-1	1937	1553	1593	1695	12.44	cps
Neodymium	150-1	27	27	53	36	43.29	cps
Neodymium	150-2	0	0	7	2	173.21	cps
Nickel	60-2	1397	1437	1253	1362	7.08	cps
Phosphorus	31-2	67	47	33	49	34.32	cps
Potassium	39-2	6992	7058	6925	6992	0.95	cps
Rhodium	103-1	11450679	11364201	11425219	11413366	0.39	cps
Rhodium	103-2	4353280	4212488	4308228	4291332	1.68	cps
Scandium	45-1	9193325	9025385	9069146	9095952	0.96	cps
Scandium	45-2	156575	153850	153941	154789	1.00	cps
Selenium	82-1	30	-60	57	9	687.66	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	10	10	8	49.52	cps
Silicon	28-1	378209	375727	374248	376061	0.53	cps
Silver	107-1	560	533	513	536	4.37	cps
Silver	109-1	437	393	440	423	6.15	cps
Sodium	23-2	26110	26040	25402	25851	1.51	cps
Strontium	86-1	310	317	360	329	8.25	cps
Strontium	88-1	540	517	553	537	3.46	cps
Sulfur	34-1	400637	396845	397553	398345	0.51	cps
Terbium	159-1	16117206	15975900	16287289	16126798	0.97	cps
Terbium	159-2	5138412	5115090	5155018	5136174	0.39	cps
Thallium	203-1	647	660	507	604	14.05	cps
Thallium	205-1	1337	1267	1287	1297	2.78	cps
Tin	118-1	1231	1209	1179	1206	2.19	cps
Titanium	47-1	253	190	290	244	20.70	cps
Uranium	238-1	280	233	207	240	15.47	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB002	Instrumnet Name :	P8
Client Sample ID :	CCB002	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:34:53	DataFile Name :	045CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	10	27	10	16	61.87	cps
Ytterbium	172-1	67	90	107	88	22.89	cps
Ytterbium	172-2	23	40	23	29	33.32	cps
Ytterbium	176-1	1750	1870	2020	1880	7.20	cps
Ytterbium	176-2	270	327	267	288	11.72	cps
Yttrium	89-1	22325771	22482216	22802850	22536946	1.08	cps
Yttrium	89-2	1556364	1561408	1556837	1558203	0.18	cps
Zinc	66-2	357	370	313	347	8.55	cps
Zirconium	90-1	1000	1007	1040	1016	2.11	cps
Zirconium	91-1	170	167	237	191	20.66	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2417	2300	2217	2311	4.35	cps
Antimony	121-1	48258	48877	47837	48324	1.08	cps
Arsenic	75-2	547	347	437	443	22.59	cps
Barium	135-1	61947	63016	62363	62442	0.86	cps
Barium	137-1	107855	107855	109146	108285	0.69	cps
Beryllium	9-1	9946	10166	10051	10054	1.10	cps
Bismuth	209-1	9699052	10018509	9801173	9839578	1.66	cps
Bismuth	209-2	3857026	3910463	3905772	3891087	0.76	cps
Bromine	81-1	6318	6111	6181	6204	1.70	cps
Cadmium	108-1	517	530	557	534	3.81	cps
Cadmium	106-1	7235	7599	7295	7376	2.64	cps
Cadmium	111-1	7634	7687	7524	7615	1.09	cps
Calcium	43-1	48445	49575	48515	48845	1.30	cps
Calcium	44-1	787415	790479	792838	790244	0.34	cps
Carbon	12-1	3004670	3004596	2992405	3000557	0.24	cps
Carbon	12-2	19129	19757	19126	19337	1.88	cps
Chlorine	35-1	1195950	1350584	1432214	1326250	9.05	cps
Chlorine	35-2	5424	5641	5958	5675	4.73	cps
Chromium	52-2	12242	11638	11652	11844	2.91	cps
Cobalt	59-2	10087	10297	9903	10096	1.95	cps
Copper	63-2	19196	19320	19133	19216	0.49	cps
Dysprosium	156-1	70	53	60	61	13.73	cps
Dysprosium	156-2	0	3	3	2	86.60	cps
Erbium	164-1	63	57	83	68	20.47	cps
Erbium	164-2	23	27	27	26	7.55	cps
Gadolinium	160-1	57	27	67	50	41.63	cps
Gadolinium	160-2	7	7	17	10	57.72	cps
Holmium	165-1	15931073	16212331	15724124	15955843	1.54	cps
Holmium	165-2	5345776	5420715	5339643	5368711	0.84	cps
Indium	115-1	12413168	12323370	12408634	12381724	0.41	cps
Indium	115-2	1158615	1178911	1185132	1174220	1.18	cps
Iron	54-2	44987	45602	44930	45173	0.83	cps
Iron	56-2	822586	821495	816773	820285	0.38	cps
Iron	57-2	20505	20311	20512	20443	0.56	cps
Krypton	83-1	157	163	183	168	8.27	cps
Lead	206-1	23485	23491	23084	23353	1.00	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	19715	20373	20102	20063	1.65	cps
Lead	208-1	91459	93361	92443	92421	1.03	cps
Lithium	6-1	7766883	7869579	7661484	7765982	1.34	cps
Magnesium	24-2	187440	189430	190021	188964	0.72	cps
Manganese	55-2	2620	2520	2484	2541	2.78	cps
Molybdenum	94-1	51425	52786	52672	52294	1.44	cps
Molybdenum	95-1	63538	64298	64050	63962	0.61	cps
Molybdenum	96-1	70712	71315	71781	71269	0.75	cps
Molybdenum	97-1	39777	39422	39035	39411	0.94	cps
Molybdenum	98-1	101971	103334	102680	102662	0.66	cps
Neodymium	150-1	40	23	27	30	29.40	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	4234	4244	4117	4198	1.68	cps
Phosphorus	31-2	170	177	203	183	9.62	cps
Potassium	39-2	115833	115323	115336	115497	0.25	cps
Rhodium	103-1	11432935	11695028	11218512	11448825	2.08	cps
Rhodium	103-2	4273905	4292423	4319465	4295264	0.53	cps
Scandium	45-1	9193732	9317125	9237352	9249403	0.68	cps
Scandium	45-2	157731	157964	159695	158464	0.68	cps
Selenium	82-1	1860	2000	2020	1960	4.45	cps
Selenium	77-2	30	20	17	22	31.22	cps
Selenium	78-2	97	133	103	111	17.58	cps
Silicon	28-1	637901	643036	643567	641501	0.49	cps
Silver	107-1	31068	32030	32171	31757	1.89	cps
Silver	109-1	30327	30861	30798	30662	0.95	cps
Sodium	23-2	403000	406142	406113	405085	0.45	cps
Strontium	86-1	9120	8976	8970	9022	0.94	cps
Strontium	88-1	73646	74055	75291	74331	1.15	cps
Sulfur	34-1	394099	398799	391731	394876	0.91	cps
Terbium	159-1	16186545	16576321	16337751	16366872	1.20	cps
Terbium	159-2	5140511	5165347	5240330	5182063	1.00	cps
Thallium	203-1	25966	26928	26868	26587	2.03	cps
Thallium	205-1	63608	63592	63581	63594	0.02	cps
Tin	118-1	105871	105420	106206	105832	0.37	cps
Titanium	47-1	22161	22942	22608	22570	1.74	cps
Uranium	238-1	80238	80480	81265	80661	0.67	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166403BS	Instrumnet Name :	P8
Client Sample ID :	LCS403	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:41:42	DataFile Name :	046LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	20458	20812	20391	20554	1.10	cps
Ytterbium	172-1	77	87	87	83	6.93	cps
Ytterbium	172-2	33	37	60	43	33.53	cps
Ytterbium	176-1	1843	2037	2070	1984	6.17	cps
Ytterbium	176-2	290	333	350	324	9.55	cps
Yttrium	89-1	22460061	23157218	22949541	22855607	1.57	cps
Yttrium	89-2	1577767	1575434	1580609	1577937	0.16	cps
Zinc	66-2	4187	4267	4311	4255	1.47	cps
Zirconium	90-1	43982	45380	45494	44952	1.87	cps
Zirconium	91-1	9710	9750	9930	9797	1.20	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	50	70	53	58	18.55	cps
Antimony	121-1	140	210	167	172	20.51	cps
Arsenic	75-2	17	7	0	8	107.84	cps
Barium	135-1	313	363	240	306	20.30	cps
Barium	137-1	477	533	493	501	5.81	cps
Beryllium	9-1	375	355	352	361	3.42	cps
Bismuth	209-1	9971954	10464087	10255135	10230392	2.41	cps
Bismuth	209-2	3788154	3883104	3943973	3871744	2.03	cps
Bromine	81-1	6021	6201	6081	6101	1.50	cps
Cadmium	108-1	40	20	30	30	33.33	cps
Cadmium	106-1	6865	7159	6945	6990	2.17	cps
Cadmium	111-1	1378	1451	1401	1410	2.63	cps
Calcium	43-1	717	580	540	612	15.13	cps
Calcium	44-1	10821	10727	10614	10721	0.97	cps
Carbon	12-1	2674962	2637621	2592062	2634882	1.58	cps
Carbon	12-2	17140	16680	17057	16959	1.45	cps
Chlorine	35-1	158359	144627	135042	146010	8.03	cps
Chlorine	35-2	413	447	480	447	7.46	cps
Chromium	52-2	1720	1707	1687	1705	0.98	cps
Cobalt	59-2	170	157	147	158	7.42	cps
Copper	63-2	2554	2574	2400	2509	3.78	cps
Dysprosium	156-1	33	47	60	47	28.58	cps
Dysprosium	156-2	0	3	7	3	100.05	cps
Erbium	164-1	107	73	80	87	20.36	cps
Erbium	164-2	40	30	20	30	33.33	cps
Gadolinium	160-1	70	23	37	43	55.47	cps
Gadolinium	160-2	20	20	23	21	9.11	cps
Holmium	165-1	15957263	17068227	16359058	16461516	3.42	cps
Holmium	165-2	5196821	5320765	5319694	5279093	1.35	cps
Indium	115-1	12527360	13289465	12771234	12862686	3.03	cps
Indium	115-2	1139981	1171385	1179012	1163459	1.78	cps
Iron	54-2	523	563	597	561	6.54	cps
Iron	56-2	9046	8729	8653	8809	2.37	cps
Iron	57-2	230	163	240	211	19.74	cps
Krypton	83-1	150	150	183	161	11.95	cps
Lead	206-1	1997	1840	1897	1911	4.15	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1583	1537	1483	1535	3.26	cps
Lead	208-1	7308	7324	7024	7219	2.34	cps
Lithium	6-1	7802982	8238089	7894442	7978504	2.88	cps
Magnesium	24-2	510	467	420	466	9.67	cps
Manganese	55-2	253	283	230	256	10.46	cps
Molybdenum	94-1	547	587	587	573	4.03	cps
Molybdenum	95-1	583	567	580	577	1.53	cps
Molybdenum	96-1	640	643	613	632	2.60	cps
Molybdenum	97-1	323	263	333	307	12.35	cps
Molybdenum	98-1	847	897	813	852	4.92	cps
Neodymium	150-1	13	33	17	21	50.75	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	1460	1460	1413	1445	1.87	cps
Phosphorus	31-2	33	37	37	36	5.42	cps
Potassium	39-2	6181	6558	6351	6364	2.97	cps
Rhodium	103-1	11554953	12286698	11731420	11857690	3.22	cps
Rhodium	103-2	4161414	4369295	4315124	4281945	2.52	cps
Scandium	45-1	9389895	9855469	9309125	9518163	3.10	cps
Scandium	45-2	151283	155009	158250	154848	2.25	cps
Selenium	82-1	20	27	-77	-10	-578.34	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	3	10	6	69.34	cps
Silicon	28-1	375482	376215	372798	374832	0.48	cps
Silver	107-1	433	340	273	349	23.04	cps
Silver	109-1	270	203	210	228	16.12	cps
Sodium	23-2	21543	20882	21025	21150	1.64	cps
Strontium	86-1	230	283	283	266	11.60	cps
Strontium	88-1	447	497	430	458	7.58	cps
Sulfur	34-1	384848	382704	382834	383462	0.31	cps
Terbium	159-1	16402484	17409199	16488541	16766741	3.33	cps
Terbium	159-2	5151606	5089031	5208888	5149842	1.16	cps
Thallium	203-1	490	497	443	477	6.10	cps
Thallium	205-1	1143	1003	907	1018	11.69	cps
Tin	118-1	1104	2030	996	1377	41.26	cps
Titanium	47-1	130	170	133	144	15.36	cps
Uranium	238-1	60	63	33	52	31.49	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BL	Instrumnet Name :	P8
Client Sample ID :	PBW404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:45:04	DataFile Name :	047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13	0	17	10	88.20	cps
Ytterbium	172-1	63	90	93	82	20.00	cps
Ytterbium	172-2	13	23	30	22	37.76	cps
Ytterbium	176-1	1883	2050	1803	1912	6.58	cps
Ytterbium	176-2	240	280	347	289	18.65	cps
Yttrium	89-1	22953275	24132033	23094424	23393244	2.75	cps
Yttrium	89-2	1520589	1576779	1606078	1567815	2.77	cps
Zinc	66-2	330	353	343	342	3.42	cps
Zirconium	90-1	780	823	847	817	4.14	cps
Zirconium	91-1	147	220	153	173	23.39	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2324	2400	2520	2415	4.11	cps
Antimony	121-1	51761	50439	49459	50553	2.28	cps
Arsenic	75-2	533	447	420	467	12.70	cps
Barium	135-1	66325	65996	64432	65584	1.54	cps
Barium	137-1	115585	111969	110442	112666	2.34	cps
Beryllium	9-1	10769	9941	9923	10211	4.73	cps
Bismuth	209-1	9741425	9503880	9119496	9454933	3.32	cps
Bismuth	209-2	3722358	3650391	3589306	3654018	1.82	cps
Bromine	81-1	5978	5991	6205	6058	2.10	cps
Cadmium	108-1	520	490	560	523	6.71	cps
Cadmium	106-1	7129	7192	6845	7055	2.62	cps
Cadmium	111-1	8107	7557	7208	7624	5.94	cps
Calcium	43-1	51585	49729	48247	49854	3.36	cps
Calcium	44-1	830444	820407	798302	816385	2.01	cps
Carbon	12-1	2972244	2943699	2927486	2947809	0.77	cps
Carbon	12-2	19460	19286	18589	19111	2.41	cps
Chlorine	35-1	1396440	1437992	1478837	1437756	2.87	cps
Chlorine	35-2	5808	5925	5928	5887	1.16	cps
Chromium	52-2	12255	12025	11855	12045	1.67	cps
Cobalt	59-2	10377	10981	10464	10607	3.08	cps
Copper	63-2	20088	19120	19667	19625	2.47	cps
Dysprosium	156-1	77	53	57	62	20.29	cps
Dysprosium	156-2	7	3	3	4	43.40	cps
Erbium	164-1	80	77	73	77	4.35	cps
Erbium	164-2	23	10	20	18	39.03	cps
Gadolinium	160-1	47	43	43	44	4.34	cps
Gadolinium	160-2	3	20	20	14	66.64	cps
Holmium	165-1	15796670	15300492	14890359	15329173	2.96	cps
Holmium	165-2	5087266	5109672	5021765	5072901	0.90	cps
Indium	115-1	12487559	11833416	11575880	11965618	3.93	cps
Indium	115-2	1117367	1107599	1091956	1105641	1.16	cps
Iron	54-2	46428	45305	46950	46228	1.82	cps
Iron	56-2	852432	851260	846020	849904	0.40	cps
Iron	57-2	21283	21162	21156	21200	0.34	cps
Krypton	83-1	157	170	140	156	9.66	cps
Lead	206-1	23939	23421	23581	23647	1.12	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	20910	21027	20122	20687	2.38	cps
Lead	208-1	94959	94823	92669	94150	1.36	cps
Lithium	6-1	7622338	7391028	7254548	7422638	2.50	cps
Magnesium	24-2	197678	195840	196374	196631	0.48	cps
Manganese	55-2	2760	2607	2627	2665	3.13	cps
Molybdenum	94-1	56852	54878	53151	54960	3.37	cps
Molybdenum	95-1	68250	66016	64927	66398	2.55	cps
Molybdenum	96-1	75326	73292	71992	73537	2.29	cps
Molybdenum	97-1	42398	40827	39352	40859	3.73	cps
Molybdenum	98-1	109959	107026	105074	107353	2.29	cps
Neodymium	150-1	30	27	30	29	6.65	cps
Neodymium	150-2	7	0	0	2	173.21	cps
Nickel	60-2	4204	4114	4424	4247	3.76	cps
Phosphorus	31-2	140	160	193	164	16.39	cps
Potassium	39-2	118441	117738	119986	118722	0.97	cps
Rhodium	103-1	11284413	11039768	10777987	11034056	2.30	cps
Rhodium	103-2	4145312	4051532	3973942	4056928	2.12	cps
Scandium	45-1	9170982	8820549	8552177	8847903	3.51	cps
Scandium	45-2	149374	148360	144847	147527	1.61	cps
Selenium	82-1	2254	2110	2117	2160	3.75	cps
Selenium	77-2	60	63	33	52	31.49	cps
Selenium	78-2	110	133	127	123	9.75	cps
Silicon	28-1	658028	640473	635997	644832	1.81	cps
Silver	107-1	34600	33056	33314	33657	2.46	cps
Silver	109-1	31957	31426	31449	31611	0.95	cps
Sodium	23-2	421513	418503	415978	418664	0.66	cps
Strontium	86-1	9447	9216	9156	9273	1.65	cps
Strontium	88-1	80574	77798	75244	77872	3.42	cps
Sulfur	34-1	386301	385074	380278	383884	0.83	cps
Terbium	159-1	16194215	15533377	15267537	15665043	3.05	cps
Terbium	159-2	4998957	4930561	4816781	4915433	1.87	cps
Thallium	203-1	28091	26851	26624	27189	2.90	cps
Thallium	205-1	68048	64854	63792	65565	3.38	cps
Tin	118-1	113207	109605	107665	110159	2.55	cps
Titanium	47-1	22701	21890	21620	22070	2.55	cps
Uranium	238-1	84963	83523	80765	83084	2.57	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166404BS	Instrumnet Name :	P8
Client Sample ID :	LCS404	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:48:25	DataFile Name :	048LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	21650	21707	21453	21603	0.62	cps
Ytterbium	172-1	97	83	73	84	13.87	cps
Ytterbium	172-2	43	30	23	32	31.61	cps
Ytterbium	176-1	1987	1917	1974	1959	1.90	cps
Ytterbium	176-2	323	300	343	322	6.73	cps
Yttrium	89-1	22530586	21709601	21066852	21769013	3.37	cps
Yttrium	89-2	1547042	1460091	1474549	1493894	3.12	cps
Zinc	66-2	4477	4314	4351	4381	1.96	cps
Zirconium	90-1	48100	47561	45792	47151	2.56	cps
Zirconium	91-1	10391	10471	10287	10383	0.89	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	87	93	97	92	5.52	cps
Antimony	121-1	173	117	147	146	19.48	cps
Arsenic	75-2	0	7	3	3	100.05	cps
Barium	135-1	323	247	297	289	13.47	cps
Barium	137-1	397	427	457	427	7.03	cps
Beryllium	9-1	364	339	344	349	3.79	cps
Bismuth	209-1	10195016	9945099	10130265	10090127	1.29	cps
Bismuth	209-2	3933013	3875673	3862131	3890272	0.97	cps
Bromine	81-1	6021	6035	6055	6037	0.28	cps
Cadmium	108-1	40	40	27	36	21.64	cps
Cadmium	106-1	6828	6818	6852	6833	0.25	cps
Cadmium	111-1	1361	1366	1382	1369	0.79	cps
Calcium	43-1	630	640	593	621	3.96	cps
Calcium	44-1	10507	10734	10781	10674	1.37	cps
Carbon	12-1	2635300	2612694	2619979	2622658	0.44	cps
Carbon	12-2	16950	16456	17080	16829	1.96	cps
Chlorine	35-1	181608	166448	154417	167491	8.14	cps
Chlorine	35-2	533	553	480	522	7.26	cps
Chromium	52-2	1803	1633	1797	1745	5.52	cps
Cobalt	59-2	157	153	147	152	3.35	cps
Copper	63-2	2634	2590	2527	2584	2.08	cps
Dysprosium	156-1	63	63	40	56	24.25	cps
Dysprosium	156-2	7	3	10	7	50.03	cps
Erbium	164-1	63	63	93	73	23.62	cps
Erbium	164-2	53	37	27	39	34.63	cps
Gadolinium	160-1	57	37	37	43	26.64	cps
Gadolinium	160-2	7	3	17	9	78.08	cps
Holmium	165-1	16372281	15982718	16246529	16200509	1.23	cps
Holmium	165-2	5455386	5422692	5413253	5430444	0.41	cps
Indium	115-1	12769033	12500040	12700613	12656562	1.10	cps
Indium	115-2	1177380	1176487	1177687	1177185	0.05	cps
Iron	54-2	607	507	573	562	9.06	cps
Iron	56-2	8329	8326	8616	8424	1.98	cps
Iron	57-2	193	203	230	209	9.07	cps
Krypton	83-1	143	190	147	160	16.27	cps
Lead	206-1	1660	1513	1710	1628	6.28	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1483	1337	1490	1437	6.03	cps
Lead	208-1	6801	6131	6647	6526	5.38	cps
Lithium	6-1	7949500	7824444	7769825	7847923	1.17	cps
Magnesium	24-2	417	410	460	429	6.33	cps
Manganese	55-2	233	347	230	270	24.60	cps
Molybdenum	94-1	580	607	523	570	7.47	cps
Molybdenum	95-1	533	477	497	502	5.72	cps
Molybdenum	96-1	583	653	600	612	5.97	cps
Molybdenum	97-1	310	293	310	304	3.16	cps
Molybdenum	98-1	807	887	767	820	7.45	cps
Neodymium	150-1	13	30	27	23	37.81	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	1400	1367	1443	1403	2.74	cps
Phosphorus	31-2	37	50	50	46	16.89	cps
Potassium	39-2	6131	6118	6335	6195	1.96	cps
Rhodium	103-1	11701198	11411628	11678814	11597213	1.39	cps
Rhodium	103-2	4331717	4253812	4295713	4293747	0.91	cps
Scandium	45-1	9419705	9223261	9288410	9310459	1.07	cps
Scandium	45-2	156838	156471	156596	156635	0.12	cps
Selenium	82-1	33	-50	17	0	0.00	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	0	17	10	9	94.38	cps
Silicon	28-1	377584	374113	374956	375551	0.48	cps
Silver	107-1	327	277	397	333	18.08	cps
Silver	109-1	230	217	220	222	3.12	cps
Sodium	23-2	20782	20321	20378	20493	1.23	cps
Strontium	86-1	347	340	347	344	1.12	cps
Strontium	88-1	493	467	443	468	5.35	cps
Sulfur	34-1	393157	395747	395096	394667	0.34	cps
Terbium	159-1	16578152	16204804	16660491	16481149	1.47	cps
Terbium	159-2	5207739	5186752	5232538	5209010	0.44	cps
Thallium	203-1	523	403	397	441	16.16	cps
Thallium	205-1	1263	957	1047	1089	14.48	cps
Tin	118-1	1063	1140	941	1048	9.55	cps
Titanium	47-1	117	153	153	141	15.00	cps
Uranium	238-1	33	23	23	27	21.65	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BL	Instrumnet Name :	P8
Client Sample ID :	PBS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:51:48	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	7	13	10	10	33.30	cps
Ytterbium	172-1	103	80	100	94	13.36	cps
Ytterbium	172-2	37	33	30	33	10.01	cps
Ytterbium	176-1	1937	1914	1947	1932	0.89	cps
Ytterbium	176-2	287	280	263	277	4.34	cps
Yttrium	89-1	22988356	22738361	23013323	22913347	0.66	cps
Yttrium	89-2	1579333	1600963	1552038	1577445	1.55	cps
Zinc	66-2	283	343	340	322	10.46	cps
Zirconium	90-1	697	790	700	729	7.26	cps
Zirconium	91-1	160	203	153	172	15.76	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	585766	583881	584740	584796	0.16	cps
Antimony	121-1	6620941	6812362	6840368	6757891	1.77	cps
Arsenic	75-2	121531	120577	120917	121008	0.40	cps
Barium	135-1	8355094	8628604	8694342	8559347	2.10	cps
Barium	137-1	14649187	14940601	14964119	14851303	1.18	cps
Beryllium	9-1	2550759	2563604	2507977	2540780	1.15	cps
Bismuth	209-1	9521743	9470986	9566422	9519717	0.50	cps
Bismuth	209-2	3667895	3763160	3714887	3715314	1.28	cps
Bromine	81-1	6041	6208	6338	6196	2.40	cps
Cadmium	108-1	137026	137380	136364	136923	0.38	cps
Cadmium	106-1	195031	198500	198584	197372	1.03	cps
Cadmium	111-1	1681066	1726699	1724878	1710881	1.51	cps
Calcium	43-1	2614050	2627431	2633843	2625108	0.38	cps
Calcium	44-1	42309940	42351293	42461740	42374324	0.19	cps
Carbon	12-1	3226865	3336236	3400288	3321130	2.64	cps
Carbon	12-2	22825	22587	23158	22857	1.25	cps
Chlorine	35-1	131877	132701	132123	132234	0.32	cps
Chlorine	35-2	503	607	570	560	9.36	cps
Chromium	52-2	1499463	1498505	1483782	1493917	0.59	cps
Cobalt	59-2	2705444	2695632	2697019	2699365	0.20	cps
Copper	63-2	20107776	19959476	20101608	20056287	0.42	cps
Dysprosium	156-1	287	243	240	257	10.14	cps
Dysprosium	156-2	20	33	27	27	24.99	cps
Erbium	164-1	203	223	137	188	24.17	cps
Erbium	164-2	73	47	30	50	43.71	cps
Gadolinium	160-1	170	123	130	141	17.88	cps
Gadolinium	160-2	40	37	43	40	8.32	cps
Holmium	165-1	15994509	16368810	16321554	16228291	1.26	cps
Holmium	165-2	5539322	5364949	5414490	5439587	1.65	cps
Indium	115-1	12057700	12265976	12140083	12154586	0.86	cps
Indium	115-2	1135983	1139226	1141826	1139011	0.26	cps
Iron	54-2	2966105	3022697	3030446	3006416	1.17	cps
Iron	56-2	54562748	54673251	54194163	54476720	0.46	cps
Iron	57-2	1305744	1314516	1306976	1309079	0.36	cps
Krypton	83-1	183	170	223	192	14.44	cps
Lead	206-1	27587489	28146943	28123867	27952766	1.13	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	23759530	24368328	24225592	24117817	1.32	cps
Lead	208-1	110259495	112261462	112170552	111563836	1.01	cps
Lithium	6-1	7597110	7737805	7562418	7632444	1.22	cps
Magnesium	24-2	10765075	10604980	10630915	10666990	0.81	cps
Manganese	55-2	6291113	6331558	6325507	6316060	0.35	cps
Molybdenum	94-1	24378453	24367325	24809705	24518494	1.03	cps
Molybdenum	95-1	35166304	35471320	36160698	35599441	1.43	cps
Molybdenum	96-1	38103874	38928348	38754504	38595576	1.13	cps
Molybdenum	97-1	21678266	21719124	21789543	21728978	0.26	cps
Molybdenum	98-1	56761426	57271521	57683491	57238812	0.81	cps
Neodymium	150-1	737	800	787	774	4.31	cps
Neodymium	150-2	30	33	23	29	17.63	cps
Nickel	60-2	695957	702062	700946	699655	0.46	cps
Phosphorus	31-2	25770	25499	26023	25764	1.02	cps
Potassium	39-2	2998859	2976367	3017619	2997615	0.69	cps
Rhodium	103-1	11002907	11040359	10977499	11006922	0.29	cps
Rhodium	103-2	4040855	4132342	4100487	4091228	1.14	cps
Scandium	45-1	9248467	9303792	9303876	9285379	0.34	cps
Scandium	45-2	159036	158941	160161	159379	0.43	cps
Selenium	82-1	104043	106988	107839	106290	1.87	cps
Selenium	77-2	1653	1837	1757	1749	5.26	cps
Selenium	78-2	6005	5948	6168	6040	1.89	cps
Silicon	28-1	23011905	23117350	23165735	23098330	0.34	cps
Silver	107-1	8899338	8931946	8923081	8918122	0.19	cps
Silver	109-1	8426902	8567584	8462027	8485504	0.86	cps
Sodium	23-2	21181953	21287181	20941031	21136721	0.84	cps
Strontium	86-1	2546859	2569678	2558002	2558179	0.45	cps
Strontium	88-1	21161175	21557557	21481212	21399981	0.98	cps
Sulfur	34-1	1091488	1066102	1073327	1076972	1.21	cps
Terbium	159-1	16576139	16421360	16689666	16562389	0.81	cps
Terbium	159-2	5160694	5277375	5171862	5203310	1.24	cps
Thallium	203-1	7198336	7308653	7154416	7220469	1.10	cps
Thallium	205-1	16979348	17019209	16864842	16954466	0.47	cps
Tin	118-1	6338553	6447676	6380666	6388965	0.86	cps
Titanium	47-1	11150544	11252591	11291092	11231409	0.65	cps
Uranium	238-1	22010853	22332854	22154948	22166218	0.73	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166405BS	Instrumnet Name :	P8
Client Sample ID :	LCS405	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:55:09	DataFile Name :	050LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1090960	1096357	1096834	1094717	0.30	cps
Ytterbium	172-1	160	190	143	164	14.38	cps
Ytterbium	172-2	80	67	63	70	12.60	cps
Ytterbium	176-1	32660	32520	32741	32640	0.34	cps
Ytterbium	176-2	10808	10558	10481	10615	1.61	cps
Yttrium	89-1	22897290	22573053	22861829	22777390	0.78	cps
Yttrium	89-2	1601594	1605305	1584980	1597293	0.68	cps
Zinc	66-2	2159236	2157563	2117398	2144733	1.10	cps
Zirconium	90-1	12263030	12280558	12311338	12284975	0.20	cps
Zirconium	91-1	2759279	2728532	2748519	2745443	0.57	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	93	130	103	109	17.41	cps
Antimony	121-1	1453	1280	1210	1315	9.53	cps
Arsenic	75-2	10	13	10	11	17.30	cps
Barium	135-1	1017	897	980	964	6.38	cps
Barium	137-1	1757	1610	1600	1656	5.30	cps
Beryllium	9-1	737	699	670	702	4.83	cps
Bismuth	209-1	10230275	10131203	10202111	10187863	0.50	cps
Bismuth	209-2	3856907	3897927	3951246	3902027	1.21	cps
Bromine	81-1	6595	6305	6321	6407	2.54	cps
Cadmium	108-1	50	43	30	41	24.77	cps
Cadmium	106-1	6835	7179	6745	6920	3.31	cps
Cadmium	111-1	1522	1575	1495	1531	2.68	cps
Calcium	43-1	760	663	733	719	6.95	cps
Calcium	44-1	12509	12325	12098	12311	1.67	cps
Carbon	12-1	2705349	2692175	2635590	2677704	1.38	cps
Carbon	12-2	17020	17464	16900	17128	1.73	cps
Chlorine	35-1	98485	95995	95858	96779	1.53	cps
Chlorine	35-2	363	287	333	328	11.79	cps
Chromium	52-2	1687	1910	1760	1786	6.38	cps
Cobalt	59-2	263	227	313	268	16.25	cps
Copper	63-2	3544	3480	3270	3432	4.17	cps
Dysprosium	156-1	43	60	80	61	30.04	cps
Dysprosium	156-2	10	3	0	4	114.60	cps
Erbium	164-1	80	60	50	63	24.12	cps
Erbium	164-2	27	33	33	31	12.36	cps
Gadolinium	160-1	73	43	43	53	32.48	cps
Gadolinium	160-2	13	27	27	22	34.66	cps
Holmium	165-1	16270129	16348846	16213911	16277629	0.42	cps
Holmium	165-2	5347863	5482854	5479566	5436761	1.42	cps
Indium	115-1	12916085	12625108	12728185	12756459	1.16	cps
Indium	115-2	1188385	1185066	1183270	1185573	0.22	cps
Iron	54-2	720	727	703	717	1.68	cps
Iron	56-2	10484	10464	10057	10335	2.33	cps
Iron	57-2	227	253	247	242	5.73	cps
Krypton	83-1	157	157	170	161	4.78	cps
Lead	206-1	3597	3190	3057	3282	8.57	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3127	2810	2704	2880	7.65	cps
Lead	208-1	14403	13026	12476	13302	7.46	cps
Lithium	6-1	7904375	7778412	7796962	7826583	0.87	cps
Magnesium	24-2	700	830	710	747	9.69	cps
Manganese	55-2	637	767	567	657	15.46	cps
Molybdenum	94-1	1937	1817	1603	1786	9.46	cps
Molybdenum	95-1	2654	2164	2214	2344	11.51	cps
Molybdenum	96-1	2904	2600	2540	2681	7.27	cps
Molybdenum	97-1	1477	1490	1357	1441	5.10	cps
Molybdenum	98-1	4244	3807	3320	3791	12.19	cps
Neodymium	150-1	43	43	33	40	14.43	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	1300	1550	1423	1425	8.78	cps
Phosphorus	31-2	53	27	40	40	33.33	cps
Potassium	39-2	6558	6428	6515	6500	1.02	cps
Rhodium	103-1	11765761	11831419	11775945	11791042	0.30	cps
Rhodium	103-2	4393222	4429785	4350532	4391180	0.90	cps
Scandium	45-1	9371313	9401109	9318332	9363585	0.45	cps
Scandium	45-2	159008	158803	159325	159046	0.17	cps
Selenium	82-1	23	-7	-20	-1	-1993.38	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	10	7	7	8	24.71	cps
Silicon	28-1	405622	401491	393297	400137	1.57	cps
Silver	107-1	1160	1120	977	1086	8.88	cps
Silver	109-1	1073	913	827	938	13.34	cps
Sodium	23-2	22624	22561	22574	22586	0.15	cps
Strontium	86-1	377	367	380	374	1.85	cps
Strontium	88-1	1473	1197	1033	1235	18.02	cps
Sulfur	34-1	384180	385817	385732	385243	0.24	cps
Terbium	159-1	16766621	16456791	16623719	16615710	0.93	cps
Terbium	159-2	5372140	5327759	5228962	5309620	1.38	cps
Thallium	203-1	913	837	677	809	14.93	cps
Thallium	205-1	1990	1984	1957	1977	0.89	cps
Tin	118-1	1457	1520	1504	1494	2.21	cps
Titanium	47-1	617	610	560	596	5.20	cps
Uranium	238-1	1010	923	783	906	12.63	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BL	Instrumnet Name :	P8
Client Sample ID :	PBW406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 16:57:56	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	37	37	60	44	30.31	cps
Ytterbium	172-1	123	80	93	99	22.45	cps
Ytterbium	172-2	27	23	33	28	18.33	cps
Ytterbium	176-1	1823	2004	2010	1946	5.44	cps
Ytterbium	176-2	303	300	350	318	8.80	cps
Yttrium	89-1	23467540	23074670	23015757	23185989	1.06	cps
Yttrium	89-2	1586192	1579937	1594530	1586886	0.46	cps
Zinc	66-2	497	517	423	479	10.26	cps
Zirconium	90-1	1260	1253	1333	1282	3.46	cps
Zirconium	91-1	327	323	283	311	7.75	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	582487	588439	580779	583902	0.69	cps
Antimony	121-1	6806018	6809483	6847014	6820839	0.33	cps
Arsenic	75-2	122211	121461	119424	121032	1.19	cps
Barium	135-1	8639056	8685468	8646997	8657174	0.29	cps
Barium	137-1	15135031	15104267	14976464	15071921	0.56	cps
Beryllium	9-1	2530511	2564775	2541058	2545448	0.69	cps
Bismuth	209-1	9741268	9644093	9794762	9726708	0.79	cps
Bismuth	209-2	3656640	3716937	3714650	3696076	0.92	cps
Bromine	81-1	6368	6458	6265	6364	1.52	cps
Cadmium	108-1	138384	138342	137228	137985	0.48	cps
Cadmium	106-1	196645	199128	200450	198741	0.97	cps
Cadmium	111-1	1724916	1730975	1738971	1731621	0.41	cps
Calcium	43-1	2656248	2661095	2648887	2655410	0.23	cps
Calcium	44-1	42327754	42858278	43037298	42741110	0.86	cps
Carbon	12-1	3284210	3305569	3310731	3300170	0.43	cps
Carbon	12-2	22884	23866	22881	23211	2.45	cps
Chlorine	35-1	110010	110511	111169	110563	0.53	cps
Chlorine	35-2	450	427	487	454	6.66	cps
Chromium	52-2	1502051	1474795	1484318	1487054	0.93	cps
Cobalt	59-2	2745517	2729759	2716461	2730579	0.53	cps
Copper	63-2	20203220	20007936	19929138	20046764	0.70	cps
Dysprosium	156-1	293	243	187	241	22.13	cps
Dysprosium	156-2	30	37	50	39	26.18	cps
Erbium	164-1	160	157	180	166	7.62	cps
Erbium	164-2	57	27	50	44	35.44	cps
Gadolinium	160-1	147	107	120	124	16.37	cps
Gadolinium	160-2	20	10	37	22	60.63	cps
Holmium	165-1	16500054	16317220	16382126	16399800	0.57	cps
Holmium	165-2	5407619	5431133	5361680	5400144	0.65	cps
Indium	115-1	12318987	12213365	12357389	12296581	0.61	cps
Indium	115-2	1130682	1135461	1131453	1132532	0.23	cps
Iron	54-2	2991128	2988767	3015676	2998524	0.50	cps
Iron	56-2	53830108	54148241	53786674	53921674	0.37	cps
Iron	57-2	1303735	1299693	1302928	1302119	0.16	cps
Krypton	83-1	197	233	170	200	15.90	cps
Lead	206-1	28387245	27760412	28018145	28055268	1.12	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	23964725	23878478	24230396	24024533	0.76	cps
Lead	208-1	111286950	110646916	111804678	111246181	0.52	cps
Lithium	6-1	7911793	7819363	7725337	7818831	1.19	cps
Magnesium	24-2	10726218	10674119	10510174	10636837	1.06	cps
Manganese	55-2	6304874	6337230	6216306	6286137	1.00	cps
Molybdenum	94-1	24712217	24527121	24862600	24700646	0.68	cps
Molybdenum	95-1	35551764	35806460	36227949	35862058	0.95	cps
Molybdenum	96-1	38635508	38722279	39171715	38843167	0.74	cps
Molybdenum	97-1	21424670	21747840	22009042	21727184	1.35	cps
Molybdenum	98-1	56849787	56972451	57477396	57099878	0.58	cps
Neodymium	150-1	727	733	870	777	10.42	cps
Neodymium	150-2	30	33	37	33	10.01	cps
Nickel	60-2	699334	701029	698397	699587	0.19	cps
Phosphorus	31-2	25285	26611	25927	25941	2.56	cps
Potassium	39-2	2969450	3054491	2961756	2995232	1.72	cps
Rhodium	103-1	10885442	11021451	11119017	11008637	1.07	cps
Rhodium	103-2	4047016	4126321	4094449	4089262	0.98	cps
Scandium	45-1	9359833	9489878	9454708	9434806	0.71	cps
Scandium	45-2	157859	160579	159643	159360	0.87	cps
Selenium	82-1	107967	105914	107472	107118	1.00	cps
Selenium	77-2	1697	1660	1817	1725	4.75	cps
Selenium	78-2	5948	5811	5818	5859	1.32	cps
Silicon	28-1	21550216	21602286	21367389	21506630	0.57	cps
Silver	107-1	9081094	8969178	8905571	8985281	0.99	cps
Silver	109-1	8530638	8554601	8658737	8581325	0.79	cps
Sodium	23-2	21455236	21102191	20893339	21150255	1.34	cps
Strontium	86-1	2507498	2527344	2577799	2537547	1.43	cps
Strontium	88-1	21505075	21635838	21422321	21521078	0.50	cps
Sulfur	34-1	1091245	1101452	1084326	1092341	0.79	cps
Terbium	159-1	16604281	16611624	16760782	16658896	0.53	cps
Terbium	159-2	5206789	5252739	5177263	5212264	0.73	cps
Thallium	203-1	7179239	7177285	7175604	7177376	0.03	cps
Thallium	205-1	16988355	16890346	17042437	16973713	0.45	cps
Tin	118-1	6426981	6403469	6487250	6439233	0.67	cps
Titanium	47-1	11237277	11345969	11247636	11276961	0.53	cps
Uranium	238-1	21834884	22319368	22452711	22202321	1.46	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166406BS	Instrumnet Name :	P8
Client Sample ID :	LCS406	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:01:18	DataFile Name :	052LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1097751	1102420	1092283	1097485	0.46	cps
Ytterbium	172-1	160	137	173	157	11.85	cps
Ytterbium	172-2	53	63	53	57	10.19	cps
Ytterbium	176-1	33038	32573	33238	32950	1.04	cps
Ytterbium	176-2	10801	10995	10498	10764	2.33	cps
Yttrium	89-1	22787851	22787176	23186609	22920545	1.01	cps
Yttrium	89-2	1567206	1572288	1591636	1577043	0.82	cps
Zinc	66-2	2181384	2156425	2146921	2161576	0.82	cps
Zirconium	90-1	12389814	12367702	12306079	12354531	0.35	cps
Zirconium	91-1	2736643	2802823	2755256	2764908	1.23	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	67	113	73	84	29.89	cps
Antimony	121-1	1670	1383	1237	1430	15.41	cps
Arsenic	75-2	0	17	10	9	94.38	cps
Barium	135-1	1420	1220	1080	1240	13.78	cps
Barium	137-1	2547	2107	1847	2167	16.33	cps
Beryllium	9-1	965	875	792	877	9.83	cps
Bismuth	209-1	10274230	10162845	10264712	10233929	0.60	cps
Bismuth	209-2	3985327	3997568	3660700	3881198	4.92	cps
Bromine	81-1	6115	6305	6372	6264	2.13	cps
Cadmium	108-1	53	70	43	56	24.25	cps
Cadmium	106-1	6942	6882	6738	6854	1.52	cps
Cadmium	111-1	1561	1501	1437	1500	4.12	cps
Calcium	43-1	887	747	770	801	9.36	cps
Calcium	44-1	13957	12689	12562	13069	5.90	cps
Carbon	12-1	2727030	2707100	2696346	2710158	0.57	cps
Carbon	12-2	17137	17060	16880	17026	0.77	cps
Chlorine	35-1	85920	84196	84253	84790	1.15	cps
Chlorine	35-2	357	290	307	318	10.92	cps
Chromium	52-2	1927	1667	1863	1819	7.45	cps
Cobalt	59-2	203	287	233	241	17.50	cps
Copper	63-2	3200	3024	3047	3090	3.11	cps
Dysprosium	156-1	27	80	50	52	51.19	cps
Dysprosium	156-2	7	0	0	2	173.21	cps
Erbium	164-1	83	83	83	83	0.00	cps
Erbium	164-2	27	43	13	28	54.11	cps
Gadolinium	160-1	43	53	37	44	18.87	cps
Gadolinium	160-2	17	17	10	14	26.66	cps
Holmium	165-1	16390354	16471513	16512672	16458179	0.38	cps
Holmium	165-2	5511946	5605302	5003552	5373600	6.03	cps
Indium	115-1	12988367	12800177	12918482	12902342	0.74	cps
Indium	115-2	1202300	1204702	1076601	1161201	6.31	cps
Iron	54-2	593	603	633	610	3.41	cps
Iron	56-2	9290	8983	9093	9122	1.70	cps
Iron	57-2	213	203	230	216	6.25	cps
Krypton	83-1	207	220	140	189	22.69	cps
Lead	206-1	4694	4054	3577	4108	13.64	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4104	3184	2994	3427	17.33	cps
Lead	208-1	18879	15440	13813	16044	16.12	cps
Lithium	6-1	7780739	7731180	7816828	7776249	0.55	cps
Magnesium	24-2	567	563	460	530	11.44	cps
Manganese	55-2	593	527	593	571	6.74	cps
Molybdenum	94-1	2584	1950	1777	2104	20.19	cps
Molybdenum	95-1	3324	2740	2220	2761	19.99	cps
Molybdenum	96-1	4014	3060	2527	3200	23.54	cps
Molybdenum	97-1	2220	1610	1353	1728	25.77	cps
Molybdenum	98-1	5414	4127	3547	4363	21.90	cps
Neodymium	150-1	33	47	57	46	25.70	cps
Neodymium	150-2	0	10	0	3	173.21	cps
Nickel	60-2	1460	1503	1433	1466	2.41	cps
Phosphorus	31-2	23	30	27	27	12.51	cps
Potassium	39-2	6785	6401	6411	6533	3.35	cps
Rhodium	103-1	11960928	11842681	11888040	11897216	0.50	cps
Rhodium	103-2	4480718	4455444	3963633	4299932	6.78	cps
Scandium	45-1	9339230	9437992	9456799	9411340	0.67	cps
Scandium	45-2	162116	160565	144263	155648	6.35	cps
Selenium	82-1	-27	-50	30	-16	-264.46	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	0	7	7	4	86.60	cps
Silicon	28-1	414702	408199	401862	408255	1.57	cps
Silver	107-1	1527	1257	953	1246	23.03	cps
Silver	109-1	1360	817	920	1032	27.95	cps
Sodium	23-2	22908	22808	22441	22719	1.08	cps
Strontium	86-1	447	420	390	419	6.77	cps
Strontium	88-1	2080	1490	1310	1627	24.76	cps
Sulfur	34-1	388464	387671	392829	389655	0.71	cps
Terbium	159-1	16953222	16634181	16660963	16749455	1.06	cps
Terbium	159-2	5380498	5335533	4851910	5189313	5.65	cps
Thallium	203-1	1080	983	830	964	13.07	cps
Thallium	205-1	2544	2354	2064	2320	10.42	cps
Tin	118-1	1964	1489	1453	1635	17.46	cps
Titanium	47-1	920	603	513	679	31.46	cps
Uranium	238-1	1620	1107	873	1200	31.83	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BL	Instrumnet Name :	P8
Client Sample ID :	PBW407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:04:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	27	20	17	21	24.12	cps
Ytterbium	172-1	100	110	83	98	13.78	cps
Ytterbium	172-2	43	53	37	44	18.87	cps
Ytterbium	176-1	1910	1853	1923	1896	1.96	cps
Ytterbium	176-2	277	353	297	309	12.87	cps
Yttrium	89-1	23222101	23461208	23228927	23304079	0.58	cps
Yttrium	89-2	1642250	1613033	1453165	1569482	6.49	cps
Zinc	66-2	360	460	363	394	14.40	cps
Zirconium	90-1	1827	1277	1293	1466	21.35	cps
Zirconium	91-1	433	300	327	353	19.97	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	594924	591804	591765	592831	0.31	cps
Antimony	121-1	6964742	7007693	6956071	6976169	0.40	cps
Arsenic	75-2	122097	123764	124971	123611	1.17	cps
Barium	135-1	8873539	8925760	8834978	8878093	0.51	cps
Barium	137-1	14985594	15414101	15433515	15277737	1.66	cps
Beryllium	9-1	2505947	2538587	2524593	2523042	0.65	cps
Bismuth	209-1	9147425	9487286	9566539	9400417	2.37	cps
Bismuth	209-2	3765565	3781078	3746386	3764343	0.46	cps
Bromine	81-1	6221	6555	6512	6429	2.82	cps
Cadmium	108-1	138588	141052	140878	140173	0.98	cps
Cadmium	106-1	201756	202395	202747	202299	0.25	cps
Cadmium	111-1	1709732	1775049	1752157	1745646	1.90	cps
Calcium	43-1	2670105	2736300	2706506	2704304	1.23	cps
Calcium	44-1	42904313	44025624	43875544	43601827	1.40	cps
Carbon	12-1	3239485	3341927	3351120	3310844	1.87	cps
Carbon	12-2	22547	22300	22834	22561	1.18	cps
Chlorine	35-1	100975	103006	103563	102515	1.33	cps
Chlorine	35-2	330	500	443	424	20.39	cps
Chromium	52-2	1534230	1530766	1513374	1526123	0.73	cps
Cobalt	59-2	2788002	2847815	2804455	2813424	1.10	cps
Copper	63-2	20589323	20454366	20228866	20424185	0.89	cps
Dysprosium	156-1	243	227	257	242	6.21	cps
Dysprosium	156-2	20	20	13	18	21.66	cps
Erbium	164-1	163	190	203	186	10.98	cps
Erbium	164-2	60	67	67	64	5.98	cps
Gadolinium	160-1	123	133	157	138	12.41	cps
Gadolinium	160-2	30	43	20	31	37.62	cps
Holmium	165-1	15916876	16130510	16479392	16175593	1.76	cps
Holmium	165-2	5526502	5496763	5490612	5504625	0.35	cps
Indium	115-1	11820937	12138599	12244704	12068080	1.83	cps
Indium	115-2	1146978	1159860	1155337	1154058	0.57	cps
Iron	54-2	3119287	3091792	3070667	3093915	0.79	cps
Iron	56-2	55154363	56034524	55167463	55452116	0.91	cps
Iron	57-2	1408543	1419812	1324542	1384299	3.76	cps
Krypton	83-1	187	210	180	192	8.19	cps
Lead	206-1	28348647	28459385	28841804	28549945	0.91	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24682239	24574710	24601943	24619631	0.23	cps
Lead	208-1	113382390	113082065	114250854	113571770	0.53	cps
Lithium	6-1	7321030	7416924	7487746	7408567	1.13	cps
Magnesium	24-2	10794961	10754561	10818016	10789179	0.30	cps
Manganese	55-2	6430790	6467017	6417709	6438505	0.40	cps
Molybdenum	94-1	24914118	25460282	25457871	25277424	1.24	cps
Molybdenum	95-1	36319558	36394624	36531056	36415079	0.29	cps
Molybdenum	96-1	39454566	39471406	39977145	39634372	0.75	cps
Molybdenum	97-1	22485046	22330442	22524848	22446779	0.46	cps
Molybdenum	98-1	58018221	59033802	59187892	58746639	1.08	cps
Neodymium	150-1	780	823	743	782	5.12	cps
Neodymium	150-2	37	40	43	40	8.32	cps
Nickel	60-2	709936	712955	714821	712571	0.35	cps
Phosphorus	31-2	26070	26457	26862	26463	1.50	cps
Potassium	39-2	3063540	3058194	2995257	3038997	1.25	cps
Rhodium	103-1	10810834	10967524	11085215	10954524	1.26	cps
Rhodium	103-2	4175837	4258012	4208830	4214226	0.98	cps
Scandium	45-1	8980769	9243429	9433599	9219266	2.47	cps
Scandium	45-2	160421	161213	160448	160694	0.28	cps
Selenium	82-1	107795	108977	108595	108456	0.56	cps
Selenium	77-2	1893	1703	1830	1809	5.35	cps
Selenium	78-2	6038	6028	6185	6084	1.44	cps
Silicon	28-1	20724446	21126847	20990509	20947267	0.98	cps
Silver	107-1	9167512	9183378	9203593	9184828	0.20	cps
Silver	109-1	8686306	8632717	8734541	8684521	0.59	cps
Sodium	23-2	21509841	21302376	21437771	21416663	0.49	cps
Strontium	86-1	2582814	2647169	2555644	2595209	1.81	cps
Strontium	88-1	21880997	22050644	22045337	21992326	0.44	cps
Sulfur	34-1	1090910	1097802	1084456	1091056	0.61	cps
Terbium	159-1	16083879	16322991	16618297	16341722	1.64	cps
Terbium	159-2	5293762	5487178	5237429	5339456	2.45	cps
Thallium	203-1	7176796	7306112	7375500	7286136	1.38	cps
Thallium	205-1	17269872	17272615	17534717	17359068	0.88	cps
Tin	118-1	6627260	6517760	6682715	6609245	1.27	cps
Titanium	47-1	11394619	11542847	11598477	11511981	0.92	cps
Uranium	238-1	22302993	22558304	22832667	22564655	1.17	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166407BS	Instrumnet Name :	P8
Client Sample ID :	LCS407	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:07:27	DataFile Name :	054LCSW.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1115414	1111869	1114934	1114073	0.17	cps
Ytterbium	172-1	167	137	180	161	13.77	cps
Ytterbium	172-2	47	93	63	68	34.89	cps
Ytterbium	176-1	33406	33890	33900	33732	0.84	cps
Ytterbium	176-2	10875	11308	10951	11045	2.10	cps
Yttrium	89-1	22634202	22531310	23002830	22722780	1.09	cps
Yttrium	89-2	1623328	1641665	1590392	1618462	1.61	cps
Zinc	66-2	2206998	2204204	2224542	2211915	0.50	cps
Zirconium	90-1	12402566	12742988	12605703	12583752	1.36	cps
Zirconium	91-1	2844687	2819045	2844218	2835983	0.52	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2809638	2872008	2861947	2847864	1.18	cps
Antimony	121-1	6221163	6228946	6215618	6221909	0.11	cps
Arsenic	75-2	106790	108446	108823	108020	1.00	cps
Barium	135-1	8019269	8091210	7993437	8034639	0.63	cps
Barium	137-1	13754961	14064281	13566269	13795170	1.82	cps
Beryllium	9-1	2294035	2275946	2250546	2273509	0.96	cps
Bismuth	209-1	8158468	8465064	8620404	8414645	2.79	cps
Bismuth	209-2	3352493	3295626	3310823	3319647	0.89	cps
Bromine	81-1	6628	6638	6825	6697	1.65	cps
Cadmium	108-1	130615	132186	131062	131288	0.62	cps
Cadmium	106-1	188211	192553	190319	190361	1.14	cps
Cadmium	111-1	1632130	1664707	1626882	1641240	1.25	cps
Calcium	43-1	12413861	12276958	12209728	12300182	0.85	cps
Calcium	44-1	199938610	199067637	200253164	199753137	0.31	cps
Carbon	12-1	3337368	3383678	3481024	3400690	2.16	cps
Carbon	12-2	25859	26203	25933	25999	0.70	cps
Chlorine	35-1	93643	94711	93570	93974	0.68	cps
Chlorine	35-2	360	370	387	372	3.62	cps
Chromium	52-2	1269503	1268269	1272948	1270240	0.19	cps
Cobalt	59-2	2414341	2423855	2391776	2409991	0.68	cps
Copper	63-2	17155232	17162165	17137074	17151490	0.08	cps
Dysprosium	156-1	423	463	417	434	5.81	cps
Dysprosium	156-2	77	90	67	78	15.05	cps
Erbium	164-1	367	340	407	371	9.04	cps
Erbium	164-2	120	137	100	119	15.44	cps
Gadolinium	160-1	340	333	333	336	1.15	cps
Gadolinium	160-2	97	110	147	118	21.98	cps
Holmium	165-1	14634482	15268810	15265926	15056406	2.43	cps
Holmium	165-2	5287867	5155906	5139781	5194518	1.56	cps
Indium	115-1	10500808	11055190	11007456	10854485	2.83	cps
Indium	115-2	1067540	1047098	1059942	1058194	0.98	cps
Iron	54-2	13483468	13574560	13603751	13553926	0.46	cps
Iron	56-2	247029263	249211590	249414436	248551763	0.53	cps
Iron	57-2	6225461	6338366	6261170	6274999	0.92	cps
Krypton	83-1	187	267	230	228	17.58	cps
Lead	206-1	25237500	25662354	25038510	25312788	1.26	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	21620394	22028120	22130357	21926290	1.23	cps
Lead	208-1	100238947	101692943	101799488	101243793	0.86	cps
Lithium	6-1	6675262	6882700	6724049	6760670	1.60	cps
Magnesium	24-2	48475001	48606723	48766914	48616213	0.30	cps
Manganese	55-2	5688659	5755377	5710714	5718250	0.59	cps
Molybdenum	94-1	22907895	23012146	22963960	22961334	0.23	cps
Molybdenum	95-1	33189168	33612313	33054915	33285465	0.87	cps
Molybdenum	96-1	36267654	36336596	36409336	36337862	0.19	cps
Molybdenum	97-1	20295985	20231904	20554278	20360722	0.84	cps
Molybdenum	98-1	53587734	53503741	53472106	53521194	0.11	cps
Neodymium	150-1	850	993	927	923	7.77	cps
Neodymium	150-2	53	43	37	44	18.87	cps
Nickel	60-2	605734	604347	603878	604653	0.16	cps
Phosphorus	31-2	24164	23940	23890	23998	0.61	cps
Potassium	39-2	13903788	13912131	13602527	13806149	1.28	cps
Rhodium	103-1	9248439	9623810	9759766	9544005	2.77	cps
Rhodium	103-2	3748803	3653378	3660292	3687491	1.44	cps
Scandium	45-1	8131810	8570254	8565763	8422609	2.99	cps
Scandium	45-2	153271	149612	149909	150931	1.35	cps
Selenium	82-1	95819	93568	94661	94683	1.19	cps
Selenium	77-2	1567	1487	1463	1506	3.60	cps
Selenium	78-2	5208	5088	5304	5200	2.09	cps
Silicon	28-1	18769918	18540318	18810305	18706847	0.78	cps
Silver	107-1	7809990	7840752	7774951	7808564	0.42	cps
Silver	109-1	7367182	7451944	7367947	7395691	0.66	cps
Sodium	23-2	97404139	97650229	97822789	97625719	0.22	cps
Strontium	86-1	2376646	2364423	2397572	2379547	0.70	cps
Strontium	88-1	19894767	19944163	20326059	20054997	1.18	cps
Sulfur	34-1	1010928	1010106	1010268	1010434	0.04	cps
Terbium	159-1	14780807	15660449	15787105	15409454	3.56	cps
Terbium	159-2	4982916	4906363	4984869	4958049	0.90	cps
Thallium	203-1	6458249	6610297	6448300	6505615	1.40	cps
Thallium	205-1	15368430	15504763	15281121	15384771	0.73	cps
Tin	118-1	5894275	5851631	5842508	5862805	0.47	cps
Titanium	47-1	10516914	10485490	10356347	10452917	0.81	cps
Uranium	238-1	21100961	20871426	21263328	21078571	0.93	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P8
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:10:51	DataFile Name :	055CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1010908	1010801	1011327	1011012	0.03	cps
Ytterbium	172-1	477	447	403	442	8.34	cps
Ytterbium	172-2	167	140	187	164	14.24	cps
Ytterbium	176-1	31190	32052	31424	31555	1.41	cps
Ytterbium	176-2	9704	10341	9934	9993	3.23	cps
Yttrium	89-1	20245931	21116422	21613995	20992116	3.30	cps
Yttrium	89-2	1550964	1486581	1558598	1532047	2.58	cps
Zinc	66-2	1872152	1830834	1852010	1851665	1.12	cps
Zirconium	90-1	11526272	11722816	11598734	11615941	0.86	cps
Zirconium	91-1	2636807	2624705	2558977	2606830	1.61	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	143	140	167	150	9.69	cps
Antimony	121-1	1867	1777	1417	1687	14.12	cps
Arsenic	75-2	13	17	17	16	12.40	cps
Barium	135-1	1623	1410	1273	1436	12.29	cps
Barium	137-1	2650	2604	2127	2460	11.77	cps
Beryllium	9-1	1279	1061	1139	1159	9.51	cps
Bismuth	209-1	9898896	10017570	9960207	9958891	0.60	cps
Bismuth	209-2	4021675	4012884	4528238	4187599	7.05	cps
Bromine	81-1	6505	6318	6198	6340	2.44	cps
Cadmium	108-1	53	73	43	57	26.96	cps
Cadmium	106-1	6725	7439	6802	6989	5.61	cps
Cadmium	111-1	1531	1586	1463	1527	4.04	cps
Calcium	43-1	1203	1023	1030	1086	9.40	cps
Calcium	44-1	19881	17174	15245	17433	13.36	cps
Carbon	12-1	2716540	2632765	2608284	2652530	2.14	cps
Carbon	12-2	16466	16059	16456	16327	1.42	cps
Chlorine	35-1	76099	75991	75777	75955	0.22	cps
Chlorine	35-2	273	333	273	293	11.81	cps
Chromium	52-2	1783	1753	1770	1769	0.85	cps
Cobalt	59-2	273	313	293	293	6.82	cps
Copper	63-2	3424	3530	3561	3505	2.05	cps
Dysprosium	156-1	57	33	67	52	32.76	cps
Dysprosium	156-2	0	7	0	2	173.21	cps
Erbium	164-1	70	93	73	79	16.00	cps
Erbium	164-2	33	30	17	27	33.06	cps
Gadolinium	160-1	30	67	37	44	43.95	cps
Gadolinium	160-2	7	13	27	16	65.47	cps
Holmium	165-1	15914121	16396561	15989551	16100078	1.61	cps
Holmium	165-2	5515659	5609975	6356468	5827368	7.90	cps
Indium	115-1	12292043	12922274	12741331	12651883	2.56	cps
Indium	115-2	1195653	1205350	1442198	1281067	10.90	cps
Iron	54-2	947	917	880	914	3.65	cps
Iron	56-2	15038	15325	15852	15405	2.68	cps
Iron	57-2	413	397	417	409	2.62	cps
Krypton	83-1	157	183	160	167	8.72	cps
Lead	206-1	4854	4421	3654	4310	14.11	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4357	4037	3420	3938	12.09	cps
Lead	208-1	19980	18215	15794	17996	11.68	cps
Lithium	6-1	7593166	7759965	7807229	7720120	1.46	cps
Magnesium	24-2	1653	1557	1740	1650	5.56	cps
Manganese	55-2	570	623	590	594	4.53	cps
Molybdenum	94-1	2427	1787	1583	1932	22.78	cps
Molybdenum	95-1	2937	2487	2044	2489	17.95	cps
Molybdenum	96-1	3534	2770	2094	2799	25.74	cps
Molybdenum	97-1	1863	1460	1253	1526	20.34	cps
Molybdenum	98-1	4791	4044	3360	4065	17.60	cps
Neodymium	150-1	43	33	27	34	24.35	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	1437	1523	1617	1526	5.90	cps
Phosphorus	31-2	23	43	13	27	57.29	cps
Potassium	39-2	7485	7465	7529	7493	0.43	cps
Rhodium	103-1	11395153	11831784	11626416	11617784	1.88	cps
Rhodium	103-2	4506045	4404108	5046269	4652141	7.42	cps
Scandium	45-1	8969934	9322135	9402162	9231410	2.49	cps
Scandium	45-2	158627	157742	183027	166465	8.62	cps
Selenium	82-1	43	-10	-33	0	0.00	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	0	3	2	86.60	cps
Silicon	28-1	404518	403607	396790	401638	1.05	cps
Silver	107-1	1560	1227	1007	1265	22.03	cps
Silver	109-1	1223	1077	863	1054	17.17	cps
Sodium	23-2	30134	29617	28865	29539	2.16	cps
Strontium	86-1	453	403	340	399	14.24	cps
Strontium	88-1	1583	1060	877	1173	31.26	cps
Sulfur	34-1	381890	384118	383653	383220	0.31	cps
Terbium	159-1	16261378	16301686	16462304	16341789	0.65	cps
Terbium	159-2	5348198	5309164	6062227	5573196	7.61	cps
Thallium	203-1	1213	1120	1000	1111	9.63	cps
Thallium	205-1	2874	2614	2320	2603	10.64	cps
Tin	118-1	6676	6009	4421	5702	20.31	cps
Titanium	47-1	743	543	440	576	26.79	cps
Uranium	238-1	1370	987	633	997	36.97	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB003	Instrumnet Name :	P8
Client Sample ID :	CCB003	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:13:37	DataFile Name :	056CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	37	43	32	43.06	cps
Ytterbium	172-1	83	77	107	89	17.72	cps
Ytterbium	172-2	30	27	30	29	6.65	cps
Ytterbium	176-1	2017	2094	1933	2015	3.97	cps
Ytterbium	176-2	247	283	350	293	17.86	cps
Yttrium	89-1	22393007	23000099	23014606	22802571	1.56	cps
Yttrium	89-2	1617774	1627514	1870992	1705426	8.41	cps
Zinc	66-2	500	493	523	506	3.12	cps
Zirconium	90-1	1697	1437	1313	1482	13.20	cps
Zirconium	91-1	423	377	300	367	16.98	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	113	87	73	91	22.35	cps
Antimony	121-1	307	300	347	318	7.94	cps
Arsenic	75-2	3	3	10	6	69.34	cps
Barium	135-1	403	523	400	442	15.89	cps
Barium	137-1	753	637	777	722	10.39	cps
Beryllium	9-1	511	521	499	510	2.21	cps
Bismuth	209-1	9790423	10101202	9823004	9904876	1.72	cps
Bismuth	209-2	3868813	3772740	3743370	3794974	1.73	cps
Bromine	81-1	5968	6008	5955	5977	0.46	cps
Cadmium	108-1	57	20	50	42	46.26	cps
Cadmium	106-1	6748	6958	6468	6725	3.66	cps
Cadmium	111-1	1360	1418	1292	1357	4.64	cps
Calcium	43-1	623	607	607	612	1.57	cps
Calcium	44-1	10481	10147	10287	10305	1.63	cps
Carbon	12-1	2737478	2693496	2723073	2718016	0.82	cps
Carbon	12-2	17270	17354	17567	17397	0.88	cps
Chlorine	35-1	67329	67888	67205	67474	0.54	cps
Chlorine	35-2	217	190	253	220	14.45	cps
Chromium	52-2	1743	1643	1663	1683	3.14	cps
Cobalt	59-2	177	210	177	188	10.25	cps
Copper	63-2	2427	2477	2524	2476	1.95	cps
Dysprosium	156-1	37	53	57	49	21.91	cps
Dysprosium	156-2	0	0	3	1	173.21	cps
Erbium	164-1	63	83	67	71	15.07	cps
Erbium	164-2	30	30	27	29	6.65	cps
Gadolinium	160-1	40	63	37	47	31.13	cps
Gadolinium	160-2	10	27	10	16	61.87	cps
Holmium	165-1	15771454	16079746	15856745	15902648	1.00	cps
Holmium	165-2	5307059	5266477	5253085	5275541	0.53	cps
Indium	115-1	12095830	12539886	12249271	12294996	1.83	cps
Indium	115-2	1135718	1130315	1128886	1131640	0.32	cps
Iron	54-2	510	610	577	566	9.00	cps
Iron	56-2	8523	8306	8359	8396	1.35	cps
Iron	57-2	203	193	247	214	13.22	cps
Krypton	83-1	110	153	150	138	17.50	cps
Lead	206-1	1967	1783	1903	1885	4.94	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1703	1627	1710	1680	2.76	cps
Lead	208-1	7838	7338	7514	7563	3.35	cps
Lithium	6-1	7720757	7917625	7680212	7772865	1.63	cps
Magnesium	24-2	453	453	387	431	8.93	cps
Manganese	55-2	350	373	443	389	12.49	cps
Molybdenum	94-1	600	577	570	582	2.71	cps
Molybdenum	95-1	617	570	560	582	5.20	cps
Molybdenum	96-1	747	747	587	693	13.32	cps
Molybdenum	97-1	303	287	297	296	2.84	cps
Molybdenum	98-1	910	877	940	909	3.49	cps
Neodymium	150-1	23	20	23	22	8.65	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	1403	1467	1363	1411	3.69	cps
Phosphorus	31-2	33	37	53	41	26.06	cps
Potassium	39-2	6425	6522	6278	6408	1.91	cps
Rhodium	103-1	11291122	11515016	11388757	11398298	0.98	cps
Rhodium	103-2	4209127	4232283	4161764	4201058	0.86	cps
Scandium	45-1	9081960	9340465	9115096	9179173	1.53	cps
Scandium	45-2	152759	151937	151748	152148	0.35	cps
Selenium	82-1	37	7	33	26	64.36	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	10	3	3	6	69.34	cps
Silicon	28-1	372052	370721	367996	370257	0.56	cps
Silver	107-1	197	183	213	198	7.60	cps
Silver	109-1	90	130	133	118	20.48	cps
Sodium	23-2	21876	21566	21332	21592	1.26	cps
Strontium	86-1	323	300	267	297	9.60	cps
Strontium	88-1	490	463	577	510	11.62	cps
Sulfur	34-1	392761	388851	386249	389287	0.84	cps
Terbium	159-1	16062338	16373219	16125130	16186896	1.02	cps
Terbium	159-2	5081458	5047991	4981529	5036993	1.01	cps
Thallium	203-1	470	503	480	484	3.53	cps
Thallium	205-1	1227	1190	1013	1143	9.98	cps
Tin	118-1	995	1039	1066	1033	3.46	cps
Titanium	47-1	140	157	120	139	13.22	cps
Uranium	238-1	37	40	47	41	12.39	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BL	Instrumnet Name :	P8
Client Sample ID :	PBW137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:27:08	DataFile Name :	057CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	7	3	3	4	43.40	cps
Ytterbium	172-1	73	103	77	84	19.47	cps
Ytterbium	172-2	33	20	20	24	31.49	cps
Ytterbium	176-1	1770	1813	1997	1860	6.47	cps
Ytterbium	176-2	233	263	287	261	10.24	cps
Yttrium	89-1	22124675	22703444	22328041	22385387	1.31	cps
Yttrium	89-2	1522880	1539198	1501465	1521181	1.24	cps
Zinc	66-2	337	400	367	368	8.62	cps
Zirconium	90-1	687	850	767	768	10.64	cps
Zirconium	91-1	120	203	190	171	26.16	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2304	2164	2337	2268	4.06	cps
Antimony	121-1	48659	47797	48881	48446	1.18	cps
Arsenic	75-2	427	500	440	456	8.57	cps
Barium	135-1	60595	61643	61947	61395	1.16	cps
Barium	137-1	107160	107909	109552	108207	1.13	cps
Beryllium	9-1	9950	10032	9897	9960	0.68	cps
Bismuth	209-1	9659162	9751647	9723737	9711515	0.49	cps
Bismuth	209-2	3796177	3824127	3883005	3834436	1.16	cps
Bromine	81-1	5845	5735	5955	5845	1.88	cps
Cadmium	108-1	607	560	563	577	4.51	cps
Cadmium	106-1	7315	7405	7399	7373	0.68	cps
Cadmium	111-1	7243	7367	7390	7334	1.08	cps
Calcium	43-1	48027	48073	48608	48236	0.67	cps
Calcium	44-1	770770	779837	778478	776362	0.63	cps
Carbon	12-1	2957310	2995221	2941915	2964816	0.93	cps
Carbon	12-2	18695	19433	18799	18976	2.10	cps
Chlorine	35-1	1103501	1254092	1361711	1239768	10.46	cps
Chlorine	35-2	5151	5221	5348	5240	1.90	cps
Chromium	52-2	11485	11902	11792	11726	1.84	cps
Cobalt	59-2	10010	9810	9833	9885	1.11	cps
Copper	63-2	18699	19170	19330	19066	1.72	cps
Dysprosium	156-1	60	33	50	48	28.20	cps
Dysprosium	156-2	0	0	0	0	0.00	cps
Erbium	164-1	70	93	80	81	14.43	cps
Erbium	164-2	27	27	23	26	7.55	cps
Gadolinium	160-1	43	43	57	48	16.12	cps
Gadolinium	160-2	30	7	13	17	72.11	cps
Holmium	165-1	15350925	15873311	15555909	15593382	1.69	cps
Holmium	165-2	5203655	5262450	5399861	5288656	1.90	cps
Indium	115-1	12209323	12114334	12408786	12244148	1.23	cps
Indium	115-2	1149804	1143980	1162643	1152142	0.83	cps
Iron	54-2	45693	44081	44121	44632	2.06	cps
Iron	56-2	812878	815319	809116	812437	0.38	cps
Iron	57-2	20465	20091	20288	20281	0.92	cps
Krypton	83-1	147	133	160	147	9.09	cps
Lead	206-1	22273	22887	22707	22622	1.40	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	20012	19952	20279	20081	0.87	cps
Lead	208-1	89607	91574	92216	91132	1.49	cps
Lithium	6-1	7516511	7734237	7707589	7652779	1.55	cps
Magnesium	24-2	183894	186236	184802	184977	0.64	cps
Manganese	55-2	2690	2534	2690	2638	3.43	cps
Molybdenum	94-1	51705	52512	52324	52181	0.81	cps
Molybdenum	95-1	62570	63407	62834	62937	0.68	cps
Molybdenum	96-1	69469	69838	68785	69364	0.77	cps
Molybdenum	97-1	38480	39312	38918	38903	1.07	cps
Molybdenum	98-1	101545	100823	101508	101292	0.40	cps
Neodymium	150-1	37	40	30	36	14.32	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	4191	4254	4181	4208	0.95	cps
Phosphorus	31-2	130	193	163	162	19.53	cps
Potassium	39-2	112887	112796	112789	112824	0.05	cps
Rhodium	103-1	11080800	11361264	11400888	11280984	1.55	cps
Rhodium	103-2	4264523	4194845	4259658	4239675	0.92	cps
Scandium	45-1	8890372	9138043	9051280	9026565	1.39	cps
Scandium	45-2	153048	153344	155969	154121	1.04	cps
Selenium	82-1	1960	1857	1980	1932	3.43	cps
Selenium	77-2	23	17	23	21	18.21	cps
Selenium	78-2	123	123	107	118	8.17	cps
Silicon	28-1	626512	632648	629959	629706	0.49	cps
Silver	107-1	30814	31529	31994	31446	1.89	cps
Silver	109-1	29562	30096	30524	30061	1.60	cps
Sodium	23-2	397483	395358	397439	396760	0.31	cps
Strontium	86-1	8726	9026	8766	8840	1.84	cps
Strontium	88-1	73800	72812	72755	73122	0.80	cps
Sulfur	34-1	396484	394569	395886	395646	0.25	cps
Terbium	159-1	15755173	15991929	16164115	15970406	1.29	cps
Terbium	159-2	5060107	5117006	5181369	5119494	1.19	cps
Thallium	203-1	25859	26541	26510	26303	1.46	cps
Thallium	205-1	61987	63307	63571	62955	1.35	cps
Tin	118-1	103698	105395	105434	104842	0.95	cps
Titanium	47-1	21750	22100	23242	22364	3.49	cps
Uranium	238-1	79940	79591	80932	80155	0.87	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	PB166137BS	Instrumnet Name :	P8
Client Sample ID :	LCS137	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:30:30	DataFile Name :	058LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	20111	19941	19964	20005	0.46	cps
Ytterbium	172-1	90	100	90	93	6.19	cps
Ytterbium	172-2	33	43	40	39	13.09	cps
Ytterbium	176-1	2130	2094	2134	2119	1.05	cps
Ytterbium	176-2	257	297	347	300	15.03	cps
Yttrium	89-1	22046205	22264014	22199063	22169761	0.50	cps
Yttrium	89-2	1551207	1545325	1542305	1546279	0.29	cps
Zinc	66-2	4417	4214	4447	4360	2.91	cps
Zirconium	90-1	44327	43895	44206	44143	0.50	cps
Zirconium	91-1	9603	9597	9830	9677	1.37	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	240	280	220	247	12.39	cps
Antimony	121-1	890	923	890	901	2.14	cps
Arsenic	75-2	10	20	3	11	75.52	cps
Barium	135-1	387	440	443	423	7.51	cps
Barium	137-1	830	863	837	843	2.09	cps
Beryllium	9-1	454	461	459	458	0.83	cps
Bismuth	209-1	9747835	9727255	9775315	9750135	0.25	cps
Bismuth	209-2	3828523	3844962	3787760	3820415	0.77	cps
Bromine	81-1	6572	7222	7322	7039	5.79	cps
Cadmium	108-1	37	50	63	50	26.66	cps
Cadmium	106-1	6605	6605	6578	6596	0.23	cps
Cadmium	111-1	1399	1359	1335	1364	2.37	cps
Calcium	43-1	873	1067	1097	1012	11.98	cps
Calcium	44-1	17487	17701	17598	17595	0.61	cps
Carbon	12-1	4653209	5617183	6243073	5504488	14.55	cps
Carbon	12-2	44868	45754	46901	45841	2.22	cps
Chlorine	35-1	184807	172441	163191	173480	6.25	cps
Chlorine	35-2	527	510	620	552	10.74	cps
Chromium	52-2	610	657	633	633	3.68	cps
Cobalt	59-2	253	260	263	259	1.97	cps
Copper	63-2	2550	2637	2694	2627	2.75	cps
Dysprosium	156-1	47	70	40	52	30.16	cps
Dysprosium	156-2	7	3	3	4	43.40	cps
Erbium	164-1	73	93	77	81	13.21	cps
Erbium	164-2	30	13	30	24	39.37	cps
Gadolinium	160-1	70	50	47	56	22.71	cps
Gadolinium	160-2	13	10	10	11	17.30	cps
Holmium	165-1	15859078	15525825	15547516	15644139	1.19	cps
Holmium	165-2	5258553	5308925	5365134	5310871	1.00	cps
Indium	115-1	12243042	12330228	12361759	12311676	0.50	cps
Indium	115-2	1139903	1141074	1143455	1141477	0.16	cps
Iron	54-2	1250	1400	1397	1349	6.35	cps
Iron	56-2	21807	22100	22181	22029	0.89	cps
Iron	57-2	617	523	567	569	8.21	cps
Krypton	83-1	147	137	123	136	8.63	cps
Lead	206-1	2334	2220	2274	2276	2.49	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2010	2140	2010	2054	3.66	cps
Lead	208-1	9128	9158	9058	9115	0.56	cps
Lithium	6-1	7708174	7644352	7706358	7686295	0.47	cps
Magnesium	24-2	650	663	677	663	2.01	cps
Manganese	55-2	6225	6108	6538	6290	3.54	cps
Molybdenum	94-1	473	480	470	474	1.07	cps
Molybdenum	95-1	337	330	293	320	7.29	cps
Molybdenum	96-1	470	437	423	443	5.42	cps
Molybdenum	97-1	210	203	167	193	12.07	cps
Molybdenum	98-1	483	497	507	496	2.36	cps
Neodymium	150-1	40	20	43	34	36.64	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	1513	1423	1337	1425	6.20	cps
Phosphorus	31-2	33	37	47	39	17.85	cps
Potassium	39-2	6241	6388	6395	6341	1.37	cps
Rhodium	103-1	11198109	11190810	11172458	11187126	0.12	cps
Rhodium	103-2	4163427	4223217	4203211	4196618	0.73	cps
Scandium	45-1	9131320	9034087	9004839	9056749	0.73	cps
Scandium	45-2	151535	155227	152926	153230	1.22	cps
Selenium	82-1	-3	20	-7	3	435.90	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	7	3	4	43.40	cps
Silicon	28-1	1779202	1621034	1635027	1678421	5.22	cps
Silver	107-1	377	333	370	360	6.48	cps
Silver	109-1	237	250	190	226	13.97	cps
Sodium	23-2	32486	32810	33542	32946	1.64	cps
Strontium	86-1	370	397	393	387	3.76	cps
Strontium	88-1	1290	1337	1370	1332	3.02	cps
Sulfur	34-1	398709	399639	394969	397772	0.62	cps
Terbium	159-1	15818383	16011530	15804004	15877972	0.73	cps
Terbium	159-2	5110017	5127317	5114123	5117153	0.18	cps
Thallium	203-1	470	430	490	463	6.59	cps
Thallium	205-1	1213	1157	940	1103	13.08	cps
Tin	118-1	1931	1861	1995	1929	3.45	cps
Titanium	47-1	283	230	247	253	10.77	cps
Uranium	238-1	53	47	70	57	21.21	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:33:55	DataFile Name :	059AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	20	23	20	16.65	cps
Ytterbium	172-1	60	93	117	90	31.65	cps
Ytterbium	172-2	47	17	30	31	48.31	cps
Ytterbium	176-1	1900	1853	1903	1886	1.48	cps
Ytterbium	176-2	257	280	290	276	6.21	cps
Yttrium	89-1	22237073	22188801	22037259	22154378	0.47	cps
Yttrium	89-2	1546076	1549701	1516589	1537455	1.18	cps
Zinc	66-2	420	497	520	479	10.93	cps
Zirconium	90-1	733	913	873	840	11.25	cps
Zirconium	91-1	180	193	143	172	15.03	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	100212	100608	99809	100210	0.40	cps
Antimony	121-1	24532	24659	24449	24547	0.43	cps
Arsenic	75-2	3110	2957	2837	2968	4.62	cps
Barium	135-1	25748	26272	25851	25957	1.07	cps
Barium	137-1	45473	44306	45202	44994	1.36	cps
Beryllium	9-1	589	575	610	591	2.98	cps
Bismuth	209-1	7851910	7988703	7944493	7928369	0.88	cps
Bismuth	209-2	3063978	3038629	3018838	3040482	0.74	cps
Bromine	81-1	2333842	2731588	2921971	2662467	11.27	cps
Cadmium	108-1	167	150	133	150	11.11	cps
Cadmium	106-1	6555	6245	6261	6354	2.75	cps
Cadmium	111-1	1508	1424	1469	1467	2.86	cps
Calcium	43-1	1681740	1692720	1708766	1694409	0.80	cps
Calcium	44-1	27100998	27278682	27395929	27258536	0.54	cps
Carbon	12-1	8896511	9713253	10140545	9583437	6.60	cps
Carbon	12-2	68542	69235	68030	68602	0.88	cps
Chlorine	35-1	85257215	89644609	91792882	88898235	3.75	cps
Chlorine	35-2	351410	359924	352666	354667	1.30	cps
Chromium	52-2	7836	7495	7402	7578	3.01	cps
Cobalt	59-2	3147	3287	3404	3279	3.92	cps
Copper	63-2	351899	352094	352697	352230	0.12	cps
Dysprosium	156-1	3764	3641	3711	3705	1.67	cps
Dysprosium	156-2	1183	1283	1230	1232	4.06	cps
Erbium	164-1	3667	3567	3674	3636	1.64	cps
Erbium	164-2	1167	1200	1353	1240	8.03	cps
Gadolinium	160-1	3767	3831	3994	3864	3.03	cps
Gadolinium	160-2	1373	1593	1580	1516	8.14	cps
Holmium	165-1	14288869	14331534	14264773	14295059	0.24	cps
Holmium	165-2	4755442	4807735	4724686	4762621	0.88	cps
Indium	115-1	10408708	10516264	10498883	10474618	0.55	cps
Indium	115-2	986855	981916	977048	981939	0.50	cps
Iron	54-2	143000	141115	140011	141375	1.07	cps
Iron	56-2	2756706	2756595	2735246	2749516	0.45	cps
Iron	57-2	65466	66213	65623	65767	0.60	cps
Krypton	83-1	163	167	173	168	3.03	cps
Lead	206-1	33667	33587	34061	33772	0.75	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	27863	28668	28037	28190	1.50	cps
Lead	208-1	131635	132585	132676	132299	0.44	cps
Lithium	6-1	6357897	6513595	6591846	6487780	1.84	cps
Magnesium	24-2	15744106	15821936	15616037	15727359	0.66	cps
Manganese	55-2	56699	55725	54560	55661	1.92	cps
Molybdenum	94-1	30821	31663	31413	31299	1.38	cps
Molybdenum	95-1	29097	29177	29384	29220	0.51	cps
Molybdenum	96-1	33200	33073	32999	33090	0.31	cps
Molybdenum	97-1	17501	17865	17848	17738	1.16	cps
Molybdenum	98-1	46929	45835	46030	46265	1.26	cps
Neodymium	150-1	5505	5161	5174	5280	3.69	cps
Neodymium	150-2	1407	1263	1177	1282	9.06	cps
Nickel	60-2	5775	6015	5775	5855	2.37	cps
Phosphorus	31-2	477	467	533	492	7.30	cps
Potassium	39-2	4086497	4115574	4016787	4072953	1.25	cps
Rhodium	103-1	9250612	9027534	9027221	9101789	1.42	cps
Rhodium	103-2	3414570	3433543	3388595	3412236	0.66	cps
Scandium	45-1	8294009	8099993	8141774	8178592	1.25	cps
Scandium	45-2	137156	139795	135882	137611	1.45	cps
Selenium	82-1	1187	1447	1343	1326	9.88	cps
Selenium	77-2	7	20	7	11	69.25	cps
Selenium	78-2	20	23	13	19	26.96	cps
Silicon	28-1	145054728	146933038	145476785	145821517	0.68	cps
Silver	107-1	1820	1587	1667	1691	7.01	cps
Silver	109-1	1660	1387	1373	1473	10.98	cps
Sodium	23-2	327742062	326153975	326516362	326804133	0.25	cps
Strontium	86-1	2293002	2256871	2269742	2273205	0.81	cps
Strontium	88-1	19027728	19188013	19147445	19121062	0.44	cps
Sulfur	34-1	5366228	5444459	5383283	5397990	0.76	cps
Terbium	159-1	14772919	14534061	14334023	14547001	1.51	cps
Terbium	159-2	4595864	4613583	4579824	4596424	0.37	cps
Thallium	203-1	3204	3117	2994	3105	3.40	cps
Thallium	205-1	7426	7309	7416	7383	0.88	cps
Tin	118-1	4268	3977	4236	4161	3.84	cps
Titanium	47-1	159899	157206	157239	158115	0.98	cps
Uranium	238-1	18814	18984	18831	18876	0.50	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02	Instrumnet Name :	P8
Client Sample ID :	MJNLB5	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:37:15	DataFile Name :	060AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	32430	32661	31992	32361	1.05	cps
Ytterbium	172-1	1330	1320	1380	1343	2.39	cps
Ytterbium	172-2	493	597	553	548	9.47	cps
Ytterbium	176-1	2754	2677	2704	2711	1.44	cps
Ytterbium	176-2	533	633	623	597	9.23	cps
Yttrium	89-1	20153351	19763557	19908159	19941689	0.99	cps
Yttrium	89-2	1315880	1313104	1303288	1310757	0.50	cps
Zinc	66-2	3410	3500	3657	3523	3.54	cps
Zirconium	90-1	40763	40360	40375	40499	0.56	cps
Zirconium	91-1	8966	9000	8763	8910	1.44	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	100179	99735	100877	100264	0.57	cps
Antimony	121-1	23704	23477	24439	23873	2.11	cps
Arsenic	75-2	2840	2830	2804	2825	0.67	cps
Barium	135-1	25821	25708	24990	25506	1.77	cps
Barium	137-1	44356	44513	44490	44453	0.19	cps
Beryllium	9-1	617	647	726	664	8.46	cps
Bismuth	209-1	7870791	7721450	7787941	7793394	0.96	cps
Bismuth	209-2	3096028	3077342	3070167	3081179	0.43	cps
Bromine	81-1	2588251	2918312	3088716	2865093	8.88	cps
Cadmium	108-1	123	113	123	120	4.81	cps
Cadmium	106-1	6188	6302	6211	6234	0.96	cps
Cadmium	111-1	1398	1471	1406	1425	2.81	cps
Calcium	43-1	1684973	1667109	1667317	1673133	0.61	cps
Calcium	44-1	26531690	26654351	26754166	26646736	0.42	cps
Carbon	12-1	8897965	9677035	10174327	9583109	6.71	cps
Carbon	12-2	68495	69252	69470	69072	0.74	cps
Chlorine	35-1	87541595	92445172	93990419	91325729	3.69	cps
Chlorine	35-2	361431	366589	366661	364894	0.82	cps
Chromium	52-2	7442	7722	7182	7449	3.63	cps
Cobalt	59-2	3017	2964	3434	3138	8.20	cps
Copper	63-2	351719	350770	348380	350290	0.49	cps
Dysprosium	156-1	3791	3667	3771	3743	1.77	cps
Dysprosium	156-2	1290	1267	1157	1238	5.75	cps
Erbium	164-1	3414	3744	3734	3631	5.17	cps
Erbium	164-2	1233	1257	1063	1185	8.91	cps
Gadolinium	160-1	3811	3807	3927	3848	1.78	cps
Gadolinium	160-2	1380	1463	1540	1461	5.48	cps
Holmium	165-1	14047759	14130811	14061773	14080114	0.32	cps
Holmium	165-2	4819815	4812667	4738429	4790304	0.94	cps
Indium	115-1	10060583	10488459	10132208	10227083	2.24	cps
Indium	115-2	981908	981596	978890	980798	0.17	cps
Iron	54-2	139970	141870	140563	140801	0.69	cps
Iron	56-2	2746191	2682781	2706775	2711916	1.18	cps
Iron	57-2	66474	65459	65798	65910	0.78	cps
Krypton	83-1	200	227	177	201	12.44	cps
Lead	206-1	31842	31769	32557	32056	1.36	cps

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	27209	27533	27636	27459	0.81	cps
Lead	208-1	126090	126756	127440	126762	0.53	cps
Lithium	6-1	6423607	6406799	6368549	6399652	0.44	cps
Magnesium	24-2	15754403	15712155	15660871	15709143	0.30	cps
Manganese	55-2	27680	27690	27406	27592	0.58	cps
Molybdenum	94-1	30921	30453	30978	30784	0.94	cps
Molybdenum	95-1	29141	29257	29715	29371	1.03	cps
Molybdenum	96-1	33003	32662	33129	32931	0.73	cps
Molybdenum	97-1	17615	17591	17955	17720	1.15	cps
Molybdenum	98-1	45484	45447	45501	45478	0.06	cps
Neodymium	150-1	5298	5091	5114	5168	2.19	cps
Neodymium	150-2	1310	1273	1193	1259	4.74	cps
Nickel	60-2	5968	5925	5581	5825	3.64	cps
Phosphorus	31-2	470	500	540	503	6.98	cps
Potassium	39-2	4059048	4074725	4067622	4067132	0.19	cps
Rhodium	103-1	8907063	9002126	8990343	8966510	0.58	cps
Rhodium	103-2	3409774	3358298	3383415	3383829	0.76	cps
Scandium	45-1	8006746	8041202	8047798	8031915	0.27	cps
Scandium	45-2	135178	136396	135878	135818	0.45	cps
Selenium	82-1	1147	1507	1540	1398	15.60	cps
Selenium	77-2	13	10	10	11	17.30	cps
Selenium	78-2	23	33	33	30	19.25	cps
Silicon	28-1	141340801	143383915	142770855	142498523	0.74	cps
Silver	107-1	1103	1197	1197	1166	4.62	cps
Silver	109-1	943	1087	1000	1010	7.15	cps
Sodium	23-2	324128562	328140115	318312742	323527140	1.53	cps
Strontium	86-1	2287014	2277581	2213885	2259493	1.76	cps
Strontium	88-1	18987428	18973026	18790330	18916928	0.58	cps
Sulfur	34-1	5309395	5331580	5263329	5301435	0.66	cps
Terbium	159-1	14293153	14236888	14264394	14264812	0.20	cps
Terbium	159-2	4502121	4523873	4551903	4525966	0.55	cps
Thallium	203-1	1867	2234	2297	2132	10.89	cps
Thallium	205-1	4504	5044	5848	5132	13.18	cps
Tin	118-1	3904	3908	4110	3974	2.96	cps
Titanium	47-1	152955	154159	155211	154108	0.73	cps
Uranium	238-1	18547	18660	18938	18715	1.07	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-03	Instrumnet Name :	P8
Client Sample ID :	MJNLB5D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:40:29	DataFile Name :	061AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	32266	31762	32029	32019	0.79	cps
Ytterbium	172-1	1280	1360	1420	1353	5.19	cps
Ytterbium	172-2	500	517	583	533	8.27	cps
Ytterbium	176-1	2590	2754	2734	2693	3.31	cps
Ytterbium	176-2	583	687	630	633	8.17	cps
Yttrium	89-1	19662655	19559613	19620928	19614399	0.26	cps
Yttrium	89-2	1311307	1311939	1304200	1309149	0.33	cps
Zinc	66-2	3190	3187	3080	3153	1.98	cps
Zirconium	90-1	41343	39011	39101	39819	3.32	cps
Zirconium	91-1	9110	9150	8820	9026	2.00	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	21129	21359	21650	21379	1.22	cps
Antimony	121-1	5198	5334	4974	5169	3.52	cps
Arsenic	75-2	747	523	627	632	17.68	cps
Barium	135-1	5758	5875	5788	5807	1.04	cps
Barium	137-1	10187	9383	9977	9849	4.23	cps
Beryllium	9-1	550	519	520	530	3.34	cps
Bismuth	209-1	8729854	8953914	8639402	8774390	1.85	cps
Bismuth	209-2	3498338	3439223	3457890	3465150	0.87	cps
Bromine	81-1	731366	763195	763492	752684	2.45	cps
Cadmium	108-1	40	37	40	39	4.94	cps
Cadmium	106-1	6181	6508	6378	6356	2.59	cps
Cadmium	111-1	1268	1373	1348	1330	4.10	cps
Calcium	43-1	339372	338985	339246	339201	0.06	cps
Calcium	44-1	5727699	5718447	5656333	5700826	0.68	cps
Carbon	12-1	4275118	4341251	4296823	4304397	0.78	cps
Carbon	12-2	28257	27659	28003	27973	1.07	cps
Chlorine	35-1	21117169	21829418	21934341	21626976	2.06	cps
Chlorine	35-2	81883	82111	80958	81651	0.75	cps
Chromium	52-2	2100	2204	2120	2141	2.56	cps
Cobalt	59-2	743	760	810	771	4.50	cps
Copper	63-2	81197	82149	82202	81849	0.69	cps
Dysprosium	156-1	710	963	830	834	15.19	cps
Dysprosium	156-2	263	270	240	258	6.11	cps
Erbium	164-1	790	770	873	811	6.76	cps
Erbium	164-2	273	230	247	250	8.74	cps
Gadolinium	160-1	813	843	863	840	3.00	cps
Gadolinium	160-2	333	410	303	349	15.77	cps
Holmium	165-1	14781705	15056902	14702841	14847149	1.25	cps
Holmium	165-2	5200349	5059540	5060297	5106729	1.59	cps
Indium	115-1	11201609	11184069	11082980	11156219	0.57	cps
Indium	115-2	1089293	1057161	1061232	1069229	1.64	cps
Iron	54-2	31080	30977	31294	31117	0.52	cps
Iron	56-2	569912	577499	570366	572592	0.74	cps
Iron	57-2	14397	14414	14387	14400	0.09	cps
Krypton	83-1	157	140	180	159	12.65	cps
Lead	206-1	8343	8283	8186	8270	0.96	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	7089	7185	6942	7072	1.73	cps
Lead	208-1	32376	32716	32189	32427	0.82	cps
Lithium	6-1	6935462	6962036	7024135	6973878	0.65	cps
Magnesium	24-2	3399652	3413594	3468446	3427231	1.06	cps
Manganese	55-2	6118	6278	6168	6188	1.32	cps
Molybdenum	94-1	6802	6798	6965	6855	1.39	cps
Molybdenum	95-1	6498	6231	6398	6376	2.11	cps
Molybdenum	96-1	7269	6972	7135	7125	2.09	cps
Molybdenum	97-1	3904	3927	3987	3939	1.09	cps
Molybdenum	98-1	10314	9894	9720	9976	3.06	cps
Neodymium	150-1	1120	1103	1240	1155	6.46	cps
Neodymium	150-2	263	313	267	281	9.94	cps
Nickel	60-2	2110	2100	2024	2078	2.28	cps
Phosphorus	31-2	147	153	87	129	28.49	cps
Potassium	39-2	821946	829809	824318	825358	0.49	cps
Rhodium	103-1	9984651	10138438	10056374	10059821	0.76	cps
Rhodium	103-2	3913540	3784142	3815069	3837583	1.76	cps
Scandium	45-1	8242614	8499224	8248663	8330167	1.76	cps
Scandium	45-2	148185	140667	143100	143984	2.66	cps
Selenium	82-1	440	393	357	397	10.53	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	13	10	7	10	33.30	cps
Silicon	28-1	30779935	31015274	30623995	30806401	0.64	cps
Silver	107-1	533	437	543	504	11.68	cps
Silver	109-1	357	347	360	354	1.96	cps
Sodium	23-2	69380052	69035912	69159251	69191738	0.25	cps
Strontium	86-1	451249	447940	449600	449596	0.37	cps
Strontium	88-1	4109231	4056398	4092359	4085996	0.66	cps
Sulfur	34-1	1442511	1438364	1435767	1438881	0.24	cps
Terbium	159-1	14937490	15351128	15080283	15122967	1.39	cps
Terbium	159-2	4937295	4815577	4960908	4904593	1.59	cps
Thallium	203-1	1317	1223	1053	1198	11.15	cps
Thallium	205-1	2690	2694	2534	2639	3.46	cps
Tin	118-1	1503	1673	1531	1569	5.80	cps
Titanium	47-1	32036	32226	32393	32218	0.56	cps
Uranium	238-1	4131	3904	3957	3997	2.97	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLB5L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 17:43:41	DataFile Name :	062AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	7075	6808	6782	6888	2.36	cps
Ytterbium	172-1	333	310	357	333	7.00	cps
Ytterbium	172-2	147	127	163	146	12.61	cps
Ytterbium	176-1	2084	2010	2094	2062	2.21	cps
Ytterbium	176-2	360	337	357	351	3.59	cps
Yttrium	89-1	20440549	21173955	20841988	20818831	1.76	cps
Yttrium	89-2	1501538	1367616	1465132	1444762	4.79	cps
Zinc	66-2	1043	863	907	938	10.02	cps
Zirconium	90-1	8346	8983	21227	12852	56.49	cps
Zirconium	91-1	1937	1867	1877	1893	2.00	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	207416	203770	203937	205041	1.00	cps
Antimony	121-1	1138551	1148737	1153541	1146943	0.67	cps
Arsenic	75-2	11258	11114	11068	11147	0.89	cps
Barium	135-1	6204405	6237319	6181889	6207871	0.45	cps
Barium	137-1	10623511	10665378	10849310	10712733	1.12	cps
Beryllium	9-1	211114	213920	214234	213090	0.81	cps
Bismuth	209-1	7675247	7784482	7646516	7702081	0.95	cps
Bismuth	209-2	3068215	3027571	3074346	3056711	0.83	cps
Bromine	81-1	2453011	2763766	2980559	2732445	9.70	cps
Cadmium	108-1	9066	9443	9196	9235	2.07	cps
Cadmium	106-1	17882	18559	18699	18380	2.38	cps
Cadmium	111-1	131484	131282	133309	132025	0.85	cps
Calcium	43-1	1639910	1664454	1668365	1657576	0.93	cps
Calcium	44-1	26054607	26632984	26732783	26473458	1.38	cps
Carbon	12-1	8230645	9214441	9688863	9044650	8.22	cps
Carbon	12-2	68817	68803	68569	68729	0.20	cps
Chlorine	35-1	119443472	126252898	128041525	124579298	3.64	cps
Chlorine	35-2	503638	504346	506392	504792	0.28	cps
Chromium	52-2	502521	500816	504014	502450	0.32	cps
Cobalt	59-2	2427886	2365958	2378777	2390873	1.37	cps
Copper	63-2	1194168	1190076	1198557	1194267	0.36	cps
Dysprosium	156-1	3457	3901	3957	3772	7.26	cps
Dysprosium	156-2	1227	1303	1280	1270	3.09	cps
Erbium	164-1	3564	3440	3534	3513	1.83	cps
Erbium	164-2	1150	1153	1207	1170	2.72	cps
Gadolinium	160-1	3774	3744	3897	3805	2.14	cps
Gadolinium	160-2	1493	1617	1463	1525	5.33	cps
Holmium	165-1	13959694	13843216	14023553	13942154	0.66	cps
Holmium	165-2	4855059	4758286	4777109	4796818	1.07	cps
Indium	115-1	10312329	10303349	10308772	10308150	0.04	cps
Indium	115-2	996816	984232	996492	992513	0.72	cps
Iron	54-2	260039	260929	263363	261443	0.66	cps
Iron	56-2	4659126	4714889	4730742	4701586	0.80	cps
Iron	57-2	112637	112398	114448	113161	0.99	cps
Krypton	83-1	210	227	307	248	20.86	cps
Lead	206-1	215885	217397	220880	218054	1.17	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	186370	187409	188843	187541	0.66	cps
Lead	208-1	858088	863318	871067	864157	0.76	cps
Lithium	6-1	6276328	6510831	6606223	6464461	2.63	cps
Magnesium	24-2	15765937	15849247	15674062	15763082	0.56	cps
Manganese	55-2	556645	556350	556814	556603	0.04	cps
Molybdenum	94-1	31536	31703	31973	31737	0.70	cps
Molybdenum	95-1	28215	29732	29922	29290	3.19	cps
Molybdenum	96-1	32525	33530	32892	32982	1.54	cps
Molybdenum	97-1	17554	18402	17785	17914	2.45	cps
Molybdenum	98-1	45173	45695	46140	45669	1.06	cps
Neodymium	150-1	5601	5394	5651	5549	2.45	cps
Neodymium	150-2	1200	1227	1290	1239	3.73	cps
Nickel	60-2	595239	593651	594809	594566	0.14	cps
Phosphorus	31-2	477	500	513	497	3.74	cps
Potassium	39-2	4087506	4065215	4088327	4080349	0.32	cps
Rhodium	103-1	8857828	9072303	9050040	8993390	1.31	cps
Rhodium	103-2	3360801	3401460	3427854	3396705	0.99	cps
Scandium	45-1	7924840	8054745	7990242	7989942	0.81	cps
Scandium	45-2	138089	138099	138846	138345	0.31	cps
Selenium	82-1	18870	18706	19981	19186	3.62	cps
Selenium	77-2	357	247	303	302	18.20	cps
Selenium	78-2	1097	1150	1090	1112	2.96	cps
Silicon	28-1	142385501	142980948	142435668	142600706	0.23	cps
Silver	107-1	668217	681279	682826	677441	1.18	cps
Silver	109-1	635669	643609	654477	644585	1.46	cps
Sodium	23-2	326011115	324099722	324471549	324860795	0.31	cps
Strontium	86-1	2197426	2219471	2235597	2217498	0.86	cps
Strontium	88-1	18403644	18809153	18653741	18622179	1.10	cps
Sulfur	34-1	5198916	5161465	5270673	5210351	1.07	cps
Terbium	159-1	14267804	14257594	14324449	14283282	0.25	cps
Terbium	159-2	4660592	4601010	4611521	4624374	0.69	cps
Thallium	203-1	569538	577220	587872	578210	1.59	cps
Thallium	205-1	1365688	1374650	1401015	1380451	1.33	cps
Tin	118-1	9353	9556	9614	9508	1.45	cps
Titanium	47-1	159785	159920	157348	159018	0.91	cps
Uranium	238-1	18347	18654	18650	18550	0.95	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-04	Instrumnet Name :	P8
Client Sample ID :	MJNLB5S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:46:59	DataFile Name :	063AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1021920	1011628	1017285	1016945	0.51	cps
Ytterbium	172-1	1343	1420	1470	1411	4.52	cps
Ytterbium	172-2	513	500	593	536	9.43	cps
Ytterbium	176-1	2564	2680	2797	2680	4.35	cps
Ytterbium	176-2	553	703	520	592	16.49	cps
Yttrium	89-1	19360029	19766649	19435422	19520700	1.11	cps
Yttrium	89-2	1326789	1317046	1336961	1326932	0.75	cps
Zinc	66-2	178090	178486	177587	178054	0.25	cps
Zirconium	90-1	40997	41830	42207	41678	1.49	cps
Zirconium	91-1	9156	9517	9503	9392	2.18	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1137	1187	1073	1132	5.02	cps
Antimony	121-1	3994	4017	3947	3986	0.89	cps
Arsenic	75-2	633	650	637	640	1.38	cps
Barium	135-1	8533	8563	8466	8521	0.58	cps
Barium	137-1	14738	15028	15219	14995	1.61	cps
Beryllium	9-1	532	595	546	558	5.89	cps
Bismuth	209-1	7762846	8052399	8021323	7945523	2.00	cps
Bismuth	209-2	3197739	3236432	3198133	3210768	0.69	cps
Bromine	81-1	1792710	2033273	2173803	1999929	9.64	cps
Cadmium	108-1	53	50	40	48	14.52	cps
Cadmium	106-1	5788	6121	5718	5876	3.67	cps
Cadmium	111-1	1217	1283	1256	1252	2.64	cps
Calcium	43-1	1433006	1420051	1411565	1421541	0.76	cps
Calcium	44-1	22845511	22887991	22832406	22855303	0.13	cps
Carbon	12-1	7626997	8456615	8999440	8361018	8.27	cps
Carbon	12-2	61361	61187	63322	61956	1.91	cps
Chlorine	35-1	65404837	67840042	68696207	67313696	2.54	cps
Chlorine	35-2	263247	263437	264839	263841	0.33	cps
Chromium	52-2	3104	3080	2840	3008	4.85	cps
Cobalt	59-2	350	363	450	388	14.00	cps
Copper	63-2	38796	37994	38352	38381	1.05	cps
Dysprosium	156-1	327	300	200	276	24.23	cps
Dysprosium	156-2	67	97	107	90	23.13	cps
Erbium	164-1	357	323	343	341	4.92	cps
Erbium	164-2	133	153	117	134	13.66	cps
Gadolinium	160-1	327	313	320	320	2.08	cps
Gadolinium	160-2	103	107	77	96	17.21	cps
Holmium	165-1	13634174	14122032	14248262	14001489	2.32	cps
Holmium	165-2	4903492	4964984	4909440	4925972	0.69	cps
Indium	115-1	10283665	10431907	10777240	10497604	2.41	cps
Indium	115-2	1018537	1021502	1016366	1018802	0.25	cps
Iron	54-2	3367	3247	3354	3323	1.98	cps
Iron	56-2	58569	58613	58399	58527	0.19	cps
Iron	57-2	1427	1597	1503	1509	5.64	cps
Krypton	83-1	173	157	213	181	16.08	cps
Lead	206-1	3057	3004	2984	3015	1.26	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2670	2664	2647	2660	0.45	cps
Lead	208-1	12192	11852	11869	11971	1.60	cps
Lithium	6-1	6464955	6709139	6651473	6608522	1.93	cps
Magnesium	24-2	13028715	13061493	13033647	13041285	0.14	cps
Manganese	55-2	5651	5611	5484	5582	1.56	cps
Molybdenum	94-1	5965	6158	6068	6064	1.60	cps
Molybdenum	95-1	9350	9650	9573	9524	1.64	cps
Molybdenum	96-1	9790	9904	10254	9983	2.42	cps
Molybdenum	97-1	5795	5928	5571	5765	3.13	cps
Molybdenum	98-1	14928	14885	15375	15063	1.80	cps
Neodymium	150-1	357	387	433	392	9.85	cps
Neodymium	150-2	100	87	67	84	19.87	cps
Nickel	60-2	3250	3177	2980	3136	4.45	cps
Phosphorus	31-2	203	220	193	206	6.55	cps
Potassium	39-2	2789469	2788057	2826111	2801212	0.77	cps
Rhodium	103-1	8936920	9078577	9294702	9103400	1.98	cps
Rhodium	103-2	3526238	3510660	3479505	3505468	0.68	cps
Scandium	45-1	8001034	8161100	8263989	8142041	1.63	cps
Scandium	45-2	138667	139290	140522	139493	0.68	cps
Selenium	82-1	823	910	1087	940	14.28	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	17	7	13	12	41.65	cps
Silicon	28-1	200548604	203690290	204721817	202986904	1.07	cps
Silver	107-1	1410	967	893	1090	25.65	cps
Silver	109-1	1343	897	747	996	31.18	cps
Sodium	23-2	218809110	219054690	219038217	218967339	0.06	cps
Strontium	86-1	1704072	1719076	1724756	1715968	0.62	cps
Strontium	88-1	14294530	14732547	14524269	14517115	1.51	cps
Sulfur	34-1	3499599	3540710	3482006	3507438	0.86	cps
Terbium	159-1	14052698	14644923	14636201	14444607	2.35	cps
Terbium	159-2	4673640	4754663	4742163	4723488	0.92	cps
Thallium	203-1	1143	1223	1050	1139	7.62	cps
Thallium	205-1	2590	2674	2724	2663	2.53	cps
Tin	118-1	144612	147074	147873	146520	1.16	cps
Titanium	47-1	5391	5705	5885	5660	4.41	cps
Uranium	238-1	10064	10568	10224	10285	2.50	cps

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LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-05	Instrumnet Name :	P8
Client Sample ID :	MJNLB6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:50:09	DataFile Name :	064AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	15602	15585	16303	15830	2.59	cps
Ytterbium	172-1	247	237	233	239	2.90	cps
Ytterbium	172-2	77	97	103	92	15.05	cps
Ytterbium	176-1	1717	1770	1757	1748	1.59	cps
Ytterbium	176-2	273	293	363	310	15.24	cps
Yttrium	89-1	19248354	20008288	20159272	19805305	2.47	cps
Yttrium	89-2	1337151	1356630	1341504	1345095	0.76	cps
Zinc	66-2	1640	1710	1740	1697	3.02	cps
Zirconium	90-1	2424	2444	2394	2420	1.04	cps
Zirconium	91-1	573	513	557	548	5.65	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1320	1293	1500	1371	8.20	cps
Antimony	121-1	3887	3987	3794	3889	2.49	cps
Arsenic	75-2	647	667	680	664	2.52	cps
Barium	135-1	8603	8183	8529	8438	2.66	cps
Barium	137-1	14511	14735	14738	14661	0.89	cps
Beryllium	9-1	555	541	562	553	1.95	cps
Bismuth	209-1	7967419	7986983	8024079	7992827	0.36	cps
Bismuth	209-2	3381193	3250763	3241833	3291263	2.37	cps
Bromine	81-1	1690838	1982978	2110831	1928216	11.16	cps
Cadmium	108-1	60	43	53	52	16.07	cps
Cadmium	106-1	6045	6045	5998	6029	0.45	cps
Cadmium	111-1	1267	1275	1296	1279	1.15	cps
Calcium	43-1	1375248	1418630	1444218	1412699	2.47	cps
Calcium	44-1	22664131	22891306	22903166	22819535	0.59	cps
Carbon	12-1	7196293	8109777	8623901	7976657	9.06	cps
Carbon	12-2	61347	61053	63054	61818	1.75	cps
Chlorine	35-1	63410732	65815311	66673621	65299888	2.59	cps
Chlorine	35-2	255674	257987	256301	256654	0.47	cps
Chromium	52-2	1557	1607	1723	1629	5.25	cps
Cobalt	59-2	200	270	310	260	21.42	cps
Copper	63-2	38231	39107	39291	38876	1.46	cps
Dysprosium	156-1	310	310	347	322	6.57	cps
Dysprosium	156-2	117	67	83	89	28.64	cps
Erbium	164-1	347	320	317	328	5.02	cps
Erbium	164-2	120	117	97	111	11.36	cps
Gadolinium	160-1	347	350	303	333	7.81	cps
Gadolinium	160-2	153	150	137	147	6.01	cps
Holmium	165-1	14372600	14536021	14328154	14412259	0.76	cps
Holmium	165-2	5191741	5056511	4954326	5067526	2.35	cps
Indium	115-1	10593622	10812753	10759959	10722111	1.07	cps
Indium	115-2	1078205	1046647	1039437	1054763	1.95	cps
Iron	54-2	3257	3040	3437	3245	6.12	cps
Iron	56-2	56324	56351	56555	56410	0.22	cps
Iron	57-2	1560	1523	1503	1529	1.88	cps
Krypton	83-1	173	140	167	160	11.03	cps
Lead	206-1	4184	3951	4184	4106	3.28	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3494	3264	3427	3395	3.49	cps
Lead	208-1	15760	15947	15891	15866	0.60	cps
Lithium	6-1	6503663	6666508	6631671	6600614	1.30	cps
Magnesium	24-2	13019501	12799634	12936101	12918412	0.86	cps
Manganese	55-2	8172	7946	8433	8184	2.98	cps
Molybdenum	94-1	5988	6191	6188	6123	1.90	cps
Molybdenum	95-1	9256	9397	9613	9422	1.91	cps
Molybdenum	96-1	9880	10144	9523	9849	3.16	cps
Molybdenum	97-1	5875	6005	5891	5924	1.19	cps
Molybdenum	98-1	14741	14871	14521	14711	1.20	cps
Neodymium	150-1	313	360	383	352	10.12	cps
Neodymium	150-2	103	73	90	89	16.92	cps
Nickel	60-2	2604	2324	2410	2446	5.86	cps
Phosphorus	31-2	220	200	183	201	9.13	cps
Potassium	39-2	2784541	2776069	2789959	2783523	0.25	cps
Rhodium	103-1	9252958	9394806	9315366	9321043	0.76	cps
Rhodium	103-2	3681417	3688804	3600800	3657007	1.33	cps
Scandium	45-1	8283020	8297840	8255680	8278847	0.26	cps
Scandium	45-2	147788	146108	144127	146007	1.26	cps
Selenium	82-1	820	1060	1033	971	13.55	cps
Selenium	77-2	0	0	10	3	173.21	cps
Selenium	78-2	3	10	13	9	57.30	cps
Silicon	28-1	200961004	202983044	203919277	202621108	0.75	cps
Silver	107-1	630	600	633	621	2.96	cps
Silver	109-1	497	517	507	507	1.97	cps
Sodium	23-2	216976777	213933497	215444510	215451595	0.71	cps
Strontium	86-1	1715717	1688753	1703002	1702490	0.79	cps
Strontium	88-1	14348831	14503092	14475274	14442399	0.57	cps
Sulfur	34-1	3527410	3488170	3529685	3515088	0.66	cps
Terbium	159-1	14618612	14792049	14507188	14639283	0.98	cps
Terbium	159-2	5032497	4886454	4797219	4905390	2.42	cps
Thallium	203-1	837	873	890	867	3.15	cps
Thallium	205-1	1933	1984	2000	1972	1.76	cps
Tin	118-1	5046	3374	3207	3876	26.25	cps
Titanium	47-1	6315	5971	6031	6106	3.00	cps
Uranium	238-1	10047	10091	10378	10172	1.76	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-06	Instrumnet Name :	P8
Client Sample ID :	MJNLB8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:53:27	DataFile Name :	065AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	14985	15582	15709	15425	2.51	cps
Ytterbium	172-1	233	307	213	251	19.57	cps
Ytterbium	172-2	90	90	107	96	10.07	cps
Ytterbium	176-1	1833	2017	1957	1936	4.83	cps
Ytterbium	176-2	283	263	287	278	4.54	cps
Yttrium	89-1	20108928	20194436	20111214	20138193	0.24	cps
Yttrium	89-2	1498220	1486388	1372126	1452245	4.80	cps
Zinc	66-2	1233	1143	1190	1189	3.79	cps
Zirconium	90-1	3244	2287	2294	2608	21.12	cps
Zirconium	91-1	533	433	533	500	11.55	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3254	3500	3100	3285	6.15	cps
Antimony	121-1	2517	2627	2807	2650	5.53	cps
Arsenic	75-2	667	690	550	636	11.80	cps
Barium	135-1	9804	9817	10221	9947	2.38	cps
Barium	137-1	16877	16777	17371	17009	1.87	cps
Beryllium	9-1	580	559	580	573	2.14	cps
Bismuth	209-1	8251187	8130304	7901612	8094368	2.19	cps
Bismuth	209-2	3249186	3162534	3232983	3214901	1.43	cps
Bromine	81-1	1254313	1550029	1667186	1490509	14.28	cps
Cadmium	108-1	43	43	60	49	19.69	cps
Cadmium	106-1	6398	5928	5931	6086	4.45	cps
Cadmium	111-1	1303	1249	1258	1270	2.28	cps
Calcium	43-1	876377	890615	885487	884159	0.82	cps
Calcium	44-1	15055529	15074302	15056461	15062097	0.07	cps
Carbon	12-1	7203380	8123711	8622158	7983083	9.02	cps
Carbon	12-2	59697	59654	60396	59916	0.70	cps
Chlorine	35-1	48719681	50804688	51722838	50415735	3.05	cps
Chlorine	35-2	199174	198802	198708	198895	0.12	cps
Chromium	52-2	1280	1240	1213	1245	2.70	cps
Cobalt	59-2	803	860	837	833	3.42	cps
Copper	63-2	30880	29544	30509	30311	2.28	cps
Dysprosium	156-1	860	797	753	803	6.68	cps
Dysprosium	156-2	297	303	257	286	8.84	cps
Erbium	164-1	890	920	907	906	1.66	cps
Erbium	164-2	283	357	317	319	11.51	cps
Gadolinium	160-1	830	873	997	900	9.61	cps
Gadolinium	160-2	330	250	330	303	15.23	cps
Holmium	165-1	14511209	14279246	14092169	14294208	1.47	cps
Holmium	165-2	4975568	4924438	4949098	4949701	0.52	cps
Indium	115-1	11021193	10830611	10613461	10821755	1.89	cps
Indium	115-2	1028131	1026317	1032429	1028959	0.31	cps
Iron	54-2	10901	10994	10794	10896	0.92	cps
Iron	56-2	200231	199299	201996	200509	0.68	cps
Iron	57-2	5128	5011	5144	5094	1.43	cps
Krypton	83-1	177	210	167	184	12.30	cps
Lead	206-1	11689	11418	11639	11582	1.24	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	9670	9774	9931	9792	1.34	cps
Lead	208-1	44941	44767	45879	45195	1.32	cps
Lithium	6-1	6838452	6715420	6599557	6717809	1.78	cps
Magnesium	24-2	8164869	7895821	7998465	8019718	1.69	cps
Manganese	55-2	9743	9747	9573	9688	1.02	cps
Molybdenum	94-1	6372	6465	6675	6504	2.39	cps
Molybdenum	95-1	8853	8633	8549	8678	1.81	cps
Molybdenum	96-1	9523	9607	9747	9626	1.17	cps
Molybdenum	97-1	5164	5121	5334	5207	2.17	cps
Molybdenum	98-1	13770	13904	13774	13816	0.55	cps
Neodymium	150-1	893	947	973	938	4.34	cps
Neodymium	150-2	213	253	220	229	9.36	cps
Nickel	60-2	2597	2517	2747	2620	4.46	cps
Phosphorus	31-2	233	187	237	219	12.77	cps
Potassium	39-2	2335360	2346036	2302046	2327814	0.99	cps
Rhodium	103-1	9576730	9565155	9252593	9464826	1.94	cps
Rhodium	103-2	3613927	3547171	3654603	3605234	1.50	cps
Scandium	45-1	8444251	8233716	8034465	8237477	2.49	cps
Scandium	45-2	140786	140859	140801	140815	0.03	cps
Selenium	82-1	640	850	853	781	15.65	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	10	13	7	10	33.30	cps
Silicon	28-1	206444610	208791190	206410464	207215421	0.66	cps
Silver	107-1	433	470	480	461	5.33	cps
Silver	109-1	247	393	337	326	22.72	cps
Sodium	23-2	182036831	181657517	182331224	182008524	0.19	cps
Strontium	86-1	986501	997252	997030	993595	0.62	cps
Strontium	88-1	8944323	8858082	8812358	8871588	0.76	cps
Sulfur	34-1	2902997	2910961	2914147	2909368	0.20	cps
Terbium	159-1	14983946	14663654	14337160	14661586	2.21	cps
Terbium	159-2	4764025	4737053	4788496	4763191	0.54	cps
Thallium	203-1	840	790	727	786	7.23	cps
Thallium	205-1	1700	1770	1800	1757	2.92	cps
Tin	118-1	1976	1933	2067	1992	3.43	cps
Titanium	47-1	10004	10564	9914	10160	3.47	cps
Uranium	238-1	24019	24370	24731	24374	1.46	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-07	Instrumnet Name :	P8
Client Sample ID :	MJNLB9	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 17:56:42	DataFile Name :	066AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	16596	16229	16019	16282	1.79	cps
Ytterbium	172-1	513	487	457	486	5.84	cps
Ytterbium	172-2	167	190	167	174	7.72	cps
Ytterbium	176-1	1974	2137	2090	2067	4.07	cps
Ytterbium	176-2	307	343	330	327	5.68	cps
Yttrium	89-1	20545284	20294565	19799115	20212988	1.88	cps
Yttrium	89-2	1408174	1344321	1362529	1371675	2.40	cps
Zinc	66-2	617	580	587	594	3.29	cps
Zirconium	90-1	4544	4584	4771	4633	2.61	cps
Zirconium	91-1	1053	1103	1180	1112	5.74	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	967	957	993	972	1.95	cps
Antimony	121-1	3397	3290	3397	3362	1.83	cps
Arsenic	75-2	373	350	287	337	13.32	cps
Barium	135-1	15115	15032	14988	15045	0.43	cps
Barium	137-1	25821	25902	26379	26034	1.16	cps
Beryllium	9-1	519	632	544	565	10.58	cps
Bismuth	209-1	8308121	8499091	8389778	8398997	1.14	cps
Bismuth	209-2	3379222	3365246	3410622	3385030	0.69	cps
Bromine	81-1	977441	1147124	1223982	1116182	11.30	cps
Cadmium	108-1	50	53	43	49	10.42	cps
Cadmium	106-1	6325	6418	6272	6338	1.17	cps
Cadmium	111-1	1333	1363	1307	1335	2.09	cps
Calcium	43-1	1257833	1240242	1264650	1254242	1.00	cps
Calcium	44-1	20451487	20226979	20284848	20321105	0.57	cps
Carbon	12-1	7264623	8273768	8769234	8102542	9.46	cps
Carbon	12-2	59349	61515	60798	60554	1.82	cps
Chlorine	35-1	36330241	38269493	38660524	37753419	3.31	cps
Chlorine	35-2	150981	151493	152392	151622	0.47	cps
Chromium	52-2	1080	890	823	931	14.30	cps
Cobalt	59-2	290	340	363	331	11.31	cps
Copper	63-2	12262	12085	12242	12196	0.79	cps
Dysprosium	156-1	210	153	153	172	18.99	cps
Dysprosium	156-2	40	43	40	41	4.68	cps
Erbium	164-1	250	257	230	246	5.65	cps
Erbium	164-2	87	90	67	81	15.56	cps
Gadolinium	160-1	203	190	197	197	3.39	cps
Gadolinium	160-2	70	67	43	60	24.22	cps
Holmium	165-1	14924024	14810741	14594187	14776317	1.13	cps
Holmium	165-2	5155260	5168005	5135588	5152951	0.32	cps
Indium	115-1	11019588	11238013	10892543	11050048	1.58	cps
Indium	115-2	1082209	1083309	1077348	1080955	0.29	cps
Iron	54-2	2120	1977	2094	2064	3.69	cps
Iron	56-2	34742	34903	34268	34637	0.95	cps
Iron	57-2	880	850	887	872	2.24	cps
Krypton	83-1	113	180	157	150	22.55	cps
Lead	206-1	5061	4908	4994	4988	1.54	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4467	4494	4301	4421	2.37	cps
Lead	208-1	20346	20236	19850	20144	1.30	cps
Lithium	6-1	6860915	7014109	6850961	6908662	1.32	cps
Magnesium	24-2	9064867	9039659	9130743	9078423	0.52	cps
Manganese	55-2	5401	5358	5378	5379	0.40	cps
Molybdenum	94-1	3937	3577	3794	3769	4.81	cps
Molybdenum	95-1	5955	6091	5815	5954	2.32	cps
Molybdenum	96-1	6151	6075	6218	6148	1.17	cps
Molybdenum	97-1	3617	3671	3611	3633	0.91	cps
Molybdenum	98-1	9100	9367	9390	9285	1.74	cps
Neodymium	150-1	163	137	180	160	13.66	cps
Neodymium	150-2	53	37	37	42	22.78	cps
Nickel	60-2	2904	2764	2854	2840	2.50	cps
Phosphorus	31-2	160	127	107	131	20.55	cps
Potassium	39-2	1697306	1677579	1689335	1688073	0.59	cps
Rhodium	103-1	9904968	9990212	9714980	9870054	1.43	cps
Rhodium	103-2	3816259	3844159	3746370	3802263	1.32	cps
Scandium	45-1	8514775	8527743	8381628	8474715	0.95	cps
Scandium	45-2	147208	148397	146612	147405	0.62	cps
Selenium	82-1	547	540	573	553	3.19	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	0	7	0	2	173.21	cps
Silicon	28-1	178724437	179112924	179515651	179117671	0.22	cps
Silver	107-1	427	400	437	421	4.50	cps
Silver	109-1	253	247	347	282	19.81	cps
Sodium	23-2	120460838	120777128	121191538	120809835	0.30	cps
Strontium	86-1	1209570	1221856	1226136	1219187	0.71	cps
Strontium	88-1	10853890	10934491	10990678	10926353	0.63	cps
Sulfur	34-1	2249067	2206311	2188676	2214685	1.40	cps
Terbium	159-1	15186684	15171381	14802276	15053447	1.45	cps
Terbium	159-2	4921090	5038866	5061330	5007095	1.50	cps
Thallium	203-1	643	673	577	631	7.84	cps
Thallium	205-1	1507	1523	1460	1497	2.19	cps
Tin	118-1	1878	1882	1896	1885	0.49	cps
Titanium	47-1	4531	5058	4614	4734	5.98	cps
Uranium	238-1	5084	4981	5091	5052	1.22	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1127-08	Instrumnet Name :	P8
Client Sample ID :	MJNLC0	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:00:01	DataFile Name :	067AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13934	13637	13950	13840	1.27	cps
Ytterbium	172-1	203	190	240	211	12.26	cps
Ytterbium	172-2	93	63	83	80	19.09	cps
Ytterbium	176-1	2020	1830	1984	1945	5.18	cps
Ytterbium	176-2	243	340	273	286	17.33	cps
Yttrium	89-1	20648192	20961311	20518392	20709298	1.10	cps
Yttrium	89-2	1521777	1496127	1460603	1492836	2.06	cps
Zinc	66-2	757	710	667	711	6.33	cps
Zirconium	90-1	1243	1340	1300	1295	3.75	cps
Zirconium	91-1	250	283	373	302	21.11	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	277	263	280	273	3.23	cps
Antimony	121-1	913	910	907	910	0.37	cps
Arsenic	75-2	7	0	10	6	91.64	cps
Barium	135-1	403	483	380	422	12.84	cps
Barium	137-1	660	670	627	652	3.48	cps
Beryllium	9-1	522	521	550	531	3.06	cps
Bismuth	209-1	9856640	9673742	9660627	9730336	1.13	cps
Bismuth	209-2	3842597	3798877	3867000	3836158	0.90	cps
Bromine	81-1	251890	218338	193682	221303	13.20	cps
Cadmium	108-1	37	20	23	27	33.08	cps
Cadmium	106-1	6935	6702	6552	6729	2.87	cps
Cadmium	111-1	1428	1380	1317	1375	4.04	cps
Calcium	43-1	1210	990	1070	1090	10.22	cps
Calcium	44-1	20655	20368	20238	20420	1.05	cps
Carbon	12-1	5334966	6099368	6662949	6032428	11.05	cps
Carbon	12-2	46761	47500	47296	47185	0.81	cps
Chlorine	35-1	3167173	2824334	2660762	2884090	8.96	cps
Chlorine	35-2	8372	8149	7659	8060	4.53	cps
Chromium	52-2	1447	1360	1597	1468	8.16	cps
Cobalt	59-2	213	220	267	233	12.45	cps
Copper	63-2	4497	4434	4354	4429	1.62	cps
Dysprosium	156-1	37	63	37	46	33.79	cps
Dysprosium	156-2	0	0	10	3	173.21	cps
Erbium	164-1	90	87	73	83	10.59	cps
Erbium	164-2	23	17	13	18	28.64	cps
Gadolinium	160-1	40	43	40	41	4.68	cps
Gadolinium	160-2	13	7	23	14	58.06	cps
Holmium	165-1	15505384	15627041	15558003	15563476	0.39	cps
Holmium	165-2	5309886	5294665	5244829	5283126	0.64	cps
Indium	115-1	12089249	12089591	12153424	12110755	0.31	cps
Indium	115-2	1142482	1138462	1132431	1137792	0.44	cps
Iron	54-2	1027	1020	827	958	11.86	cps
Iron	56-2	14407	14825	14818	14683	1.63	cps
Iron	57-2	373	403	383	387	3.95	cps
Krypton	83-1	150	193	137	160	18.52	cps
Lead	206-1	1763	1733	1763	1753	0.99	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1407	1490	1473	1457	3.03	cps
Lead	208-1	6771	6827	6641	6746	1.42	cps
Lithium	6-1	7450958	7360176	7406407	7405847	0.61	cps
Magnesium	24-2	1080	1060	1093	1078	1.56	cps
Manganese	55-2	3127	2964	3060	3050	2.69	cps
Molybdenum	94-1	470	467	460	466	1.09	cps
Molybdenum	95-1	387	437	403	409	6.23	cps
Molybdenum	96-1	603	427	517	516	17.13	cps
Molybdenum	97-1	237	240	260	246	5.14	cps
Molybdenum	98-1	670	583	603	619	7.33	cps
Neodymium	150-1	43	27	33	34	24.35	cps
Neodymium	150-2	13	3	7	8	65.47	cps
Nickel	60-2	1507	1480	1483	1490	0.97	cps
Phosphorus	31-2	33	30	47	37	24.06	cps
Potassium	39-2	8619	8676	8813	8703	1.14	cps
Rhodium	103-1	11298247	11146684	11138238	11194390	0.80	cps
Rhodium	103-2	4209267	4167208	4102272	4159582	1.30	cps
Scandium	45-1	8753365	8800732	8844043	8799380	0.52	cps
Scandium	45-2	149353	148865	147336	148518	0.71	cps
Selenium	82-1	90	53	140	94	46.07	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	0	3	0	1	173.21	cps
Silicon	28-1	619344	617521	613494	616786	0.49	cps
Silver	107-1	287	277	300	288	4.07	cps
Silver	109-1	260	180	217	219	18.30	cps
Sodium	23-2	93064	90850	89314	91076	2.07	cps
Strontium	86-1	417	460	403	427	6.94	cps
Strontium	88-1	2350	2174	2304	2276	4.02	cps
Sulfur	34-1	352225	353500	351913	352546	0.24	cps
Terbium	159-1	16041032	15963624	15918856	15974504	0.39	cps
Terbium	159-2	5131751	5123886	5065016	5106885	0.71	cps
Thallium	203-1	627	600	603	610	2.38	cps
Thallium	205-1	1527	1490	1367	1461	5.74	cps
Tin	118-1	2663	2693	2548	2635	2.91	cps
Titanium	47-1	347	293	360	333	10.58	cps
Uranium	238-1	33	43	23	33	30.00	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-01	Instrumnet Name :	P8
Client Sample ID :	MJNLB4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:03:18	DataFile Name :	068AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	43	27	17	29	46.62	cps
Ytterbium	172-1	57	83	90	77	23.00	cps
Ytterbium	172-2	50	27	20	32	48.88	cps
Ytterbium	176-1	1964	1960	1887	1937	2.24	cps
Ytterbium	176-2	277	280	283	280	1.19	cps
Yttrium	89-1	22053344	21950763	21987836	21997314	0.24	cps
Yttrium	89-2	1524702	1516744	1511412	1517619	0.44	cps
Zinc	66-2	547	537	530	538	1.56	cps
Zirconium	90-1	807	743	773	774	4.09	cps
Zirconium	91-1	133	180	130	148	18.92	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1657	1627	1803	1696	5.58	cps
Antimony	121-1	22866	23504	23373	23248	1.45	cps
Arsenic	75-2	2310	2250	2284	2281	1.32	cps
Barium	135-1	11351	11445	11842	11546	2.26	cps
Barium	137-1	19948	20012	19968	19976	0.16	cps
Beryllium	9-1	562	581	507	550	6.96	cps
Bismuth	209-1	8002814	7908746	7841239	7917600	1.02	cps
Bismuth	209-2	3079017	3088242	3063031	3076764	0.41	cps
Bromine	81-1	2317604	2735709	2938275	2663863	11.88	cps
Cadmium	108-1	83	73	83	80	7.22	cps
Cadmium	106-1	6078	6515	5848	6147	5.51	cps
Cadmium	111-1	1311	1432	1301	1348	5.40	cps
Calcium	43-1	1606433	1633137	1646812	1628794	1.26	cps
Calcium	44-1	26071331	26171385	26406389	26216368	0.66	cps
Carbon	12-1	8881554	9644749	10135672	9553992	6.61	cps
Carbon	12-2	69865	69801	70160	69942	0.27	cps
Chlorine	35-1	85574419	90285689	93833579	89897895	4.61	cps
Chlorine	35-2	359745	364710	362338	362264	0.69	cps
Chromium	52-2	2997	2707	2794	2833	5.26	cps
Cobalt	59-2	993	1047	1103	1048	5.25	cps
Copper	63-2	300655	301045	300010	300570	0.17	cps
Dysprosium	156-1	1390	1407	1383	1393	0.86	cps
Dysprosium	156-2	487	507	590	528	10.38	cps
Erbium	164-1	1553	1603	1563	1573	1.68	cps
Erbium	164-2	473	480	490	481	1.74	cps
Gadolinium	160-1	1477	1670	1650	1599	6.65	cps
Gadolinium	160-2	617	637	600	618	2.97	cps
Holmium	165-1	14557804	14223982	14094134	14291973	1.67	cps
Holmium	165-2	4800845	4848003	4847763	4832204	0.56	cps
Indium	115-1	10663204	10340987	10526508	10510233	1.54	cps
Indium	115-2	1000831	1002556	999201	1000863	0.17	cps
Iron	54-2	7175	7245	7365	7262	1.32	cps
Iron	56-2	129986	130365	130799	130384	0.31	cps
Iron	57-2	3380	3424	3260	3355	2.52	cps
Krypton	83-1	160	207	250	206	21.90	cps
Lead	206-1	2517	2544	2607	2556	1.81	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2337	2274	2254	2288	1.90	cps
Lead	208-1	9972	10192	10205	10123	1.30	cps
Lithium	6-1	6697464	6654802	6632088	6661451	0.50	cps
Magnesium	24-2	15718451	15875590	15611819	15735286	0.84	cps
Manganese	55-2	11224	10717	10747	10896	2.61	cps
Molybdenum	94-1	21407	21333	21423	21388	0.22	cps
Molybdenum	95-1	28422	29391	29247	29020	1.80	cps
Molybdenum	96-1	31048	31519	31028	31198	0.89	cps
Molybdenum	97-1	17992	18018	17858	17956	0.48	cps
Molybdenum	98-1	46578	46424	46909	46637	0.53	cps
Neodymium	150-1	1640	1783	1613	1679	5.45	cps
Neodymium	150-2	380	473	457	437	11.40	cps
Nickel	60-2	4331	4151	4357	4280	2.63	cps
Phosphorus	31-2	360	367	403	377	6.19	cps
Potassium	39-2	4065475	3999886	4006542	4023968	0.90	cps
Rhodium	103-1	9390443	9151916	9309770	9284043	1.31	cps
Rhodium	103-2	3446040	3468986	3464260	3459762	0.35	cps
Scandium	45-1	8414904	8228242	8338611	8327252	1.13	cps
Scandium	45-2	139654	140677	139176	139835	0.55	cps
Selenium	82-1	1180	1383	1407	1323	9.42	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	17	13	3	11	62.48	cps
Silicon	28-1	117600475	118594868	118008878	118068074	0.42	cps
Silver	107-1	590	597	517	568	7.82	cps
Silver	109-1	427	533	437	466	12.65	cps
Sodium	23-2	323839595	323541995	322684282	323355291	0.19	cps
Strontium	86-1	2186970	2213758	2163636	2188121	1.15	cps
Strontium	88-1	18279538	18428275	18366347	18358053	0.41	cps
Sulfur	34-1	5260671	5276909	5347756	5295112	0.87	cps
Terbium	159-1	14689419	14486680	14455420	14543840	0.87	cps
Terbium	159-2	4707180	4689680	4646230	4681030	0.67	cps
Thallium	203-1	807	683	767	752	8.37	cps
Thallium	205-1	1857	1827	2024	1902	5.57	cps
Tin	118-1	3792	3644	3604	3680	2.69	cps
Titanium	47-1	7909	8249	8236	8131	2.37	cps
Uranium	238-1	15032	14929	15349	15104	1.45	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02	Instrumnet Name :	P8
Client Sample ID :	MJNLG3	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:06:42	DataFile Name :	069AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	22301	22828	22214	22448	1.48	cps
Ytterbium	172-1	753	873	740	789	9.31	cps
Ytterbium	172-2	277	333	323	311	9.72	cps
Ytterbium	176-1	2114	2367	2240	2240	5.66	cps
Ytterbium	176-2	387	407	387	393	2.94	cps
Yttrium	89-1	20470071	19910758	19918965	20099931	1.59	cps
Yttrium	89-2	1338182	1329929	1324383	1330832	0.52	cps
Zinc	66-2	1837	1933	1843	1871	2.89	cps
Zirconium	90-1	12959	13103	12986	13016	0.59	cps
Zirconium	91-1	2880	2804	2877	2854	1.52	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1733	1667	1767	1722	2.96	cps
Antimony	121-1	23921	23631	23210	23587	1.52	cps
Arsenic	75-2	2167	2597	2354	2372	9.09	cps
Barium	135-1	11845	11695	11632	11724	0.94	cps
Barium	137-1	20105	19938	20883	20309	2.48	cps
Beryllium	9-1	587	585	595	589	0.88	cps
Bismuth	209-1	6114434	7780279	7905658	7266790	13.76	cps
Bismuth	209-2	3089701	3065456	3087749	3080969	0.44	cps
Bromine	81-1	2632976	2889562	3075165	2865901	7.75	cps
Cadmium	108-1	77	70	63	70	9.53	cps
Cadmium	106-1	4594	6021	6285	5633	16.15	cps
Cadmium	111-1	1059	1342	1376	1259	13.85	cps
Calcium	43-1	1623412	1704690	1641757	1656620	2.57	cps
Calcium	44-1	26614225	26579176	26259637	26484346	0.74	cps
Carbon	12-1	9126396	9896430	10418657	9813828	6.62	cps
Carbon	12-2	70726	70558	71630	70971	0.81	cps
Chlorine	35-1	89931209	93718415	94966959	92872194	2.82	cps
Chlorine	35-2	370206	371293	368278	369926	0.41	cps
Chromium	52-2	2494	2470	2650	2538	3.86	cps
Cobalt	59-2	1067	977	1023	1022	4.40	cps
Copper	63-2	300451	303550	300197	301399	0.62	cps
Dysprosium	156-1	1380	1500	1447	1442	4.17	cps
Dysprosium	156-2	517	530	563	537	4.48	cps
Erbium	164-1	1607	1563	1550	1573	1.88	cps
Erbium	164-2	547	447	477	490	10.47	cps
Gadolinium	160-1	1537	1607	1603	1582	2.50	cps
Gadolinium	160-2	740	527	713	660	17.61	cps
Holmium	165-1	10769817	13916405	14399543	13028588	15.13	cps
Holmium	165-2	4881270	4867565	4886590	4878475	0.20	cps
Indium	115-1	7769581	10346573	10572557	9562904	16.28	cps
Indium	115-2	1009981	1012141	1009084	1010402	0.16	cps
Iron	54-2	7322	7352	6978	7217	2.88	cps
Iron	56-2	130409	131257	128340	130002	1.15	cps
Iron	57-2	3337	3350	3370	3353	0.50	cps
Krypton	83-1	223	287	207	239	17.67	cps
Lead	206-1	2497	2597	2310	2468	5.90	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1930	2177	2147	2085	6.46	cps
Lead	208-1	9415	9878	9838	9710	2.64	cps
Lithium	6-1	5238919	6519772	6613162	6123951	12.54	cps
Magnesium	24-2	15804731	15732648	15652116	15729832	0.49	cps
Manganese	55-2	10758	10267	10441	10488	2.37	cps
Molybdenum	94-1	21163	21213	21797	21391	1.65	cps
Molybdenum	95-1	29675	29799	29531	29668	0.45	cps
Molybdenum	96-1	31750	31947	31613	31770	0.53	cps
Molybdenum	97-1	17852	18045	18399	18099	1.53	cps
Molybdenum	98-1	46528	46213	46103	46281	0.48	cps
Neodymium	150-1	1567	1660	1583	1603	3.11	cps
Neodymium	150-2	437	397	353	396	10.54	cps
Nickel	60-2	4234	4227	4217	4226	0.20	cps
Phosphorus	31-2	310	393	323	342	13.08	cps
Potassium	39-2	4112289	4077852	4036282	4075475	0.93	cps
Rhodium	103-1	6806647	8993228	9192461	8330779	15.89	cps
Rhodium	103-2	3495888	3469143	3500193	3488408	0.48	cps
Scandium	45-1	6102924	8116273	8296718	7505305	16.23	cps
Scandium	45-2	140862	140253	139886	140334	0.35	cps
Selenium	82-1	1353	1353	1507	1405	6.30	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	27	27	10	21	45.58	cps
Silicon	28-1	120411698	119684375	118505742	119533938	0.80	cps
Silver	107-1	577	540	650	589	9.51	cps
Silver	109-1	393	457	523	458	14.20	cps
Sodium	23-2	326168388	326132622	322205802	324835604	0.70	cps
Strontium	86-1	2218458	2200395	2187451	2202101	0.71	cps
Strontium	88-1	18652073	18666741	18690671	18669828	0.10	cps
Sulfur	34-1	5293323	5306789	5305517	5301876	0.14	cps
Terbium	159-1	11009580	14183161	14504686	13232476	14.60	cps
Terbium	159-2	4656851	4648803	4625445	4643700	0.35	cps
Thallium	203-1	717	750	867	778	10.13	cps
Thallium	205-1	1683	1710	1900	1765	6.70	cps
Tin	118-1	3760	3638	3934	3778	3.94	cps
Titanium	47-1	8096	7719	8176	7997	3.05	cps
Uranium	238-1	15293	15072	14906	15090	1.29	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-03	Instrumnet Name :	P8
Client Sample ID :	MJNLG3D	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:09:57	DataFile Name :	070AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	22751	22825	22344	22640	1.14	cps
Ytterbium	172-1	787	703	697	729	6.88	cps
Ytterbium	172-2	283	337	303	308	8.75	cps
Ytterbium	176-1	1974	2287	2340	2200	9.01	cps
Ytterbium	176-2	437	423	427	429	1.62	cps
Yttrium	89-1	14925684	19736485	20203251	18288473	15.98	cps
Yttrium	89-2	1344009	1338918	1353168	1345365	0.54	cps
Zinc	66-2	1853	1823	2034	1903	5.97	cps
Zirconium	90-1	12756	13070	13313	13046	2.14	cps
Zirconium	91-1	2957	3090	2847	2965	4.11	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	460	443	410	438	5.82	cps
Antimony	121-1	4868	5258	5101	5075	3.87	cps
Arsenic	75-2	517	433	500	483	9.12	cps
Barium	135-1	2540	2680	2764	2661	4.24	cps
Barium	137-1	4501	4841	4567	4636	3.89	cps
Beryllium	9-1	537	506	544	529	3.80	cps
Bismuth	209-1	8780612	9087267	9094674	8987517	1.99	cps
Bismuth	209-2	3479809	3405615	3511781	3465735	1.57	cps
Bromine	81-1	736336	768253	773306	759299	2.64	cps
Cadmium	108-1	43	37	53	44	18.87	cps
Cadmium	106-1	6228	6818	6625	6557	4.59	cps
Cadmium	111-1	1279	1408	1354	1347	4.83	cps
Calcium	43-1	328981	329909	328046	328979	0.28	cps
Calcium	44-1	5544742	5519115	5527450	5530435	0.24	cps
Carbon	12-1	4392030	4400975	4395011	4396005	0.10	cps
Carbon	12-2	28548	28615	27993	28385	1.20	cps
Chlorine	35-1	21031341	21941023	21793954	21588772	2.26	cps
Chlorine	35-2	82983	82369	81213	82188	1.09	cps
Chromium	52-2	1110	1087	1047	1081	2.96	cps
Cobalt	59-2	297	297	297	297	0.00	cps
Copper	63-2	70068	71090	71267	70809	0.91	cps
Dysprosium	156-1	307	293	347	316	8.80	cps
Dysprosium	156-2	100	80	100	93	12.37	cps
Erbium	164-1	427	390	393	403	5.03	cps
Erbium	164-2	133	150	87	123	26.62	cps
Gadolinium	160-1	347	383	307	346	11.10	cps
Gadolinium	160-2	140	133	140	138	2.79	cps
Holmium	165-1	14885051	15436401	15788919	15370124	2.96	cps
Holmium	165-2	5206075	5086970	5076922	5123322	1.40	cps
Indium	115-1	11440752	11714967	11927651	11694457	2.09	cps
Indium	115-2	1092304	1074393	1074227	1080308	0.96	cps
Iron	54-2	1867	1803	1867	1846	1.98	cps
Iron	56-2	31996	32323	31488	31936	1.32	cps
Iron	57-2	800	813	827	813	1.64	cps
Krypton	83-1	207	210	177	198	9.28	cps
Lead	206-1	1303	1163	1193	1220	6.04	cps

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On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1160	1073	1117	1117	3.88	cps
Lead	208-1	5204	4730	5004	4979	4.77	cps
Lithium	6-1	7158811	7297826	7364590	7273742	1.44	cps
Magnesium	24-2	3322497	3318521	3299417	3313478	0.37	cps
Manganese	55-2	2574	2340	2404	2439	4.95	cps
Molybdenum	94-1	4774	4701	4437	4637	3.82	cps
Molybdenum	95-1	6462	6498	6562	6507	0.78	cps
Molybdenum	96-1	6725	6748	6965	6813	1.94	cps
Molybdenum	97-1	3764	4151	3871	3928	5.08	cps
Molybdenum	98-1	10084	9920	10311	10105	1.94	cps
Neodymium	150-1	360	343	407	370	8.87	cps
Neodymium	150-2	93	77	87	86	9.80	cps
Nickel	60-2	1737	1833	1690	1753	4.17	cps
Phosphorus	31-2	107	133	97	112	16.89	cps
Potassium	39-2	821991	811422	811191	814868	0.76	cps
Rhodium	103-1	10127959	10622793	10707967	10486239	2.99	cps
Rhodium	103-2	3911282	3818710	3866265	3865419	1.20	cps
Scandium	45-1	8426946	8811623	8944700	8727756	3.08	cps
Scandium	45-2	147976	144259	144063	145432	1.52	cps
Selenium	82-1	300	330	450	360	22.05	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	0	17	7	8	107.84	cps
Silicon	28-1	25165802	25472350	25547780	25395310	0.80	cps
Silver	107-1	333	330	343	336	2.07	cps
Silver	109-1	180	200	200	193	5.97	cps
Sodium	23-2	68942101	67810937	67985879	68246306	0.89	cps
Strontium	86-1	430652	435402	437087	434381	0.77	cps
Strontium	88-1	3968053	3976530	3885182	3943255	1.28	cps
Sulfur	34-1	1405609	1445800	1420181	1423863	1.43	cps
Terbium	159-1	15282841	15747304	16026707	15685617	2.40	cps
Terbium	159-2	5092590	4984905	4912440	4996645	1.81	cps
Thallium	203-1	573	547	560	560	2.38	cps
Thallium	205-1	1403	1337	1207	1316	7.60	cps
Tin	118-1	1534	4188	1330	2351	67.81	cps
Titanium	47-1	1777	1733	1577	1696	6.21	cps
Uranium	238-1	3184	3374	3024	3194	5.49	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-02LX5	Instrumnet Name :	P8
Client Sample ID :	MJNLG3L	Dilution Factor :	5
Date & Time Acquired :	2025-01-21 18:13:14	DataFile Name :	071AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	4424	4718	4564	4569	3.21	cps
Ytterbium	172-1	203	173	217	198	11.22	cps
Ytterbium	172-2	87	107	80	91	15.23	cps
Ytterbium	176-1	1863	2024	2130	2006	6.69	cps
Ytterbium	176-2	293	287	343	308	10.06	cps
Yttrium	89-1	21334329	21959316	22161021	21818222	1.98	cps
Yttrium	89-2	1515395	1470230	1466695	1484106	1.83	cps
Zinc	66-2	543	610	667	607	10.18	cps
Zirconium	90-1	3447	3284	3117	3283	5.03	cps
Zirconium	91-1	683	733	683	700	4.12	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	106721	108682	105959	107120	1.31	cps
Antimony	121-1	1140811	1163127	1172756	1158898	1.41	cps
Arsenic	75-2	10591	10517	10557	10555	0.35	cps
Barium	135-1	6215878	6284072	6342514	6280822	1.01	cps
Barium	137-1	10671452	10753942	10698097	10707830	0.39	cps
Beryllium	9-1	213430	215171	216868	215156	0.80	cps
Bismuth	209-1	7201290	7764370	7804964	7590208	4.45	cps
Bismuth	209-2	3108092	3070325	3181142	3119853	1.81	cps
Bromine	81-1	2408337	2767739	3002286	2726120	10.97	cps
Cadmium	108-1	8973	9310	9470	9251	2.74	cps
Cadmium	106-1	17988	18746	18903	18546	2.64	cps
Cadmium	111-1	133479	135764	133755	134333	0.93	cps
Calcium	43-1	1662981	1636881	1645443	1648435	0.81	cps
Calcium	44-1	26158609	26530550	26375150	26354769	0.71	cps
Carbon	12-1	8407579	9524426	10046099	9326034	8.98	cps
Carbon	12-2	70521	71771	72206	71499	1.22	cps
Chlorine	35-1	115379008	123335595	126659871	121791492	4.76	cps
Chlorine	35-2	491141	496703	496752	494866	0.65	cps
Chromium	52-2	502801	509830	503185	505272	0.78	cps
Cobalt	59-2	2419775	2416967	2412656	2416466	0.15	cps
Copper	63-2	1156719	1161135	1159773	1159209	0.20	cps
Dysprosium	156-1	1410	1463	1447	1440	1.89	cps
Dysprosium	156-2	573	513	567	551	5.97	cps
Erbium	164-1	1630	1667	1470	1589	6.58	cps
Erbium	164-2	573	523	503	533	6.76	cps
Gadolinium	160-1	1550	1520	1580	1550	1.94	cps
Gadolinium	160-2	717	640	560	639	12.26	cps
Holmium	165-1	12795761	14012203	14412730	13740231	6.13	cps
Holmium	165-2	4875877	4901571	5012419	4929955	1.47	cps
Indium	115-1	9542212	10418141	10498540	10152965	5.22	cps
Indium	115-2	1015437	1020661	1044023	1026707	1.48	cps
Iron	54-2	126863	127812	127933	127536	0.46	cps
Iron	56-2	2166115	2117426	2135493	2139678	1.15	cps
Iron	57-2	51948	51814	50499	51420	1.56	cps
Krypton	83-1	267	273	327	289	11.38	cps
Lead	206-1	188457	190312	189876	189548	0.51	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	162381	162387	163204	162657	0.29	cps
Lead	208-1	746145	752793	752805	750581	0.51	cps
Lithium	6-1	6090498	6499354	6562163	6384005	4.01	cps
Magnesium	24-2	15666938	15898734	15762814	15776162	0.74	cps
Manganese	55-2	550047	555714	545814	550525	0.90	cps
Molybdenum	94-1	21817	21510	21750	21693	0.74	cps
Molybdenum	95-1	28720	29588	30250	29519	2.60	cps
Molybdenum	96-1	31162	31880	32789	31943	2.55	cps
Molybdenum	97-1	18022	18272	18252	18182	0.77	cps
Molybdenum	98-1	46508	46825	46722	46685	0.35	cps
Neodymium	150-1	2354	2074	2327	2251	6.87	cps
Neodymium	150-2	430	433	440	434	1.17	cps
Nickel	60-2	605307	609157	602300	605588	0.57	cps
Phosphorus	31-2	340	390	340	357	8.09	cps
Potassium	39-2	4007061	4044625	4092160	4047949	1.05	cps
Rhodium	103-1	8227333	9145468	9283684	8885495	6.46	cps
Rhodium	103-2	3555345	3538787	3599697	3564610	0.88	cps
Scandium	45-1	7538155	8138490	8277701	7984782	4.92	cps
Scandium	45-2	142295	143929	144912	143712	0.92	cps
Selenium	82-1	18860	19157	19808	19275	2.52	cps
Selenium	77-2	277	303	323	301	7.78	cps
Selenium	78-2	960	1007	1030	999	3.57	cps
Silicon	28-1	117225305	117648645	119181062	118018337	0.87	cps
Silver	107-1	669998	681646	692534	681393	1.65	cps
Silver	109-1	644221	655644	661632	653832	1.35	cps
Sodium	23-2	326892762	327777195	325836422	326835460	0.30	cps
Strontium	86-1	2156013	2202875	2205881	2188256	1.28	cps
Strontium	88-1	18438921	18500783	18309976	18416560	0.53	cps
Sulfur	34-1	5271386	5331208	5307896	5303497	0.57	cps
Terbium	159-1	13280816	14092336	14537070	13970074	4.56	cps
Terbium	159-2	4682180	4679789	4783386	4715118	1.25	cps
Thallium	203-1	576809	577776	586619	580401	0.93	cps
Thallium	205-1	1370743	1394222	1386539	1383834	0.87	cps
Tin	118-1	9204	9435	9665	9435	2.44	cps
Titanium	47-1	8062	7932	8529	8175	3.84	cps
Uranium	238-1	15062	15169	14829	15020	1.16	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-04	Instrumnet Name :	P8
Client Sample ID :	MJNLG3S	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:16:29	DataFile Name :	072AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1024120	1027041	1016353	1022504	0.54	cps
Ytterbium	172-1	830	747	750	776	6.08	cps
Ytterbium	172-2	303	367	317	329	10.15	cps
Ytterbium	176-1	2084	2304	2457	2281	8.23	cps
Ytterbium	176-2	387	430	477	431	10.44	cps
Yttrium	89-1	18157588	19802371	20288332	19416097	5.75	cps
Yttrium	89-2	1360530	1364120	1467239	1397296	4.34	cps
Zinc	66-2	178792	180574	181077	180148	0.67	cps
Zirconium	90-1	12889	12893	13266	13016	1.66	cps
Zirconium	91-1	2754	3097	2977	2943	5.92	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	393	400	380	391	2.60	cps
Antimony	121-1	4247	4504	4284	4345	3.20	cps
Arsenic	75-2	747	700	623	690	9.03	cps
Barium	135-1	8683	8633	8376	8564	1.92	cps
Barium	137-1	14792	14715	14975	14827	0.90	cps
Beryllium	9-1	612	586	584	594	2.68	cps
Bismuth	209-1	7542050	8049682	8246614	7946116	4.57	cps
Bismuth	209-2	3237300	3279344	3223462	3246702	0.90	cps
Bromine	81-1	1827851	2100400	2238164	2055471	10.16	cps
Cadmium	108-1	50	33	47	43	20.36	cps
Cadmium	106-1	5551	6295	6315	6054	7.19	cps
Cadmium	111-1	1175	1312	1324	1270	6.50	cps
Calcium	43-1	1480785	1488955	1499537	1489759	0.63	cps
Calcium	44-1	23376695	24028472	24032986	23812718	1.59	cps
Carbon	12-1	7576458	8566944	9055918	8399773	8.97	cps
Carbon	12-2	63085	63178	63416	63226	0.27	cps
Chlorine	35-1	64523394	68913487	69667172	67701351	4.10	cps
Chlorine	35-2	269054	267860	269733	268883	0.35	cps
Chromium	52-2	1580	1590	1527	1566	2.17	cps
Cobalt	59-2	267	340	303	303	12.09	cps
Copper	63-2	40514	40992	41454	40987	1.15	cps
Dysprosium	156-1	253	257	257	256	0.75	cps
Dysprosium	156-2	113	110	80	101	18.16	cps
Erbium	164-1	337	340	357	344	3.11	cps
Erbium	164-2	97	133	113	114	16.04	cps
Gadolinium	160-1	353	297	303	318	9.75	cps
Gadolinium	160-2	120	117	127	121	4.20	cps
Holmium	165-1	13133661	14290504	14649689	14024618	5.65	cps
Holmium	165-2	5035841	5065100	5047478	5049473	0.29	cps
Indium	115-1	9818426	10723091	10939722	10493746	5.67	cps
Indium	115-2	1055963	1052887	1050222	1053024	0.27	cps
Iron	54-2	1173	1070	1060	1101	5.70	cps
Iron	56-2	18909	17968	18228	18369	2.65	cps
Iron	57-2	517	590	507	538	8.46	cps
Krypton	83-1	200	243	210	218	10.42	cps
Lead	206-1	1320	1463	1517	1433	7.10	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1257	1237	1250	1248	0.82	cps
Lead	208-1	5401	5677	5791	5623	3.57	cps
Lithium	6-1	6268013	6768088	6742422	6592841	4.27	cps
Magnesium	24-2	13593407	13464039	13383647	13480364	0.79	cps
Manganese	55-2	3117	3017	3020	3051	1.86	cps
Molybdenum	94-1	6338	6155	6131	6208	1.82	cps
Molybdenum	95-1	9957	10147	10221	10108	1.35	cps
Molybdenum	96-1	10027	10170	10674	10291	3.30	cps
Molybdenum	97-1	5898	5918	6151	5989	2.35	cps
Molybdenum	98-1	15409	15449	15652	15503	0.84	cps
Neodymium	150-1	283	307	363	318	12.95	cps
Neodymium	150-2	80	63	57	67	18.03	cps
Nickel	60-2	2484	2810	2734	2676	6.39	cps
Phosphorus	31-2	217	200	227	214	6.28	cps
Potassium	39-2	2922045	2862983	2867781	2884270	1.14	cps
Rhodium	103-1	8711009	9392790	9701494	9268431	5.47	cps
Rhodium	103-2	3666120	3660519	3679562	3668734	0.27	cps
Scandium	45-1	7621648	8535209	8643852	8266903	6.79	cps
Scandium	45-2	146444	145952	145592	145996	0.29	cps
Selenium	82-1	960	1000	1063	1008	5.17	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	3	17	3	8	99.04	cps
Silicon	28-1	208458897	214253070	215937890	212883286	1.84	cps
Silver	107-1	1290	1050	937	1092	16.52	cps
Silver	109-1	1077	880	693	883	21.70	cps
Sodium	23-2	227092470	227242790	228140610	227491957	0.25	cps
Strontium	86-1	1773453	1814558	1801145	1796386	1.17	cps
Strontium	88-1	14615200	15240519	15186167	15013962	2.31	cps
Sulfur	34-1	3619438	3704630	3696387	3673485	1.28	cps
Terbium	159-1	13576702	14977599	15077763	14544021	5.77	cps
Terbium	159-2	4840285	4877147	4867695	4861709	0.39	cps
Thallium	203-1	667	660	677	668	1.26	cps
Thallium	205-1	1567	1583	1653	1601	2.87	cps
Tin	118-1	2192	2010	2327	2176	7.31	cps
Titanium	47-1	4861	5194	5221	5092	3.94	cps
Uranium	238-1	10261	10241	10194	10232	0.33	cps

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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-05	Instrumnet Name :	P8
Client Sample ID :	MJNLG4	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:19:42	DataFile Name :	073AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	16476	16616	16620	16571	0.49	cps
Ytterbium	172-1	223	197	250	223	11.94	cps
Ytterbium	172-2	77	90	93	87	10.17	cps
Ytterbium	176-1	1653	1970	2004	1876	10.30	cps
Ytterbium	176-2	303	310	323	312	3.26	cps
Yttrium	89-1	18533041	20738010	20973892	20081647	6.70	cps
Yttrium	89-2	1466255	1482790	1470384	1473143	0.58	cps
Zinc	66-2	1057	1037	917	1003	7.55	cps
Zirconium	90-1	1773	2070	1920	1921	7.72	cps
Zirconium	91-1	353	390	537	427	22.74	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	440	370	397	402	8.78	cps
Antimony	121-1	4297	4231	4477	4335	2.94	cps
Arsenic	75-2	700	680	750	710	5.08	cps
Barium	135-1	8289	8376	8216	8294	0.97	cps
Barium	137-1	14531	14428	14508	14489	0.37	cps
Beryllium	9-1	579	554	544	559	3.23	cps
Bismuth	209-1	7685449	9188117	8441317	8438294	8.90	cps
Bismuth	209-2	3284804	3259909	2856969	3133894	7.66	cps
Bromine	81-1	1848911	2110864	2262116	2073963	10.08	cps
Cadmium	108-1	70	40	43	51	32.17	cps
Cadmium	106-1	5781	7669	6445	6632	14.44	cps
Cadmium	111-1	1207	1569	1375	1384	13.08	cps
Calcium	43-1	1467622	1452240	1522513	1480792	2.49	cps
Calcium	44-1	23769101	23504042	24019913	23764352	1.09	cps
Carbon	12-1	7652164	8525787	8941203	8373051	7.86	cps
Carbon	12-2	62770	62716	62960	62815	0.20	cps
Chlorine	35-1	64469749	66571066	68947796	66662870	3.36	cps
Chlorine	35-2	263763	265080	268386	265743	0.90	cps
Chromium	52-2	3827	3897	3961	3895	1.71	cps
Cobalt	59-2	240	277	297	271	10.60	cps
Copper	63-2	39766	40193	40036	39998	0.54	cps
Dysprosium	156-1	287	277	257	273	5.59	cps
Dysprosium	156-2	117	100	133	117	14.29	cps
Erbium	164-1	337	343	307	329	5.94	cps
Erbium	164-2	103	113	113	110	5.25	cps
Gadolinium	160-1	313	337	360	337	6.93	cps
Gadolinium	160-2	127	143	97	122	19.35	cps
Holmium	165-1	13684992	16646579	15268296	15199956	9.75	cps
Holmium	165-2	5069145	4984046	4534041	4862411	5.91	cps
Indium	115-1	10132832	12444833	11405488	11327718	10.22	cps
Indium	115-2	1052058	1045379	939718	1012385	6.22	cps
Iron	54-2	1877	1907	2007	1930	3.53	cps
Iron	56-2	31505	31505	31678	31563	0.32	cps
Iron	57-2	850	867	853	857	1.03	cps
Krypton	83-1	220	230	203	218	6.19	cps
Lead	206-1	1313	1397	1197	1302	7.71	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1177	1087	1180	1148	4.61	cps
Lead	208-1	5144	5154	5291	5196	1.58	cps
Lithium	6-1	6371200	7612562	7044272	7009344	8.87	cps
Magnesium	24-2	13442539	13327864	13604610	13458338	1.03	cps
Manganese	55-2	2274	1993	2017	2095	7.42	cps
Molybdenum	94-1	6111	6155	6378	6215	2.30	cps
Molybdenum	95-1	10000	9974	10211	10062	1.29	cps
Molybdenum	96-1	9997	10411	10718	10375	3.49	cps
Molybdenum	97-1	5625	5718	5991	5778	3.30	cps
Molybdenum	98-1	15472	15409	15312	15398	0.52	cps
Neodymium	150-1	367	297	313	326	11.23	cps
Neodymium	150-2	70	73	67	70	4.76	cps
Nickel	60-2	2924	3064	3107	3031	3.16	cps
Phosphorus	31-2	217	247	280	248	12.79	cps
Potassium	39-2	2906008	2867580	2915864	2896484	0.88	cps
Rhodium	103-1	8969957	10920253	9965291	9951834	9.80	cps
Rhodium	103-2	3648442	3674801	3329576	3550940	5.41	cps
Scandium	45-1	8001301	9682687	8868534	8850841	9.50	cps
Scandium	45-2	144222	145565	130292	140026	6.04	cps
Selenium	82-1	857	1080	1120	1019	13.93	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	13	13	20	16	24.76	cps
Silicon	28-1	210535277	210702697	210611350	210616441	0.04	cps
Silver	107-1	560	543	630	578	7.96	cps
Silver	109-1	363	423	440	409	9.86	cps
Sodium	23-2	228751443	226305303	229214883	228090543	0.69	cps
Strontium	86-1	1780223	1778562	1773204	1777330	0.21	cps
Strontium	88-1	14840750	14907417	15131599	14959922	1.02	cps
Sulfur	34-1	3639099	3664873	3669383	3657785	0.45	cps
Terbium	159-1	14109090	17028997	15468662	15535583	9.40	cps
Terbium	159-2	4833168	4830358	4347045	4670190	5.99	cps
Thallium	203-1	550	557	533	547	2.20	cps
Thallium	205-1	1280	1190	1173	1215	4.73	cps
Tin	118-1	2073	1954	1996	2008	3.03	cps
Titanium	47-1	4811	4891	5091	4931	2.93	cps
Uranium	238-1	10254	10034	9981	10090	1.44	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-06	Instrumnet Name :	P8
Client Sample ID :	MJNLG6	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:22:56	DataFile Name :	074AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	16376	16193	16433	16334	0.77	cps
Ytterbium	172-1	197	293	190	227	25.51	cps
Ytterbium	172-2	93	110	67	90	24.28	cps
Ytterbium	176-1	1830	2180	1977	1996	8.81	cps
Ytterbium	176-2	310	253	280	281	10.09	cps
Yttrium	89-1	19360736	23641336	21231717	21411263	10.02	cps
Yttrium	89-2	1480058	1456894	1305813	1414255	6.69	cps
Zinc	66-2	833	783	893	837	6.58	cps
Zirconium	90-1	1700	1890	1893	1828	6.06	cps
Zirconium	91-1	390	463	477	443	10.53	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	360	313	287	320	11.60	cps
Antimony	121-1	2700	2920	2827	2816	3.92	cps
Arsenic	75-2	680	673	667	673	0.99	cps
Barium	135-1	9537	9613	9744	9631	1.09	cps
Barium	137-1	16717	16604	16837	16719	0.70	cps
Beryllium	9-1	565	529	575	556	4.37	cps
Bismuth	209-1	8525320	8519613	8463754	8502896	0.40	cps
Bismuth	209-2	3325488	3131252	2986630	3147790	5.40	cps
Bromine	81-1	1442945	1681572	1835735	1653417	11.97	cps
Cadmium	108-1	30	43	43	39	19.79	cps
Cadmium	106-1	6432	6432	6582	6482	1.34	cps
Cadmium	111-1	1329	1353	1356	1346	1.11	cps
Calcium	43-1	944232	958428	958811	953824	0.87	cps
Calcium	44-1	15899291	16432099	16314076	16215155	1.73	cps
Carbon	12-1	7207361	8240953	8710881	8053065	9.55	cps
Carbon	12-2	60798	61581	61765	61382	0.84	cps
Chlorine	35-1	51042719	54119936	55156201	53439619	4.00	cps
Chlorine	35-2	211269	213055	212997	212441	0.48	cps
Chromium	52-2	1237	1237	1163	1212	3.49	cps
Cobalt	59-2	190	150	207	182	15.98	cps
Copper	63-2	29327	29838	29080	29415	1.31	cps
Dysprosium	156-1	313	377	347	346	9.17	cps
Dysprosium	156-2	117	140	130	129	9.08	cps
Erbium	164-1	457	577	430	488	16.02	cps
Erbium	164-2	167	133	173	158	13.58	cps
Gadolinium	160-1	473	520	450	481	7.41	cps
Gadolinium	160-2	167	167	173	169	2.28	cps
Holmium	165-1	14904225	14941747	14985366	14943779	0.27	cps
Holmium	165-2	5204486	4814459	4567992	4862312	6.60	cps
Indium	115-1	11280131	11178279	11172039	11210150	0.54	cps
Indium	115-2	1066889	1009048	956694	1010877	5.45	cps
Iron	54-2	960	1053	1073	1029	5.88	cps
Iron	56-2	17284	17384	17087	17252	0.88	cps
Iron	57-2	397	413	473	428	9.43	cps
Krypton	83-1	173	157	210	180	15.16	cps
Lead	206-1	1167	1077	1220	1155	6.28	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1030	1033	1033	1032	0.19	cps
Lead	208-1	4484	4520	4614	4539	1.48	cps
Lithium	6-1	6938519	6915732	6901626	6918625	0.27	cps
Magnesium	24-2	8652471	8640809	8827005	8706762	1.20	cps
Manganese	55-2	2390	2150	2240	2260	5.37	cps
Molybdenum	94-1	5985	6248	6488	6240	4.04	cps
Molybdenum	95-1	10097	9977	10150	10075	0.88	cps
Molybdenum	96-1	10257	10821	10527	10535	2.68	cps
Molybdenum	97-1	6141	6055	5961	6052	1.49	cps
Molybdenum	98-1	15058	15305	15789	15384	2.42	cps
Neodymium	150-1	427	440	370	412	9.02	cps
Neodymium	150-2	100	83	97	93	9.45	cps
Nickel	60-2	2687	2747	2644	2693	1.93	cps
Phosphorus	31-2	263	193	197	218	18.13	cps
Potassium	39-2	2515269	2479765	2566233	2520422	1.72	cps
Rhodium	103-1	9915517	9797062	9850971	9854517	0.60	cps
Rhodium	103-2	3743062	3567649	3372108	3560940	5.21	cps
Scandium	45-1	8651698	8692033	8690321	8678017	0.26	cps
Scandium	45-2	147757	139627	131776	139720	5.72	cps
Selenium	82-1	630	837	833	767	15.44	cps
Selenium	77-2	10	0	3	4	114.60	cps
Selenium	78-2	0	7	13	7	99.98	cps
Silicon	28-1	218308630	220851677	219232690	219464332	0.59	cps
Silver	107-1	470	403	447	440	7.69	cps
Silver	109-1	330	357	307	331	7.56	cps
Sodium	23-2	196900144	196159004	195732104	196263750	0.30	cps
Strontium	86-1	1052257	1066047	1072150	1063485	0.96	cps
Strontium	88-1	9440130	9635776	9640615	9572173	1.19	cps
Sulfur	34-1	3047028	3102557	3080724	3076770	0.91	cps
Terbium	159-1	15056421	15265180	15146793	15156131	0.69	cps
Terbium	159-2	4962460	4668001	4404783	4678414	5.96	cps
Thallium	203-1	420	433	417	423	2.08	cps
Thallium	205-1	1157	1057	1050	1088	5.49	cps
Tin	118-1	2210	2228	2364	2267	3.72	cps
Titanium	47-1	4674	4848	4697	4740	1.99	cps
Uranium	238-1	21669	22046	21625	21780	1.06	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-07	Instrumnet Name :	P8
Client Sample ID :	MJNLG7	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:26:14	DataFile Name :	075AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	16603	16380	16293	16425	0.98	cps
Ytterbium	172-1	257	320	347	308	15.02	cps
Ytterbium	172-2	110	147	163	140	19.49	cps
Ytterbium	176-1	1964	2047	2074	2028	2.83	cps
Ytterbium	176-2	250	290	267	269	7.47	cps
Yttrium	89-1	20880638	21114333	21295185	21096719	0.99	cps
Yttrium	89-2	1478141	1399055	1326872	1401356	5.40	cps
Zinc	66-2	537	467	463	489	8.47	cps
Zirconium	90-1	1903	1913	2030	1949	3.61	cps
Zirconium	91-1	490	510	383	461	14.77	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	283	303	267	284	6.45	cps
Antimony	121-1	3120	3297	3327	3248	3.44	cps
Arsenic	75-2	290	333	297	307	7.61	cps
Barium	135-1	13450	13490	13810	13584	1.45	cps
Barium	137-1	23975	24549	23908	24144	1.46	cps
Beryllium	9-1	506	515	522	515	1.58	cps
Bismuth	209-1	8492720	9171777	8732043	8798847	3.91	cps
Bismuth	209-2	3406384	3465479	3424755	3432206	0.88	cps
Bromine	81-1	915528	1067064	1152700	1045097	11.49	cps
Cadmium	108-1	33	33	37	34	5.60	cps
Cadmium	106-1	6365	6928	6775	6689	4.36	cps
Cadmium	111-1	1320	1429	1409	1386	4.21	cps
Calcium	43-1	1135607	1124940	1137492	1132680	0.60	cps
Calcium	44-1	19234646	19373077	19358084	19321936	0.39	cps
Carbon	12-1	6384004	7268935	7656938	7103292	9.18	cps
Carbon	12-2	51540	52577	52945	52354	1.39	cps
Chlorine	35-1	33377686	35836452	36537546	35250561	4.71	cps
Chlorine	35-2	139262	140269	139074	139535	0.46	cps
Chromium	52-2	953	967	867	929	5.85	cps
Cobalt	59-2	237	167	153	186	24.12	cps
Copper	63-2	12799	13043	12966	12936	0.96	cps
Dysprosium	156-1	117	113	107	112	4.54	cps
Dysprosium	156-2	27	3	37	22	76.99	cps
Erbium	164-1	213	210	143	189	20.90	cps
Erbium	164-2	57	93	40	63	43.08	cps
Gadolinium	160-1	127	163	153	148	12.83	cps
Gadolinium	160-2	37	70	50	52	32.12	cps
Holmium	165-1	14947863	15909456	15611429	15489583	3.18	cps
Holmium	165-2	5291488	5184297	5166047	5213944	1.30	cps
Indium	115-1	11208309	12182287	11680492	11690363	4.17	cps
Indium	115-2	1096534	1099259	1090161	1095318	0.43	cps
Iron	54-2	1047	1267	1173	1162	9.50	cps
Iron	56-2	19096	18959	19059	19038	0.37	cps
Iron	57-2	487	507	593	529	10.72	cps
Krypton	83-1	160	207	210	192	14.54	cps
Lead	206-1	1663	1693	1593	1650	3.11	cps

Reviewed By:Mohan
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Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1547	1343	1357	1416	8.04	cps
Lead	208-1	6674	6174	6411	6420	3.90	cps
Lithium	6-1	6932133	7301906	7038356	7090798	2.68	cps
Magnesium	24-2	8471499	8407727	8367989	8415738	0.62	cps
Manganese	55-2	3310	3090	3320	3240	4.01	cps
Molybdenum	94-1	3517	3604	3517	3546	1.41	cps
Molybdenum	95-1	5838	5858	5781	5826	0.68	cps
Molybdenum	96-1	5918	6121	5941	5994	1.86	cps
Molybdenum	97-1	3164	3247	3480	3297	4.98	cps
Molybdenum	98-1	8669	8940	8589	8733	2.10	cps
Neodymium	150-1	57	123	123	101	38.07	cps
Neodymium	150-2	23	23	27	24	7.89	cps
Nickel	60-2	2907	2604	2977	2829	7.02	cps
Phosphorus	31-2	123	123	127	124	1.55	cps
Potassium	39-2	1558206	1605814	1567682	1577234	1.60	cps
Rhodium	103-1	9853109	10849120	10309952	10337394	4.82	cps
Rhodium	103-2	3854818	3879567	3851965	3862116	0.39	cps
Scandium	45-1	8613369	9241843	8947774	8934328	3.52	cps
Scandium	45-2	150599	152435	149488	150841	0.99	cps
Selenium	82-1	483	460	500	481	4.18	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	3	3	7	4	43.40	cps
Silicon	28-1	171971677	175105951	174938891	174005506	1.01	cps
Silver	107-1	267	427	337	343	23.36	cps
Silver	109-1	187	300	220	236	24.73	cps
Sodium	23-2	109663562	109957165	109494422	109705049	0.21	cps
Strontium	86-1	1113834	1146254	1147376	1135821	1.68	cps
Strontium	88-1	10112224	10177857	10433645	10241242	1.66	cps
Sulfur	34-1	2108532	2075580	2091394	2091835	0.79	cps
Terbium	159-1	14873410	16117043	15733052	15574502	4.09	cps
Terbium	159-2	4966930	5066513	4946036	4993160	1.29	cps
Thallium	203-1	393	303	383	360	13.70	cps
Thallium	205-1	927	817	897	880	6.46	cps
Tin	118-1	2535	2698	2692	2642	3.50	cps
Titanium	47-1	3517	3590	3527	3545	1.12	cps
Uranium	238-1	4411	4051	4351	4271	4.52	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	Q1128-08	Instrumnet Name :	P8
Client Sample ID :	MJNLG8	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:29:30	DataFile Name :	076AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	12682	12959	13356	12999	2.61	cps
Ytterbium	172-1	207	210	197	204	3.39	cps
Ytterbium	172-2	43	93	63	67	37.75	cps
Ytterbium	176-1	1833	2137	2007	1992	7.64	cps
Ytterbium	176-2	280	270	310	287	7.26	cps
Yttrium	89-1	20957035	22463581	21942375	21787663	3.51	cps
Yttrium	89-2	1522469	1497678	1514130	1511426	0.83	cps
Zinc	66-2	930	833	1020	928	10.06	cps
Zirconium	90-1	930	980	1110	1007	9.23	cps
Zirconium	91-1	243	223	170	212	17.86	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2829692	2858450	2828078	2838740	0.60	cps
Antimony	121-1	6044295	5950521	6035765	6010194	0.86	cps
Arsenic	75-2	105810	106639	107784	106744	0.93	cps
Barium	135-1	7809561	7741833	7702627	7751340	0.70	cps
Barium	137-1	13106145	13138420	13339795	13194786	0.96	cps
Beryllium	9-1	2171899	2218300	2243561	2211253	1.64	cps
Bismuth	209-1	8156572	8198710	8179967	8178416	0.26	cps
Bismuth	209-2	3218396	3228469	3226163	3224343	0.16	cps
Bromine	81-1	227963	212390	199718	213357	6.63	cps
Cadmium	108-1	117707	118991	119727	118809	0.86	cps
Cadmium	106-1	170580	174373	172303	172419	1.10	cps
Cadmium	111-1	1362131	1377068	1372486	1370562	0.56	cps
Calcium	43-1	11981234	11913613	11956789	11950545	0.29	cps
Calcium	44-1	190453257	192260230	191570370	191427953	0.48	cps
Carbon	12-1	4013145	3986484	3971097	3990242	0.53	cps
Carbon	12-2	29433	28711	28902	29015	1.29	cps
Chlorine	35-1	3092231	2946177	2796020	2944809	5.03	cps
Chlorine	35-2	9710	8833	8913	9152	5.30	cps
Chromium	52-2	1238526	1258508	1257278	1251437	0.89	cps
Cobalt	59-2	2402943	2366702	2424334	2397993	1.21	cps
Copper	63-2	16969887	16976541	17039737	16995388	0.23	cps
Dysprosium	156-1	337	420	367	374	11.27	cps
Dysprosium	156-2	103	100	70	91	20.15	cps
Erbium	164-1	323	393	397	371	11.16	cps
Erbium	164-2	97	83	103	94	10.78	cps
Gadolinium	160-1	303	250	253	269	11.11	cps
Gadolinium	160-2	103	103	97	101	3.81	cps
Holmium	165-1	14919028	15046544	14843305	14936292	0.69	cps
Holmium	165-2	5066818	5117522	5080154	5088165	0.52	cps
Indium	115-1	11002438	10767831	10811104	10860458	1.15	cps
Indium	115-2	1033839	1045371	1047030	1042080	0.69	cps
Iron	54-2	13256516	13354326	13476875	13362572	0.83	cps
Iron	56-2	244122410	246730763	248476590	246443254	0.89	cps
Iron	57-2	6203929	6192713	6271180	6222607	0.68	cps
Krypton	83-1	223	227	233	228	2.24	cps
Lead	206-1	24266690	24087884	24498120	24284231	0.85	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	21225019	21073531	20954174	21084241	0.64	cps
Lead	208-1	96627368	96186429	96186745	96333514	0.26	cps
Lithium	6-1	6676326	6759063	6794068	6743152	0.90	cps
Magnesium	24-2	47809741	48222991	47843834	47958855	0.48	cps
Manganese	55-2	5628371	5671028	5717255	5672218	0.78	cps
Molybdenum	94-1	22310165	22161465	22315116	22262248	0.39	cps
Molybdenum	95-1	32155136	32249362	32280800	32228433	0.20	cps
Molybdenum	96-1	34522812	34745730	35030356	34766299	0.73	cps
Molybdenum	97-1	19429430	19415681	19663621	19502911	0.71	cps
Molybdenum	98-1	51434669	51958501	51951576	51781582	0.58	cps
Neodymium	150-1	790	723	893	802	10.68	cps
Neodymium	150-2	70	50	40	53	28.64	cps
Nickel	60-2	596519	598667	603050	599412	0.56	cps
Phosphorus	31-2	23252	23573	23593	23472	0.81	cps
Potassium	39-2	13782624	13827479	13778834	13796312	0.20	cps
Rhodium	103-1	9437958	9580327	9560133	9526139	0.81	cps
Rhodium	103-2	3597772	3660904	3637555	3632077	0.88	cps
Scandium	45-1	8439044	8583840	8469064	8497316	0.90	cps
Scandium	45-2	147413	148518	147875	147936	0.38	cps
Selenium	82-1	90796	90971	91212	90993	0.23	cps
Selenium	77-2	1617	1417	1583	1539	6.96	cps
Selenium	78-2	5171	5468	5211	5283	3.05	cps
Silicon	28-1	17910361	18351354	18376826	18212847	1.44	cps
Silver	107-1	7544959	7646713	7437887	7543186	1.38	cps
Silver	109-1	7115080	7199387	7125550	7146673	0.64	cps
Sodium	23-2	96369202	95882645	95859119	96036989	0.30	cps
Strontium	86-1	2283560	2293608	2306213	2294460	0.49	cps
Strontium	88-1	18999026	19206536	19392770	19199444	1.03	cps
Sulfur	34-1	972768	968980	997614	979787	1.59	cps
Terbium	159-1	15187374	15212469	15085215	15161686	0.44	cps
Terbium	159-2	4864702	4910488	4873115	4882768	0.50	cps
Thallium	203-1	6282922	6286362	6242755	6270680	0.39	cps
Thallium	205-1	14733903	14893833	14681825	14769854	0.75	cps
Tin	118-1	5655129	5687937	5647745	5663603	0.38	cps
Titanium	47-1	10127738	10192568	10245909	10188739	0.58	cps
Uranium	238-1	19877594	20037113	19740528	19885078	0.75	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCV004	Instrumnet Name :	P8
Client Sample ID :	CCV004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:32:49	DataFile Name :	077CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	989945	1000227	1000367	996846	0.60	cps
Ytterbium	172-1	423	417	400	413	2.91	cps
Ytterbium	172-2	180	150	160	163	9.35	cps
Ytterbium	176-1	30154	30348	30692	30398	0.90	cps
Ytterbium	176-2	9967	9647	10241	9952	2.99	cps
Yttrium	89-1	20945177	20952561	21031112	20976283	0.23	cps
Yttrium	89-2	1466525	1496171	1471364	1478020	1.08	cps
Zinc	66-2	1824839	1823494	1834525	1827619	0.33	cps
Zirconium	90-1	11289671	11127556	11235429	11217552	0.74	cps
Zirconium	91-1	2519925	2522381	2540881	2527729	0.45	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	113	120	110	114	4.45	cps
Antimony	121-1	1443	1350	1097	1297	13.83	cps
Arsenic	75-2	0	13	3	6	124.93	cps
Barium	135-1	1000	847	670	839	19.69	cps
Barium	137-1	1500	1227	1150	1292	14.24	cps
Beryllium	9-1	1070	921	864	952	11.18	cps
Bismuth	209-1	9803088	9827167	9687247	9772501	0.77	cps
Bismuth	209-2	3859076	3878137	3820501	3852571	0.76	cps
Bromine	81-1	102753	97861	91388	97334	5.86	cps
Cadmium	108-1	53	43	23	40	38.19	cps
Cadmium	106-1	6972	6942	6742	6885	1.82	cps
Cadmium	111-1	1557	1445	1439	1480	4.50	cps
Calcium	43-1	987	760	683	810	19.47	cps
Calcium	44-1	18672	13306	11555	14511	25.56	cps
Carbon	12-1	2735991	2626859	2593805	2652218	2.81	cps
Carbon	12-2	16556	16142	16579	16426	1.50	cps
Chlorine	35-1	1744411	1634850	1565717	1648326	5.47	cps
Chlorine	35-2	5298	5314	4954	5189	3.92	cps
Chromium	52-2	817	733	883	811	9.27	cps
Cobalt	59-2	153	190	173	172	10.66	cps
Copper	63-2	4901	5188	5031	5040	2.85	cps
Dysprosium	156-1	10	20	30	20	50.00	cps
Dysprosium	156-2	0	3	3	2	86.60	cps
Erbium	164-1	53	73	83	70	21.82	cps
Erbium	164-2	13	20	23	19	26.96	cps
Gadolinium	160-1	23	73	40	46	55.89	cps
Gadolinium	160-2	20	10	7	12	56.76	cps
Holmium	165-1	15740212	15691855	15645554	15692540	0.30	cps
Holmium	165-2	5321597	5385047	5399953	5368865	0.78	cps
Indium	115-1	12139081	12280760	12095676	12171839	0.80	cps
Indium	115-2	1164330	1161171	1166643	1164048	0.24	cps
Iron	54-2	650	647	630	642	1.67	cps
Iron	56-2	9977	10070	10757	10268	4.15	cps
Iron	57-2	240	270	263	258	6.11	cps
Krypton	83-1	197	203	207	202	2.52	cps
Lead	206-1	4107	3164	2807	3359	20.00	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3270	2784	2350	2801	16.43	cps
Lead	208-1	15891	12883	11229	13334	17.73	cps
Lithium	6-1	7508206	7396819	7252660	7385895	1.73	cps
Magnesium	24-2	1360	1220	1340	1307	5.80	cps
Manganese	55-2	383	383	383	383	0.00	cps
Molybdenum	94-1	2077	1463	1180	1573	29.13	cps
Molybdenum	95-1	2754	1770	1367	1964	36.33	cps
Molybdenum	96-1	3130	1900	1560	2197	37.60	cps
Molybdenum	97-1	1640	1063	750	1151	39.22	cps
Molybdenum	98-1	4301	2687	2200	3063	35.90	cps
Neodymium	150-1	33	23	17	24	34.31	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	1020	973	1087	1027	5.55	cps
Phosphorus	31-2	50	40	33	41	20.41	cps
Potassium	39-2	8336	8829	8429	8531	3.07	cps
Rhodium	103-1	11160761	11438374	11183129	11260755	1.37	cps
Rhodium	103-2	4293876	4296344	4334815	4308345	0.53	cps
Scandium	45-1	8986018	9008263	9010228	9001503	0.15	cps
Scandium	45-2	151358	151744	152533	151878	0.39	cps
Selenium	82-1	23	33	37	31	22.31	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	7	0	3	3	100.05	cps
Silicon	28-1	524396	510339	496074	510269	2.78	cps
Silver	107-1	1217	1163	1097	1159	5.19	cps
Silver	109-1	1197	890	840	976	19.80	cps
Sodium	23-2	91122	89764	88154	89680	1.66	cps
Strontium	86-1	497	447	337	427	19.19	cps
Strontium	88-1	1487	1040	800	1109	31.43	cps
Sulfur	34-1	364124	364969	361768	363620	0.46	cps
Terbium	159-1	15771076	16130987	16037079	15979714	1.17	cps
Terbium	159-2	5154380	5256936	5163303	5191540	1.09	cps
Thallium	203-1	1263	1077	923	1088	15.65	cps
Thallium	205-1	2894	2584	2187	2555	13.87	cps
Tin	118-1	1509	1389	1294	1397	7.69	cps
Titanium	47-1	793	510	457	587	30.85	cps
Uranium	238-1	1213	703	420	779	51.62	cps

Reviewed By:Mohan
On:2/5/2025 4:17:00 PM
Inst Id :P8

LB Number :	LB134585	Operator :	Jaswal
Lab Sample ID :	CCB004	Instrumnet Name :	P8
Client Sample ID :	CCB004	Dilution Factor :	1
Date & Time Acquired :	2025-01-21 18:35:36	DataFile Name :	078CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	37	17	17	23	49.48	cps
Ytterbium	172-1	107	90	83	93	12.88	cps
Ytterbium	172-2	27	23	23	24	7.89	cps
Ytterbium	176-1	1890	2074	1990	1985	4.63	cps
Ytterbium	176-2	247	207	277	243	14.43	cps
Yttrium	89-1	22490374	22235691	22293651	22339905	0.60	cps
Yttrium	89-2	1589082	1552644	1542648	1561458	1.57	cps
Zinc	66-2	263	310	303	292	8.64	cps
Zirconium	90-1	1623	1323	1167	1371	16.92	cps
Zirconium	91-1	397	243	233	291	31.45	cps

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Prep Standard - Chemical Standard Summary

Order ID : Q1127

Test : Metals CLP MS-CLP4

Prepbatch ID : PB166137,

Sequence ID/Qc Batch ID: LB134585,

Standard ID :
MP83499,MP84041,MP84042,MP84043,MP84044,MP84045,MP84046,MP84047,MP84048,MP84049,MP84050,MP84051,MP84052,MP84053,MP84054,MP84055,MP84056,MP84057,MP84073,MP84074,MP84099,

Chemical ID :
M5288,M5289,M5295,M5298,M5304,M5472,M5476,M5496,M5497,M5498,M5513,M5516,M5519,M5658,M5697,M5739,M5751,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5819,M5820,M5873,M5874,M5961,M5962,M5976,M5978,M5981,M5983,M5993,M5999,M6021,M6023,M6025,M6028,M6030,M6032,M6055,M6121,M6126,M6127,M6128,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP83499	12/09/2024	01/30/2025	Eman Mughal	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6121 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP84041	01/14/2025	07/14/2025	Eman Mughal	None	None	Sarabjit Jaswal 01/16/2025

FROM 1250.00000ml of M6126 + 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
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP84042	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 25.00000ml of M6121 + 4925.00000ml of W3112 + 50.00000ml of M6126 = Final Quantity: 5000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3947	S7(SFAM,6020,200.8)	MP84043	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 1.00000ml of M5476 + 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M5983 + 1.90000ml of M5496 + 10.00000ml of M5976 + 10.00000ml of M5978 + 10.00000ml of M6126 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6025 + 4.00000ml of M6032 + 4.90000ml of M5298 + 4.90000ml of M5519 + 5.00000ml of M6121 + 50.00000ml of M5304 + 830.60000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M5819 + 9.00000ml of M6128 + 9.90000ml of M5497 + 9.90000ml of M5806 + 9.90000ml of M6127 = 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)	MP84044	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 48.50000ml of W3112 + 50.00000ml of MP84043 = 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)	MP84045	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 73.50000ml of W3112 + 25.00000ml of MP84043 = 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)	MP84046	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 86.00000ml of W3112 + 12.50000ml of MP84043 = 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)	MP84047	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84044 = 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)	MP84048	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.05000ml of M5476 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6128 + 0.10000ml of M5496 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.25000ml of M5298 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5976 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.50000ml of M6032 + 2.00000ml of M5815 + 2.00000ml of M5817 + 2.50000ml of M5498 + 2.50000ml of M5519 + 2.50000ml of M5806 + 2.50000ml of M6121 + 2.50000ml of M6127 + 225.25000ml of W3112 + 5.00000ml of M6126 = 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)	MP84049	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 98.00000ml of W3112 + 0.50000ml of MP84048 = 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
3957	S1(SFAM,6020,200.8)	MP84050	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84049 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3958	ICV(SFAM)	MP84051	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 2.00000ml of M5295 + 98.00000ml of MP84042 = 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
3961	CCV	MP84052	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.20000ml of M5513 + 0.50000ml of M5476 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M5983 + 1.00000ml of M5815 + 1.00000ml of M5817 + 10.00000ml of M6126 + 12.45000ml of M5298 + 12.45000ml of M5519 + 2.00000ml of M6032 + 24.95000ml of M5498 + 24.95000ml of M5806 + 24.95000ml of M6127 + 25.00000ml of M5304 + 4.50000ml of M5751 + 4.50000ml of M5819 + 4.50000ml of M6128 + 4.95000ml of M5496 + 5.00000ml of M5976 + 5.00000ml of M6121 + 830.60000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1142	ICSA ICPMS	MP84053	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP84042 = 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
1143	ICSAB ICPMS	MP84054	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP84042 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3962	MG 10PPM FOR TUNE	MP84055	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP84042 = 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
3894	TUNE 200PPB	MP84056	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP84055 + 96.00000ml of MP84042 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3903	ISS 3PPM	MP84057	01/14/2025	02/07/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 01/16/2025

FROM 5.00000ml of M6126 + 75.00000ml of M5739 + 170.00000ml of MP84042 = 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
2902	S8 ICPMS	MP84073	01/14/2025	02/07/2025	Janvi Patel	None	None	Mohan Bera 01/16/2025

FROM 1.00000ml of M5496 + 2.50000ml of M5288 + 2.50000ml of M5298 + 5.00000ml of M5497 + 5.00000ml of M5806 + 5.00000ml of M6127 + 79.00000ml of MP84042 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
870	ICPMS SPIKE SOL.B	MP84074	01/16/2025	02/07/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 01/17/2025

FROM 0.45000ml of M5962 + 5.00000ml of M5993 + 5.00000ml of M5999 + 39.55000ml of MP84042 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3963	CONC.LCSW SPIKE	MP84099	01/16/2025	02/07/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 01/17/2025

FROM 0.05000ml of M5472 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5289 + 0.10000ml of M5658 + 0.10000ml of M5697 + 0.10000ml of M5802 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.25000ml of M6128 + 0.50000ml of M6032 + 1.00000ml of M5298 + 1.25000ml of M5816 + 1.25000ml of M5820 + 1.25000ml of M6121 + 2.50000ml of M5497 + 2.50000ml of M5516 + 2.50000ml of M5519 + 2.50000ml of M5768 + 2.50000ml of M6126 + 226.35000ml of W3112 = Final Quantity: 250.000 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 #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Aluminum (Al) 10,000PPM	070622	07/06/2025	09/02/2022 / jaswal	07/12/2022 / jaswal	M5289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	020422	02/04/2025	05/02/2023 / jaswal	06/15/2022 / jaswal	M5298

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	08/07/2024 / jaswal	04/01/2022 / jaswal	M5304

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

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	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

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	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

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.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

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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	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5983

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

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	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 #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-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:

880

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

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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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884

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		

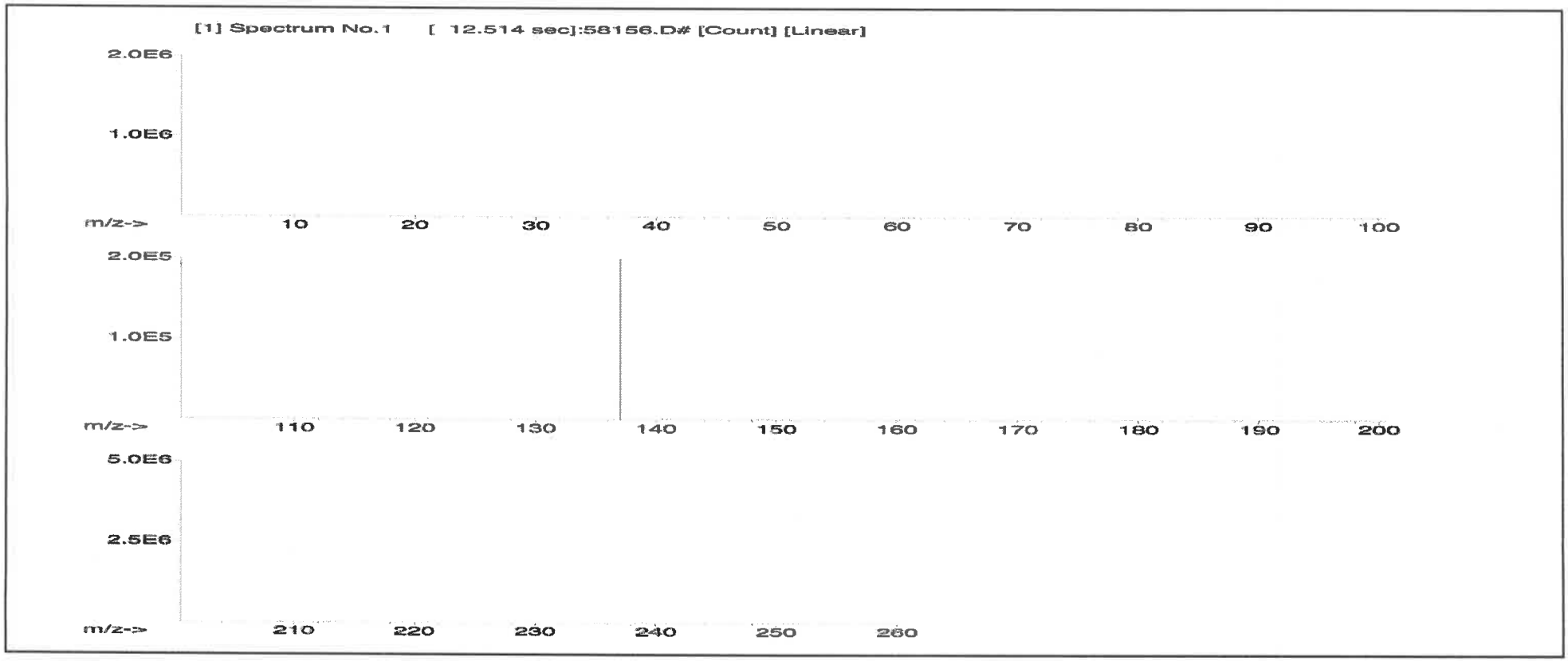
Giovanni Esposito

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



885

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6028

R: 8/5/24

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886

CERTIFIED WEIGHT REPORT:

Part Number: 57048
Lot Number: 070124
Description: Cadmium (Cd)

Expiration Date: 070127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.07

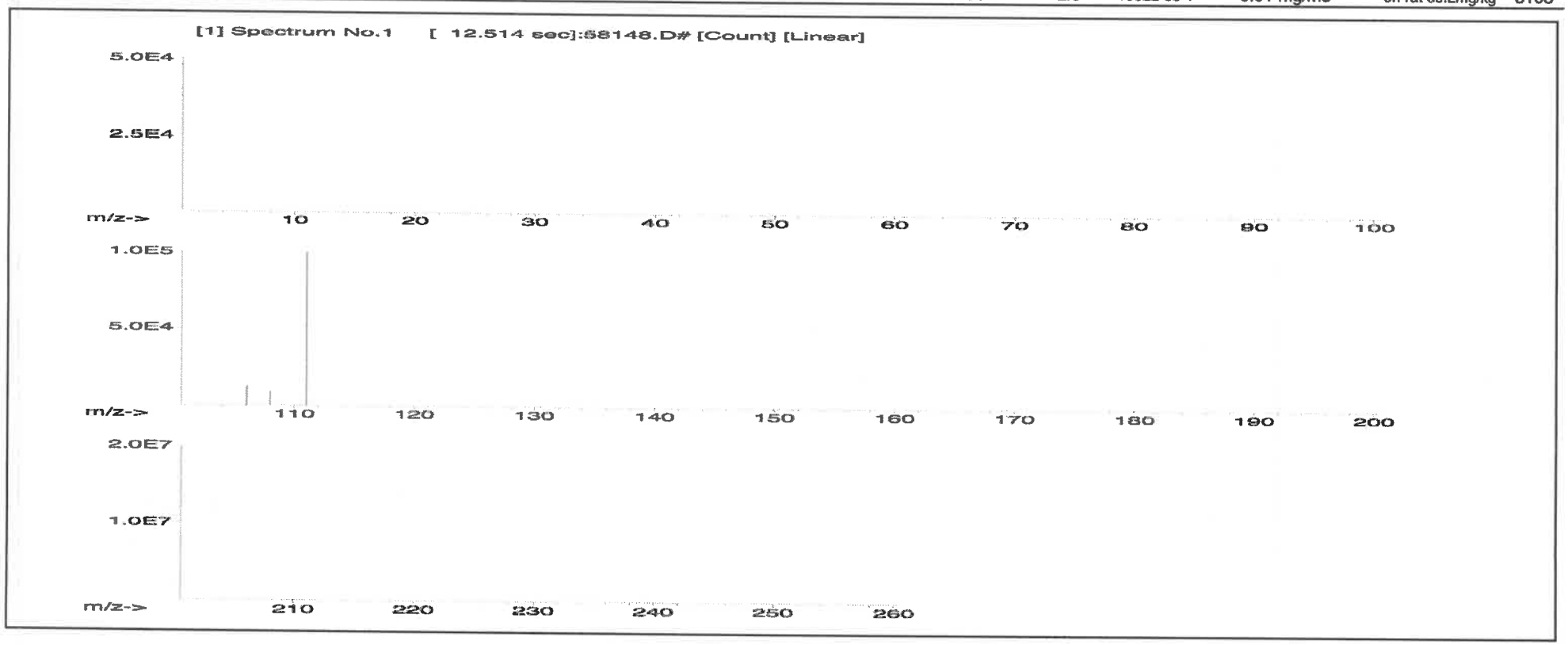
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
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



887

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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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 Reference Material CRM

R: 8/5/24 M6025

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888

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

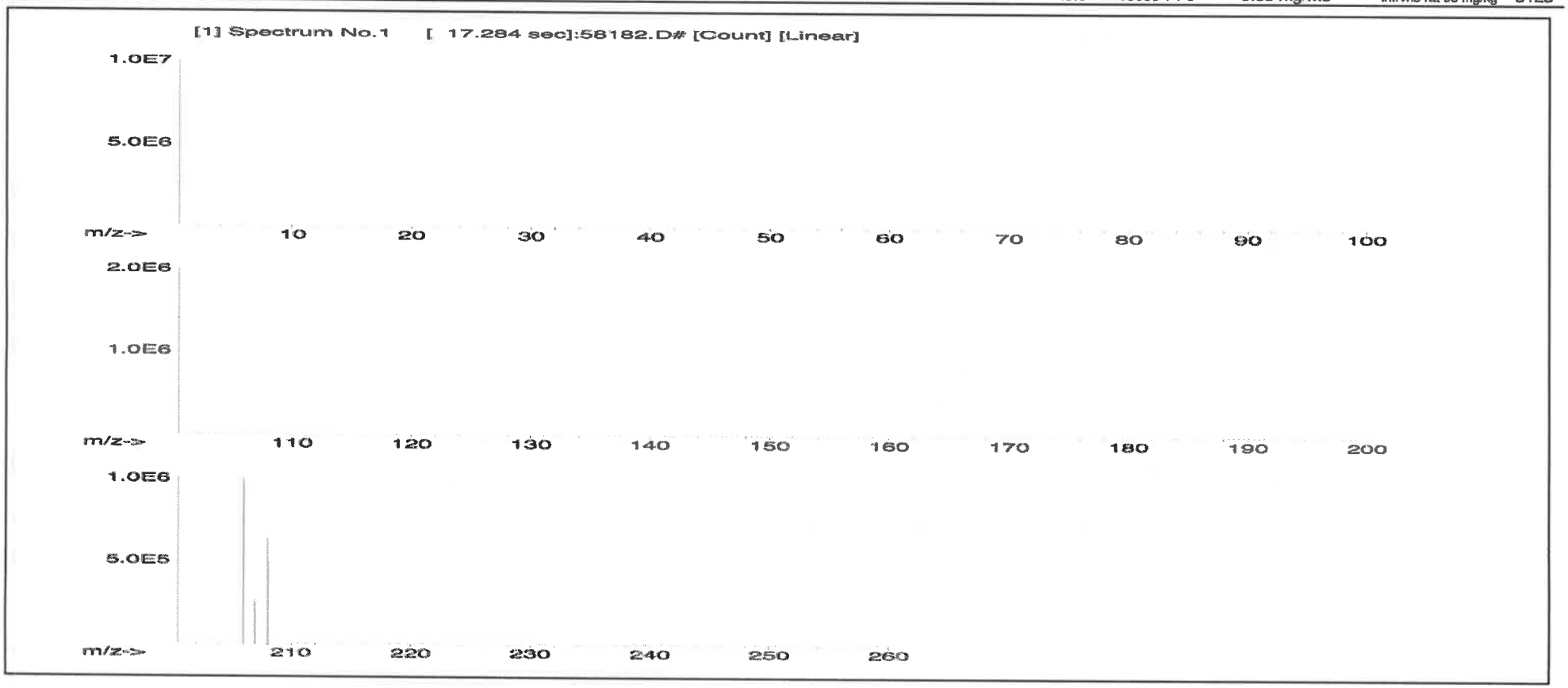
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	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



688

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).
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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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M5288 R: 07/21/2022

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0068

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

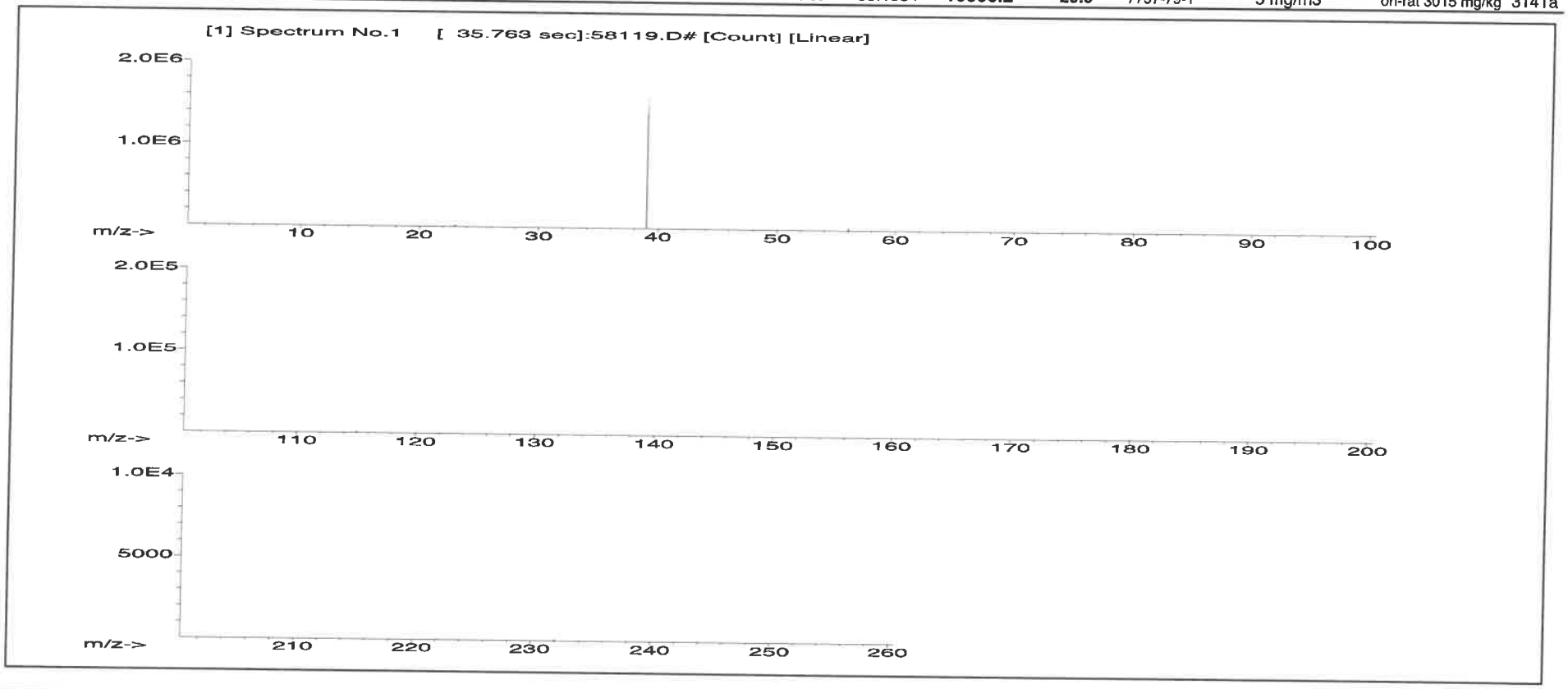
Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By: Lawrence Barry 071122

Reviewed By: Pedro L. Rentas 071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



891

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:



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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M5289 R: 07/12/22 BH

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CERTIFIED WEIGHT REPORT:

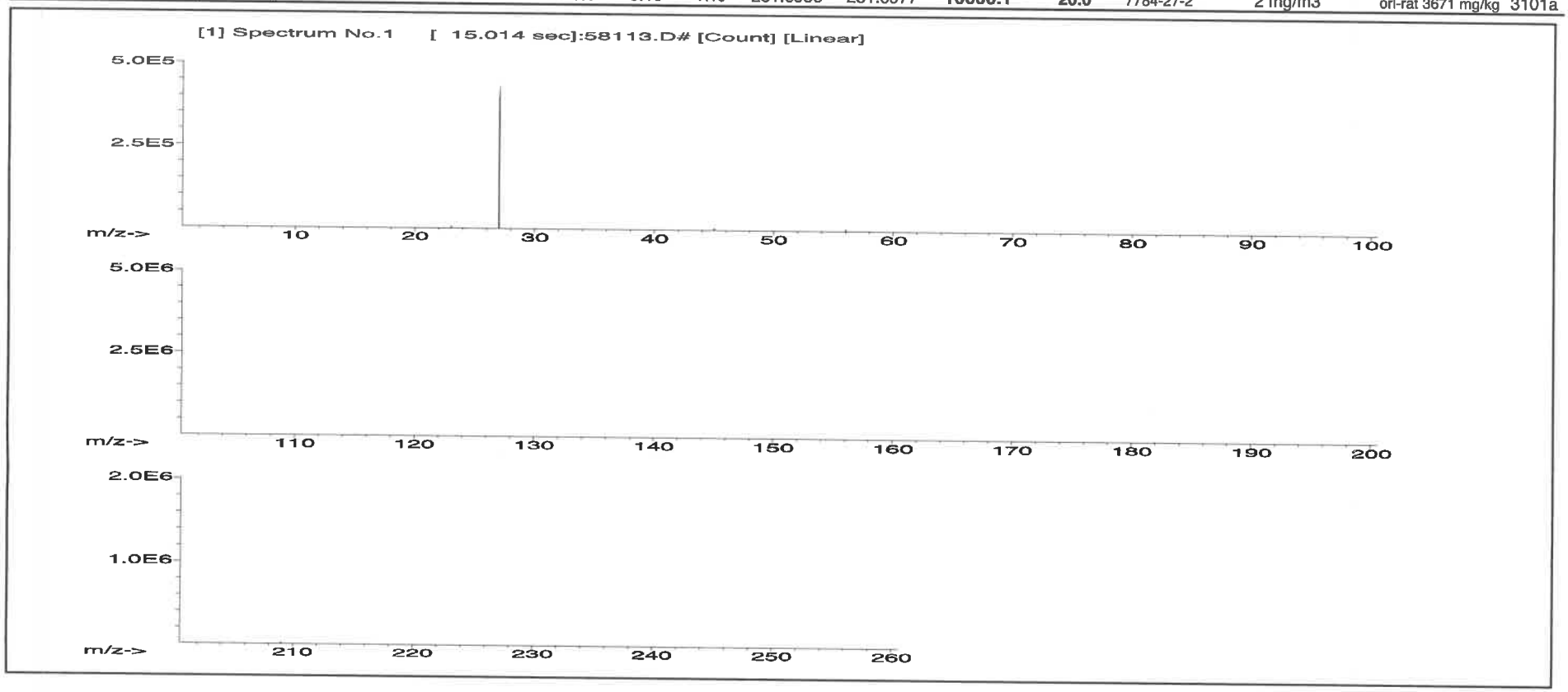
Part Number: 58113
Lot Number: 070622
Description: Aluminum (Al)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	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	<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).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

SJ 6/15/22

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 020422
Description: Iron (Fe)

M5298

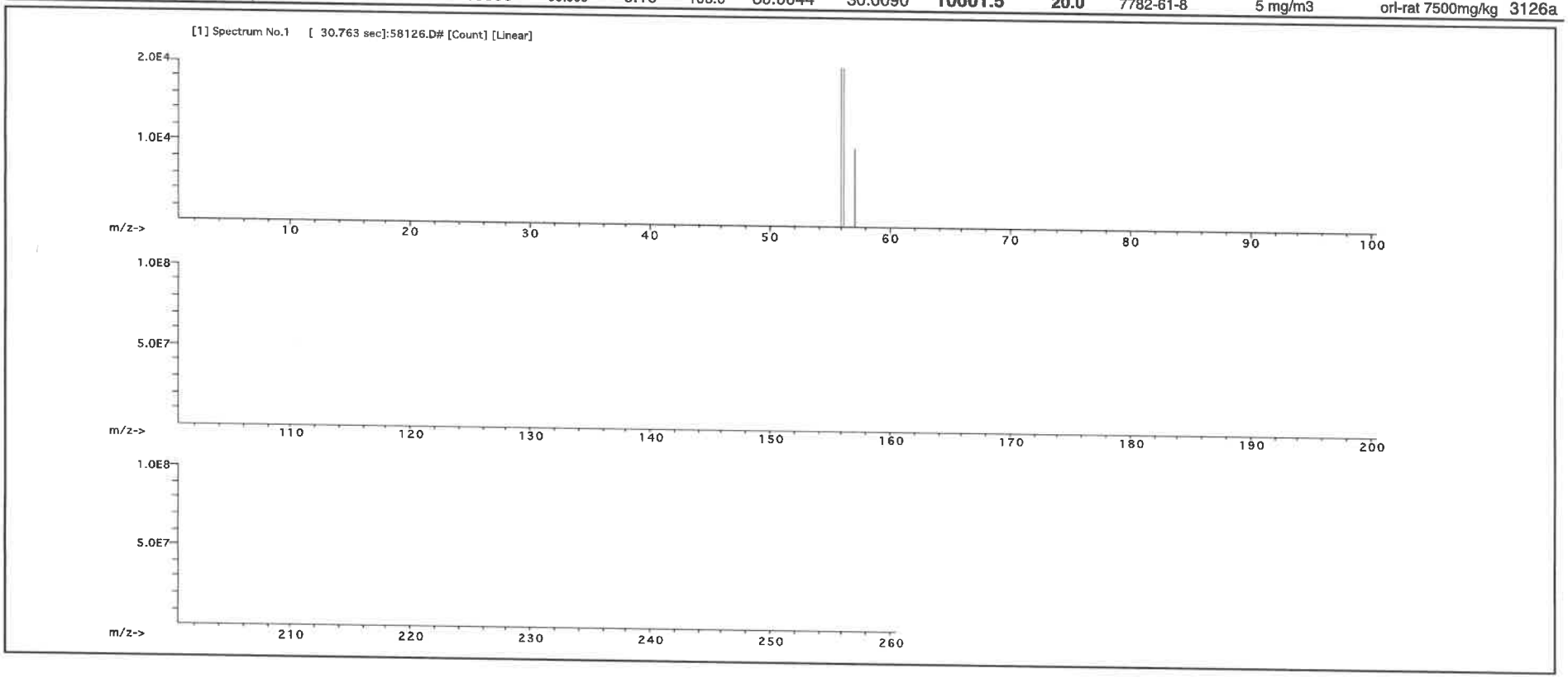
Expiration Date: 020425
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	20370011	Nitric Acid	
5.0%	150.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Giovanni Esposito
Formulated By: Giovanni Esposito 020422

Pedro Rentas
Reviewed By: Pedro L. Rentas 020422

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)	IN346	221035107	10000	99.999	0.10	100.0	30.0044	30.0090	**10001.5**	**20.0**	7782-61-8	5 mg/m3	orl-rat 7500mg/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	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.5	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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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Certificate of Analysis

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver,	Aluminum,
Arsenic,	Barium,
Beryllium,	Calcium,
Cadmium,	Cobalt,
Chromium,	Copper,
Iron,	Potassium,
Magnesium,	Manganese,
Sodium,	Nickel,
Lead,	Antimony,
Selenium,	Thallium,
Vanadium,	Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

M5496 R 7/20/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58113
Lot Number: 011623
Description: Aluminum (Al)

Expiration Date: 011626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

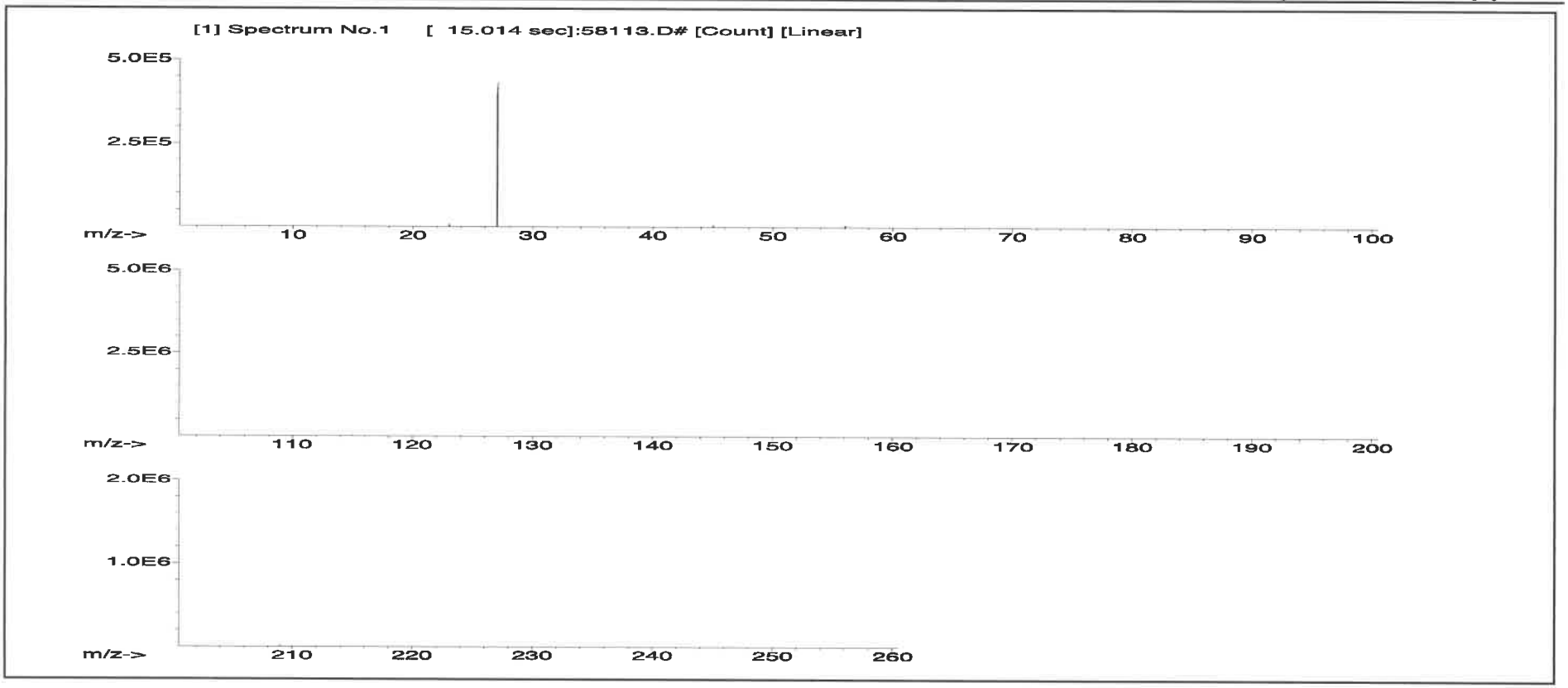
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



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Certified Reference Material CRM

M5497 - M5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.058 Flask Uncertainty

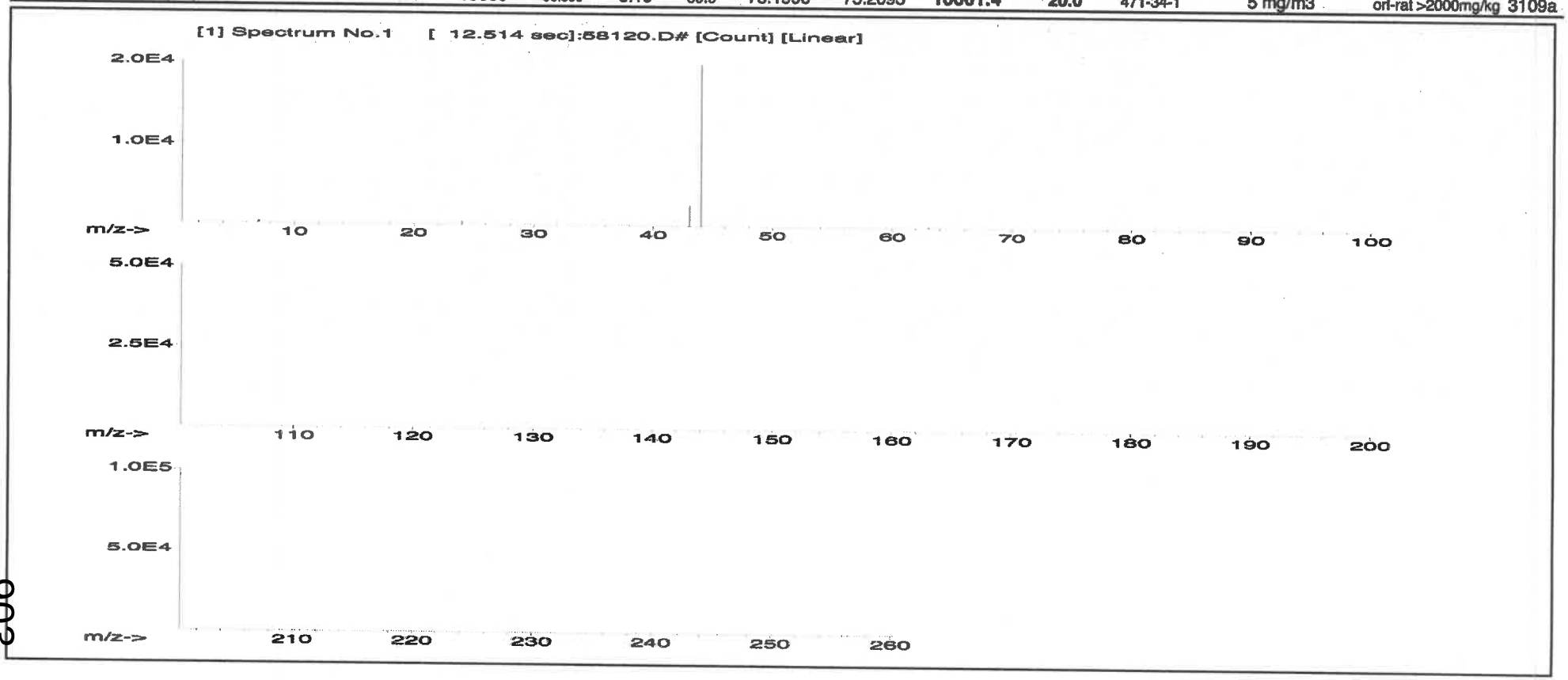
	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



903

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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

M5497 - M5498 R: 03/17/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

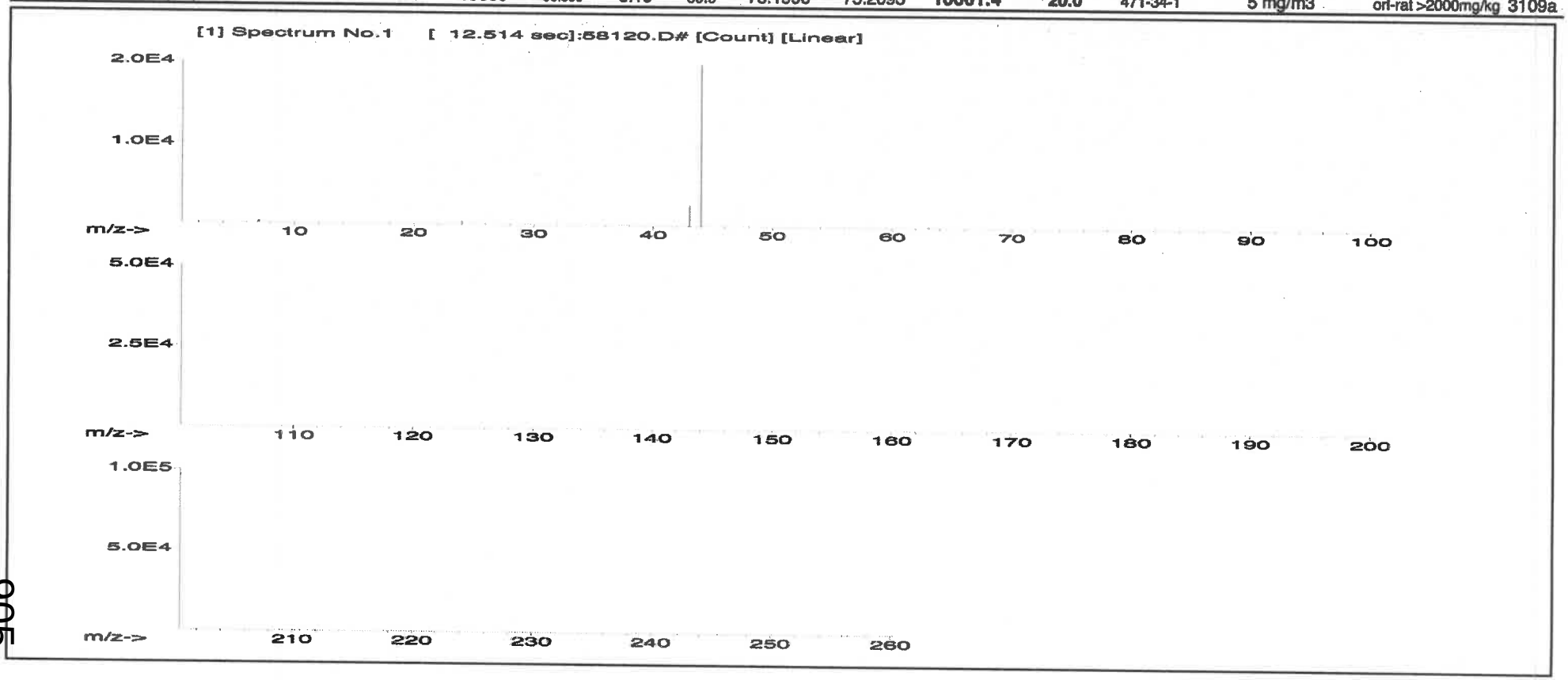
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.058 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



905

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

906

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MS513 R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

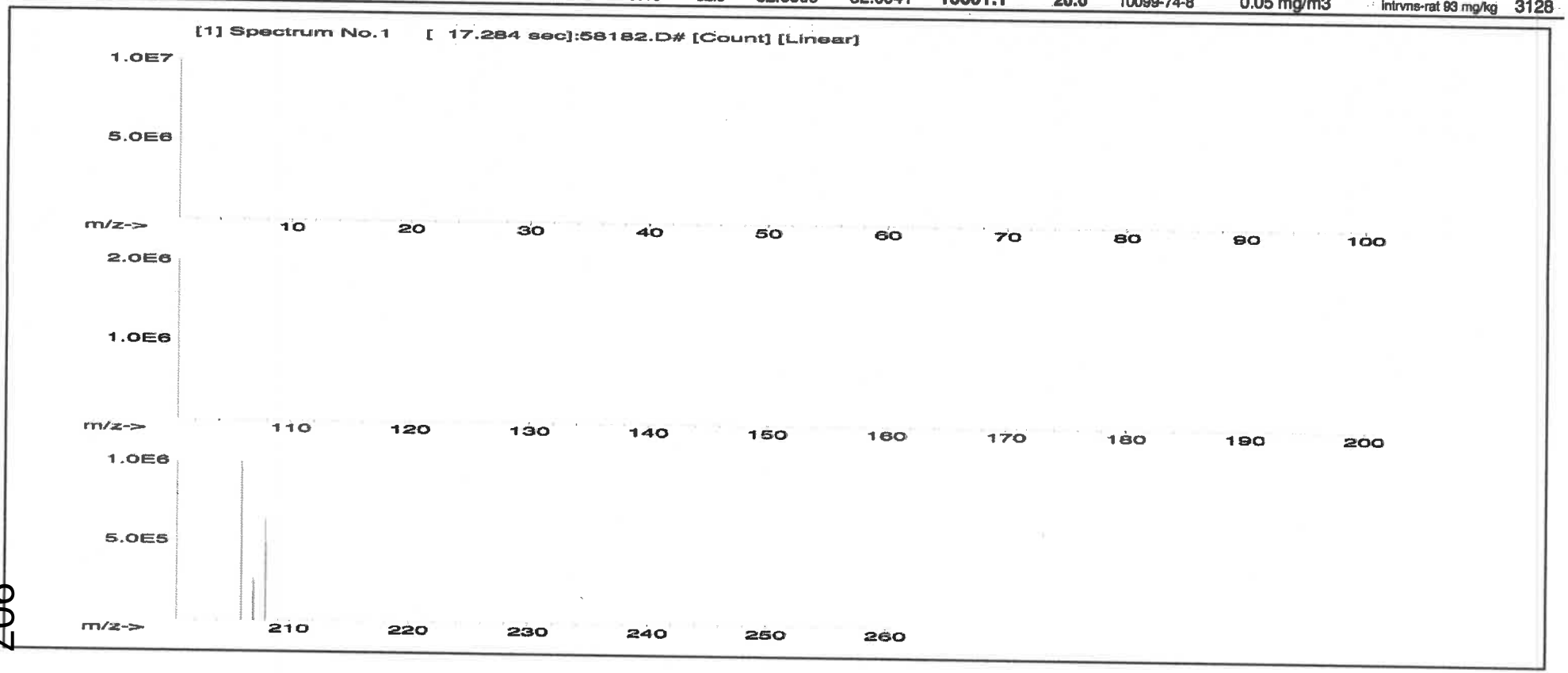
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

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	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



907

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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* 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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M546 M517 R: 03/17/22 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

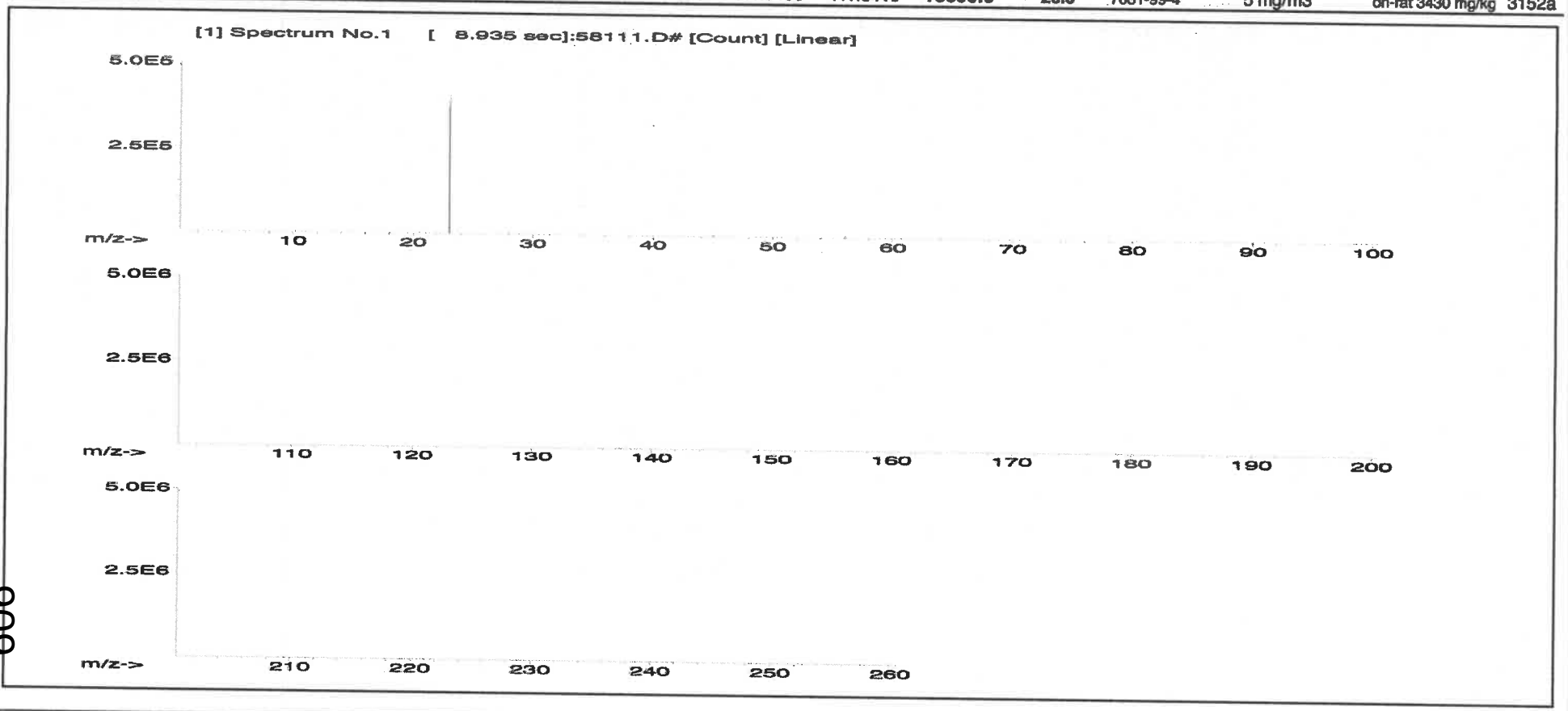
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



606

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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).

910

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M5519. M5520 (BH) R:03/17/23

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911

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

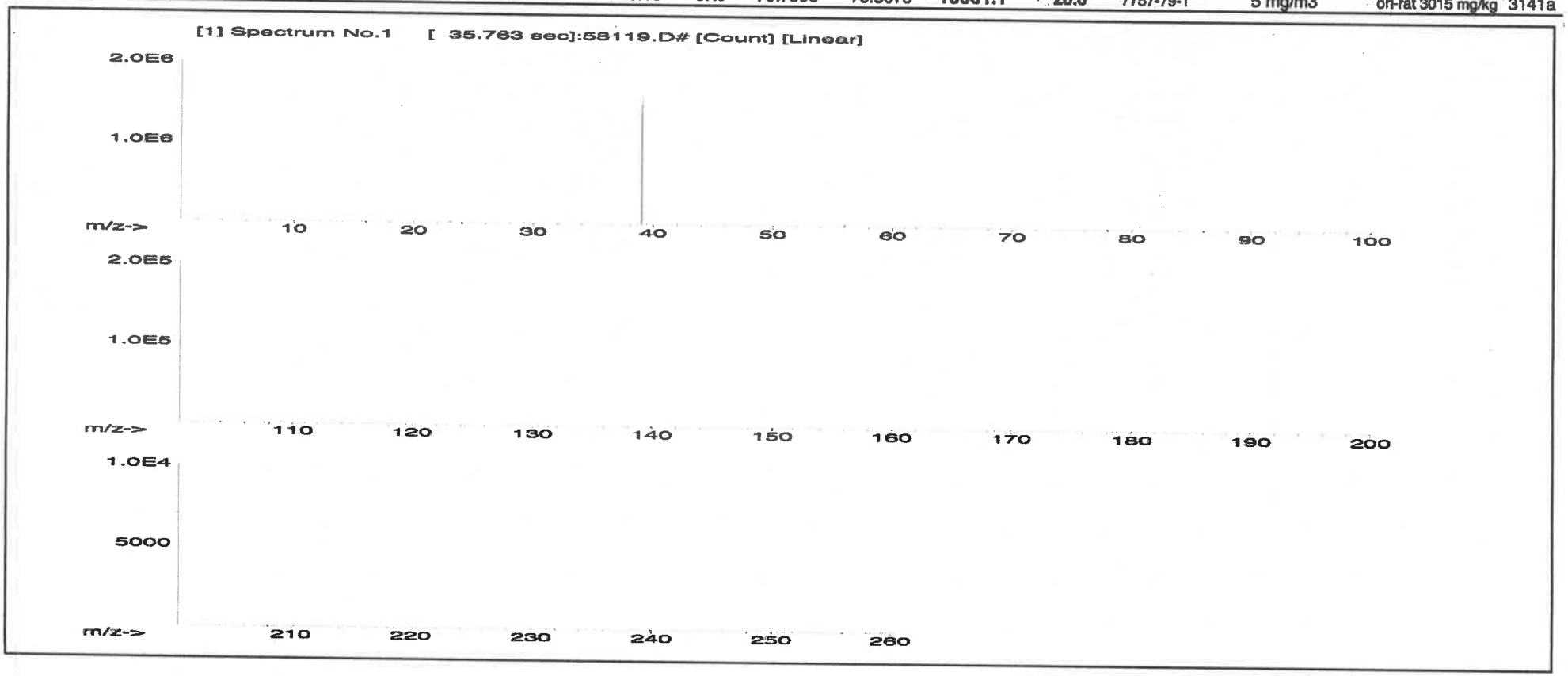
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



912

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:



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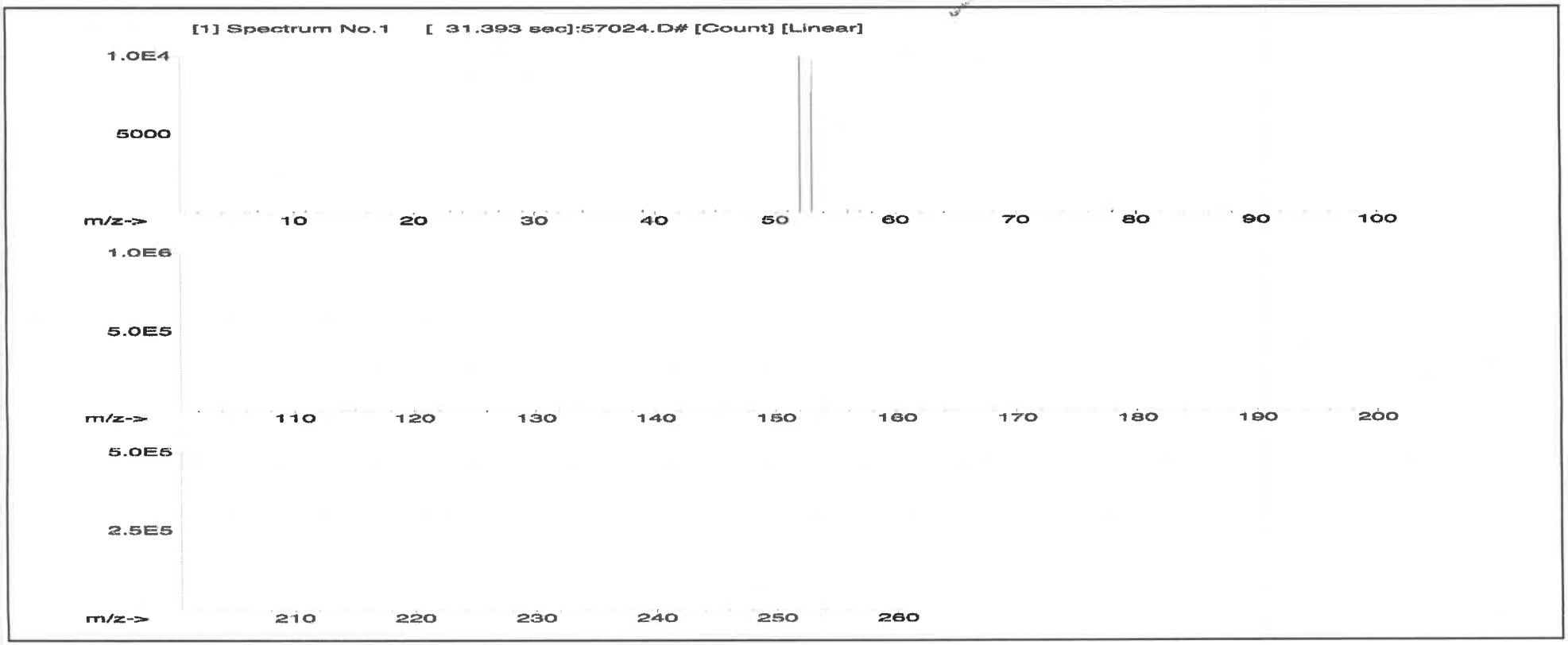
913

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



914

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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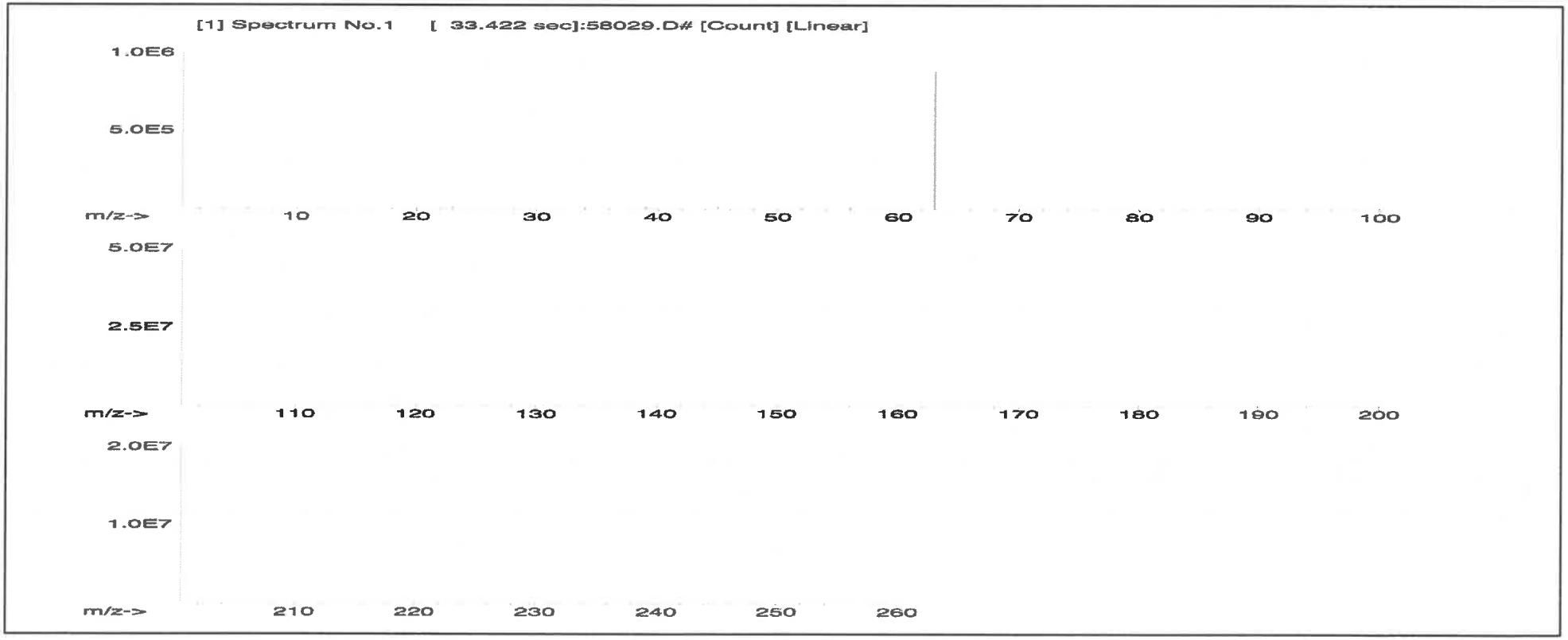
915

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



916

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 8/25/23 M5751

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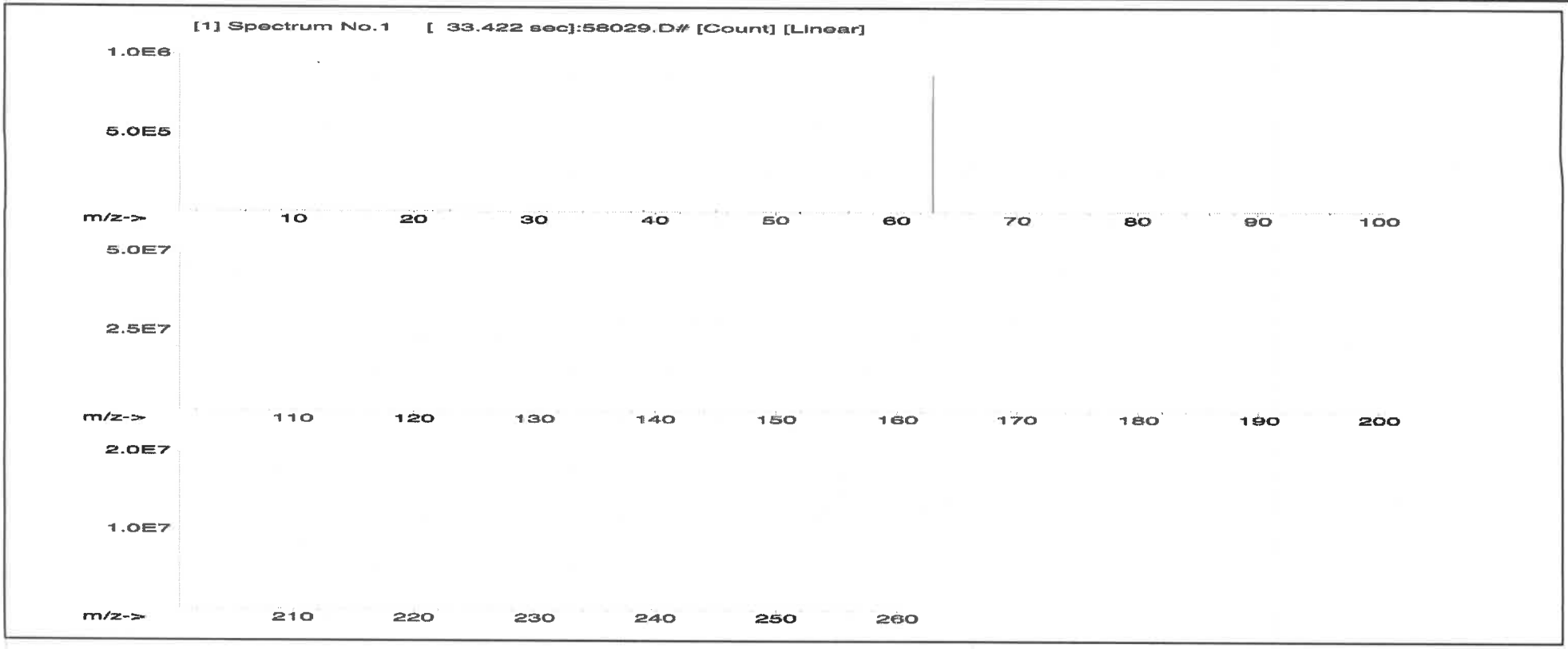
917

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



918

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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
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

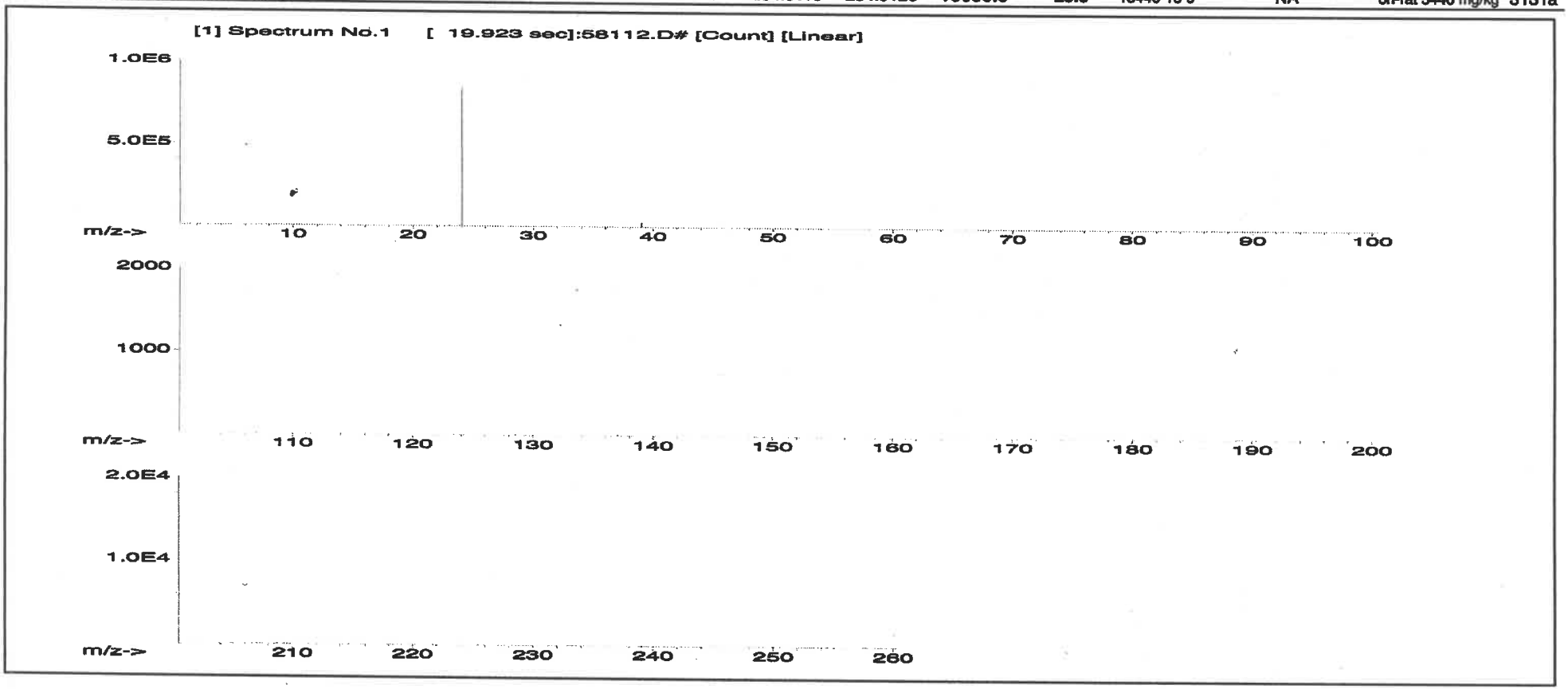
M5768, M5769 (BP) R: 1/3/24

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

919

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



920

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:

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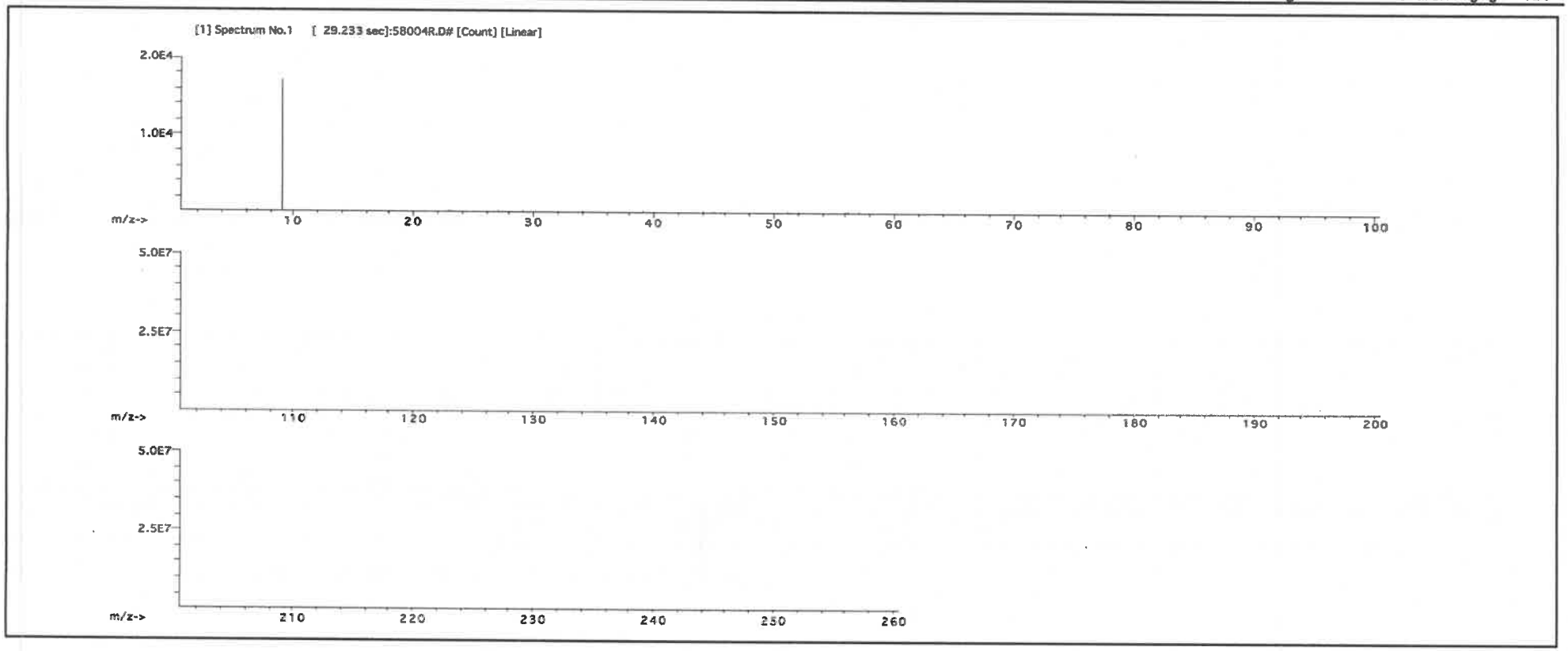
921

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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923

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

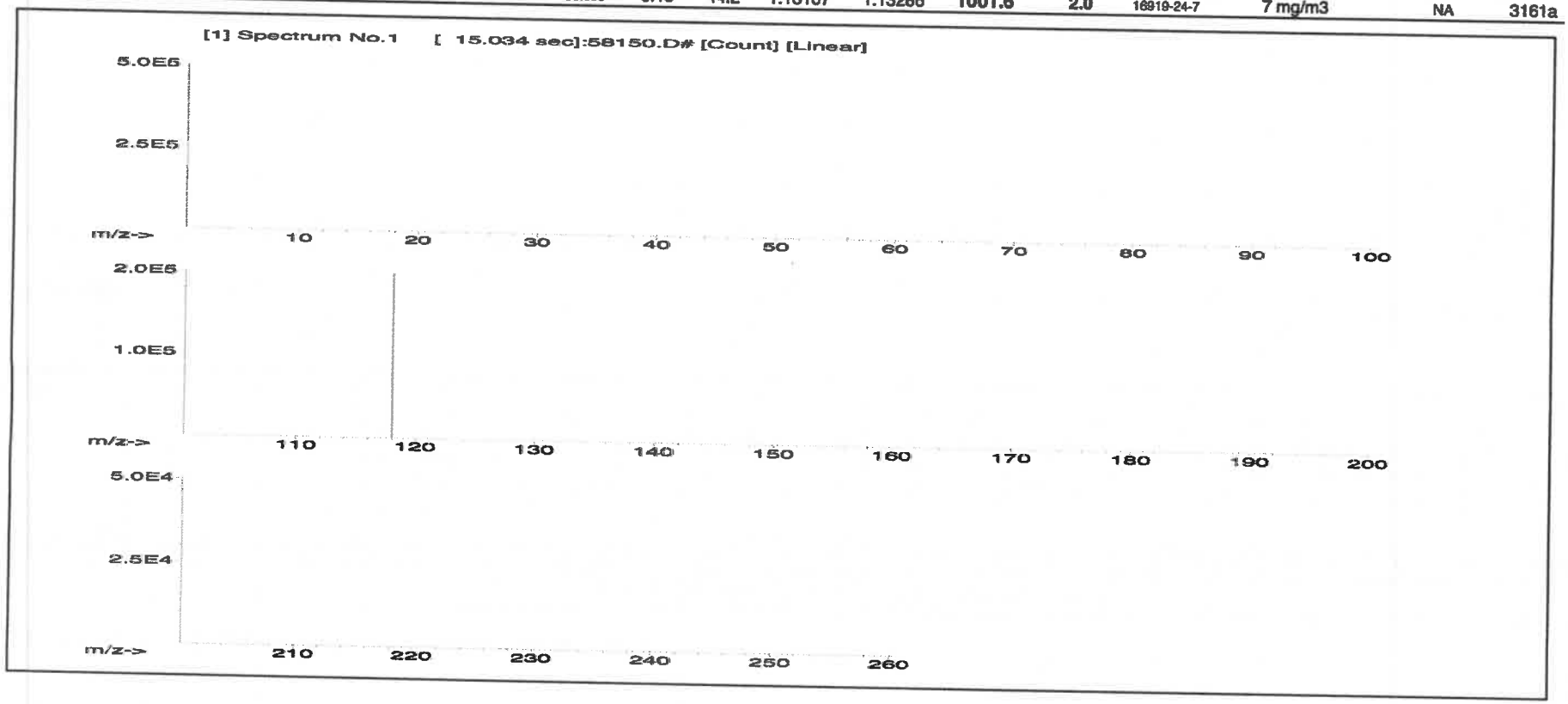
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



924

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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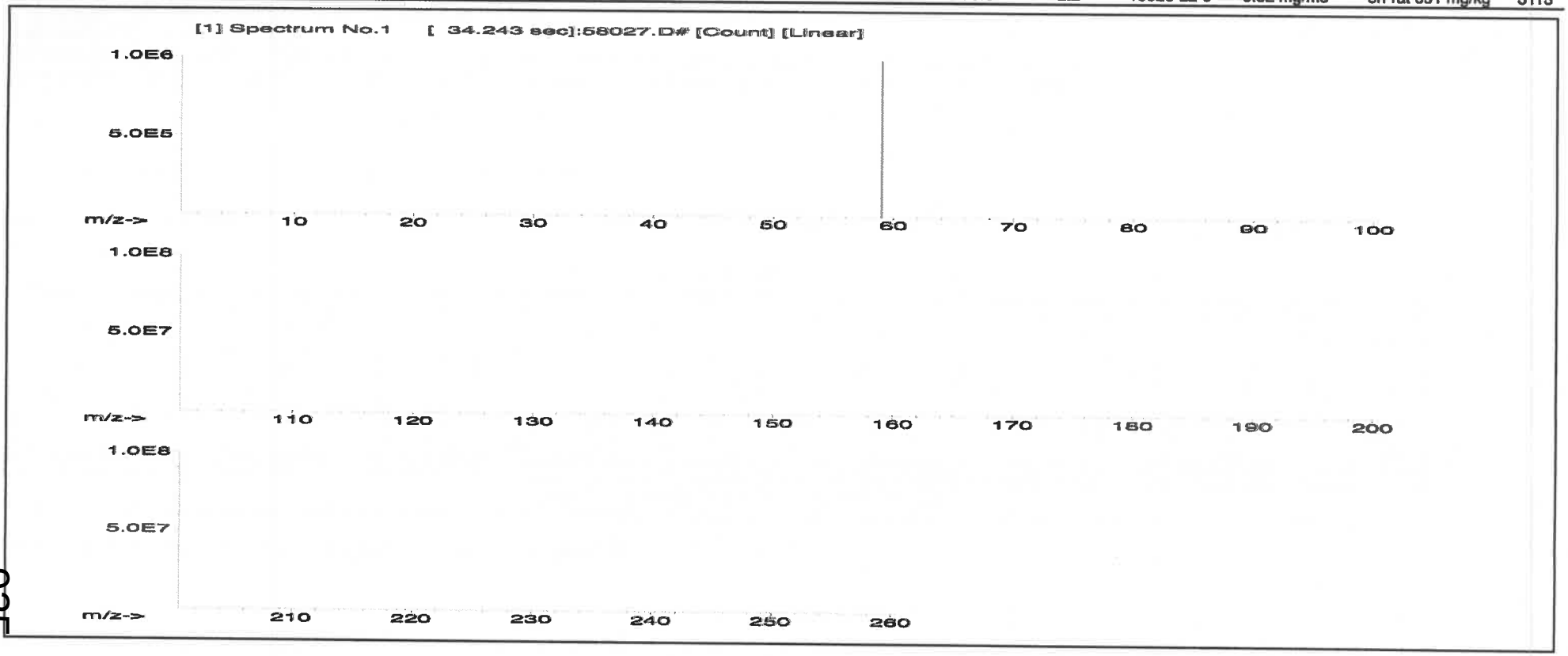
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



925

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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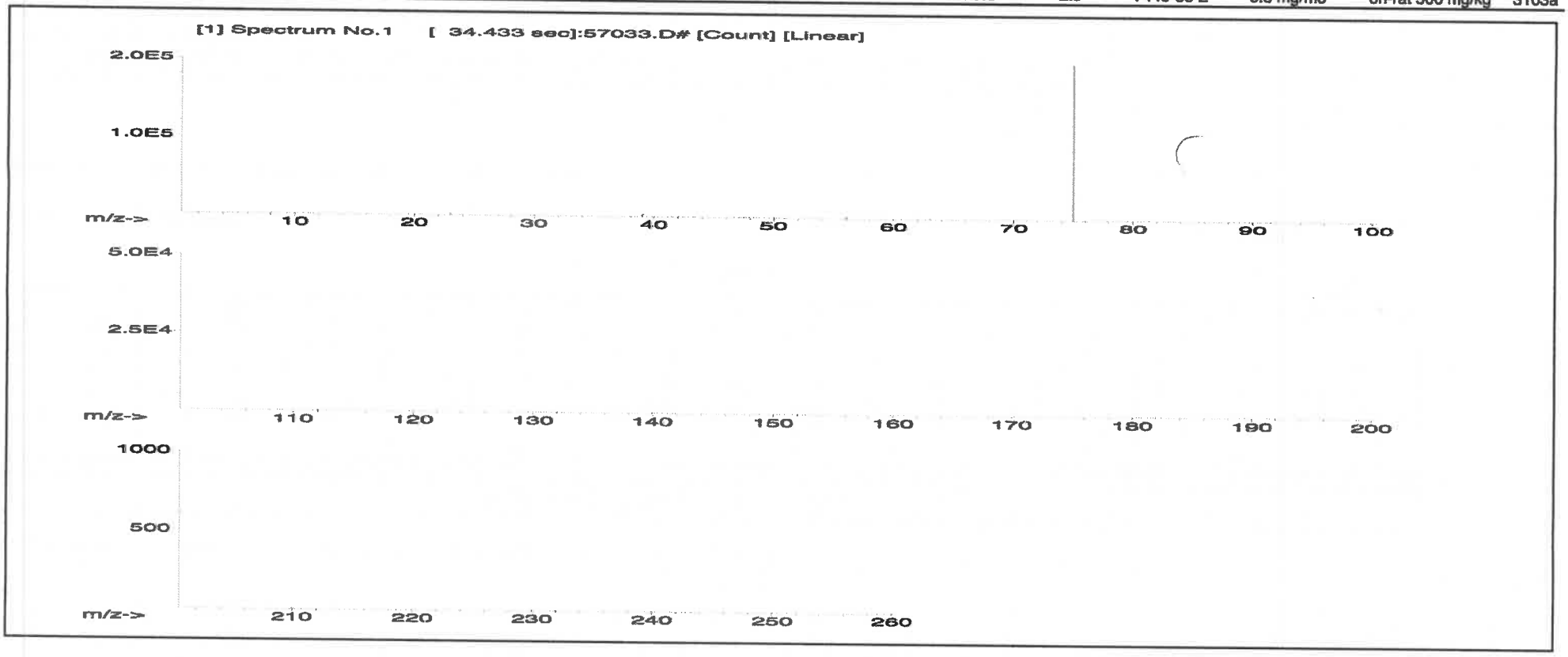
927

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



928

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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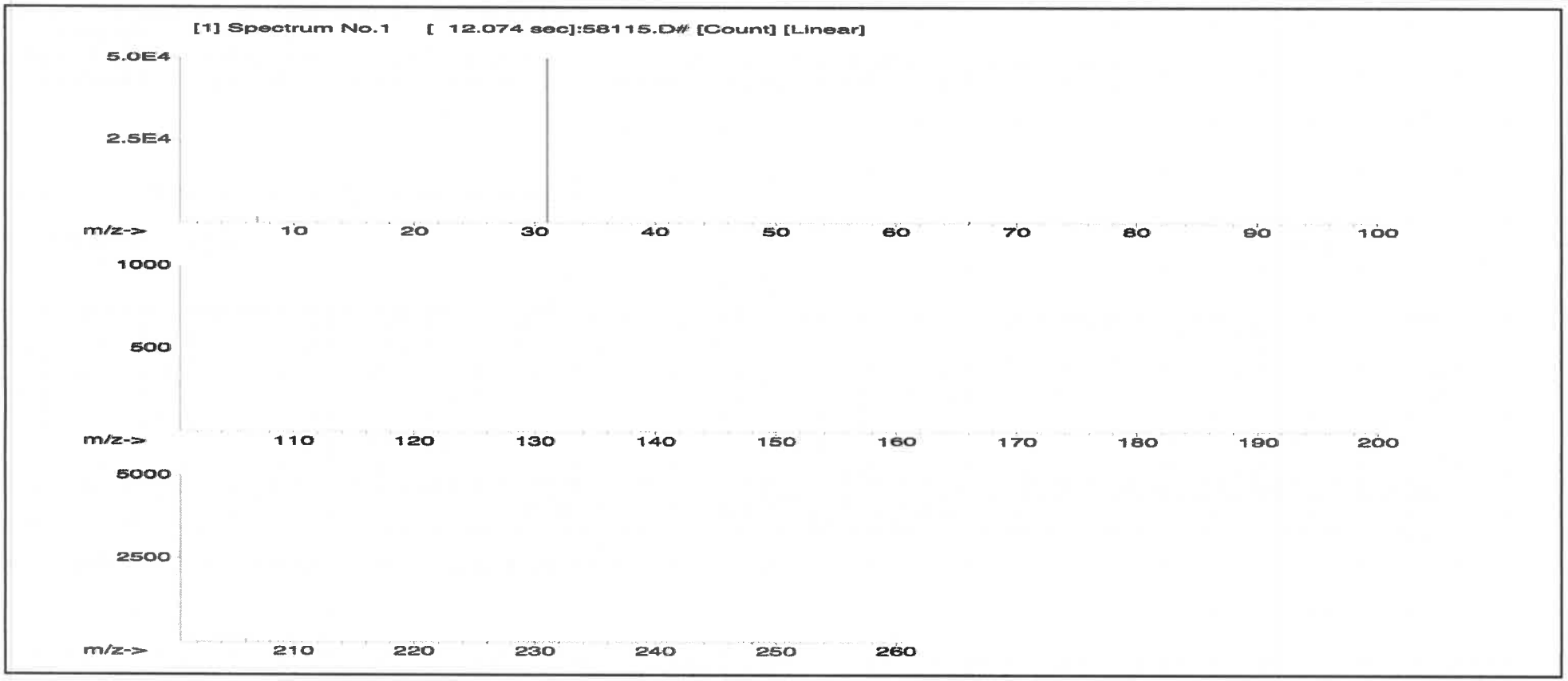
929

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



930

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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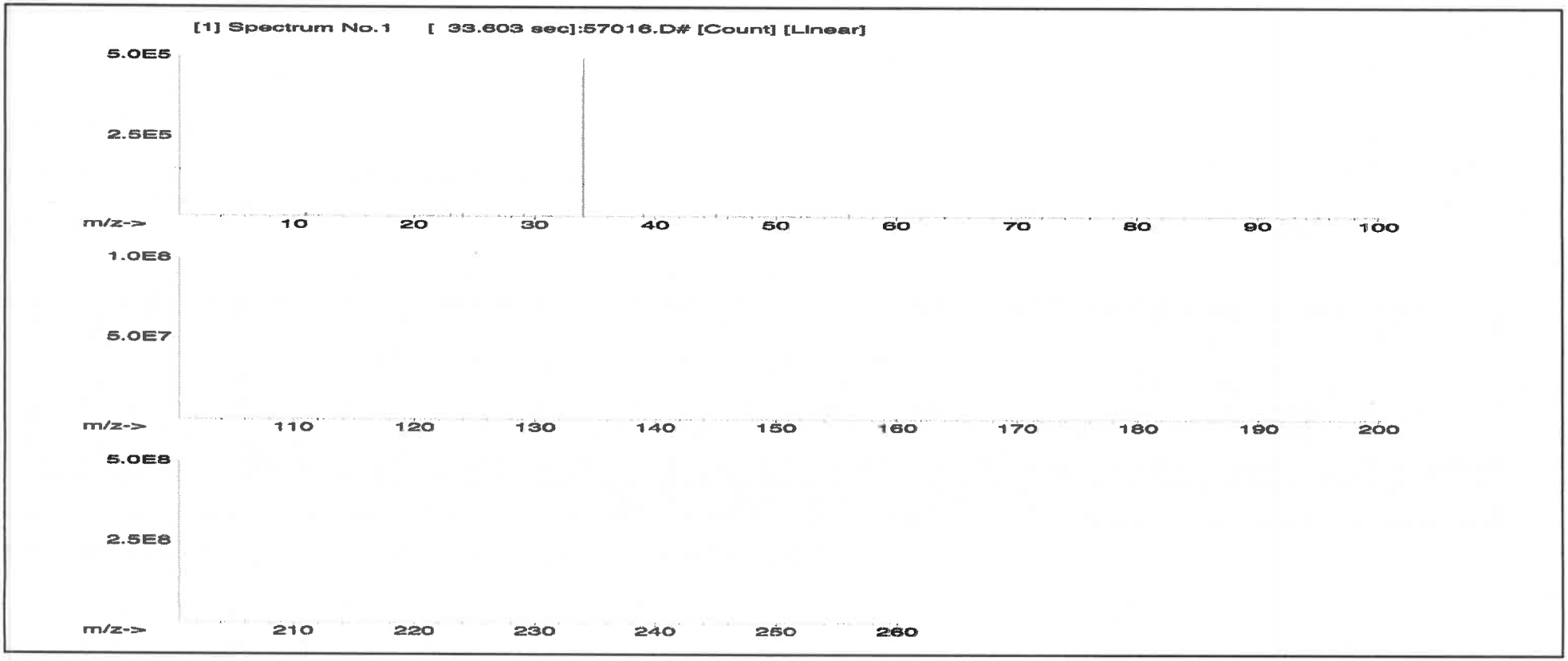
931

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



932

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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933

CERTIFIED WEIGHT REPORT:

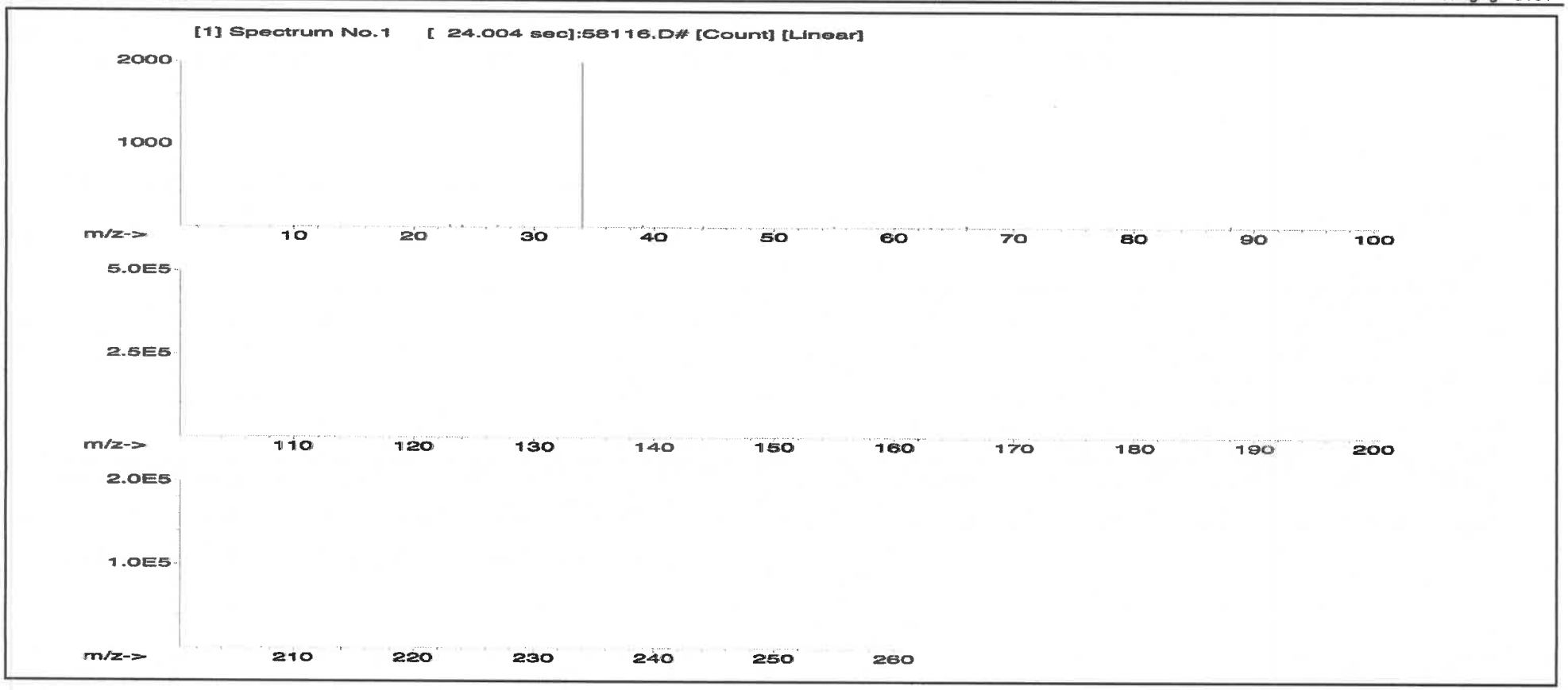
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



934

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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935

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

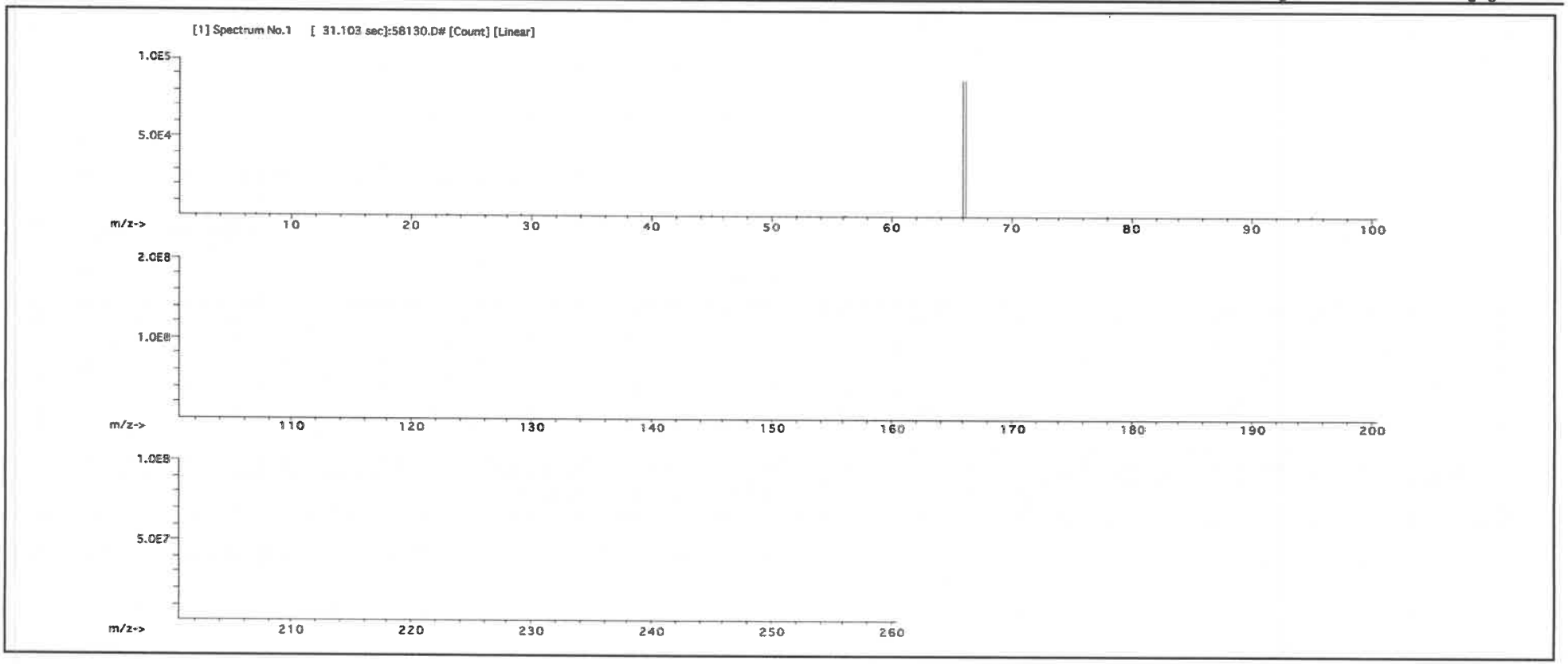
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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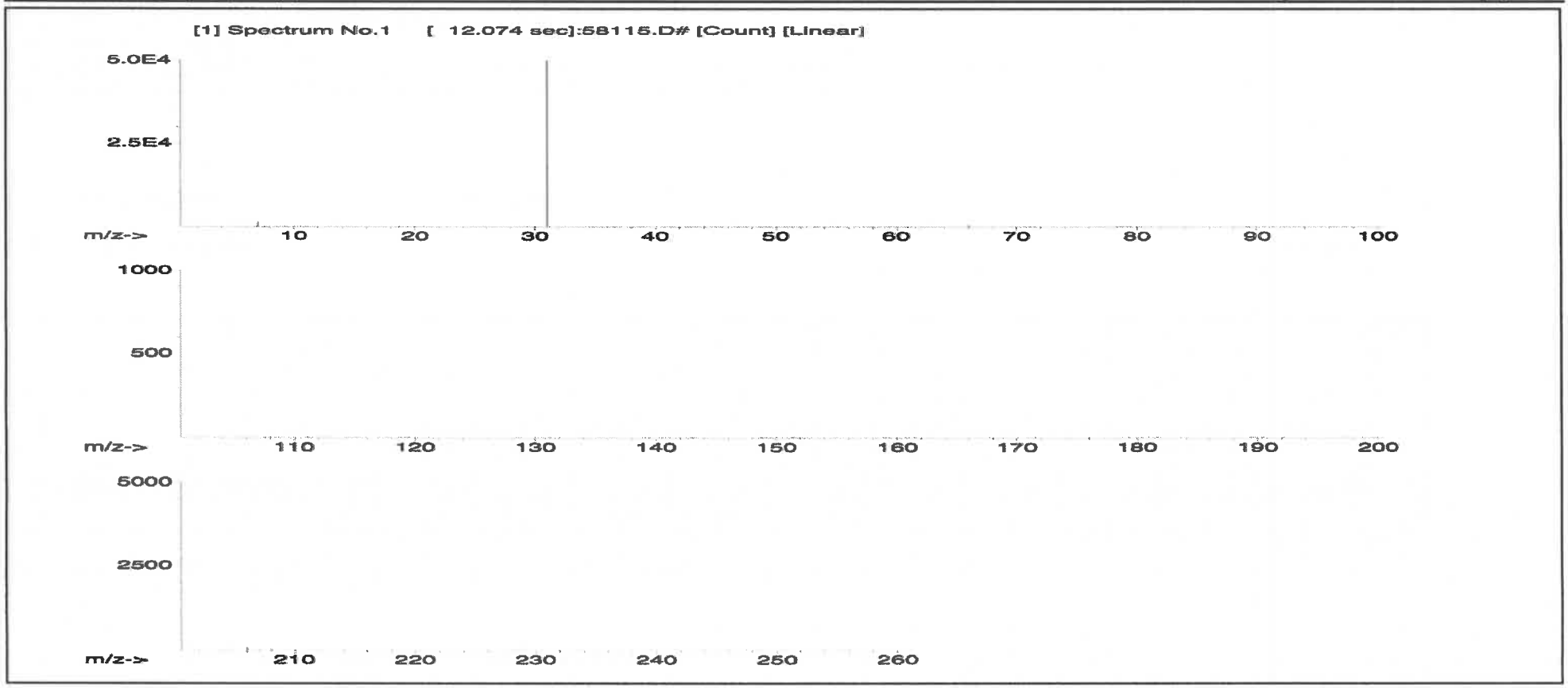
937

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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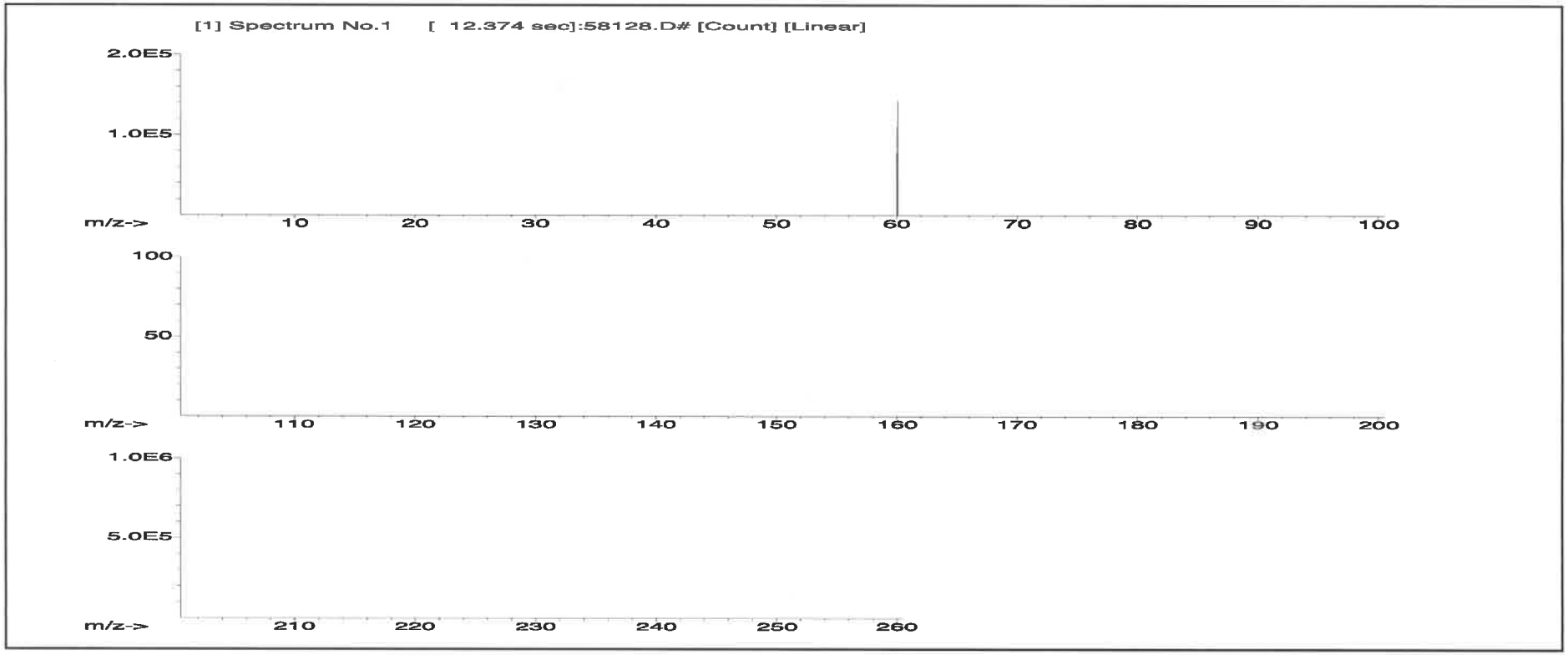
939

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**			
		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



940

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.

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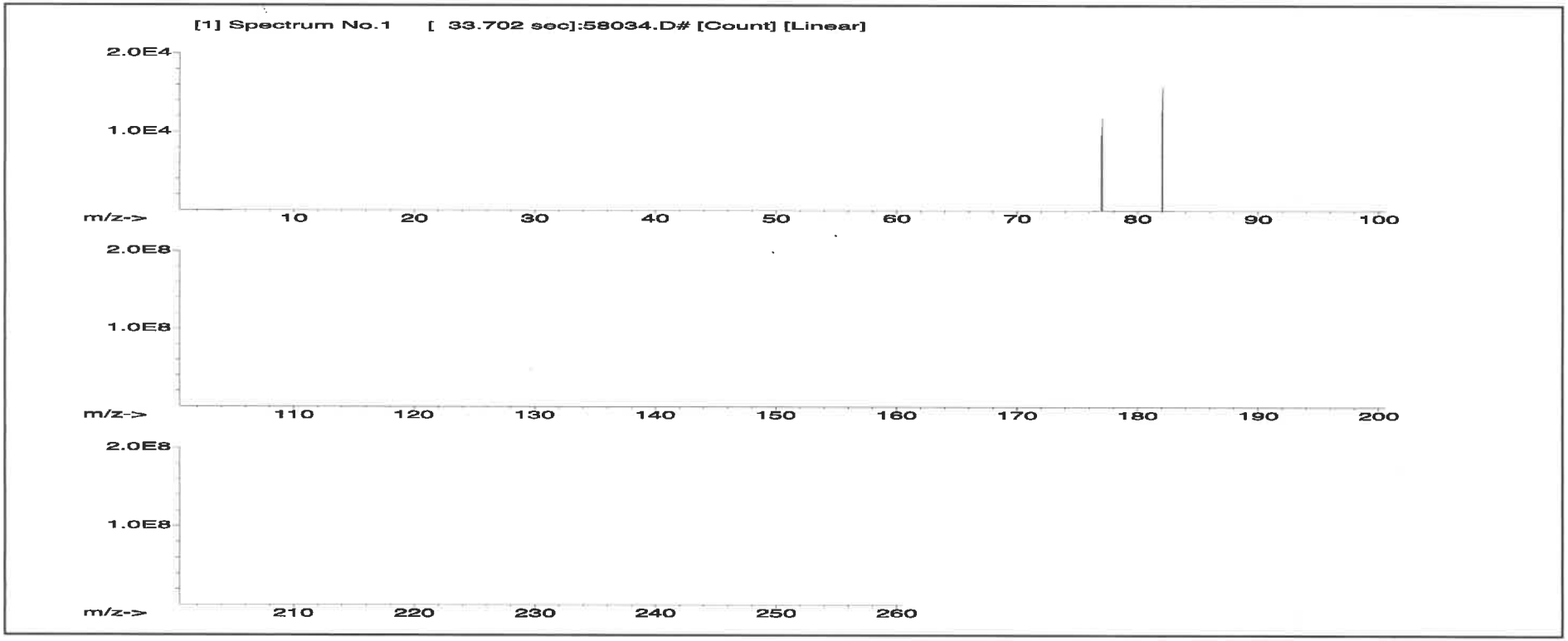
941

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



942

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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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



947

M5978, M5979

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) 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

M5981 R:6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57092**	24002546	Nitric Acid	
Lot Number:	**060724**			
Description:	**Uranium (U)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060727			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

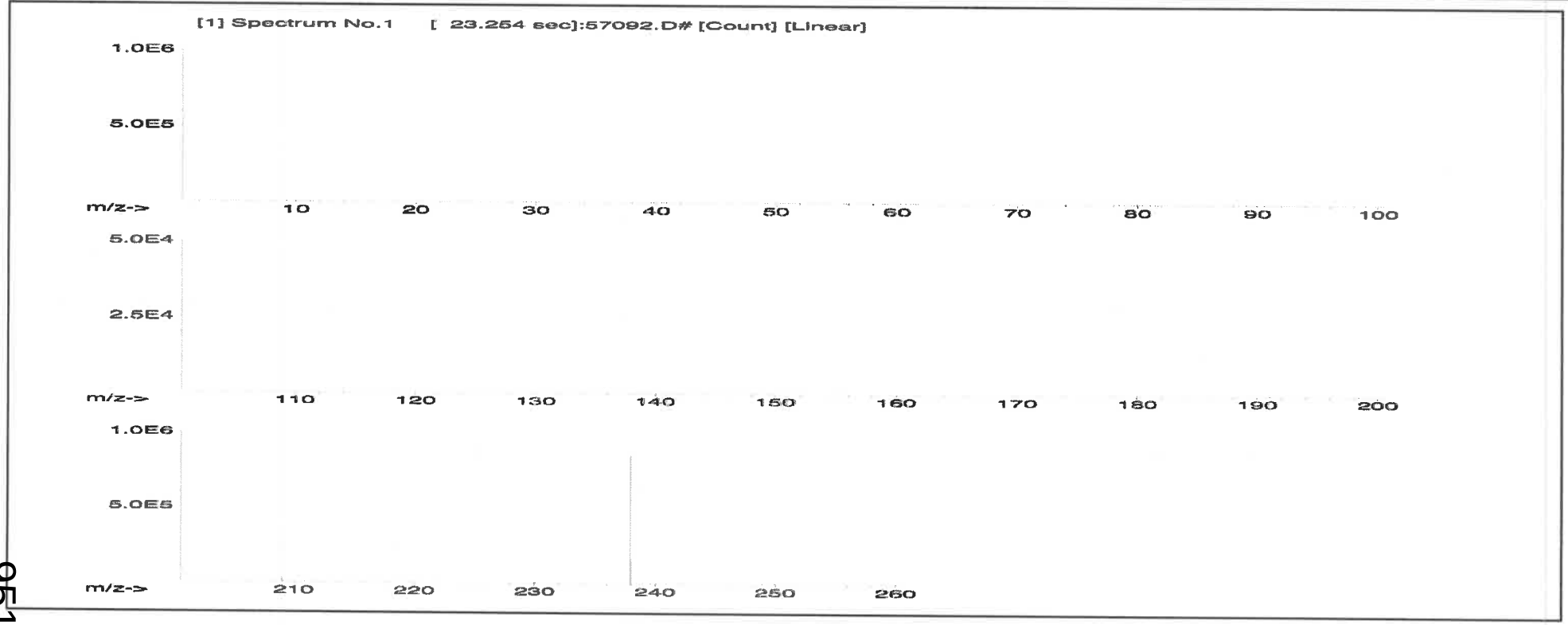
Giovanni Esposito

Formulated By:	Giovanni Esposito	060724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	060724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Uranyl nitrate hexahydrate (U)	58192	041524	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13520-83-7	0.05 mg/m3	orl-rat 1040 mg/kg	3164



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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	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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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5983 R: 6/11/24

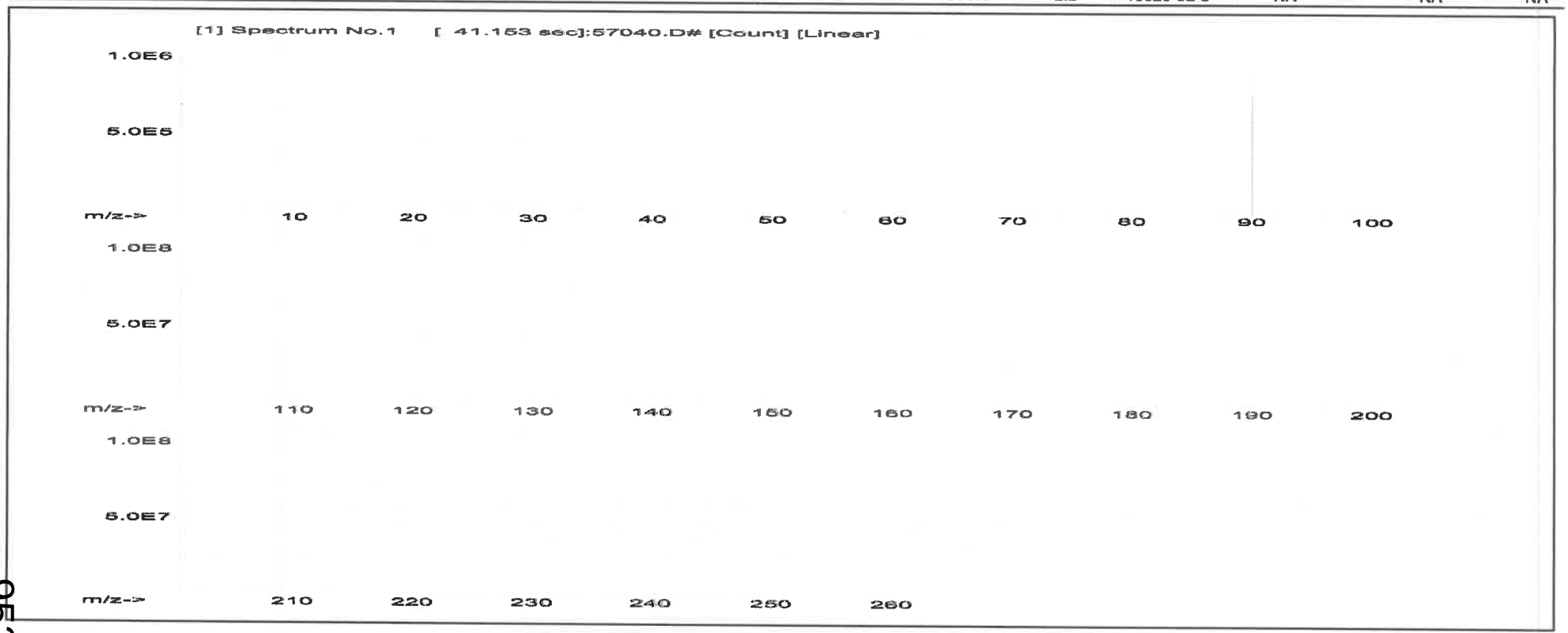
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	57040	21110221	Nitric Acid	
Lot Number:	071423			
Description:	Zirconium (Zr)			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071426			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	1000			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Rentas	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



953

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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M5999

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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:	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:

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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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Certificate of Analysis

R 8/19/24, M60055

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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



Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

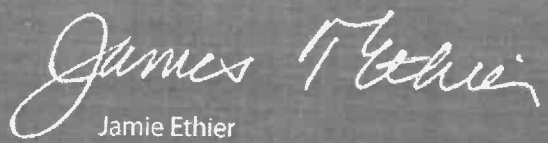
963

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

964

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R→ 1/13/25

M 6127

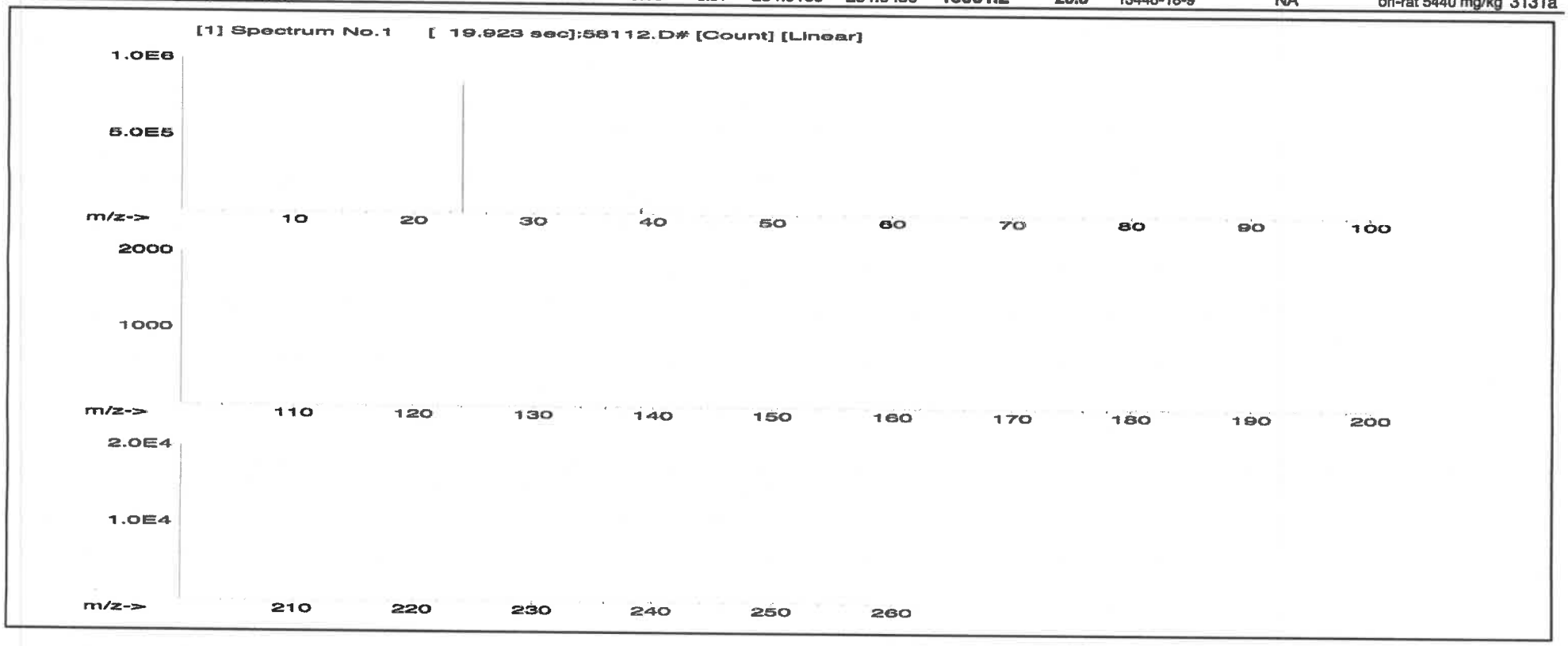
Part Number:	**58112**		**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**112124**				
Description:	**Magnesium (Mg)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

967

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



968

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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AR-1539 Certificate Number
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999

CERTIFIED WEIGHT REPORT:

R->1/13/28

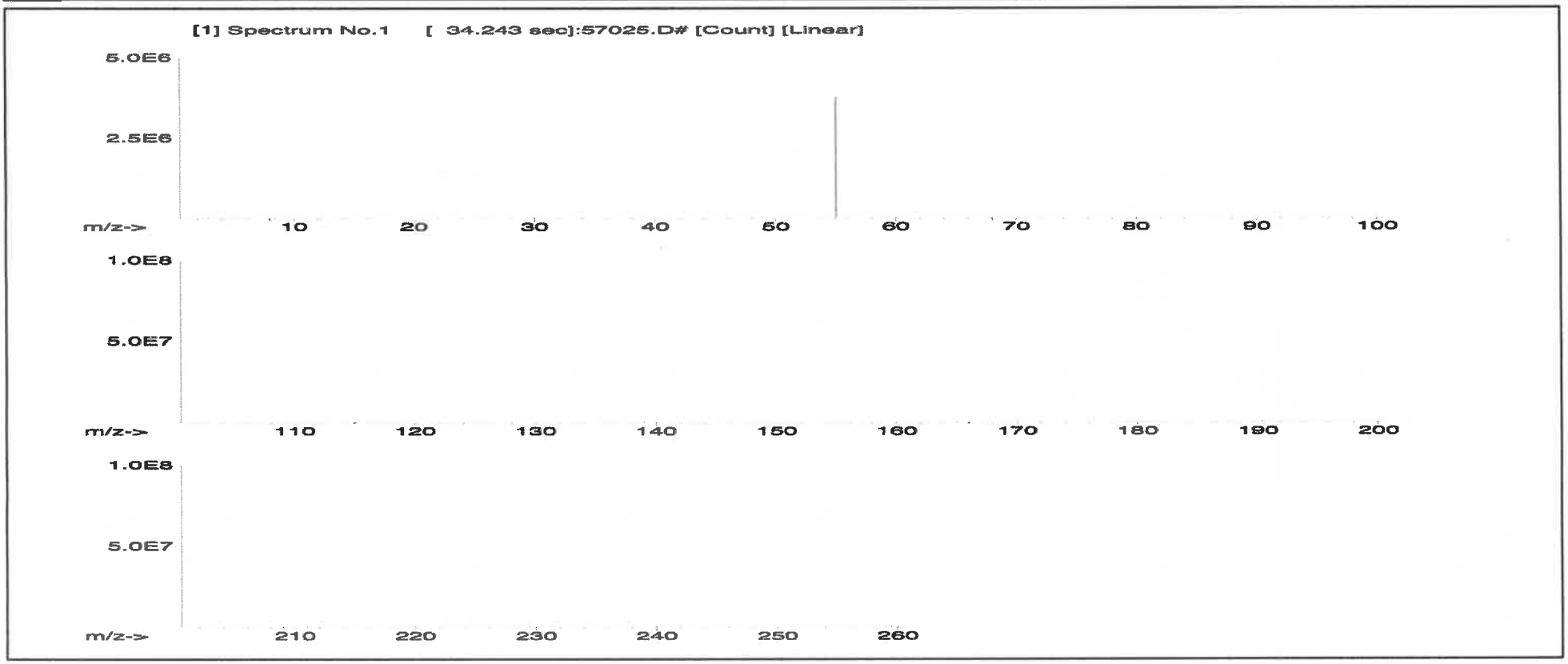
M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
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



970

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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Certified Reference Material CRM

R: 01/03/24 M5806, M5807

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971

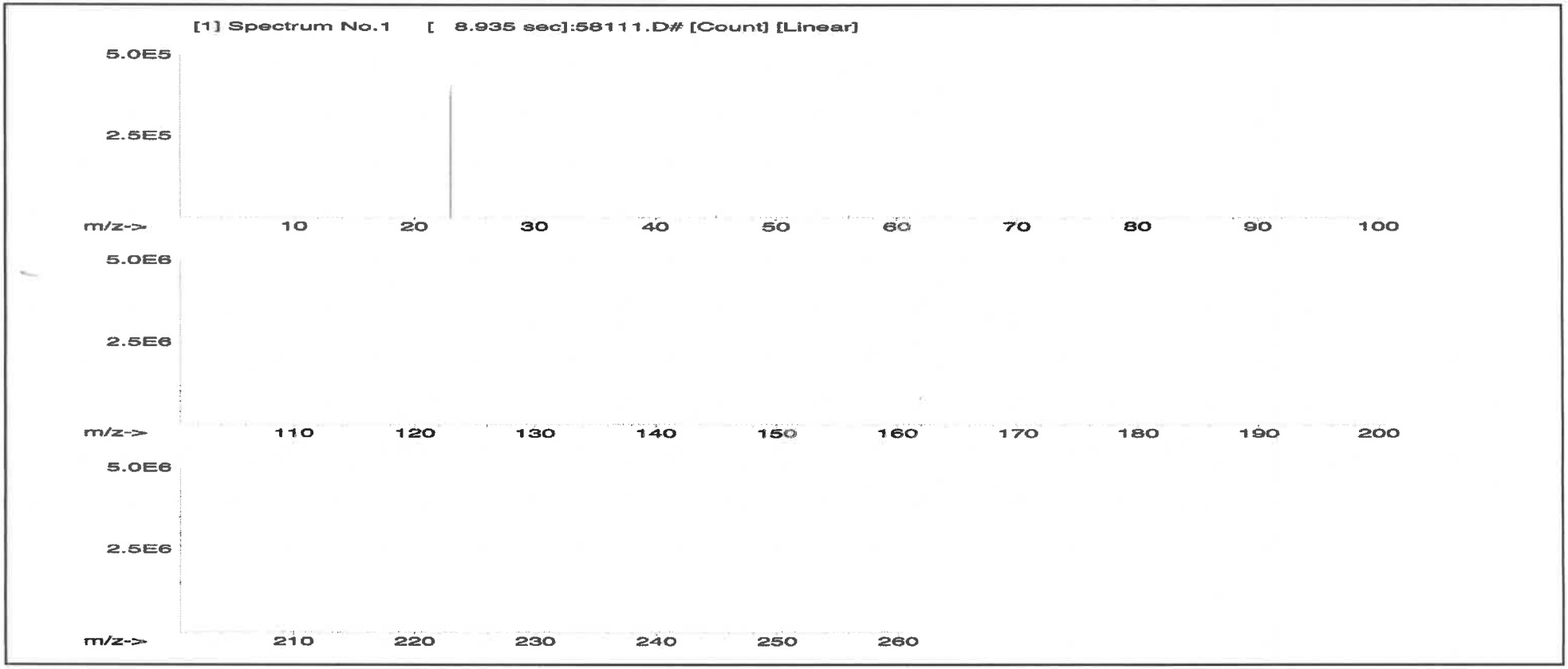
CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**58111**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**122223**			
Description:	**Sodium (Na)**	2%	60.0 (mL)	Nitric Acid
Expiration Date:	122226			
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):	3000.4	0.06	Flask Uncertainty	

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



972

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™

Refine your results. Redefine your industry.

A: 4/11/22

Certificate of Analysis

M5738, M5739, M5740, M5741, M5742, M5743

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020ISS
Lot Number:	S2-MEB709511
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.07 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 03, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 03, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix**. For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, return the chain of custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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.

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2700 Chandler Avenue - Building C
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ICSA-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

R: 01/03/24 M5802, M5803

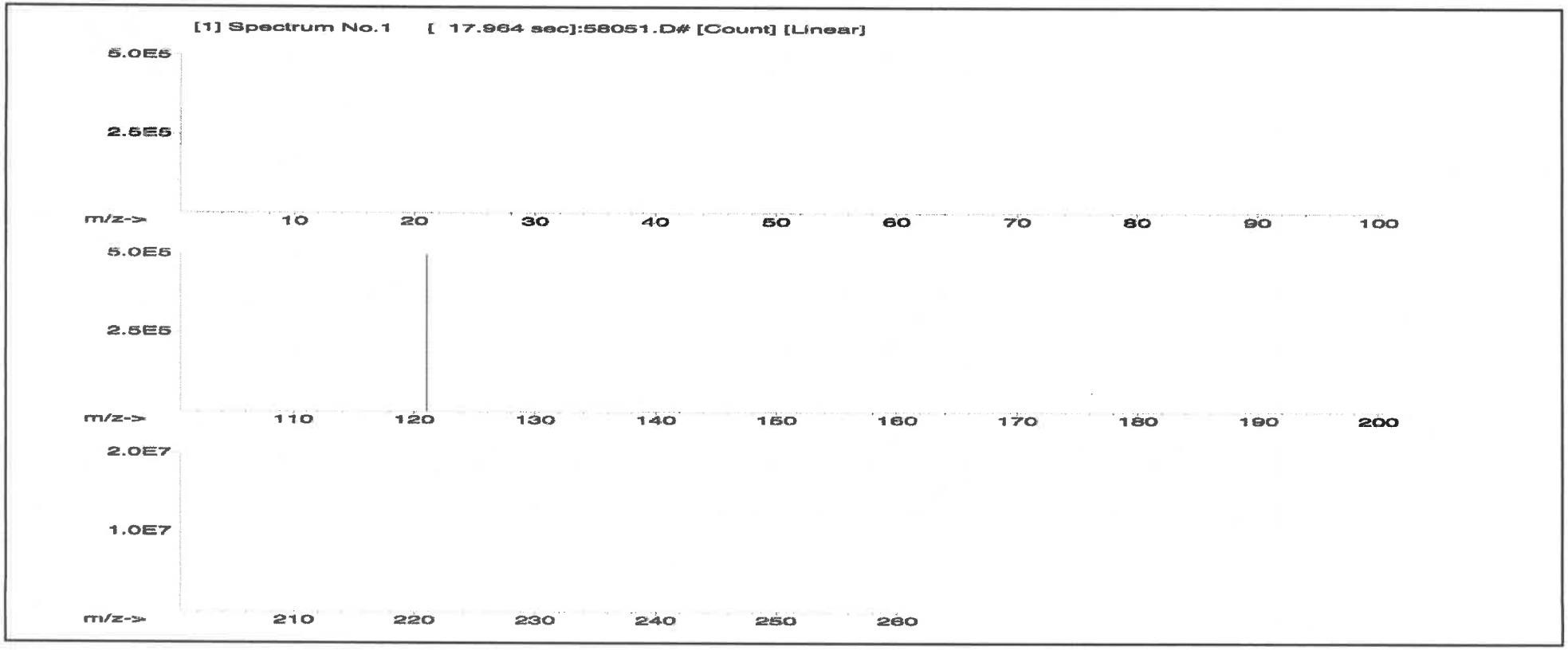
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

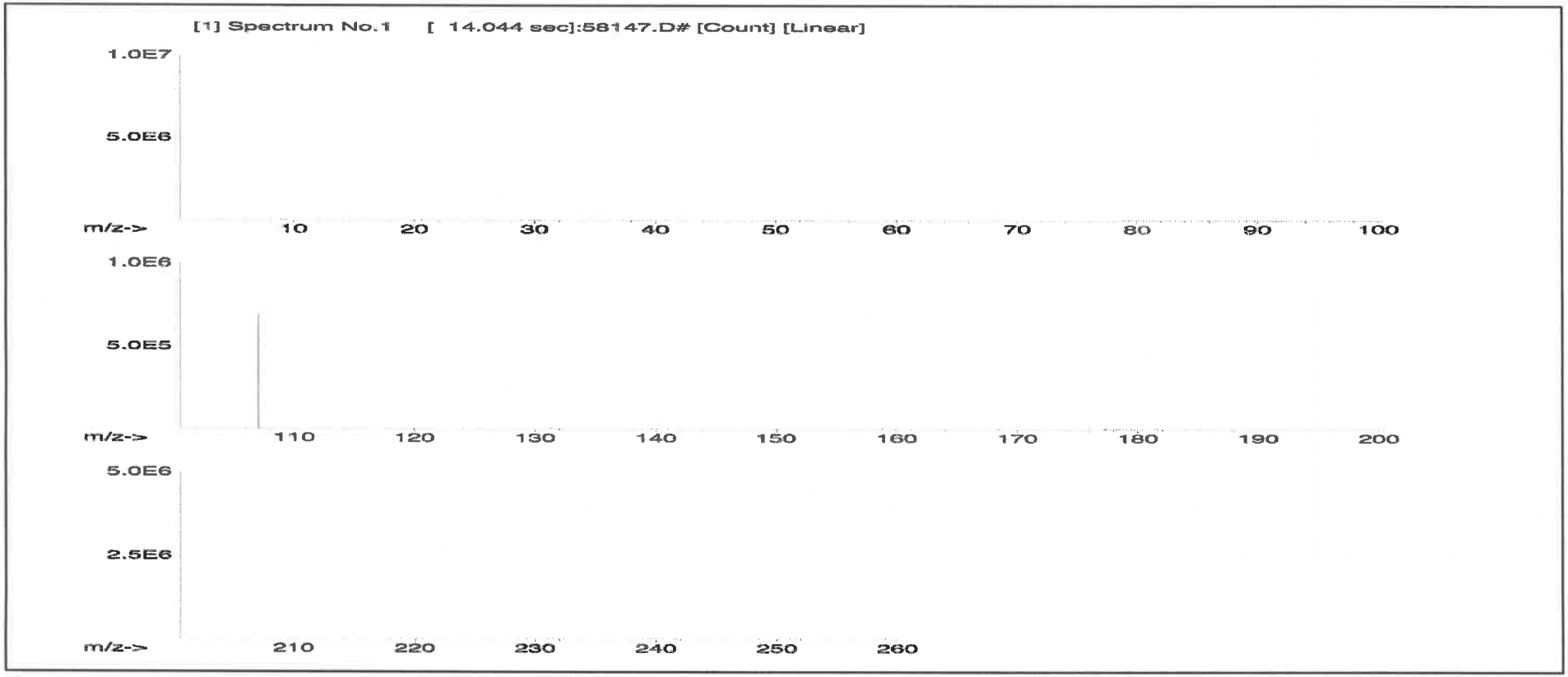
983

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



984

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 8/5/24 M6019

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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 885.01 ACCREDITED Reference Material Producer Certificate 885.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

985

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

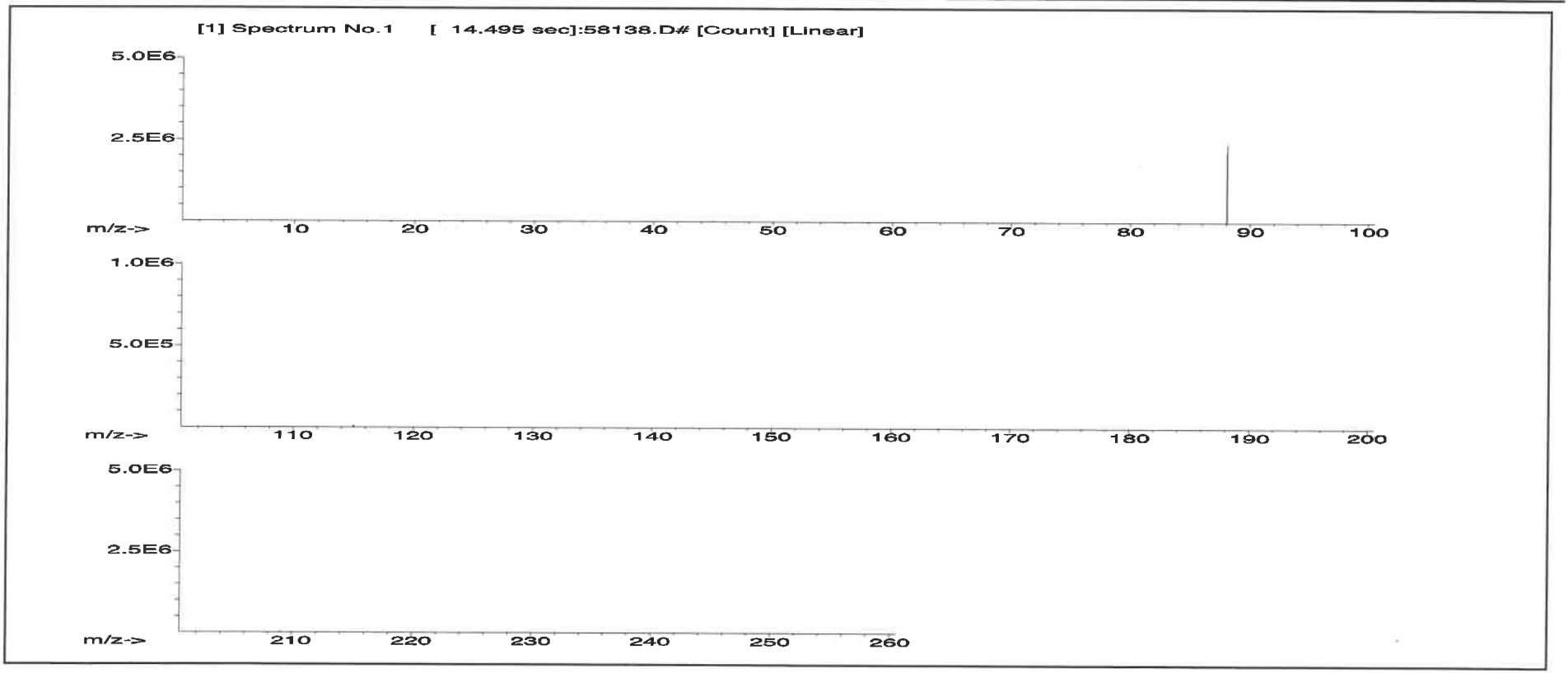
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

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	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



0990

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	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R ! 8/5/24

M6023

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991

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		

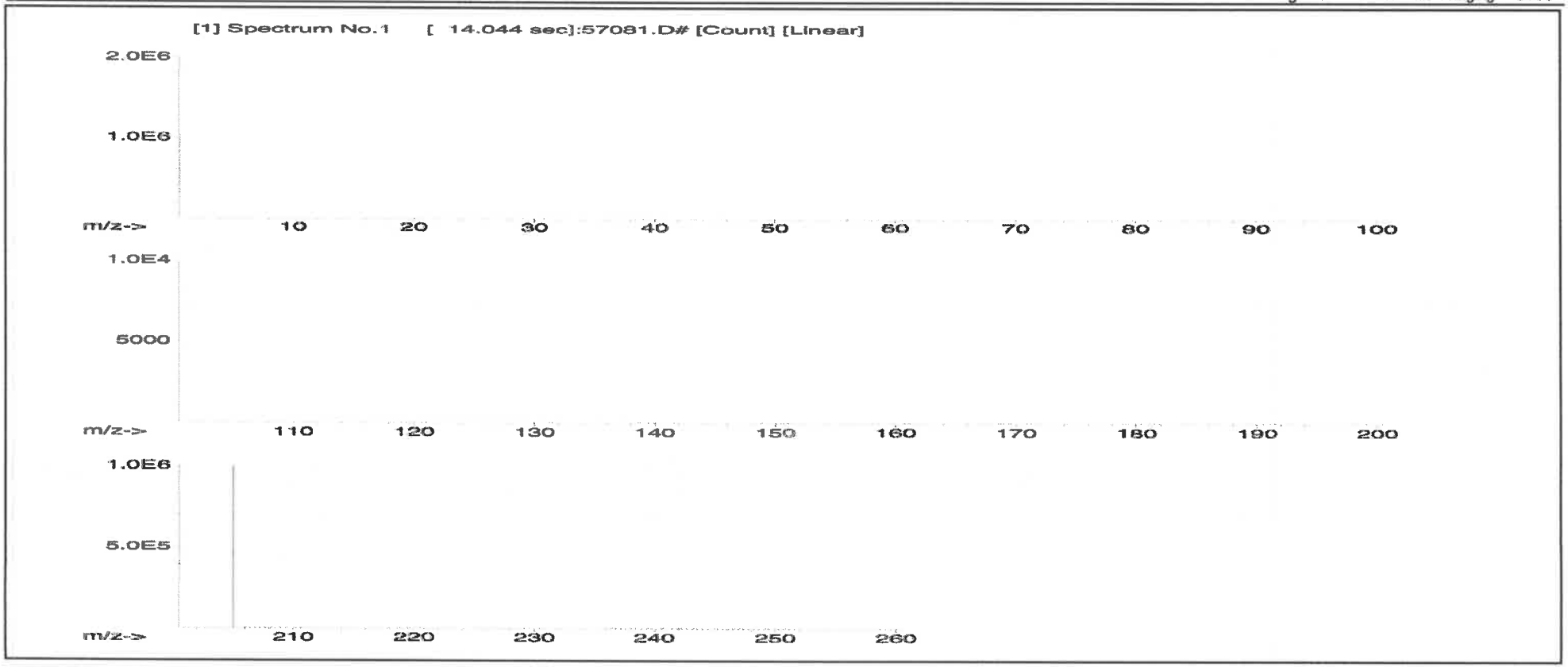
Aleah O'Brady

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



992

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6021

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AR-1539 Certificate Number
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Rc. 8/5/24

993

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

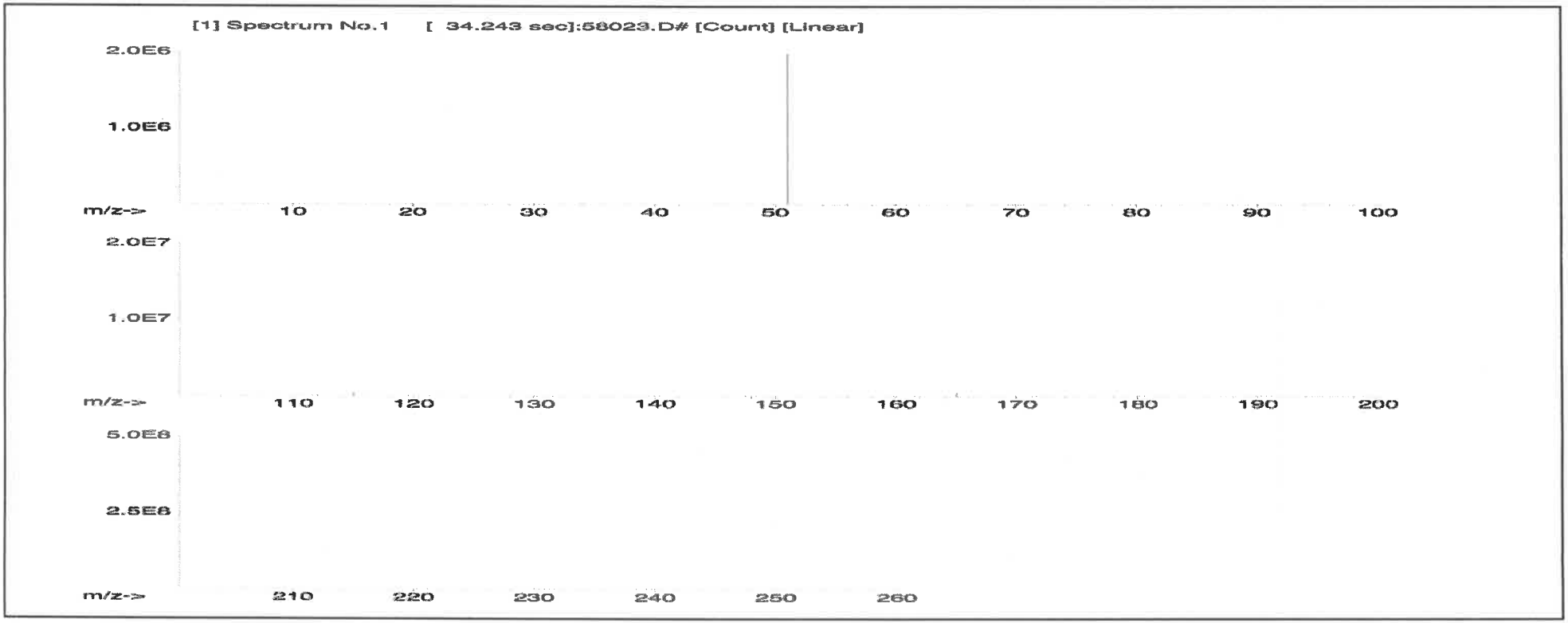
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



994

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166137

SOP ID : M200.8-Trace Elements-22, MSFAM01.1-Metals ICPMS-2

SDG No : MJNLB3,MJNLB4

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: 01/20/2025 **Time :** 10:40 **Temp :** 96 °C

End Digest Date: 01/20/2025 **Time :** 12:45 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SRS.

Supervisor Signature: #3

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	0.50	MP84099
Spike Sol. B	0.50	MP84074
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	MP84041
1:1 HCL	050	MP83499
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#55 : 96

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/20/25 13:45	SRS. met digestion.	[illegible]
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166137

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB166137BL	PBW137	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	1
PB166137BS	LCS137	<2	50	50	Colorless	Colorless	Clear	Clear	MP84099	2
Q1127-01	MJNLB3	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	3
Q1127-02	MJNLB5	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	4
Q1127-03	MJNLB5D	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	5
Q1127-04	MJNLB5S	<2	50	50	Colorless	Colorless	Clear	Clear	MP84074	6
Q1127-05	MJNLB6	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	7
Q1127-06	MJNLB8	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	8
Q1127-07	MJNLB9	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	9
Q1127-08	MJNLC0	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	10
Q1128-01	MJNLB4	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
Q1128-02	MJNLG3	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
Q1128-03	MJNLG3D	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
Q1128-04	MJNLG3S	<2	50	50	Colorless	Colorless	Clear	Clear	MP84074	14
Q1128-05	MJNLG4	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	15
Q1128-06	MJNLG6	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	16
Q1128-07	MJNLG7	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	17
Q1128-08	MJNLG8	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	18

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Fax : 908 789 8922

Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134585

Review By	Sarabjit Jaswal	Review On	2/5/2025 4:16:09 PM
Supervise By	Mohan Bera	Supervise On	2/5/2025 4:17:00 PM

STD. NAME	STD REF.#
ICAL Standard	MP84042,MP84050,MP84049,MP84047,MP84046,MP84045,MP84044,MP84043,MP84073
ICV Standard	MP84051
CCV Standard	MP84052
ICSA Standard	MP84053,MP84054
CRI Standard	
LCS Standard	MP84099
Chk Standard	MP84057,MP84056

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE001	TUNE	01/21/25 12:52		Jaswal	OK
2	S00	S0	CAL1	01/21/25 13:20		Jaswal	OK
3	S02	S02	CAL3	01/21/25 13:30		Jaswal	OK
4	S03	S03	CAL4	01/21/25 13:33		Jaswal	OK
5	S04	S04	CAL5	01/21/25 13:36		Jaswal	OK
6	S05	S05	CAL6	01/21/25 13:39		Jaswal	OK
7	S06	S06	CAL7	01/21/25 13:42		Jaswal	OK
8	S07	S07	CAL8	01/21/25 13:45		Jaswal	OK
9	S08	S08	CAL9	01/21/25 13:48		Jaswal	OK
10	ICV001	ICV001	ICV	01/21/25 14:25	Inst. paused for calibration review	Jaswal	OK
11	ICB001	ICB001	ICB	01/21/25 14:33	Inst. paused for review	Jaswal	OK
12	ICSA001	ICSA001	ICSA	01/21/25 14:43	Inst. paused for review	Jaswal	OK
13	ICSAB001	ICSAB001	ICSAB	01/21/25 14:46		Jaswal	OK
14	CCV001	CCV001	CCV	01/21/25 14:57	Inst. paused for review	Jaswal	OK
15	CCB001	CCB001	CCB	01/21/25 15:04	Inst. paused for review	Jaswal	OK
16	P2403-01	LOD-MDL-SOIL-01-Q	SAM	01/21/25 15:29	Not used	Jaswal	Not Ok
17	P2403-03	MDL-SOIL-03-QT2-20	SAM	01/21/25 15:33	Not used	Jaswal	Not Ok
18	P2403-07	LOD-MDL-WATER-01	SAM	01/21/25 15:36	Not used	Jaswal	Not Ok

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Daily Analysis Runlog For Sequence/QCBatch ID # LB134585

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Supervise By	Mohan Bera	Supervise On	2/5/2025 4:17:00 PM

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ICAL Standard	MP84042,MP84050,MP84049,MP84047,MP84046,MP84045,MP84044,MP84043,MP84073
ICV Standard	MP84051
CCV Standard	MP84052
ICSA Standard	MP84053,MP84054
CRI Standard	
LCS Standard	MP84099
Chk Standard	MP84057,MP84056

19	P2403-09	MDL-WATER-03-QT2	SAM	01/21/25 15:39	Not used	Jaswal	Not Ok
20	P2403-10	LOD-MDL-WATER-04	SAM	01/21/25 15:43	Not used	Jaswal	Not Ok
21	P2403-12	MDL-WATER-06-QT2	SAM	01/21/25 15:46	Not used	Jaswal	Not Ok
22	P2409-02	MDL-WATER-QT2-20	SAM	01/21/25 15:56	Not used	Jaswal	Not Ok
23	P2409-04	MDL-SOIL-QT2-2024-	SAM	01/21/25 16:01	Not used	Jaswal	Not Ok
24	PB166403BL	PBS403	MB	01/21/25 16:16	Not used	Jaswal	Not Ok
25	CCV002	CCV002	CCV	01/21/25 16:30		Jaswal	OK
26	CCB002	CCB002	CCB	01/21/25 16:34		Jaswal	OK
27	PB166403BS	LCS403	LCS	01/21/25 16:41	Not used	Jaswal	Not Ok
28	PB166404BL	PBW404	MB	01/21/25 16:45	Not used	Jaswal	Not Ok
29	PB166404BS	LCS404	LCS	01/21/25 16:48	Not used	Jaswal	Not Ok
30	PB166405BL	PBS405	MB	01/21/25 16:51	Not used	Jaswal	Not Ok
31	PB166405BS	LCS405	LCS	01/21/25 16:55	Not used	Jaswal	Not Ok
32	PB166406BL	PBW406	MB	01/21/25 16:57	Not used	Jaswal	Not Ok
33	PB166406BS	LCS406	LCS	01/21/25 17:01	Not used	Jaswal	Not Ok
34	PB166407BL	PBW407	MB	01/21/25 17:04	Not used	Jaswal	Not Ok
35	PB166407BS	LCS407	LCS	01/21/25 17:07	Not used	Jaswal	Not Ok
36	CCV003	CCV003	CCV	01/21/25 17:10		Jaswal	OK
37	CCB003	CCB003	CCB	01/21/25 17:13		Jaswal	OK
38	PB166137BL	PBW137	MB	01/21/25 17:27		Jaswal	OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB134585

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Supervise By	Mohan Bera	Supervise On	2/5/2025 4:17:00 PM

STD. NAME	STD REF.#
ICAL Standard	MP84042,MP84050,MP84049,MP84047,MP84046,MP84045,MP84044,MP84043,MP84073
ICV Standard	MP84051
CCV Standard	MP84052
ICSA Standard	MP84053,MP84054
CRI Standard	
LCS Standard	MP84099
Chk Standard	MP84057,MP84056

39	PB166137BS	LCS137	LCS	01/21/25 17:30		Jaswal	OK
40	Q1127-01	MJNLB3	SAM	01/21/25 17:33		Jaswal	OK
41	Q1127-02	MJNLB5	SAM	01/21/25 17:37		Jaswal	OK
42	Q1127-03	MJNLB5D	DUP	01/21/25 17:40		Jaswal	OK
43	Q1127-02L	MJNLB5L	SD	01/21/25 17:43		Jaswal	OK
44	Q1127-04	MJNLB5S	MS	01/21/25 17:46		Jaswal	OK
45	Q1127-05	MJNLB6	SAM	01/21/25 17:50		Jaswal	OK
46	Q1127-06	MJNLB8	SAM	01/21/25 17:53		Jaswal	OK
47	Q1127-07	MJNLB9	SAM	01/21/25 17:56		Jaswal	OK
48	Q1127-08	MJNLC0	SAM	01/21/25 18:00		Jaswal	OK
49	Q1128-01	MJNLB4	SAM	01/21/25 18:03		Jaswal	OK
50	Q1128-02	MJNLG3	SAM	01/21/25 18:06		Jaswal	OK
51	Q1128-03	MJNLG3D	DUP	01/21/25 18:09		Jaswal	OK
52	Q1128-02L	MJNLG3L	SD	01/21/25 18:13		Jaswal	OK
53	Q1128-04	MJNLG3S	MS	01/21/25 18:16		Jaswal	OK
54	Q1128-05	MJNLG4	SAM	01/21/25 18:19		Jaswal	OK
55	Q1128-06	MJNLG6	SAM	01/21/25 18:22		Jaswal	OK
56	Q1128-07	MJNLG7	SAM	01/21/25 18:26		Jaswal	OK
57	Q1128-08	MJNLG8	SAM	01/21/25 18:29		Jaswal	OK
58	CCV004	CCV004	CCV	01/21/25 18:32		Jaswal	OK

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Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134585

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Supervise By	Mohan Bera	Supervise On	2/5/2025 4:17:00 PM

STD. NAME	STD REF.#
ICAL Standard	MP84042,MP84050,MP84049,MP84047,MP84046,MP84045,MP84044,MP84043,MP84073
ICV Standard	MP84051
CCV Standard	MP84052
ICSA Standard	MP84053,MP84054
CRI Standard	
LCS Standard	MP84099
Chk Standard	MP84057,MP84056

59	CCB004	CCB004	CCB	01/21/25 18:35		Jaswal	OK

EPA SAMPLE NO.

MJNLE5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51956 MA No. : SDG No.: MJNLB3

Matrix: Water Lab Sample ID: Q1127-09

% Solids: Date Received: 01/17/2025

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	0.034	J	01/31/2025	1147

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

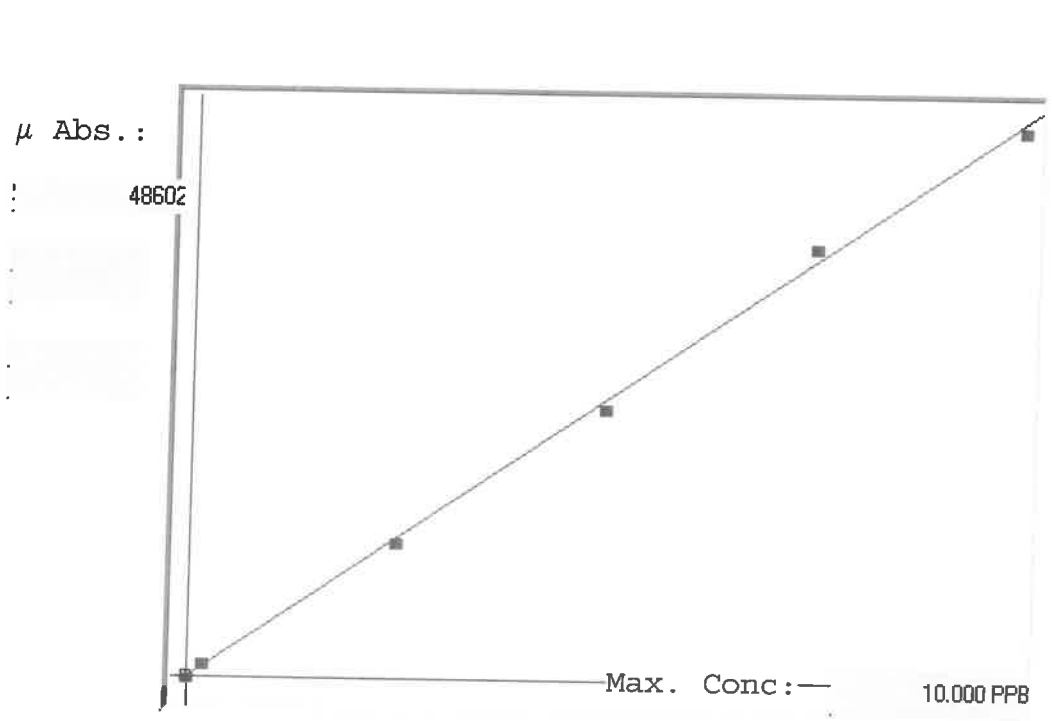
Comments:

Reviewed By:mohan
On:1/31/2025 7:53:47 PM
Inst Id :CV1

LB134496

SFAM01.1

INSTRUMENT ID: CV2



A= 0.0000e+000

B= 2.0278e-004 slope

C= 6.6237e-003 y=mx+c (y=intercept)

Rho= 0.9992387

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	y-ŷ
0.00	0.000	0.008	0.008	9	0.000	9					=
0.05	0.050										23
0.20	0.200	0.246	0.046	1181	0.0 %	1181					-2
2.50	2.500	2.450	-0.050	12048	0.0 %	12048					-3
5.00	5.000	4.853	-0.147	23897	0.0 %	23897					4
7.50	7.500	7.781	0.281	38338	0.0 %	38338					-1
10.0	10.000	9.862	-0.138	48602	0.0 %	48602					

Reviewed By:mohan
On:1/31/2025 7:53:47 PM
Inst Id :CV1

LB134496

INSTRUMENT ID:CV1

Sample ID	Extended ID	µ Abs.	Conc.		Stnd Conc	Method	Units	Date	Type
0	S0	9	-		0	SFAM01.1	PPB	1/31/2025 10:44	Std
0.2	S01	1181	-		0.2	SFAM01.1	PPB	1/31/2025 10:47	Std
2.5	S02	12048	-		2.5	SFAM01.1	PPB	1/31/2025 10:52	Std
5	S03	23897	-		5	SFAM01.1	PPB	1/31/2025 10:54	Std
7.5	S04	38338	-		7.5	SFAM01.1	PPB	1/31/2025 10:58	Std
10	S05	48602	-		10	SFAM01.1	PPB	1/31/2025 11:00	Std
ICV076	ICV076	18392	3.7362	-		SFAM01.1	PPB	1/31/2025 11:04	SMPL
ICB076	ICB076	-217	-0.0374	-		SFAM01.1	PPB	1/31/2025 11:07	SMPL
CCV090	CCV090	24185	4.9109	-		SFAM01.1	PPB	1/31/2025 11:09	SMPL
CCB090	CCB090	-234	-0.0408	-		SFAM01.1	PPB	1/31/2025 11:11	SMPL
PB166430BL	PBW430	-70	-0.0076	-		SFAM01.1	PPB	1/31/2025 11:13	SMPL
Q1089-01	MC0B00	297	0.0669	-		SFAM01.1	PPB	1/31/2025 11:16	SMPL
Q1089-02	MC0B01	77	0.0222	-		SFAM01.1	PPB	1/31/2025 11:18	SMPL
Q1089-03	MC0B01D	309	0.0693	-		SFAM01.1	PPB	1/31/2025 11:20	SMPL
Q1089-04	MC0B01S	4997	1.0199	-		SFAM01.1	PPB	1/31/2025 11:23	SMPL
Q1089-05	MC0B06	14	0.0095	-		SFAM01.1	PPB	1/31/2025 11:25	SMPL
Q1089-06	MC0B07	-6	0.0054	-		SFAM01.1	PPB	1/31/2025 11:27	SMPL
Q1089-07	MC0AL9	22	0.0111	-		SFAM01.1	PPB	1/31/2025 11:29	SMPL
Q1089-08	MC0AM2	14	0.0095	-		SFAM01.1	PPB	1/31/2025 11:32	SMPL
Q1089-09	MC0AZ9	78	0.0224	-		SFAM01.1	PPB	1/31/2025 11:34	SMPL
Q1089-10	MC0B02	292	0.0658	-		SFAM01.1	PPB	1/31/2025 11:36	SMPL
Q1089-11	MC0B04	133	0.0336	-		SFAM01.1	PPB	1/31/2025 11:38	SMPL
Q1089-12	MC0B09	106	0.0281	-		SFAM01.1	PPB	1/31/2025 11:41	SMPL
Q1089-13	MC0B10	21	0.0109	-		SFAM01.1	PPB	1/31/2025 11:43	SMPL
Q1089-14	MC0B11	60	0.0188	-		SFAM01.1	PPB	1/31/2025 11:45	SMPL
Q1127-09	MJNLE5	135	0.034	-		SFAM01.1	PPB	1/31/2025 11:47	SMPL
Q1127-10	MJNLE5D	107	0.0283	-		SFAM01.1	PPB	1/31/2025 11:50	SMPL
Q1127-11	MJNLE5S	5982	1.2197	-		SFAM01.1	PPB	1/31/2025 11:52	SMPL
CCV091	CCV091	23141	4.6992	-		SFAM01.1	PPB	1/31/2025 11:54	SMPL
CCB091	CCB091	-170	-0.0278	-		SFAM01.1	PPB	1/31/2025 11:57	SMPL

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Prep Standard - Chemical Standard Summary

Order ID : Q1127

Test : Mercury

Prepbatch ID : PB166430,

Sequence ID/Qc Batch ID: LB134496,

Standard ID :
MP83691,MP83692,MP83693,MP83694,MP84273,MP84274,MP84276,MP84277,MP84278,MP84279,MP84280,MP84281,MP84282,MP84283,MP84284,MP84313,

Chemical ID :
M4371,M4465,M4916,M5062,M5532,M5882,M5884,M6041,M6121,M6126,W3112,

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP83691	12/18/2024	06/03/2025	Mohan Bera	None	None	Sarabjit Jaswal 12/18/2024

FROM 1600.00000ml of M6041 + 800.00000ml of M6126 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP83692	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP83693	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 100.00000ml of M4465 + 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	MP83694	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

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

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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.	MP84273	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 1.00000ml of M6126 + 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	MP84274	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP84276	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP84273 = 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	MP84277	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 245.00000ml of W3112 + 2.50000ml of MP84273 = Final Quantity: 250.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP84278	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 242.50000ml of W3112 + 5.00000ml of MP84273 = 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	MP84279	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 240.00000ml of W3112 + 7.50000ml of MP84273 = 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	MP84280	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 237.50000ml of W3112 + 10.00000ml of MP84273 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP84281	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6126 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP84282	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP84283	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/31/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6126 + 10.00000ml of MP84273 = Final Quantity: 500.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP84284	01/30/2025	01/31/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 01/31/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6126 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP84313	01/31/2025	02/01/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 02/04/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6121 = Final Quantity: 500.000 ml

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	02/28/2025	01/02/2025 / jaswal	03/30/2023 / mohan	M5532

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

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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-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)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

1016

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

1018

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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28-37
MB

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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

1024

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

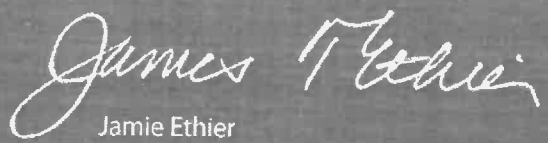
1027

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

1028

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

M6126

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166430

SOP ID : M7470A-Mercury-19, MSFAM01.1-Mercury in Water-2

SDG No : MC0B0/MJNLB3

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

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

Start Digest Date: 01/30/2025 **Time :** 13:30 **Temp :** 95 °C

End Digest Date: 01/30/2025 **Time :** 15:30 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: HG-DIG#1

Dig Technician Signature:

Supervisor Signature:

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	100mL	MP84281
CCV	100mL	MP84283
Matrix Spike	0.40mL	MP84273
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	MP83691
KMnO4 (5%)	15.0mL	MP83692
K2S2O8 (5%)	8.0mL	MP83693
Hydroxylamine HCL (12%)	6.0mL	MP83694
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	MP84274
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	100mL	MP84276
2.5 ppb	S2.5	100mL	MP84277
5.0 ppb	S5.0	100mL	MP84278
7.5 ppb	S7.5	100mL	MP84279
10.0 ppb	S10.0	100mL	MP84280
ICV	ICV	100mL	MP84281
ICB	ICB	100mL	MP84282
CCV	CCV	100mL	MP84283
CCB	CCB	100mL	MP84284
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
1/31/25 @ 16:2	MB – Dig. Lab	MB – Metal Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166430

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB166430BL	PBW430	100	100	<2	N/A	1-1
Q1089-01	MC0B00	100	100	<2	N/A	2
Q1089-02	MC0B01	100	100	<2	N/A	3
Q1089-03	MC0B01D	100	100	<2	N/A	4
Q1089-04	MC0B01S	100	100	<2	MP84273	5
Q1089-05	MC0B06	100	100	<2	N/A	6
Q1089-06	MC0B07	100	100	<2	N/A	7
Q1089-07	MC0AL9	100	100	<2	N/A	8
Q1089-08	MC0AM2	100	100	<2	N/A	9
Q1089-09	MC0AZ9	100	100	<2	N/A	10
Q1089-10	MC0B02	100	100	<2	N/A	11
Q1089-11	MC0B04	100	100	<2	N/A	12
Q1089-12	MC0B09	100	100	<2	N/A	13
Q1089-13	MC0B10	100	100	<2	N/A	14
Q1089-14	MC0B11	100	100	<2	N/A	15
Q1127-09	MJNLE5	100	100	<2	N/A	16
Q1127-10	MJNLE5D	100	100	<2	N/A	17
Q1127-11	MJNLE5S	100	100	<2	MP84273	18

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 # LB134496

Review By	Sarabjit Jaswal	Review On	1/31/2025 7:52:22 PM
Supervise By	Mohan Bera	Supervise On	1/31/2025 7:53:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP84274,MP84276,MP84277,MP84278,MP84279,MP84280
ICV Standard	MP84281
CCV Standard	MP84283
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP84282,MP84284,MP84313

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/31/25 10:44		Mohan	OK
2	S0.2	S01	CAL2	01/31/25 10:47		Mohan	OK
3	S2.5	S02	CAL3	01/31/25 10:52		Mohan	OK
4	S5	S03	CAL4	01/31/25 10:54		Mohan	OK
5	S7.5	S04	CAL5	01/31/25 10:58		Mohan	OK
6	S10	S05	CAL6	01/31/25 11:00		Mohan	OK
7	ICV076	ICV076	ICV	01/31/25 11:04		Mohan	OK
8	ICB076	ICB076	ICB	01/31/25 11:07		Mohan	OK
9	CCV090	CCV090	CCV	01/31/25 11:09		Mohan	OK
10	CCB090	CCB090	CCB	01/31/25 11:11		Mohan	OK
11	PB166430BL	PBW430	MB	01/31/25 11:13		Mohan	OK
12	Q1089-01	MC0B00	SAM	01/31/25 11:16		Mohan	OK
13	Q1089-02	MC0B01	SAM	01/31/25 11:18		Mohan	OK
14	Q1089-03	MC0B01D	DUP	01/31/25 11:20		Mohan	OK
15	Q1089-04	MC0B01S	MS	01/31/25 11:23		Mohan	OK
16	Q1089-05	MC0B06	SAM	01/31/25 11:25		Mohan	OK
17	Q1089-06	MC0B07	SAM	01/31/25 11:27		Mohan	OK
18	Q1089-07	MC0AL9	SAM	01/31/25 11:29		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 # LB134496

Review By	Sarabjit Jaswal	Review On	1/31/2025 7:52:22 PM
Supervise By	Mohan Bera	Supervise On	1/31/2025 7:53:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP84274,MP84276,MP84277,MP84278,MP84279,MP84280
ICV Standard	MP84281
CCV Standard	MP84283
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP84282,MP84284,MP84313

19	Q1089-08	MC0AM2	SAM	01/31/25 11:32		Mohan	OK
20	Q1089-09	MC0AZ9	SAM	01/31/25 11:34		Mohan	OK
21	Q1089-10	MC0B02	SAM	01/31/25 11:36		Mohan	OK
22	Q1089-11	MC0B04	SAM	01/31/25 11:38		Mohan	OK
23	Q1089-12	MC0B09	SAM	01/31/25 11:41		Mohan	OK
24	Q1089-13	MC0B10	SAM	01/31/25 11:43		Mohan	OK
25	Q1089-14	MC0B11	SAM	01/31/25 11:45		Mohan	OK
26	Q1127-09	MJNLE5	SAM	01/31/25 11:47		Mohan	OK
27	Q1127-10	MJNLE5D	DUP	01/31/25 11:50		Mohan	OK
28	Q1127-11	MJNLE5S	MS	01/31/25 11:52		Mohan	OK
29	CCV091	CCV091	CCV	01/31/25 11:54		Mohan	OK
30	CCB091	CCB091	CCB	01/31/25 11:57		Mohan	OK

ORIGIN ID:BVUA (425) 941-1406
ATTN: CANDICE SCHWARTZ
CH2MHILL
1100 112TH AVE NE
SUITE 500
BELLEVUE, WA 98004
UNITED STATES US

SHIP DATE: 16JAN25
ACTWGT: 53.00 LB
CAD: 105505917/INET4535
DIMS: 15x15x26 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL (CLP LAB)
284 SHEFFIELD STREET MOUNTAINSIDE

MOUNTAINSIDE NJ 07092
(908) 728-3151 REF: D356100.B.PN.ODC.01.6-2
INV:
PO: ASARCO / KODEY ELEY DEPT:

58CJ3/EC17/C6C4

FedEx Express

J2510241212701uv

2 of 2
MPS# 0263 7714 8350 4502
Mstr# 7714 8350 4498

FRI - 17 JAN 10:30A
PRIORITY OVERNIGHT

0201

07092
NJ-US EWR

XE KBCA

1-17-25 0930 3.0C

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1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

1035

Alliance TECHNICAL GROUP 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Login Summary Report

Order ID :	Q1127	Order Date :	1/17/2025 9:30:00 AM	Project Mgr :	Deepak
Client :	USEPA CLP SMO	Project :	51956	Report Type :	USEPA CLP
Contact :	Anita Kapadia	Receive Date :	1/17/2025 9:30:00 AM	EDD Type :	EPA CLP
Date Sign Off :	1/20/2025 9:05:13 AM				

Sample ID	Client ID	Matrix	Sampling Date	Test	Test Group	Method	TAT Days	Fax Due Date	HC Due Date
Q1127-01	MJNLB3	Water	01/15/2025		EB				
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-02	MJNLB5	Water	01/15/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-03	MJNLB5D	Water	01/15/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-04	MJNLB5S	Water	01/15/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-05	MJNLB6	Water	01/15/2025		FD				
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-06	MJNLB8	Water	01/15/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-07	MJNLB9	Water	01/15/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-08	MJNLC0	Water	01/14/2025						
				Metals CLP MS-CLP4		SFAM_MS	15	02/07/2025	02/07/2025
Q1127-09	MJNLE5	Water	01/15/2025						
				Mercury		SFAM_HG	15	02/07/2025	02/07/2025
				Metals CLP12		SFAM_AES	15	02/07/2025	02/07/2025
Q1127-10	MJNLE5D	Water	01/15/2025						
				Mercury		SFAM_HG	15	02/07/2025	02/07/2025
				Metals CLP12		SFAM_AES	15	02/07/2025	02/07/2025
Q1127-11	MJNLE5S	Water	01/15/2025						
				Mercury		SFAM_HG	15	02/07/2025	02/07/2025
				Metals CLP12		SFAM_AES	15	02/07/2025	02/07/2025

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB166138 **WorkList ID :** 187015 **Department :** Digestion **Date :** 01-20-2025 10:00:36

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1127-09	MJNLE5	Water	Metals CLP12	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_AES
Q1127-10	MJNLE5D	Water	Metals CLP12	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_AES
Q1127-11	MJNLE5S	Water	Metals CLP12	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_AES

1037

Date/Time 01/20/25 10:20

Raw Sample Received by: SRD. MCT digestion

Raw Sample Relinquished by:

Date/Time 01/20/25 11:20

Raw Sample Received by: SM

Raw Sample Relinquished by: SRD. MCT digestion

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB166137 **WorkList ID :** 187014 **Department :** Digestion **Date :** 01-20-2025 09:58:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1127-01	MJNLB3	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-02	MJNLB5	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-03	MJNLB5D	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-04	MJNLB5S	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-05	MJNLB6	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-06	MJNLB8	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-07	MJNLB9	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1127-08	MJNLC0	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-01	MJNLB4	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_MS
Q1128-02	MJNLG3	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-03	MJNLG3D	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-04	MJNLG3S	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-05	MJNLG4	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-06	MJNLG6	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-07	MJNLG7	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_MS
Q1128-08	MJNLG8	Water	Metals CLP MS-CLP4	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_MS

1038

Date/Time 01/20/25 10:20

Raw Sample Received by: SLD. met digestion

Raw Sample Relinquished by: SM

Date/Time 01/20/25 11:20

Raw Sample Received by: SM

Raw Sample Relinquished by: SLD. met digestion

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1089_HgW **WorkList ID :** 187269 **Department :** Digestion **Date :** 01-29-2025 16:50:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1089-01	MC0B00	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-02	MC0B01	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-03	MC0B01D	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-04	MC0B01S	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-05	MC0B06	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-06	MC0B07	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/13/2025	SFAM_HG
Q1089-13	MC0B10	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_HG
Q1089-14	MC0B11	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1127-09	MJNLE5	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1127-10	MJNLE5D	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1127-11	MJNLE5S	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1089-07	MC0AL9	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1089-08	MC0AM2	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_HG
Q1089-09	MC0AZ9	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_HG
Q1089-10	MC0B02	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_HG
Q1089-11	MC0B04	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/15/2025	SFAM_HG
Q1089-12	MC0B09	Water	Mercury	1:1 HNO3 to pH < 2	USEP01	C11	01/14/2025	SFAM_HG

1039

Date/Time 1/30/25 @ 13:27

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 1/30/25 @ 13:50

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]