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

DATA PACKAGE

METALS

PROJECT NAME : RAYMARK SUPERFUND SITE

NOBIS GROUP

585 Middlesex Street

Lowell, MA - 01851

Phone No: 978-683-0891

ORDER ID : Q1383

ATTENTION : Adam Roy

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1383

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number	Client Sample Number
Q1383-01	OU4-PCS-TC-11-021725
Q1383-02	OU4-PCS-TC-11-021725
Q1383-03	OU4-PCS-TC-12-021725
Q1383-04	OU4-PCS-TC-12-021725
Q1383-05	OU4-PCS-TC-13-021725
Q1383-06	OU4-PCS-TC-13-021725
Q1383-07	OU4-PCS-TC-14-021725
Q1383-08	OU4-PCS-TC-14-021725
Q1383-09	OU4-PCS-TC-15-021725
Q1383-10	OU4-PCS-TC-15-021725
Q1383-11	OU4-PCS-TC-16-021725
Q1383-12	OU4-PCS-TC-16-021725
Q1383-13	OU4-PCS-TC-17-021725
Q1383-14	OU4-PCS-TC-17-021725
Q1383-15	OU4-PCS-TC-18-021725
Q1383-16	OU4-PCS-TC-18-021725
Q1383-17	OU4-PCS-TC-19-021725
Q1383-18	OU4-PCS-TC-19-021725
Q1383-19	OU4-PCS-TC-20-021725
Q1383-20	OU4-PCS-TC-20-021725
Q1383-21	OU4-CF-15-021725
Q1383-22	OU4-CF-15-021725

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

Signature : **APPROVED**
By Nimisha Pandya, QA/QC Supervisor at 11:44 am, Mar 05, 2025

Date: 3/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Nobis Group
Project Name: Raymark Superfund Site
Project # N/A
Chemtech Project # Q1383
Test Name: SPLP MetalGroup3,SPLP Mercury

A. Number of Samples and Date of Receipt:
22 Solid samples were received on 02/18/2025.

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

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

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (OU4-CF-15-021725MS) analysis met criteria for all samples except for Arsenic and Silver due to matrix interference.
The Matrix Spike Duplicate(OU4-CF-15-021725MSD) analysis met criteria for all samples except for Arsenic and Silver due to matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:
All samples are diluted 5X dilution as straight analysis because of high and pure acid concentration of two acids which can cause drastic damage to the instrument.

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

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

Signature_____ **APPROVED**

By Nimisha Pandya, QA/QC Supervisor at 11:44 am, Mar 05, 2025

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1383 MATRIX: Water

METHOD: 6020B,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS: All samples are diluted 5X dilution as straight analysis because of high and pure acid concentration of two acids which can cause drastic damage to the instrument.

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

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 11:01 am, Mar 05, 2025

Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1383

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

QA Review Signature: SOHIL JODHANI **Date:** 03/04/2025

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LAB CHRONICLE

OrderID: Q1383
Client: Nobis Group
Contact: Adam Roy
OrderDate: 2/18/2025 11:19:00 AM
Project: Raymark Superfund Site
Location: H31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1383-02	**OU4-PCS-TC-11-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-04	**OU4-PCS-TC-12-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-06	**OU4-PCS-TC-13-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-08	**OU4-PCS-TC-14-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-10	**OU4-PCS-TC-15-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-12	**OU4-PCS-TC-16-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-14	**OU4-PCS-TC-17-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	

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LAB CHRONICLE

Q1383-16	**OU4-PCS-TC-18-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-18	**OU4-PCS-TC-19-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-20	**OU4-PCS-TC-20-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	
Q1383-22	**OU4-CF-15-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/24/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1383 **Order ID:** Q1383

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : OU4-PCS-TC-11-021725									
Q1383-02	OU4-PCS-TC-11-021725	Water	Arsenic	2.50	JD	0.45	1.25	5.00	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Barium	114	D	1.50	6.25	50.0	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Beryllium	1.20	JD	0.80	1.25	5.00	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Chromium	10.2	D	2.00	3.75	10.0	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Copper	105	D	2.00	7.50	10.0	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Lead	7.05	D	0.55	3.75	5.00	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Nickel	37.9	D	0.90	1.25	5.00	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Mercury	0.084	J	0.081	0.16	0.20	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Vanadium	220	D	0.36	1.25	25.0	ug/L
Q1383-02	OU4-PCS-TC-11-021725	Water	Zinc	849	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-12-021725									
Q1383-04	OU4-PCS-TC-12-021725	Water	Arsenic	2.85	JD	0.45	1.25	5.00	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Barium	114	D	1.50	6.25	50.0	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Beryllium	1.20	JD	0.80	1.25	5.00	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Chromium	8.95	JD	2.00	3.75	10.0	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Copper	108	D	2.00	7.50	10.0	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Lead	2.00	JD	0.55	3.75	5.00	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Nickel	33.8	D	0.90	1.25	5.00	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Vanadium	170	D	0.36	1.25	25.0	ug/L
Q1383-04	OU4-PCS-TC-12-021725	Water	Zinc	697	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-13-021725									
Q1383-06	OU4-PCS-TC-13-021725	Water	Arsenic	2.40	JD	0.45	1.25	5.00	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Barium	128	D	1.50	6.25	50.0	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Beryllium	1.30	JD	0.80	1.25	5.00	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Chromium	8.75	JD	2.00	3.75	10.0	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Copper	127	D	2.00	7.50	10.0	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Lead	1.85	JD	0.55	3.75	5.00	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Nickel	37.0	D	0.90	1.25	5.00	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Vanadium	174	D	0.36	1.25	25.0	ug/L
Q1383-06	OU4-PCS-TC-13-021725	Water	Zinc	823	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-14-021725									
Q1383-08	OU4-PCS-TC-14-021725	Water	Arsenic	1.95	JD	0.45	1.25	5.00	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Barium	111	D	1.50	6.25	50.0	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Beryllium	1.00	JD	0.80	1.25	5.00	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Chromium	7.60	JD	2.00	3.75	10.0	ug/L

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Hit Summary Sheet
SW-846

SDG No.: Q1383 **Order ID:** Q1383

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Q1383-08	OU4-PCS-TC-14-021725	Water	Copper	104	D	2.00	7.50	10.0	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Lead	1.45	JD	0.55	3.75	5.00	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Nickel	33.9	D	0.90	1.25	5.00	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Vanadium	162	D	0.36	1.25	25.0	ug/L
Q1383-08	OU4-PCS-TC-14-021725	Water	Zinc	731	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-15-021725**								
Q1383-10	OU4-PCS-TC-15-021725	Water	Arsenic	2.75	JD	0.45	1.25	5.00	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Barium	110	D	1.50	6.25	50.0	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Beryllium	0.95	JD	0.80	1.25	5.00	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Chromium	7.30	JD	2.00	3.75	10.0	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Copper	87.5	D	2.00	7.50	10.0	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Lead	1.40	JD	0.55	3.75	5.00	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Nickel	32.0	D	0.90	1.25	5.00	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Vanadium	136	D	0.36	1.25	25.0	ug/L
Q1383-10	OU4-PCS-TC-15-021725	Water	Zinc	747	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-16-021725**								
Q1383-12	OU4-PCS-TC-16-021725	Water	Arsenic	2.55	JD	0.45	1.25	5.00	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Barium	114	D	1.50	6.25	50.0	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Beryllium	1.10	JD	0.80	1.25	5.00	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Chromium	10.7	D	2.00	3.75	10.0	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Copper	110	D	2.00	7.50	10.0	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Lead	1.85	JD	0.55	3.75	5.00	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Nickel	37.8	D	0.90	1.25	5.00	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Vanadium	189	D	0.36	1.25	25.0	ug/L
Q1383-12	OU4-PCS-TC-16-021725	Water	Zinc	845	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-17-021725**								
Q1383-14	OU4-PCS-TC-17-021725	Water	Arsenic	3.00	JD	0.45	1.25	5.00	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Barium	110	D	1.50	6.25	50.0	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Beryllium	1.05	JD	0.80	1.25	5.00	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Chromium	11.6	D	2.00	3.75	10.0	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Copper	116	D	2.00	7.50	10.0	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Lead	2.40	JD	0.55	3.75	5.00	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Nickel	38.9	D	0.90	1.25	5.00	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Vanadium	249	D	0.36	1.25	25.0	ug/L
Q1383-14	OU4-PCS-TC-17-021725	Water	Zinc	909	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-18-021725**								
Q1383-16	OU4-PCS-TC-18-021725	Water	Arsenic	2.20	JD	0.45	1.25	5.00	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Barium	116	D	1.50	6.25	50.0	ug/L

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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q1383 **Order ID:** Q1383

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Q1383-16	OU4-PCS-TC-18-021725	Water	Beryllium	1.10	JD	0.80	1.25	5.00	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Chromium	8.40	JD	2.00	3.75	10.0	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Copper	103	D	2.00	7.50	10.0	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Lead	1.45	JD	0.55	3.75	5.00	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Nickel	35.9	D	0.90	1.25	5.00	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Vanadium	175	D	0.36	1.25	25.0	ug/L
Q1383-16	OU4-PCS-TC-18-021725	Water	Zinc	711	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-19-021725**								
Q1383-18	OU4-PCS-TC-19-021725	Water	Arsenic	3.75	JD	0.45	1.25	5.00	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Barium	109	D	1.50	6.25	50.0	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Beryllium	1.20	JD	0.80	1.25	5.00	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Chromium	10.5	D	2.00	3.75	10.0	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Copper	128	D	2.00	7.50	10.0	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Lead	2.40	JD	0.55	3.75	5.00	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Nickel	37.8	D	0.90	1.25	5.00	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Vanadium	225	D	0.36	1.25	25.0	ug/L
Q1383-18	OU4-PCS-TC-19-021725	Water	Zinc	813	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-20-021725**								
Q1383-20	OU4-PCS-TC-20-021725	Water	Arsenic	2.10	JD	0.45	1.25	5.00	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Barium	106	D	1.50	6.25	50.0	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Beryllium	0.85	JD	0.80	1.25	5.00	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Chromium	4.95	JD	2.00	3.75	10.0	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Copper	76.8	D	2.00	7.50	10.0	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Lead	0.90	JD	0.55	3.75	5.00	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Nickel	31.2	D	0.90	1.25	5.00	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Vanadium	118	D	0.36	1.25	25.0	ug/L
Q1383-20	OU4-PCS-TC-20-021725	Water	Zinc	612	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-CF-15-021725**								
Q1383-22	OU4-CF-15-021725	Water	Arsenic	2.00	JD	0.45	1.25	5.00	ug/L
Q1383-22	OU4-CF-15-021725	Water	Barium	101	D	1.50	6.25	50.0	ug/L
Q1383-22	OU4-CF-15-021725	Water	Chromium	10.4	D	2.00	3.75	10.0	ug/L
Q1383-22	OU4-CF-15-021725	Water	Copper	229	D	2.00	7.50	10.0	ug/L
Q1383-22	OU4-CF-15-021725	Water	Lead	4.00	JD	0.55	3.75	5.00	ug/L
Q1383-22	OU4-CF-15-021725	Water	Nickel	73.6	D	0.90	1.25	5.00	ug/L
Q1383-22	OU4-CF-15-021725	Water	Vanadium	201	D	0.36	1.25	25.0	ug/L
Q1383-22	OU4-CF-15-021725	Water	Zinc	848	D	2.80	7.50	25.0	ug/L

SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-11-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-38-2	Arsenic	2.50	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-39-3	Barium	114	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-41-7	Beryllium	1.20	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-47-3	Chromium	10.2	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-50-8	Copper	105	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7439-92-1	Lead	7.05	D	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7439-97-6	Mercury	0.084	J	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:40	SW7470A	
7440-02-0	Nickel	37.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-62-2	Vanadium	220	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A
7440-66-6	Zinc	849	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:15	SW6020	3010A

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

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

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

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Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-12-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-38-2	Arsenic	2.85	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-39-3	Barium	114	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-41-7	Beryllium	1.20	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-47-3	Chromium	8.95	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-50-8	Copper	108	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7439-92-1	Lead	2.00	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:43	SW7470A	
7440-02-0	Nickel	33.8	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-62-2	Vanadium	170	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A
7440-66-6	Zinc	697	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:18	SW6020	3010A

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

U = Not Detected
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Fax : 908 789 8922

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-13-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-38-2	Arsenic	2.40	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-39-3	Barium	128	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-41-7	Beryllium	1.30	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-47-3	Chromium	8.75	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-50-8	Copper	127	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7439-92-1	Lead	1.85	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:45	SW7470A	
7440-02-0	Nickel	37.0	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-62-2	Vanadium	174	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A
7440-66-6	Zinc	823	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:21	SW6020	3010A

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-14-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-08	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-38-2	Arsenic	1.95	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-39-3	Barium	111	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-41-7	Beryllium	1.00	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-47-3	Chromium	7.60	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-50-8	Copper	104	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7439-92-1	Lead	1.45	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:47	SW7470A	
7440-02-0	Nickel	33.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-62-2	Vanadium	162	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A
7440-66-6	Zinc	731	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:24	SW6020	3010A

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

U = Not Detected
LOQ = Limit of Quantitation
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N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-15-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-10	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-38-2	Arsenic	2.75	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-39-3	Barium	110	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-41-7	Beryllium	0.95	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-47-3	Chromium	7.30	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-50-8	Copper	87.5	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7439-92-1	Lead	1.40	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:49	SW7470A	
7440-02-0	Nickel	32.0	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-62-2	Vanadium	136	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A
7440-66-6	Zinc	747	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:28	SW6020	3010A

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

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

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-16-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-12	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-38-2	Arsenic	2.55	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-39-3	Barium	114	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-41-7	Beryllium	1.10	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-47-3	Chromium	10.7	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-50-8	Copper	110	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7439-92-1	Lead	1.85	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:52	SW7470A	
7440-02-0	Nickel	37.8	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-62-2	Vanadium	189	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A
7440-66-6	Zinc	845	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:31	SW6020	3010A

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

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OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-17-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-14	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-38-2	Arsenic	3.00	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-39-3	Barium	110	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-41-7	Beryllium	1.05	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-47-3	Chromium	11.6	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-50-8	Copper	116	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7439-92-1	Lead	2.40	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:54	SW7470A	
7440-02-0	Nickel	38.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-62-2	Vanadium	249	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A
7440-66-6	Zinc	909	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 14:05	SW6020	3010A

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-18-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-16	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-38-2	Arsenic	2.20	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-39-3	Barium	116	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-41-7	Beryllium	1.10	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-47-3	Chromium	8.40	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-50-8	Copper	103	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7439-92-1	Lead	1.45	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:56	SW7470A	
7440-02-0	Nickel	35.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-62-2	Vanadium	175	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A
7440-66-6	Zinc	711	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:55	SW6020	3010A

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

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OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-19-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-18	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-38-2	Arsenic	3.75	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-39-3	Barium	109	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-41-7	Beryllium	1.20	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-47-3	Chromium	10.5	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-50-8	Copper	128	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7439-92-1	Lead	2.40	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:59	SW7470A	
7440-02-0	Nickel	37.8	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-62-2	Vanadium	225	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A
7440-66-6	Zinc	813	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 13:58	SW6020	3010A

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

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OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-20-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-20	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-38-2	Arsenic	2.10	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-39-3	Barium	106	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-41-7	Beryllium	0.85	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-47-3	Chromium	4.95	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-50-8	Copper	76.8	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7439-92-1	Lead	0.90	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 12:01	SW7470A	
7440-02-0	Nickel	31.2	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-62-2	Vanadium	118	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A
7440-66-6	Zinc	612	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 14:01	SW6020	3010A

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-CF-15-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-22	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-36-0	Antimony	1.25	UD	5	0.55	1.25	10.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-38-2	Arsenic	2.00	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-39-3	Barium	101	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-41-7	Beryllium	1.25	UD	5	0.80	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-47-3	Chromium	10.4	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-50-8	Copper	229	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7439-92-1	Lead	4.00	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 12:08	SW7470A	
7440-02-0	Nickel	73.6	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-62-2	Vanadium	201	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A
7440-66-6	Zinc	848	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:35	02/24/25 14:08	SW6020	3010A

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

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METAL CALIBRATION DATA

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV14	Mercury	3.90	4.0	98	90 - 110	CV	02/24/2025	10:34	LB134788

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Mercury	4.96	5.0	99	90 - 110	CV	02/24/2025	10:38	LB134788
CCV08	Mercury	4.84	5.0	97	90 - 110	CV	02/24/2025	11:09	LB134788
CCV09	Mercury	4.84	5.0	97	90 - 110	CV	02/24/2025	11:36	LB134788
CCV10	Mercury	4.69	5.0	94	90 - 110	CV	02/24/2025	12:03	LB134788
CCV11	Mercury	5.28	5.0	106	90 - 110	CV	02/24/2025	12:37	LB134788

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Antimony	200	200	100	90 - 110	P	02/24/2025	12:02	LB134802
	Arsenic	199	200	100	90 - 110	P	02/24/2025	12:02	LB134802
	Barium	100	100	100	90 - 110	P	02/24/2025	12:02	LB134802
	Beryllium	98.6	100	99	90 - 110	P	02/24/2025	12:02	LB134802
	Cadmium	98.8	100	99	90 - 110	P	02/24/2025	12:02	LB134802
	Chromium	96.5	100	96	90 - 110	P	02/24/2025	12:02	LB134802
	Copper	103	100	104	90 - 110	P	02/24/2025	12:02	LB134802
	Lead	203	200	101	90 - 110	P	02/24/2025	12:02	LB134802
	Nickel	101	110	91	90 - 110	P	02/24/2025	12:02	LB134802
	Selenium	204	200	102	90 - 110	P	02/24/2025	12:02	LB134802
	Silver	46.3	50.0	93	90 - 110	P	02/24/2025	12:02	LB134802
	Thallium	198	210	94	90 - 110	P	02/24/2025	12:02	LB134802
	Vanadium	93.8	100	94	90 - 110	P	02/24/2025	12:02	LB134802
	Zinc	200	200	100	90 - 110	P	02/24/2025	12:02	LB134802

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV	Antimony	1.94	2.0	97	80 - 120	P	02/24/2025	12:31	LB134802
	Arsenic	1.17	1.0	117	80 - 120	P	02/24/2025	12:31	LB134802
	Barium	9.96	10.0	100	80 - 120	P	02/24/2025	12:31	LB134802
	Beryllium	0.98	1.0	98	80 - 120	P	02/24/2025	12:31	LB134802
	Cadmium	1.07	1.0	107	80 - 120	P	02/24/2025	12:31	LB134802
	Chromium	1.98	2.0	99	80 - 120	P	02/24/2025	12:31	LB134802
	Copper	2.01	2.0	100	80 - 120	P	02/24/2025	12:31	LB134802
	Lead	0.99	1.0	99	80 - 120	P	02/24/2025	12:31	LB134802
	Nickel	1.17	1.0	117	80 - 120	P	02/24/2025	12:31	LB134802
	Selenium	5.03	5.0	101	80 - 120	P	02/24/2025	12:31	LB134802
	Silver	0.94	1.0	94	80 - 120	P	02/24/2025	12:31	LB134802
	Thallium	0.94	1.0	94	80 - 120	P	02/24/2025	12:31	LB134802
	Vanadium	4.83	5.0	97	80 - 120	P	02/24/2025	12:31	LB134802
	Zinc	5.17	5.0	103	80 - 120	P	02/24/2025	12:31	LB134802

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Antimony	475	500	95	90 - 110	P	02/24/2025	12:51	LB134802
	Arsenic	469	500	94	90 - 110	P	02/24/2025	12:51	LB134802
	Barium	2510	2500	100	90 - 110	P	02/24/2025	12:51	LB134802
	Beryllium	498	500	100	90 - 110	P	02/24/2025	12:51	LB134802
	Cadmium	476	500	95	90 - 110	P	02/24/2025	12:51	LB134802
	Chromium	482	500	96	90 - 110	P	02/24/2025	12:51	LB134802
	Copper	4610	5000	92	90 - 110	P	02/24/2025	12:51	LB134802
	Lead	2550	2500	102	90 - 110	P	02/24/2025	12:51	LB134802
	Nickel	454	500	91	90 - 110	P	02/24/2025	12:51	LB134802
	Selenium	470	500	94	90 - 110	P	02/24/2025	12:51	LB134802
	Silver	472	500	94	90 - 110	P	02/24/2025	12:51	LB134802
	Thallium	506	500	101	90 - 110	P	02/24/2025	12:51	LB134802
	Vanadium	455	500	91	90 - 110	P	02/24/2025	12:51	LB134802
	Zinc	4750	5000	95	90 - 110	P	02/24/2025	12:51	LB134802
CCV02	Antimony	472	500	94	90 - 110	P	02/24/2025	13:34	LB134802
	Arsenic	466	500	93	90 - 110	P	02/24/2025	13:34	LB134802
	Barium	2500	2500	100	90 - 110	P	02/24/2025	13:34	LB134802
	Beryllium	485	500	97	90 - 110	P	02/24/2025	13:34	LB134802
	Cadmium	471	500	94	90 - 110	P	02/24/2025	13:34	LB134802
	Chromium	480	500	96	90 - 110	P	02/24/2025	13:34	LB134802
	Copper	4640	5000	93	90 - 110	P	02/24/2025	13:34	LB134802
	Lead	2520	2500	101	90 - 110	P	02/24/2025	13:34	LB134802
	Nickel	452	500	90	90 - 110	P	02/24/2025	13:34	LB134802
	Selenium	462	500	92	90 - 110	P	02/24/2025	13:34	LB134802
	Silver	466	500	93	90 - 110	P	02/24/2025	13:34	LB134802
	Thallium	497	500	99	90 - 110	P	02/24/2025	13:34	LB134802
	Vanadium	457	500	92	90 - 110	P	02/24/2025	13:34	LB134802
	Zinc	4820	5000	96	90 - 110	P	02/24/2025	13:34	LB134802
CCV03	Antimony	479	500	96	90 - 110	P	02/24/2025	14:21	LB134802
	Arsenic	479	500	96	90 - 110	P	02/24/2025	14:21	LB134802
	Barium	2500	2500	100	90 - 110	P	02/24/2025	14:21	LB134802
	Beryllium	492	500	98	90 - 110	P	02/24/2025	14:21	LB134802
	Cadmium	475	500	95	90 - 110	P	02/24/2025	14:21	LB134802
	Chromium	483	500	96	90 - 110	P	02/24/2025	14:21	LB134802

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Copper	4680	5000	94	90 - 110	P	02/24/2025	14:21	LB134802
	Lead	2510	2500	101	90 - 110	P	02/24/2025	14:21	LB134802
	Nickel	454	500	91	90 - 110	P	02/24/2025	14:21	LB134802
	Selenium	467	500	93	90 - 110	P	02/24/2025	14:21	LB134802
	Silver	471	500	94	90 - 110	P	02/24/2025	14:21	LB134802
	Thallium	494	500	99	90 - 110	P	02/24/2025	14:21	LB134802
	Vanadium	460	500	92	90 - 110	P	02/24/2025	14:21	LB134802
	Zinc	4880	5000	98	90 - 110	P	02/24/2025	14:21	LB134802
CCV04	Antimony	477	500	95	90 - 110	P	02/24/2025	14:51	LB134802
	Arsenic	468	500	94	90 - 110	P	02/24/2025	14:51	LB134802
	Barium	2500	2500	100	90 - 110	P	02/24/2025	14:51	LB134802
	Beryllium	481	500	96	90 - 110	P	02/24/2025	14:51	LB134802
	Cadmium	473	500	95	90 - 110	P	02/24/2025	14:51	LB134802
	Chromium	495	500	99	90 - 110	P	02/24/2025	14:51	LB134802
	Copper	4710	5000	94	90 - 110	P	02/24/2025	14:51	LB134802
	Lead	2530	2500	101	90 - 110	P	02/24/2025	14:51	LB134802
	Nickel	457	500	91	90 - 110	P	02/24/2025	14:51	LB134802
	Selenium	463	500	93	90 - 110	P	02/24/2025	14:51	LB134802
	Silver	467	500	93	90 - 110	P	02/24/2025	14:51	LB134802
	Thallium	497	500	99	90 - 110	P	02/24/2025	14:51	LB134802
	Vanadium	461	500	92	90 - 110	P	02/24/2025	14:51	LB134802
	Zinc	4900	5000	98	90 - 110	P	02/24/2025	14:51	LB134802

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CRDL STANDARD FOR AA & ICP

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.18	0.2	88	40 - 160	CV	02/24/2025	10:43	LB134788
CRI	Antimony	1.95	2.0	98	70 - 130	P	02/24/2025	12:59	LB134802
	Arsenic	0.99	1.0	99	70 - 130	P	02/24/2025	12:59	LB134802
	Barium	10.2	10.0	102	70 - 130	P	02/24/2025	12:59	LB134802
	Beryllium	1.04	1.0	104	70 - 130	P	02/24/2025	12:59	LB134802
	Cadmium	1.05	1.0	105	70 - 130	P	02/24/2025	12:59	LB134802
	Chromium	1.88	2.0	94	70 - 130	P	02/24/2025	12:59	LB134802
	Copper	1.98	2.0	99	70 - 130	P	02/24/2025	12:59	LB134802
	Lead	1.03	1.0	103	70 - 130	P	02/24/2025	12:59	LB134802
	Nickel	1.02	1.0	102	70 - 130	P	02/24/2025	12:59	LB134802
	Selenium	4.75	5.0	95	70 - 130	P	02/24/2025	12:59	LB134802
	Silver	0.97	1.0	97	70 - 130	P	02/24/2025	12:59	LB134802
	Thallium	0.94	1.0	94	70 - 130	P	02/24/2025	12:59	LB134802
	Vanadium	4.74	5.0	95	70 - 130	P	02/24/2025	12:59	LB134802
	Zinc	5.27	5.0	105	50 - 150	P	02/24/2025	12:59	LB134802

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB14	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	10:36	LB134788

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	10:40	LB134788
CCB08	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	11:11	LB134788
CCB09	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	11:38	LB134788
CCB10	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	12:05	LB134788
CCB11	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	02/24/2025	12:40	LB134788

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/24/2025	12:35	LB134802
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:35	LB134802
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/24/2025	12:35	LB134802
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:35	LB134802
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:35	LB134802
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/24/2025	12:35	LB134802
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/24/2025	12:35	LB134802
	Lead	1.00	+/-1.00	U	0.75	1.00	P	02/24/2025	12:35	LB134802
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:35	LB134802
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/24/2025	12:35	LB134802
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:35	LB134802
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:35	LB134802
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/24/2025	12:35	LB134802
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/24/2025	12:35	LB134802

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/24/2025	12:55	LB134802
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:55	LB134802
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/24/2025	12:55	LB134802
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:55	LB134802
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:55	LB134802
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/24/2025	12:55	LB134802
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/24/2025	12:55	LB134802
	Lead	0.19	+/-1.00	J	0.75	1.00	P	02/24/2025	12:55	LB134802
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	12:55	LB134802
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/24/2025	12:55	LB134802
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:55	LB134802
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	12:55	LB134802
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/24/2025	12:55	LB134802
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/24/2025	12:55	LB134802
CCB02	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/24/2025	13:41	LB134802
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	13:41	LB134802
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/24/2025	13:41	LB134802
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	13:41	LB134802
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	13:41	LB134802
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/24/2025	13:41	LB134802
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/24/2025	13:41	LB134802
	Lead	1.00	+/-1.00	U	0.75	1.00	P	02/24/2025	13:41	LB134802
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	13:41	LB134802
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/24/2025	13:41	LB134802
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	13:41	LB134802
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	13:41	LB134802
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/24/2025	13:41	LB134802
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/24/2025	13:41	LB134802
CCB03	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/24/2025	14:26	LB134802
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:26	LB134802
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/24/2025	14:26	LB134802
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:26	LB134802
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:26	LB134802
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/24/2025	14:26	LB134802
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/24/2025	14:26	LB134802
	Lead	0.11	+/-1.00	J	0.75	1.00	P	02/24/2025	14:26	LB134802
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:26	LB134802
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/24/2025	14:26	LB134802
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:26	LB134802

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:26	LB134802
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/24/2025	14:26	LB134802
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/24/2025	14:26	LB134802
CCB04	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/24/2025	14:57	LB134802
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:57	LB134802
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/24/2025	14:57	LB134802
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:57	LB134802
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:57	LB134802
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/24/2025	14:57	LB134802
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/24/2025	14:57	LB134802
	Lead	1.00	+/-1.00	U	0.75	1.00	P	02/24/2025	14:57	LB134802
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/24/2025	14:57	LB134802
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/24/2025	14:57	LB134802
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:57	LB134802
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/24/2025	14:57	LB134802
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/24/2025	14:57	LB134802
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/24/2025	14:57	LB134802

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166842BL		**WATER**		**Batch Number:**		**PB166842**		**Prep Date:**	**02/24/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	02/24/2025	11:31	LB134788

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166842TB		**WATER**		**Batch Number:**		**PB166842**		**Prep Date:**	**02/24/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	02/24/2025	12:19	LB134788

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Instrument: P8

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166779BL		**WATER**		**Batch Number:**		**PB166779**		**Prep Date:**	**02/19/2025**	
	Antimony	2.00	<2.00	U	0.25	2.00	P	02/24/2025	13:04	LB134802
	Arsenic	1.00	<1.00	U	0.25	1.00	P	02/24/2025	13:04	LB134802
	Barium	10.0	<10.0	U	1.25	10.0	P	02/24/2025	13:04	LB134802
	Beryllium	1.00	<1.00	U	0.25	1.00	P	02/24/2025	13:04	LB134802
	Cadmium	1.00	<1.00	U	0.50	1.00	P	02/24/2025	13:04	LB134802
	Chromium	2.00	<2.00	U	0.75	2.00	P	02/24/2025	13:04	LB134802
	Copper	2.00	<2.00	U	1.50	2.00	P	02/24/2025	13:04	LB134802
	Lead	1.00	<1.00	U	0.75	1.00	P	02/24/2025	13:04	LB134802
	Nickel	1.00	<1.00	U	0.25	1.00	P	02/24/2025	13:04	LB134802
	Selenium	5.00	<5.00	U	4.50	5.00	P	02/24/2025	13:04	LB134802
	Silver	1.00	<1.00	U	0.50	1.00	P	02/24/2025	13:04	LB134802
	Thallium	1.00	<1.00	U	0.50	1.00	P	02/24/2025	13:04	LB134802
	Vanadium	5.00	<5.00	U	0.25	5.00	P	02/24/2025	13:04	LB134802
	Zinc	5.00	<5.00	U	1.50	5.00	P	02/24/2025	13:04	LB134802

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166779TB		**WATER**		**Batch Number:**		**PB166779**		**Prep Date:**	**02/19/2025**	
	Antimony	2.00	<2.00	U	0.25	2.00	P	02/24/2025	14:43	LB134802
	Arsenic	1.00	<1.00	U	0.25	1.00	P	02/24/2025	14:43	LB134802
	Barium	10.0	<10.0	U	1.25	10.0	P	02/24/2025	14:43	LB134802
	Beryllium	1.00	<1.00	U	0.25	1.00	P	02/24/2025	14:43	LB134802
	Cadmium	1.00	<1.00	U	0.50	1.00	P	02/24/2025	14:43	LB134802
	Chromium	2.00	<2.00	U	0.75	2.00	P	02/24/2025	14:43	LB134802
	Copper	2.00	<2.00	U	1.50	2.00	P	02/24/2025	14:43	LB134802
	Lead	0.12	<1.00	J	0.75	1.00	P	02/24/2025	14:43	LB134802
	Nickel	0.18	<1.00	J	0.25	1.00	P	02/24/2025	14:43	LB134802
	Selenium	5.00	<5.00	U	4.50	5.00	P	02/24/2025	14:43	LB134802
	Silver	1.00	<1.00	U	0.50	1.00	P	02/24/2025	14:43	LB134802
	Thallium	1.00	<1.00	U	0.50	1.00	P	02/24/2025	14:43	LB134802
	Vanadium	5.00	<5.00	U	0.25	5.00	P	02/24/2025	14:43	LB134802
	Zinc	0.85	<5.00	J	1.50	5.00	P	02/24/2025	14:43	LB134802

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

ICS Source: EPA **Instrument ID:** P8

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Antimony	1.06	1.5	71	-2.5	5.5	02/24/2025	12:40	LB134802
	Arsenic	0.29	0.1	290	-1.9	2.1	02/24/2025	12:40	LB134802
	Barium	1.40	1.2	117	-18.8	21.2	02/24/2025	12:40	LB134802
	Beryllium	0.27			-2	2	02/24/2025	12:40	LB134802
	Cadmium	0.30	0.7	43	-1.3	2.7	02/24/2025	12:40	LB134802
	Chromium	18.7	21.0	89	17	25	02/24/2025	12:40	LB134802
	Copper	7.78	8.0	97	4	12	02/24/2025	12:40	LB134802
	Lead	4.28	4.0	107	2	6	02/24/2025	12:40	LB134802
	Nickel	5.04	6.0	84	4	8	02/24/2025	12:40	LB134802
	Selenium	0	0.3		-9.7	10	02/24/2025	12:40	LB134802
	Silver	0.070			-2	2	02/24/2025	12:40	LB134802
	Thallium	0.060			-2	2	02/24/2025	12:40	LB134802
	Vanadium	0.15	0.5	30	-9.5	10.5	02/24/2025	12:40	LB134802
	Zinc	10.9	11.0	99	7	15	02/24/2025	12:40	LB134802
ICSAB01	Antimony	20.7	22.0	94	18	26	02/24/2025	12:44	LB134802
	Arsenic	20.3	19.0	107	16.2	21.9	02/24/2025	12:44	LB134802
	Barium	21.4	22.0	97	2	42	02/24/2025	12:44	LB134802
	Beryllium	20.4	19.0	107	16.2	21.9	02/24/2025	12:44	LB134802
	Cadmium	19.4	20.0	97	17	23	02/24/2025	12:44	LB134802
	Chromium	38.0	40.0	95	34	46	02/24/2025	12:44	LB134802
	Copper	27.6	25.0	110	21	29	02/24/2025	12:44	LB134802
	Lead	23.9	25.0	96	21.3	28.8	02/24/2025	12:44	LB134802
	Nickel	24.0	24.0	100	20.4	27.6	02/24/2025	12:44	LB134802
	Selenium	20.9	19.0	110	9	29	02/24/2025	12:44	LB134802
	Silver	18.3	18.0	102	15.3	20.7	02/24/2025	12:44	LB134802
	Thallium	19.9	21.0	95	17.9	24.2	02/24/2025	12:44	LB134802
	Vanadium	19.5	19.0	103	9	29	02/24/2025	12:44	LB134802
	Zinc	30.5	29.0	105	25	33	02/24/2025	12:44	LB134802

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q1383

contract: NOBI03 **lab code:** CHEM **case no.:** Q1383 **sas no.:** Q1383

matrix: Water **sample id:** Q1383-22 **client id:** OU4-CF-15-021725MS

Percent Solids for Sample: NA **Spiked ID:** Q1383-22MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	85 - 117	509	D	10.0	UD	500	102		P
Arsenic	ug/L	84 - 116	1.65	JD	2.00	JD	500	0	N	P
Barium	ug/L	86 - 114	2350	D	101	D	2500	90		P
Beryllium	ug/L	83 - 121	429	D	5.00	UD	500	86		P
Cadmium	ug/L	87 - 115	457	D	5.00	UD	500	91		P
Chromium	ug/L	85 - 116	445	D	10.4	D	500	87		P
Copper	ug/L	85 - 118	5200	D	229	D	5000	99		P
Lead	ug/L	88 - 115	2400	D	4.00	JD	2500	96		P
Nickel	ug/L	85 - 117	517	D	73.6	D	500	89		P
Mercury	ug/L	82 - 119	4.07		0.20	U	4.0	102		CV
Selenium	ug/L	80 - 120	459	D	25.0	UD	500	91		P
Silver	ug/L	85 - 116	77.0	D	5.00	UD	500	15	N	P
Thallium	ug/L	82 - 116	474	D	5.00	UD	500	95		P
Vanadium	ug/L	86 - 115	647	D	201	D	500	89		P
Zinc	ug/L	83 - 119	5540	D	848	D	5000	94		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q1383

contract: NOBI03 **lab code:** CHEM **case no.:** Q1383 **sas no.:** Q1383

matrix: Water **sample id:** Q1383-22 **client id:** OU4-CF-15-021725MSD

Percent Solids for Sample: NA **Spiked ID:** Q1383-22MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	85 - 117	463	D	10.0	UD	500	93		P
Arsenic	ug/L	84 - 116	2.25	JD	2.00	JD	500	0	N	P
Barium	ug/L	86 - 114	2290	D	101	D	2500	88		P
Beryllium	ug/L	83 - 121	421	D	5.00	UD	500	84		P
Cadmium	ug/L	87 - 115	446	D	5.00	UD	500	89		P
Chromium	ug/L	85 - 116	439	D	10.4	D	500	86		P
Copper	ug/L	85 - 118	5160	D	229	D	5000	99		P
Lead	ug/L	88 - 115	2320	D	4.00	JD	2500	93		P
Nickel	ug/L	85 - 117	512	D	73.6	D	500	88		P
Mercury	ug/L	82 - 119	3.60		0.20	U	4.0	90		CV
Selenium	ug/L	80 - 120	461	D	25.0	UD	500	92		P
Silver	ug/L	85 - 116	75.2	D	5.00	UD	500	15	N	P
Thallium	ug/L	82 - 116	463	D	5.00	UD	500	93		P
Vanadium	ug/L	86 - 115	638	D	201	D	500	88		P
Zinc	ug/L	83 - 119	5490	D	848	D	5000	93		P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Matrix: Water **Level:** LOW **Client ID:** OU4-CF-15-021725A

Sample ID: Q1383-22 **Spiked ID:** Q1383-22A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	84 - 116	2.15	JD	2.00	JD	500	0		P
Silver	ug/L	85 - 116	77.4	D	5.00	UD	500	15		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Matrix: Water **Sample ID:** Q1383-22 **Client ID:** OU4-CF-15-021725DUP

Percent Solids for Sample: NA **Duplicate ID** Q1383-22DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	20	10.0	UD	10.0	UD			P
Arsenic	ug/L	20	2.00	JD	2.35	JD	16		P
Barium	ug/L	20	101	D	101	D	0		P
Beryllium	ug/L	20	5.00	UD	5.00	UD			P
Cadmium	ug/L	20	5.00	UD	5.00	UD			P
Chromium	ug/L	20	10.4	D	10.6	D	1		P
Copper	ug/L	20	229	D	231	D	1		P
Lead	ug/L	20	4.00	JD	4.05	JD	1		P
Nickel	ug/L	20	73.6	D	74.1	D	1		P
Mercury	ug/L	20	0.20	U	0.20	U			CV
Selenium	ug/L	20	25.0	UD	25.0	UD			P
Silver	ug/L	20	5.00	UD	5.00	UD			P
Thallium	ug/L	20	5.00	UD	5.00	UD			P
Vanadium	ug/L	20	201	D	201	D	0		P
Zinc	ug/L	20	848	D	862	D	2		P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Matrix: Water **Sample ID:** Q1383-22MS **Client ID:** OU4-CF-15-021725MSD

Percent Solids for Sample: NA **Duplicate ID** Q1383-22MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	20	509	D	463	D	9		P
Arsenic	ug/L	20	1.65	JD	2.25	JD	31		P
Barium	ug/L	20	2350	D	2290	D	3		P
Beryllium	ug/L	20	429	D	421	D	2		P
Cadmium	ug/L	20	457	D	446	D	2		P
Chromium	ug/L	20	445	D	439	D	1		P
Copper	ug/L	20	5200	D	5160	D	1		P
Lead	ug/L	20	2400	D	2320	D	3		P
Nickel	ug/L	20	517	D	512	D	1		P
Mercury	ug/L	20	4.07		3.60		12		CV
Selenium	ug/L	20	459	D	461	D	0		P
Silver	ug/L	20	77.0	D	75.2	D	2		P
Thallium	ug/L	20	474	D	463	D	2		P
Vanadium	ug/L	20	647	D	638	D	1		P
Zinc	ug/L	20	5540	D	5490	D	1		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166779BS							
Antimony	ug/L	500	508		102	85 - 117	P
Arsenic	ug/L	500	502		100	84 - 116	P
Barium	ug/L	2500	2560		102	86 - 114	P
Beryllium	ug/L	500	502		100	83 - 121	P
Cadmium	ug/L	500	518		104	87 - 115	P
Chromium	ug/L	500	507		101	85 - 116	P
Copper	ug/L	5000	5070		101	85 - 118	P
Lead	ug/L	2500	2520		101	88 - 115	P
Nickel	ug/L	500	474		95	85 - 117	P
Selenium	ug/L	500	497		99	80 - 120	P
Silver	ug/L	500	518		104	85 - 116	P
Thallium	ug/L	500	501		100	82 - 116	P
Vanadium	ug/L	500	479		96	86 - 115	P
Zinc	ug/L	5000	5160		103	83 - 119	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q1383

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1383 **SAS No.:** Q1383

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166842BS							
Mercury	ug/L	4.0	3.43		86	82 - 119	CV

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1105	100		100		100		100		100	
S2	S2	1112	101		99		100		100		100	
S3	S3	1115	98		97		98		98		99	
S4	S4	1118	97		97		98		96		99	
S5	S5	1121	97		97		98		95		99	
S6	S6	1124	98		97		98		95		100	
S7	S7	1127	96		98		98		92		99	
S8	S8	1130	85		87		87		77		87	
ICV01	ICV01	1202	95		94		96		95		96	
LLICV	LLICV	1231	94		91		92		92		95	
ICB01	ICB01	1235	93		91		93		93		94	
ICSA01	ICSA01	1240	90		91		92		86		94	
ICSAB01	ICSAB01	1244	92		94		94		88		95	
CCV01	CCV01	1251	88		90		90		82		91	
CCB01	CCB01	1255	96		96		97		96		95	
CRI	CRI	1259	97		97		98		97		96	
PB166779BL	PB166779BL	1304	96		95		95		95		95	
PB166779BS	PB166779BS	1308	93		93		95		90		94	
Q1383-02	OU4-PCS-TC-	1315	96		95		102		93		97	
Q1383-04	OU4-PCS-TC-	1318	98		98		103		95		98	
Q1383-06	OU4-PCS-TC-	1321	92		91		97		89		91	
Q1383-08	OU4-PCS-TC-	1324	98		98		104		96		99	
Q1383-10	OU4-PCS-TC-	1328	97		97		102		94		98	
Q1383-12	OU4-PCS-TC-	1331	97		97		102		94		97	
CCV02	CCV02	1334	90		92		92		84		92	
CCB02	CCB02	1341	96		96		97		97		96	
Q1383-16	OU4-PCS-TC-	1355	96		98		102		94		98	
Q1383-18	OU4-PCS-TC-	1358	98		100		105		95		98	
Q1383-20	OU4-PCS-TC-	1401	98		98		101		95		98	
Q1383-14	OU4-PCS-TC-	1405	98		97		102		94		97	
Q1383-22	OU4-CF-15-0	1408	97		98		102		95		97	
Q1383-22DUP	OU4-CF-15-0	1411	96		97		100		94		95	
Q1383-22L	OU4-CF-15-0	1414	97		97		98		96		96	
Q1383-22MS	OU4-CF-15-0	1418	95		96		99		93		96	
CCV03	CCV03	1421	88		92		92		83		92	
CCB03	CCB03	1426	94		94		94		95		94	

Internal Standard %RI Limit: 30 - 120

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
Q1383-22MSD	OU4-CF-15-01	1430	95		94		98		92		95	
Q1383-22A	OU4-CF-15-01	1433	96		96		99		93		96	
PB166779TB	PB166779TB	1443	94		92		93		94		93	
CCV04	CCV04	1451	84		85		86		79		87	
CCB04	CCB04	1457	91		90		91		91		91	

Internal Standard %RI Limit: 30 - 120

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1105	100		100		100		100		100	
S2	S2	1112	97		98		98		98		97	
S3	S3	1115	96		95		96		97		97	
S4	S4	1118	96		95		95		98		98	
S5	S5	1121	96		96		95		97		98	
S6	S6	1124	96		95		93		98		98	
S7	S7	1127	98		96		92		97		98	
S8	S8	1130	91		92		81		92		92	
ICV01	ICV01	1202	96		95		96		96		96	
LLICV	LLICV	1231	91		92		93		94		94	
ICB01	ICB01	1235	91		92		92		94		94	
ICSA01	ICSA01	1240	91		94		87		93		95	
ICSAB01	ICSAB01	1244	94		94		88		95		96	
CCV01	CCV01	1251	95		93		85		93		93	
CCB01	CCB01	1255	96		99		97		97		96	
CRI	CRI	1259	95		97		96		96		96	
PB166779BL	PB166779BL	1304	94		93		94		96		95	
PB166779BS	PB166779BS	1308	95		94		91		94		95	
Q1383-02	OU4-PCS-TC-	1315	97		101		94		97		98	
Q1383-04	OU4-PCS-TC-	1318	98		103		95		98		98	
Q1383-06	OU4-PCS-TC-	1321	99		104		97		98		98	
Q1383-08	OU4-PCS-TC-	1324	98		104		95		97		98	
Q1383-10	OU4-PCS-TC-	1328	97		103		95		96		96	
Q1383-12	OU4-PCS-TC-	1331	97		101		94		96		96	
CCV02	CCV02	1334	95		93		85		93		93	
CCB02	CCB02	1341	95		96		97		97		96	
Q1383-16	OU4-PCS-TC-	1355	98		103		96		97		98	
Q1383-18	OU4-PCS-TC-	1358	100		106		98		99		100	
Q1383-20	OU4-PCS-TC-	1401	98		102		95		97		97	
Q1383-14	OU4-PCS-TC-	1405	96		101		94		96		96	
Q1383-22	OU4-CF-15-0	1408	97		98		94		95		97	
Q1383-22DUP	OU4-CF-15-0	1411	96		98		94		95		96	
Q1383-22L	OU4-CF-15-0	1414	96		97		95		95		96	
Q1383-22MS	OU4-CF-15-0	1418	95		98		92		96		95	
CCV03	CCV03	1421	93		91		84		91		92	
CCB03	CCB03	1426	92		93		94		92		94	

Internal Standard %RI Limit: 30 - 120

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
Q1383-22MSD	OU4-CF-15-01	1430	94		97		92		94		94	
Q1383-22A	OU4-CF-15-01	1433	95		99		92		95		95	
PB166779TB	PB166779TB	1443	92		92		93		93		93	
CCV04	CCV04	1451	87		87		80		86		87	
CCB04	CCB04	1457	89		90		91		91		91	

Internal Standard %RI Limit: 30 - 120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1105	100		100							
S2	S2	1112	100		100							
S3	S3	1115	100		100							
S4	S4	1118	100		98							
S5	S5	1121	100		97							
S6	S6	1124	101		97							
S7	S7	1127	101		95							
S8	S8	1130	89		78							
ICV01	ICV01	1202	97		97							
LLICV	LLICV	1231	95		95							
ICB01	ICB01	1235	95		95							
ICSA01	ICSA01	1240	95		88							
ICSAB01	ICSAB01	1244	95		89							
CCV01	CCV01	1251	92		83							
CCB01	CCB01	1255	97		95							
CRI	CRI	1259	98		97							
PB166779BL	PB166779BL	1304	96		96							
PB166779BS	PB166779BS	1308	96		91							
Q1383-02	OU4-PCS-TC-1	1315	97		94							
Q1383-04	OU4-PCS-TC-1	1318	98		95							
Q1383-06	OU4-PCS-TC-1	1321	91		89							
Q1383-08	OU4-PCS-TC-1	1324	98		95							
Q1383-10	OU4-PCS-TC-1	1328	97		94							
Q1383-12	OU4-PCS-TC-1	1331	98		94							
CCV02	CCV02	1334	93		83							
CCB02	CCB02	1341	97		97							
Q1383-16	OU4-PCS-TC-1	1355	98		94							
Q1383-18	OU4-PCS-TC-1	1358	99		96							
Q1383-20	OU4-PCS-TC-2	1401	99		94							
Q1383-14	OU4-PCS-TC-1	1405	98		94							
Q1383-22	OU4-CF-15-02	1408	97		95							
Q1383-22DUP	OU4-CF-15-02	1411	97		93							
Q1383-22L	OU4-CF-15-02	1414	97		95							
Q1383-22MS	OU4-CF-15-02	1418	96		92							

Internal Standard %RI Limit: 30 -120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group Contract: NOBI03

Lab Code: CHEM Case no.: Q1383 Sas No.: Q1383 SDG No.: Q1383

Instrument ID: P8 Start Date : 02/24/2025

Run Number: LB134802 End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
CCV03	CCV03	1421	93		83							
CCB03	CCB03	1426	95		94							
Q1383-22MSD	OU4-CF-15-02	1430	96		93							
Q1383-22A	OU4-CF-15-02	1433	96		93							
PB166779TB	PB166779TB	1443	94		93							
CCV04	CCV04	1451	88		79							
CCB04	CCB04	1457	92		91							

Internal Standard %RI Limit: 30 -120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1383 | Sas No.: Q1383 | SDG No.: Q1383

Instrument ID: P8 | Start Date : 02/24/2025

Run Number: LB134802 | End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1105	100									
S2	S2	1112	99									
S3	S3	1115	97									
S4	S4	1118	96									
S5	S5	1121	94									
S6	S6	1124	94									
S7	S7	1127	91									
S8	S8	1130	80									
ICV01	ICV01	1202	96									
LLICV	LLICV	1231	93									
ICB01	ICB01	1235	94									
ICSA01	ICSA01	1240	87									
ICSAB01	ICSAB01	1244	88									
CCV01	CCV01	1251	84									
CCB01	CCB01	1255	96									
CRI	CRI	1259	96									
PB166779BL	PB166779BL	1304	95									
PB166779BS	PB166779BS	1308	91									
Q1383-02	OU4-PCS-TC-1	1315	94									
Q1383-04	OU4-PCS-TC-1	1318	94									
Q1383-06	OU4-PCS-TC-1	1321	96									
Q1383-08	OU4-PCS-TC-1	1324	94									
Q1383-10	OU4-PCS-TC-1	1328	94									
Q1383-12	OU4-PCS-TC-1	1331	94									
CCV02	CCV02	1334	84									
CCB02	CCB02	1341	97									
Q1383-16	OU4-PCS-TC-1	1355	93									
Q1383-18	OU4-PCS-TC-1	1358	96									
Q1383-20	OU4-PCS-TC-2	1401	94									
Q1383-14	OU4-PCS-TC-1	1405	93									
Q1383-22	OU4-CF-15-02	1408	92									
Q1383-22DUP	OU4-CF-15-02	1411	92									
Q1383-22L	OU4-CF-15-02	1414	93									
Q1383-22MS	OU4-CF-15-02	1418	92									

Internal Standard %RI Limit: 30 -120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group Contract: NOBI03

Lab Code: CHEM Case no.: Q1383 Sas No.: Q1383 SDG No.: Q1383

Instrument ID: P8 Start Date : 02/24/2025

Run Number: LB134802 End Date : 02/24/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
CCV03	CCV03	1421	83									
CCB03	CCB03	1426	92									
Q1383-22MSD	OU4-CF-15-02	1430	91									
Q1383-22A	OU4-CF-15-02	1433	91									
PB166779TB	PB166779TB	1443	92									
CCV04	CCV04	1451	78									
CCB04	CCB04	1457	90									

Internal Standard %RI Limit: 30 -120

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

OU4-CF-15-021725L

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

Lab Code: CHEM **Lb No.:** lb134802 **Lab Sample ID :** Q1383-22L **SDG No.:** Q1383

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Antimony	10.0	UD	50.0	UD			P
Arsenic	2.00	JD	25.0	UD	100		P
Barium	101	D	103	JD	2		P
Beryllium	5.00	UD	25.0	UD			P
Cadmium	5.00	UD	25.0	UD			P
Chromium	10.4	D	10.8	JD	3		P
Copper	229	D	233	D	2		P
Lead	4.00	JD	4.50	JD	13		P
Nickel	73.6	D	71.3	D	3		P
Mercury	0.20	U	1.00	U			CV
Selenium	25.0	UD	125	UD			P
Silver	5.00	UD	25.0	UD			P
Thallium	5.00	UD	25.0	UD			P
Vanadium	201	D	202	D	0		P
Zinc	848	D	878	D	4		P

METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q1383

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

Case No.: Q1383 **SAS No.:** Q1383

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166779**						
PB166779BL	PB166779BL	MB	WATER	02/19/2025	50.0	50.0	
PB166779BS	PB166779BS	LCS	WATER	02/19/2025	50.0	50.0	
PB166779TB	PB166779TB	MB	WATER	02/19/2025	50.0	50.0	
Q1383-02	OU4-PCS-TC-11-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-04	OU4-PCS-TC-12-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-06	OU4-PCS-TC-13-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-08	OU4-PCS-TC-14-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-10	OU4-PCS-TC-15-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-12	OU4-PCS-TC-16-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-14	OU4-PCS-TC-17-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-16	OU4-PCS-TC-18-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-18	OU4-PCS-TC-19-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-20	OU4-PCS-TC-20-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-22	OU4-CF-15-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1383-22DUP	OU4-CF-15-021725DUP	DUP	WATER	02/19/2025	50.0	50.0	
Q1383-22MS	OU4-CF-15-021725MS	MS	WATER	02/19/2025	50.0	50.0	
Q1383-22MSD	OU4-CF-15-021725MSD	MSD	WATER	02/19/2025	50.0	50.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q1383

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

Case No.: Q1383 **SAS No.:** Q1383

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166842**						
PB166842BL	PB166842BL	MB	WATER	02/24/2025	30.0	30.0	
PB166842BS	PB166842BS	LCS	WATER	02/24/2025	30.0	30.0	
PB166842TB	PB166842TB	MB	WATER	02/24/2025	30.0	30.0	
Q1383-02	OU4-PCS-TC-11-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-04	OU4-PCS-TC-12-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-06	OU4-PCS-TC-13-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-08	OU4-PCS-TC-14-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-10	OU4-PCS-TC-15-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-12	OU4-PCS-TC-16-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-14	OU4-PCS-TC-17-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-16	OU4-PCS-TC-18-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-18	OU4-PCS-TC-19-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-20	OU4-PCS-TC-20-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-22	OU4-CF-15-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1383-22DUP	OU4-CF-15-021725DUP	DUP	WATER	02/24/2025	30.0	30.0	
Q1383-22MS	OU4-CF-15-021725MS	MS	WATER	02/24/2025	30.0	30.0	
Q1383-22MSD	OU4-CF-15-021725MSD	MSD	WATER	02/24/2025	30.0	30.0	

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metals
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ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q1383 **Sas no.:** Q1383 **Sdg no.:** Q1383

Instrument id number: **Method:** **Run number:** LB134788

Start date: 02/24/2025 **End date:** 02/24/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1016	HG
S0.2	S0.2	1	1019	HG
S2.5	S2.5	1	1021	HG
S5	S5	1	1023	HG
S7.5	S7.5	1	1026	HG
S10	S10	1	1031	HG
ICV14	ICV14	1	1034	HG
ICB14	ICB14	1	1036	HG
CCV07	CCV07	1	1038	HG
CCB07	CCB07	1	1040	HG
CRA	CRA	1	1043	HG
CCV08	CCV08	1	1109	HG
CCB08	CCB08	1	1111	HG
PB166842BL	PB166842BL	1	1131	HG
PB166842BS	PB166842BS	1	1134	HG
CCV09	CCV09	1	1136	HG
CCB09	CCB09	1	1138	HG
Q1383-02	OU4-PCS-TC-11-021725	1	1140	HG
Q1383-04	OU4-PCS-TC-12-021725	1	1143	HG
Q1383-06	OU4-PCS-TC-13-021725	1	1145	HG
Q1383-08	OU4-PCS-TC-14-021725	1	1147	HG
Q1383-10	OU4-PCS-TC-15-021725	1	1149	HG
Q1383-12	OU4-PCS-TC-16-021725	1	1152	HG
Q1383-14	OU4-PCS-TC-17-021725	1	1154	HG
Q1383-16	OU4-PCS-TC-18-021725	1	1156	HG
Q1383-18	OU4-PCS-TC-19-021725	1	1159	HG
Q1383-20	OU4-PCS-TC-20-021725	1	1201	HG
CCV10	CCV10	1	1203	HG
CCB10	CCB10	1	1205	HG
Q1383-22	OU4-CF-15-021725	1	1208	HG
Q1383-22DUP	OU4-CF-15-021725DUP	1	1210	HG
Q1383-22MS	OU4-CF-15-021725MS	1	1212	HG
Q1383-22MSD	OU4-CF-15-021725MSD	1	1214	HG
PB166842TB	PB166842TB	1	1219	HG
Q1383-22L	OU4-CF-15-021725L	5	1226	HG
CCV11	CCV11	1	1237	HG
CCB11	CCB11	1	1240	HG

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metals
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ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q1383 **Sas no.:** Q1383 **Sdg no.:** Q1383

Instrument id number: **Method:** **Run number:** LB134802

Start date: 02/24/2025 **End date:** 02/24/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1105	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1112	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1115	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1118	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1121	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S6	S6	1	1124	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S7	S7	1	1127	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S8	S8	1	1130	,
ICV01	ICV01	1	1202	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV	LLICV	1	1231	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1235	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1240	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1244	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1251	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1255	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CRI	CRI	1	1259	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB166779BL	PB166779BL	1	1304	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB166779BS	PB166779BS	1	1308	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-02	OU4-PCS-TC-11-021725	5	1315	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-04	OU4-PCS-TC-12-021725	5	1318	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-06	OU4-PCS-TC-13-021725	5	1321	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-08	OU4-PCS-TC-14-021725	5	1324	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-10	OU4-PCS-TC-15-021725	5	1328	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-12	OU4-PCS-TC-16-021725	5	1331	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1334	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1341	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-16	OU4-PCS-TC-18-021725	5	1355	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-18	OU4-PCS-TC-19-021725	5	1358	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-20	OU4-PCS-TC-20-021725	5	1401	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-14	OU4-PCS-TC-17-021725	5	1405	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22	OU4-CF-15-021725	5	1408	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22DUP	OU4-CF-15-021725DUP	5	1411	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22L	OU4-CF-15-021725L	25	1414	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22MS	OU4-CF-15-021725MS	5	1418	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1421	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1426	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22MSD	OU4-CF-15-021725MSD	5	1430	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1383-22A	OU4-CF-15-021725A	5	1433	Ag,As
PB166779TB	PB166779TB	1	1443	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1451	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1457	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

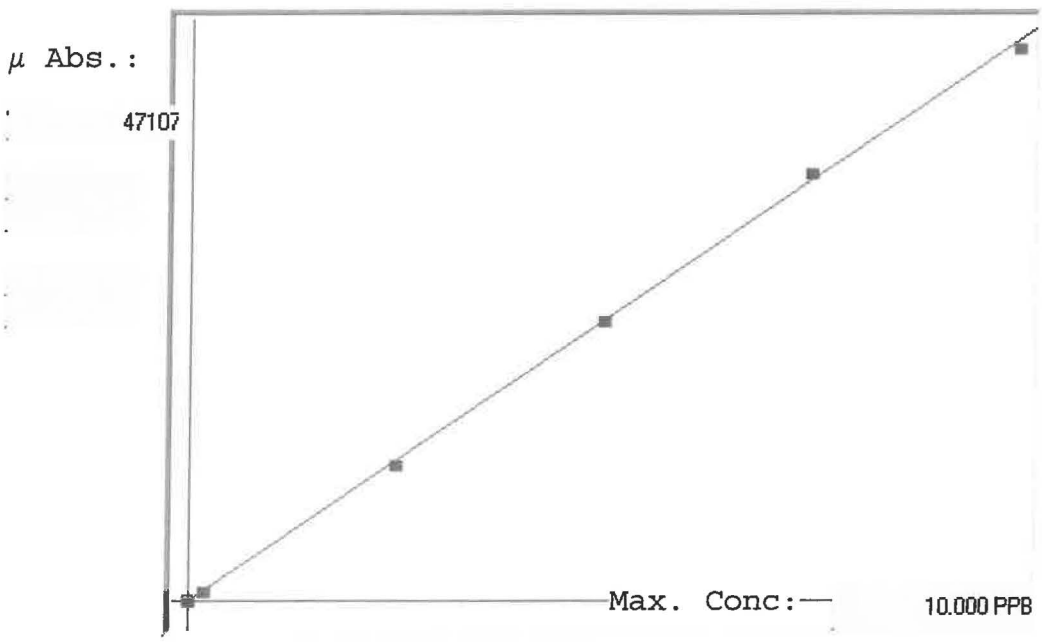
METAL
RAW DATA

Reviewed By:jaswal
On:3/4/2025 8:56:01 AM
Inst Id :CV1
LB :LB134788

L9134788

7470A INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.0965e-004

C= 5.3401e-003

Rho= 0.9997448

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	-0.005	-0.005	-51	0.000	-51	0				-1
0.2	0.200	0.193	-0.007	895	0.0 %	895					-4
2.5	2.500	2.466	-0.034	11737	0.0 %	11737					-1
5.0	5.000	5.003	0.003	23836	0.0 %	23836					0
7.5	7.500	7.662	0.162	36523	0.0 %	36523					2
10.0	10.000	9.881	-0.119	47107	0.0 %	47107					-1

Reviewed By:jaswal
On:3/4/2025 8:56:01 AM
Inst Id :CV1
LB :LB134788

LB134788 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 24 Feb 2025 10:00:28

Sample ID	Extended ID		µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	50		-51	-	0.00007	470A	PPB	24 Feb 2025 10:16:59	S	Std
0.2 - 1	50.2		895	-	0.20007	470A	PPB	24 Feb 2025 10:19:15	S	Std
2.5 - 1	52.5		11737	-	2.50007	470A	PPB	24 Feb 2025 10:21:33	S	Std
5.0 - 1	55		23836	-	5.00007	470A	PPB	24 Feb 2025 10:23:50	S	Std
7.5 - 1	57.5		36523	-	7.50007	470A	PPB	24 Feb 2025 10:26:08	S	Std
10.0 - 1	510		47107	-	10.00007	470A	PPB	24 Feb 2025 10:31:13	S	Std
ICV14 - 1	ICV14		18598	3.9044		-7470A	PPB	24 Feb 2025 10:34:03	U	SMPL
ICB14 - 1	ICB14		23	0.0102		-7470A	PPB	24 Feb 2025 10:36:18	U	SMPL
CCV07 - 1	CCV07		23655	4.9646		-7470A	PPB	24 Feb 2025 10:38:35	U	SMPL
CCB07 - 1	CCB07		44	0.0146		-7470A	PPB	24 Feb 2025 10:40:50	U	SMPL
CRA - 1	CRA		817	0.1766		-7470A	PPB	24 Feb 2025 10:43:08	U	SMPL
HighStd - 1	HighStd		46856	9.8287		-7470A	PPB	24 Feb 2025 10:45:22	U	SMPL
ChkStd - 1	ChkStd		32938	6.9108		-7470A	PPB	24 Feb 2025 10:47:38	U	SMPL
PB166841BL - 1	PBW		168	0.0406		-7470A	PPB	24 Feb 2025 10:49:57	U	SMPL
PB166841BS - 1	LCSW		20819	4.3701		-7470A	PPB	24 Feb 2025 10:52:16	U	SMPL
Q1382-04 - 1	OU4-PCS-TC-02-021725		230	0.0536		-7470A	PPB	24 Feb 2025 10:56:54	U	SMPL
Q1382-06 - 1	OU4-PCS-TC-03-021725		253	0.0584		-7470A	PPB	24 Feb 2025 10:59:14	U	SMPL
Q1382-08 - 1	OU4-PCS-TC-04-021725		246	0.0569		-7470A	PPB	24 Feb 2025 11:01:32	U	SMPL
Q1382-10 - 1	OU4-PCS-TC-05-021725		157	0.0383		-7470A	PPB	24 Feb 2025 11:03:48	U	SMPL
Q1382-02 - 1	OU4-PCS-TC-01-021725		234	0.0544		-7470A	PPB	24 Feb 2025 11:06:24	U	SMPL
CCV08 - 1	CCV08		23079	4.8439		-7470A	PPB	24 Feb 2025 11:09:02	U	SMPL
CCB08 - 1	CCB08		90	0.0242		-7470A	PPB	24 Feb 2025 11:11:17	U	SMPL
Q1382-12 - 1	OU4-PCS-TC-06-021725		433	0.0961		-7470A	PPB	24 Feb 2025 11:13:34	U	SMPL
Q1382-14 - 1	OU4-PCS-TC-07-021725		133	0.0332		-7470A	PPB	24 Feb 2025 11:15:49	U	SMPL
Q1382-16 - 1	OU4-PCS-TC-08-021725		102	0.0267		-7470A	PPB	24 Feb 2025 11:18:05	U	SMPL
Q1382-18 - 1	OU4-PCS-TC-09-021725		153	0.0374		-7470A	PPB	24 Feb 2025 11:20:21	U	SMPL
Q1382-20 - 1	OU4-PCS-TC-10-021725		117	0.0299		-7470A	PPB	24 Feb 2025 11:22:37	U	SMPL
Q1382-20DUP - 1	OU4-PCS-TC-10-021725DUP		103	0.0269		-7470A	PPB	24 Feb 2025 11:24:54	U	SMPL
Q1382-20MS - 1	OU4-PCS-TC-10-021725MS		19269	4.0451		-7470A	PPB	24 Feb 2025 11:27:10	U	SMPL
Q1382-20MSD - 1	OU4-PCS-TC-10-021725MSD		17271	3.6262		-7470A	PPB	24 Feb 2025 11:29:27	U	SMPL
PB166842BL - 1	PBW		-54	-0.0060		-7470A	PPB	24 Feb 2025 11:31:46	U	SMPL
PB166842BS - 1	LCSW		16335	3.4300		-7470A	PPB	24 Feb 2025 11:34:03	U	SMPL
CCV09 - 1	CCV09		23079	4.8439		-7470A	PPB	24 Feb 2025 11:36:19	U	SMPL
CCB09 - 1	CCB09		25	0.0106		-7470A	PPB	24 Feb 2025 11:38:36	U	SMPL
Q1383-02 - 1	OU4-PCS-TC-11-021725		376	0.0842		-7470A	PPB	24 Feb 2025 11:40:53	U	SMPL
Q1383-04 - 1	OU4-PCS-TC-12-021725		64	0.0188		-7470A	PPB	24 Feb 2025 11:43:09	U	SMPL
Q1383-06 - 1	OU4-PCS-TC-13-021725		74	0.0209		-7470A	PPB	24 Feb 2025 11:45:25	U	SMPL
Q1383-08 - 1	OU4-PCS-TC-14-021725		101	0.0265		-7470A	PPB	24 Feb 2025 11:47:41	U	SMPL
Q1383-10 - 1	OU4-PCS-TC-15-021725		23	0.0102		-7470A	PPB	24 Feb 2025 11:49:57	U	SMPL
Q1383-12 - 1	OU4-PCS-TC-16-021725		69	0.0198		-7470A	PPB	24 Feb 2025 11:52:14	U	SMPL
Q1383-14 - 1	OU4-PCS-TC-17-021725		100	0.0263		-7470A	PPB	24 Feb 2025 11:54:32	U	SMPL
Q1383-16 - 1	OU4-PCS-TC-18-021725		121	0.0307		-7470A	PPB	24 Feb 2025 11:56:49	U	SMPL
Q1383-18 - 1	OU4-PCS-TC-19-021725		127	0.0320		-7470A	PPB	24 Feb 2025 11:59:06	U	SMPL
Q1383-20 - 1	OU4-PCS-TC-20-021725		46	0.0150		-7470A	PPB	24 Feb 2025 12:01:21	U	SMPL
CCV10 - 1	CCV10		22338	4.6885		-7470A	PPB	24 Feb 2025 12:03:37	U	SMPL
CCB10 - 1	CCB10		4	0.0062		-7470A	PPB	24 Feb 2025 12:05:54	U	SMPL
Q1383-22 - 1	OU4-CF-15-021725		227	0.0529		-7470A	PPB	24 Feb 2025 12:08:11	U	SMPL
Q1383-22DUP - 1	OU4-CF-15-021725DUP		97	0.0257		-7470A	PPB	24 Feb 2025 12:10:27	U	SMPL
Q1383-22MS - 1	OU4-CF-15-021725MS		19407	4.0740		-7470A	PPB	24 Feb 2025 12:12:43	U	SMPL
Q1383-22MSD - 1	OU4-CF-15-021725MSD		17136	3.5979		-7470A	PPB	24 Feb 2025 12:14:58	U	SMPL
~~PB166761TB - 1~~ PB166841TB	~~PB166761TB~~ PB166841TB		-171	-0.0305		-7470A	PPB	24 Feb 2025 12:17:16	U	SMPL
~~PB166762TB - 1~~ PB166842TB	~~PB166762TB~~ PB166842TB		-6	0.0041		-7470A	PPB	24 Feb 2025 12:19:34	U	SMPL
Q1382-20LX5 - 1			3	0.0060		-7470A	PPB	24 Feb 2025 12:21:50	U	SMPL
Q1382-20A - 1		MB	15720	3.3011		-7470A	PPB	24 Feb 2025 12:24:08	U	SMPL
Q1383-22LX5 - 1		03/03/25	-125	-0.0209		-7470A	PPB	24 Feb 2025 12:26:24	U	SMPL
Q1383-22A - 1			19106	4.0109		-7470A	PPB	24 Feb 2025 12:35:43	U	SMPL
CCV11 - 1	CCV11		25165	5.2812		-7470A	PPB	24 Feb 2025 12:37:58	U	SMPL
CCB11 - 1	CCB11		1	0.0055		-7470A	PPB	24 Feb 2025 12:40:16	U	SMPL

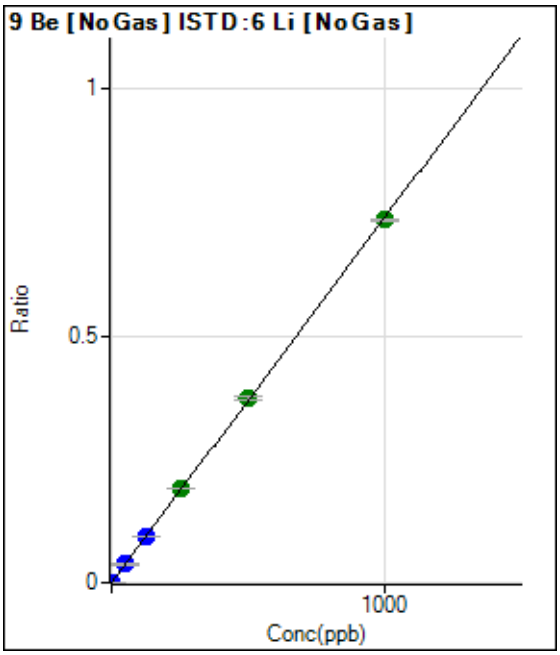
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

Calibration for 008CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8022425 MS.b\
Analysis File: P8022425 MS.batch.bin
DA Date-Time: 2025-02-25 14:26:01
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-02-24 11:05:38
2	006CALS.d	S02	2025-02-24 11:12:23
3	007CALB.d	S03	2025-02-24 11:15:43
4	008CALS.d	S04	2025-02-24 11:18:49
5	009CALS.d	S05	2025-02-24 11:21:47
6	010CALS.d	S06	2025-02-24 11:24:39
7	011CALS.d	S07	2025-02-24 11:27:24
8	012CALS.d	S08	2025-02-24 11:30:12

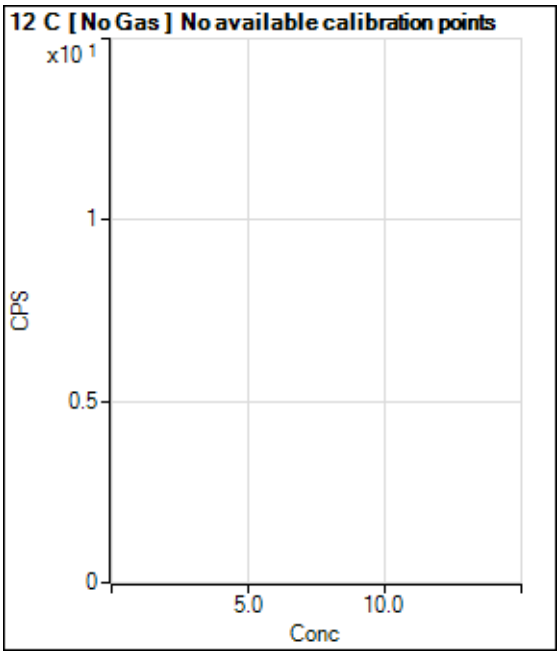
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	338.30	0.0000	P	10.1
2	☐	1.000	1.033	6501.47	0.0008	P	3.3
3	☐	50.000	50.220	291533.27	0.0371	P	1.6
4	☐	125.000	127.115	728070.84	0.0940	P	2.1
5	☐	250.000	257.975	1480491.78	0.1907	A	1.6
6	☐	500.000	506.365	2922765.03	0.3742	A	3.0
7	☐	1000.000	994.549	5671522.84	0.7349	A	0.6
8	☐			1736.56	0.0003	P	4.0

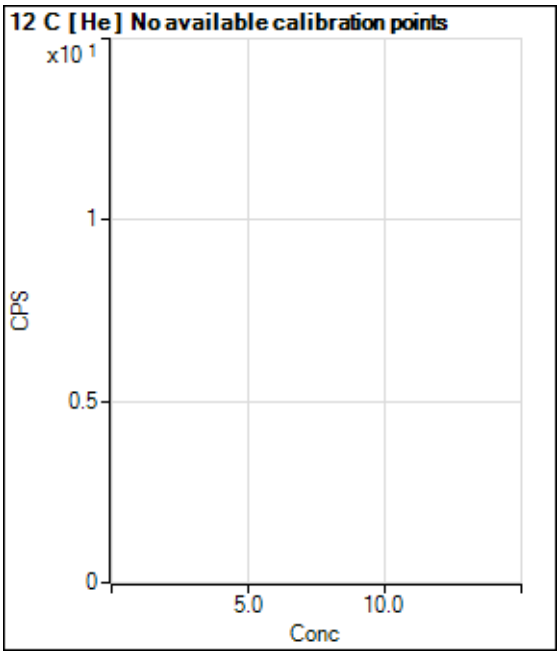
y = 7.3889E-004 * x + 4.2315E-005
R = 0.9999
DL = 0.01737
BEC = 0.05727

Weight: <None>
Min Conc: 0

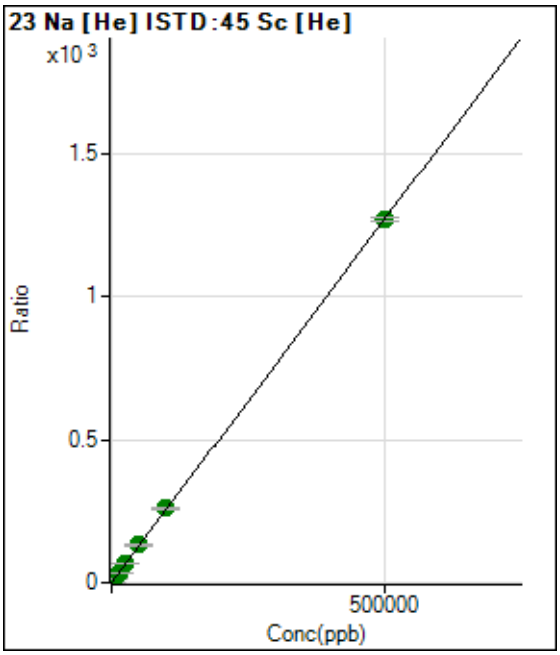


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1	☐			5056604.79		A	1.5
2	☐			5077302.91		A	1.9
3	☐			5000355.41		A	1.7
4	☐			5122525.97		A	1.2
5	☐			5309073.22		A	0.8
6	☐			5940861.16		A	0.8
7	☐			6422754.42		A	1.2
8	☐			6695042.61		A	2.8

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			32112.81		P	0.7
2	☐			31632.93		P	0.6
3	☐			31289.98		P	0.3
4	☐			32278.71		P	1.2
5	☐			34784.41		P	1.1
6	☐			40048.88		P	1.4
7	☐			44800.20		P	0.8
8	☐			54527.20		P	1.3

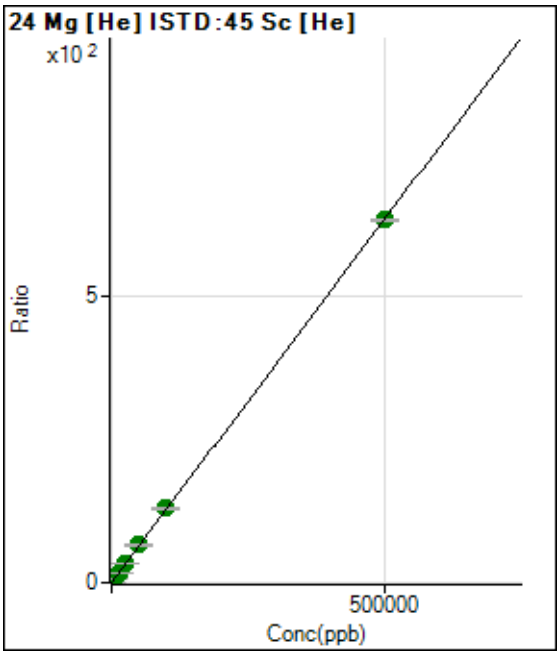


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32188.83	0.1738	P	2.5
2	☐	500.000	532.179	274032.90	1.5244	P	1.5
3	☐	5000.000	5338.589	2435410.81	13.7231	A	1.8
4	☐	12500.000	13162.064	5951682.27	33.5790	A	1.0
5	☐	25000.000	26150.235	11829961.21	66.5429	A	0.3
6	☐	50000.000	51652.559	23385537.43	131.2676	A	4.3
7	☐	100000.00	101897.60	46807761.53	258.7891	A	0.5
8	☐	500000.00	499377.74	214784732.3	1,267.590	A	1.0

y = 0.0025 * x + 0.1738
R = 1.0000
DL = 5.175
BEC = 68.46

Weight: <None>
Min Conc: 0

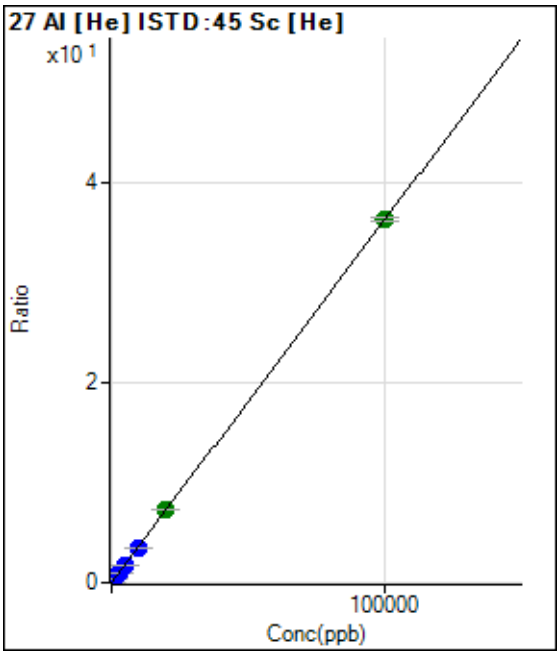
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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1673.45	0.0090	P	6.9
2	☐	500.000	543.633	125515.63	0.6982	P	1.3
3	☐	5000.000	5411.469	1219164.51	6.8694	A	1.1
4	☐	12500.000	13594.193	3056266.03	17.2430	A	1.3
5	☐	25000.000	26399.460	5951264.08	33.4769	A	0.6
6	☐	50000.000	52056.279	11758923.85	66.0032	A	4.3
7	☐	100000.00	102243.89	23446032.43	129.6285	A	0.9
8	☐	500000.00	499244.10	107244415.0	632.9244	A	0.5

y = 0.0013 * x + 0.0090
R = 1.0000
DL = 1.483
BEC = 7.127

Weight: <None>
Min Conc: 0

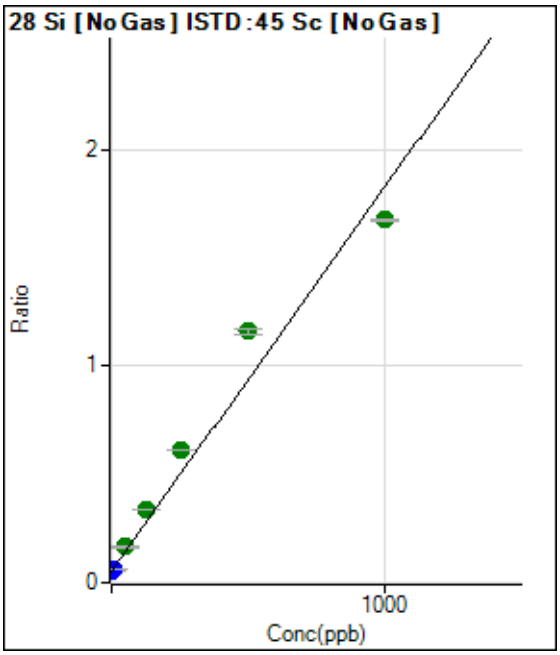


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1	☐	0.000	0.000	68.89	0.0004	P	19.2
2	☐	20.000	20.478	1402.31	0.0078	P	8.4
3	☐	1000.000	985.263	63513.39	0.3579	P	1.2
4	☐	2500.000	2485.104	159887.36	0.9021	P	0.6
5	☐	5000.000	4881.175	314915.35	1.7714	P	0.4
6	☐	10000.000	9546.074	617148.24	3.4640	P	4.2
7	☐	20000.000	20015.594	1313625.90	7.2627	A	0.6
8	☐	100000.00	100048.73	6150967.55	36.3015	A	1.2

y = 3.6283E-004 * x + 3.7133E-004
R = 1.0000
DL = 0.5908
BEC = 1.023

Weight: <None>
Min Conc: 0

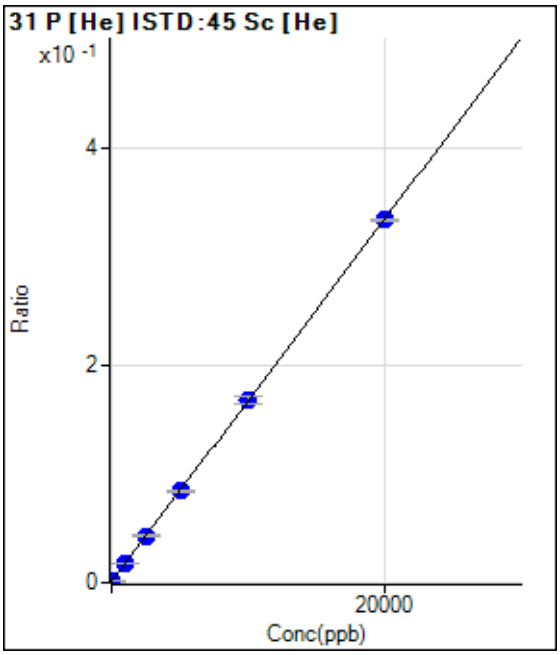
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	569460.11	0.0525	P	0.6
2	☐	10.000	4.441	648188.49	0.0604	P	0.5
3	☐	50.000	64.212	1756320.37	0.1663	A	3.3
4	☐	125.000	161.528	3559854.29	0.3387	A	0.8
5	☐	250.000	317.016	6465171.29	0.6142	A	0.7
6	☐	500.000	624.426	12140860.37	1.1589	A	2.9
7	☐	1000.000	915.812	17737031.40	1.6751	A	0.7
8	☐			764571.80	0.0812	P	6.4

y = 0.0018 * x + 0.0525
R = 0.9842
DL = 0.4949
BEC = 29.63

Weight: <None>
Min Conc: 0

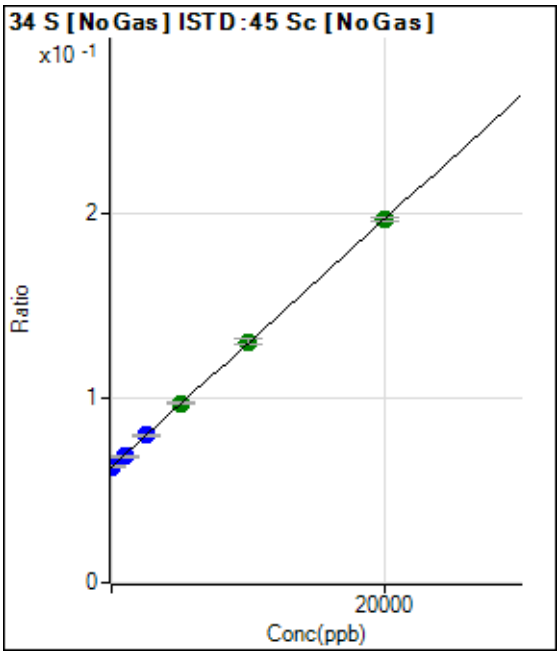


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-12.047	110.00	0.0006	P	23.1
2	☐	0.000	12.047	178.89	0.0010	P	8.2
3	☐	1000.000	979.718	3047.02	0.0172	P	3.5
4	☐	2500.000	2537.828	7658.76	0.0432	P	2.7
5	☐	5000.000	5005.264	15010.08	0.0844	P	1.8
6	☐	10000.000	10048.630	30061.19	0.1687	P	3.8
7	☐	20000.000	19970.655	60505.29	0.3345	P	0.3
8	☐			116.67	0.0007	P	17.2

y = 1.6711E-005 * x + 7.9436E-004
R = 1.0000
DL = 19.64
BEC = 47.54

Weight: <None>
Min Conc: 0

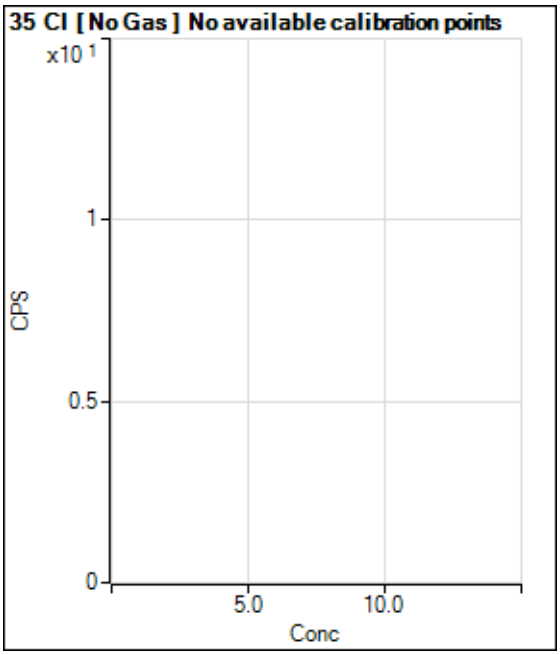
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-14.118	681958.57	0.0629	P	0.5
2	☐	0.000	14.118	677087.33	0.0630	P	0.2
3	☐	1000.000	813.168	722933.60	0.0684	P	0.8
4	☐	2500.000	2536.143	840696.57	0.0800	P	1.4
5	☐	5000.000	5091.236	1022653.79	0.0972	A	1.2
6	☐	10000.000	10114.719	1371361.96	0.1309	A	2.8
7	☐	20000.000	19924.655	2083726.79	0.1968	A	1.2
8	☐			583172.54	0.0620	P	7.9

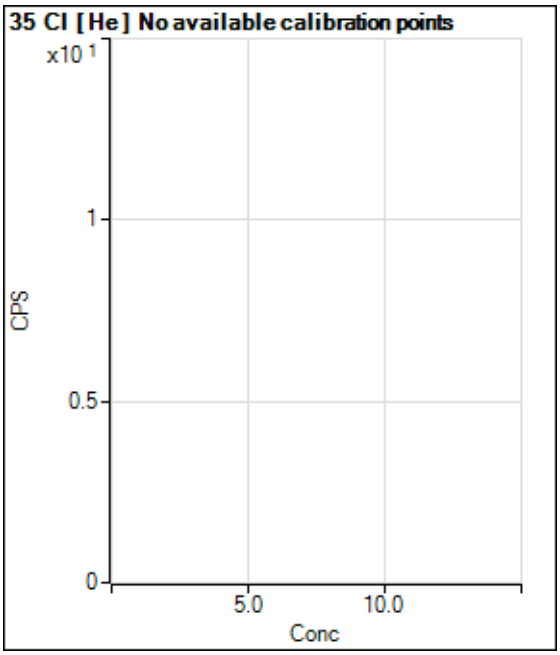
y = 6.7171E-006 * x + 0.0630
R = 0.9999
DL = 96.71
BEC = 9372

Weight: <None>
Min Conc: 0

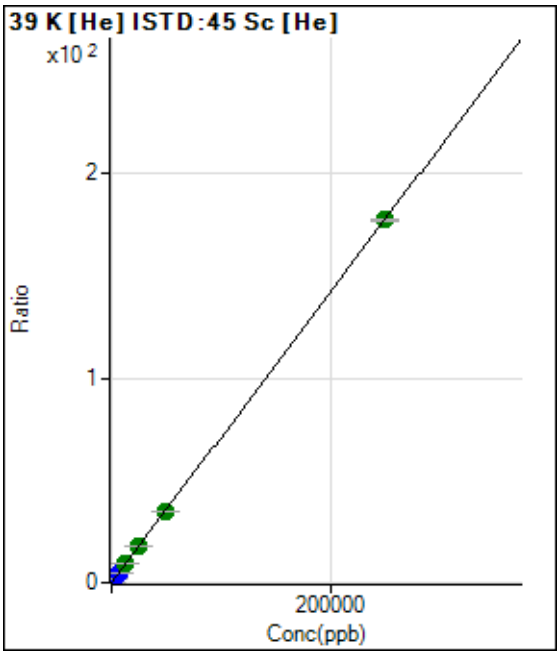


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			138321.88		P	0.9
2	☐			138164.22		P	0.6
3	☐			129701.58		P	0.5
4	☐			130810.19		P	1.2
5	☐			134107.66		P	1.2
6	☐			142876.94		P	0.9
7	☐			171582.94		P	1.6
8	☐			118786.80		P	2.0

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			511.13		P	10.1
2	☐			517.79		P	3.7
3	☐			491.12		P	14.3
4	☐			515.57		P	12.3
5	☐			490.01		P	2.4
6	☐			566.68		P	2.1
7	☐			664.47		P	13.5
8	☐			434.46		P	6.7

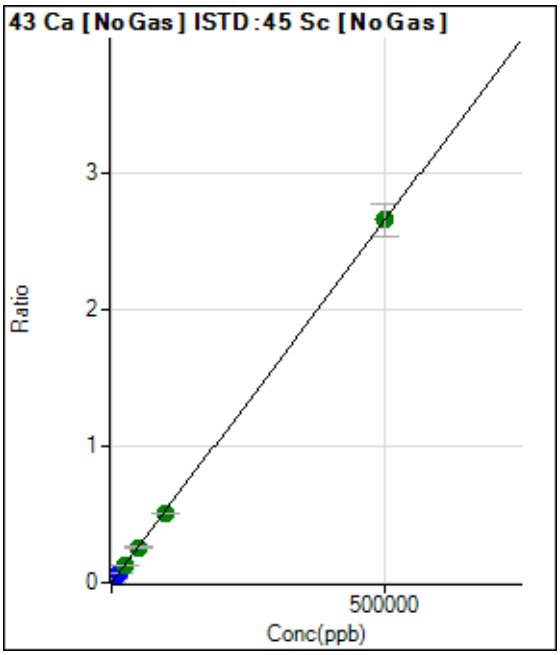


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8508.15	0.0459	P	3.4
2	☐	500.000	510.599	73264.62	0.4075	P	0.5
3	☐	2500.000	2396.769	309410.22	1.7433	P	0.9
4	☐	6250.000	6092.561	772929.37	4.3607	P	0.6
5	☐	12500.000	12649.311	1600765.57	9.0043	A	0.1
6	☐	25000.000	25072.510	3172182.97	17.8025	A	3.5
7	☐	50000.000	49033.626	6289213.52	34.7720	A	1.0
8	☐	250000.00	250183.50	30029999.27	177.2283	A	0.6

y = 7.0821E-004 * x + 0.0459
R = 1.0000
DL = 6.537
BEC = 64.85

Weight: <None>
Min Conc: 0

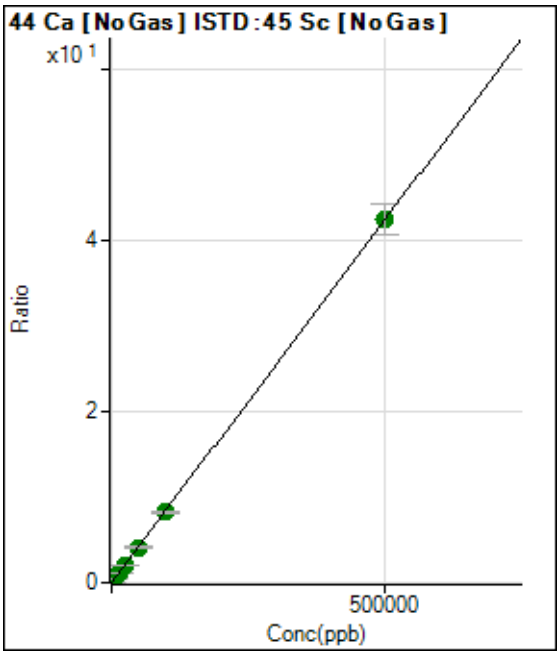
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	858.92	0.0001	P	5.1
2	☐	500.000	508.253	29744.07	0.0028	P	1.6
3	☐	5000.000	4816.323	270221.29	0.0256	P	1.8
4	☐	12500.000	12137.383	676104.72	0.0643	P	1.7
5	☐	25000.000	25023.556	1395303.07	0.1325	A	0.5
6	☐	50000.000	48734.309	2703400.41	0.2581	A	3.5
7	☐	100000.00	95875.764	5375013.60	0.5076	A	1.2
8	☐	500000.00	500961.13	24921702.40	2.6521	A	8.9

y = 5.2938E-006 * x + 7.9155E-005
R = 1.0000
DL = 2.278
BEC = 14.95

Weight: <None>
Min Conc: 0

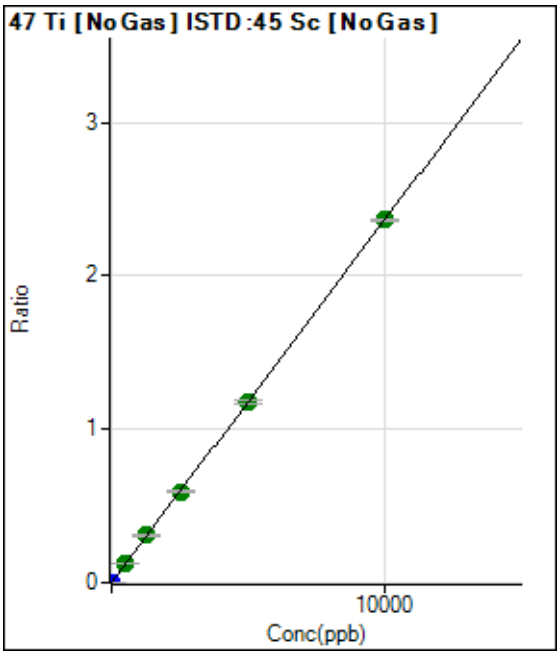


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27654.33	0.0025	P	0.4
2	☐	500.000	509.438	491128.92	0.0457	P	0.7
3	☐	5000.000	4930.917	4443863.58	0.4205	A	1.1
4	☐	12500.000	12611.256	11261895.67	1.0716	A	1.9
5	☐	25000.000	24788.834	22147326.89	2.1039	A	0.5
6	☐	50000.000	48479.728	43084562.41	4.1122	A	2.7
7	☐	100000.00	96983.319	87077056.48	8.2238	A	0.6
8	☐	500000.00	500763.82	399013940.7	42.4522	A	8.5

y = 8.4770E-005 * x + 0.0025
R = 1.0000
DL = 0.3248
BEC = 30.07

Weight: <None>
Min Conc: 0

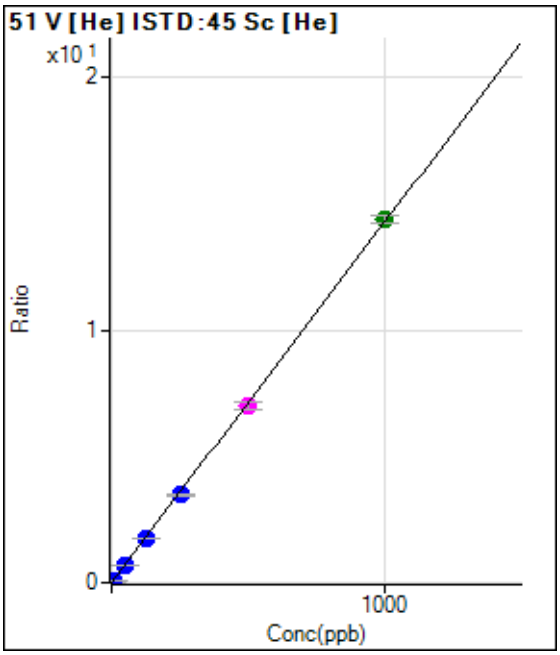
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	277.79	0.0000	P	21.3
2	☐	5.000	5.209	13486.41	0.0013	P	0.8
3	☐	500.000	508.011	1268094.88	0.1200	A	0.9
4	☐	1250.000	1305.369	3240254.36	0.3083	A	2.7
5	☐	2500.000	2515.370	6254073.24	0.5941	A	1.0
6	☐	5000.000	4961.903	12280133.43	1.1720	A	2.2
7	☐	10000.000	10007.884	25028452.96	2.3638	A	0.8
8	☐			5372.17	0.0006	P	9.1

y = 2.3619E-004 * x + 2.5589E-005
R = 1.0000
DL = 0.06916
BEC = 0.1083

Weight: <None>
Min Conc: 0

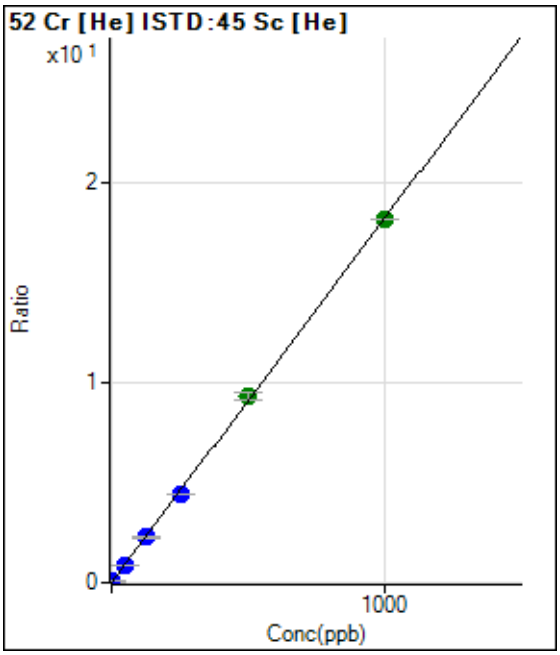


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0001	P	65.5
2	☐	5.000	5.059	12980.45	0.0722	P	1.4
3	☐	50.000	48.583	122977.25	0.6929	P	0.9
4	☐	125.000	123.767	312870.22	1.7652	P	0.5
5	☐	250.000	244.517	619898.82	3.4872	P	1.5
6	☐	500.000	489.600	1244240.73	6.9825	M	4.3
7	☐	1000.000	1006.795	2597123.31	14.3585	A	2.0
8	☐			581.13	0.0034	P	6.0

y = 0.0143 * x + 5.3649E-005
R = 0.9999
DL = 0.007391
BEC = 0.003762

Weight: <None>
Min Conc: 0

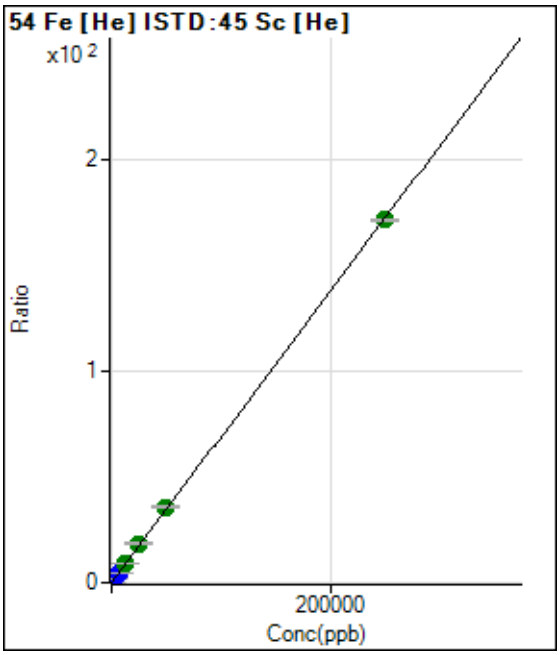
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1944.60	0.0105	P	5.4
2	☐	2.000	2.119	8820.57	0.0491	P	3.8
3	☐	50.000	48.862	159721.62	0.9000	P	2.1
4	☐	125.000	123.820	401403.24	2.2646	P	0.5
5	☐	250.000	242.894	787932.60	4.4324	P	1.0
6	☐	500.000	511.292	1660384.77	9.3185	A	3.6
7	☐	1000.000	996.335	3282644.19	18.1487	A	0.0
8	☐			10150.36	0.0599	P	3.0

y = 0.0182 * x + 0.0105
R = 0.9999
DL = 0.09345
BEC = 0.5766

Weight: <None>
Min Conc: 0

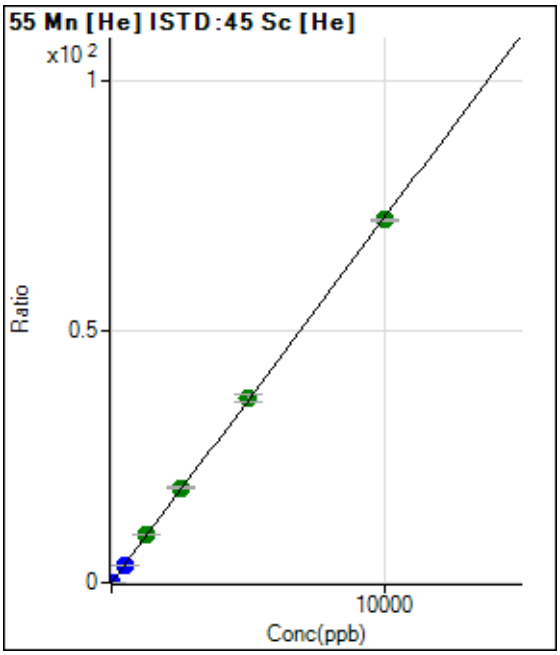


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	692.25	0.0037	P	6.1
2	☐	50.000	57.187	7752.16	0.0431	P	0.7
3	☐	2500.000	2623.803	321352.07	1.8106	P	0.2
4	☐	6250.000	6613.401	807887.85	4.5580	P	0.9
5	☐	12500.000	13757.579	1684949.75	9.4779	A	1.2
6	☐	25000.000	26706.543	3277234.43	18.3951	A	4.3
7	☐	50000.000	52021.957	6480323.52	35.8285	A	0.8
8	☐	250000.00	249351.75	29096031.79	171.7190	A	0.7

y = 6.8865E-004 * x + 0.0037
R = 0.9999
DL = 0.988
BEC = 5.428

Weight: <None>
Min Conc: 0

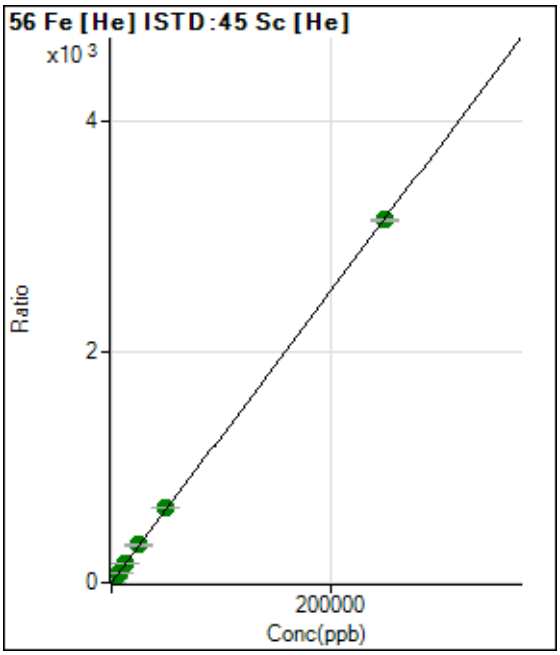
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	374.45	0.0020	P	12.5
2	☐	1.000	1.104	1804.58	0.0100	P	3.0
3	☐	500.000	492.997	635672.18	3.5817	P	0.7
4	☐	1250.000	1325.477	1706201.97	9.6263	A	1.0
5	☐	2500.000	2605.315	3363166.13	18.9192	A	1.3
6	☐	5000.000	5052.559	6536899.76	36.6886	A	3.8
7	☐	10000.000	9938.307	13052355.36	72.1639	A	0.8
8	☐			5902.39	0.0348	P	2.5

y = 0.0073 * x + 0.0020
R = 0.9999
DL = 0.1048
BEC = 0.2787

Weight: <None>
Min Conc: 0

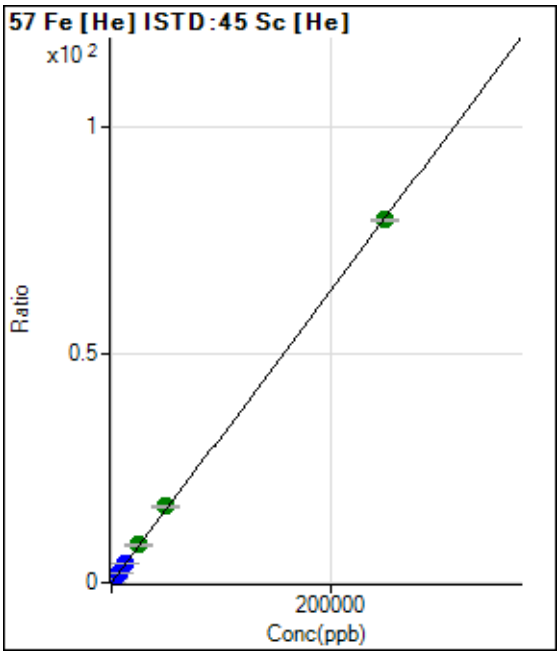


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9778.98	0.0528	P	3.9
2	☐	50.000	55.907	136402.18	0.7588	P	1.3
3	☐	2500.000	2694.624	6048194.15	34.0791	A	1.3
4	☐	6250.000	6793.825	15214649.91	85.8416	A	1.3
5	☐	12500.000	13414.655	30122934.00	169.4459	A	0.5
6	☐	25000.000	26135.794	58812965.79	330.0817	A	3.8
7	☐	50000.000	51541.931	117729153.8	650.8968	A	0.5
8	☐	250000.00	249516.75	533876249.8	3,150.817	A	0.3

y = 0.0126 * x + 0.0528
R = 1.0000
DL = 0.4838
BEC = 4.181

Weight: <None>
Min Conc: 0

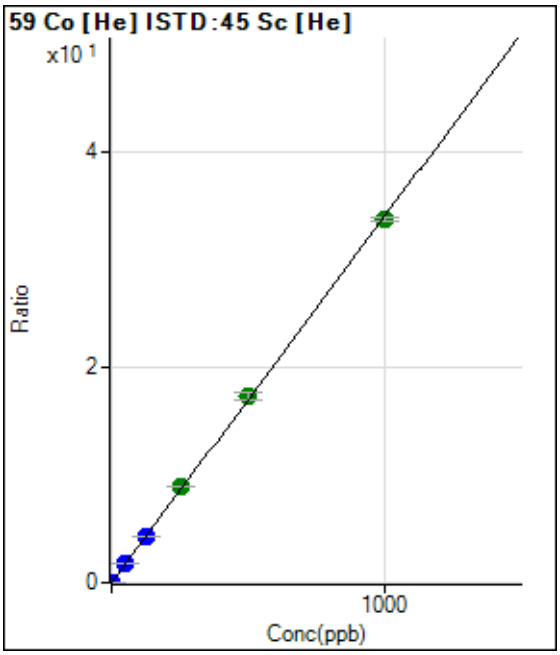
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	264.45	0.0014	P	16.7
2	☐	50.000	54.513	3380.43	0.0188	P	2.2
3	☐	2500.000	2563.121	145241.06	0.8184	P	0.8
4	☐	6250.000	6484.659	366596.05	2.0682	P	0.3
5	☐	12500.000	12667.775	717986.13	4.0389	P	1.2
6	☐	25000.000	26394.265	1498773.45	8.4139	A	4.9
7	☐	50000.000	52370.805	3019332.42	16.6932	A	0.6
8	☐	250000.00	249371.52	13467479.66	79.4818	A	0.5

y = 3.1872E-004 * x + 0.0014
R = 0.9999
DL = 2.253
BEC = 4.485

Weight: <None>
Min Conc: 0

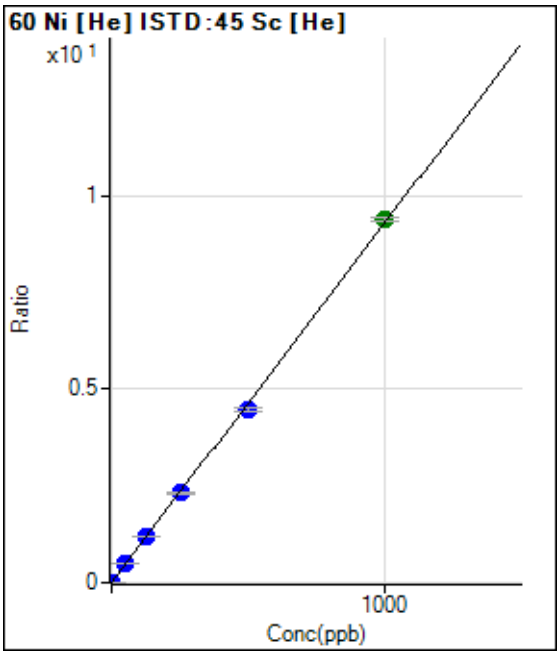


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.34	0.0011	P	12.6
2	☐	1.000	1.112	6990.66	0.0389	P	1.4
3	☐	50.000	50.283	303428.01	1.7097	P	1.1
4	☐	125.000	127.023	765199.80	4.3173	P	1.5
5	☐	250.000	263.051	1589179.19	8.9396	A	0.8
6	☐	500.000	511.119	3094660.34	17.3689	A	3.9
7	☐	1000.000	990.911	6090265.53	33.6722	A	1.1
8	☐			11391.31	0.0672	P	2.5

y = 0.0340 * x + 0.0011
R = 0.9998
DL = 0.01217
BEC = 0.03232

Weight: <None>
Min Conc: 0

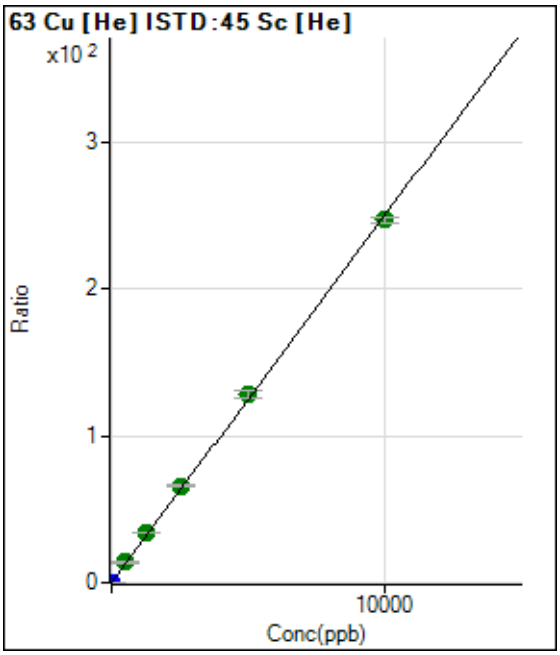
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1011.16	0.0055	P	4.4
2	☐	1.000	1.158	2911.44	0.0162	P	3.5
3	☐	50.000	50.806	84561.39	0.4765	P	1.9
4	☐	125.000	128.112	211486.96	1.1931	P	0.0
5	☐	250.000	248.698	410820.54	2.3110	P	1.4
6	☐	500.000	480.584	794962.13	4.4608	P	2.9
7	☐	1000.000	1009.604	1693869.52	9.3651	A	1.2
8	☐			5667.84	0.0335	P	2.0

y = 0.0093 * x + 0.0055
R = 0.9997
DL = 0.07823
BEC = 0.5884

Weight: <None>
Min Conc: 0

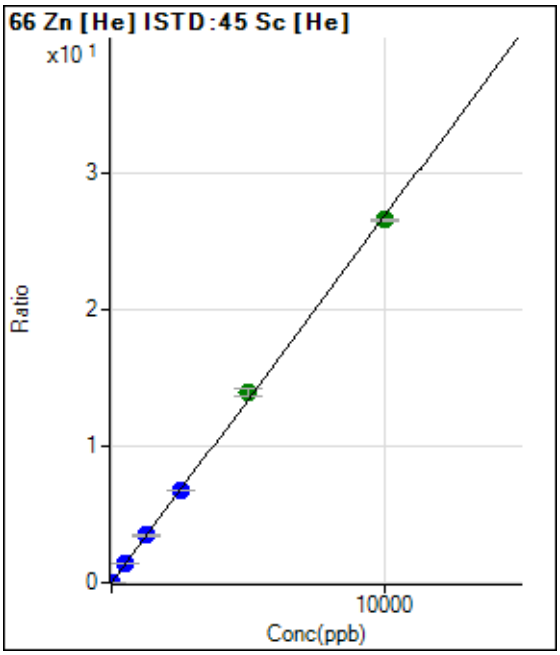


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2739.18	0.0148	P	6.9
2	☐	2.000	2.233	12691.33	0.0706	P	3.0
3	☐	500.000	550.614	2443607.74	13.7683	A	0.7
4	☐	1250.000	1366.422	6052056.58	34.1460	A	1.4
5	☐	2500.000	2638.621	11719197.74	65.9237	A	0.9
6	☐	5000.000	5119.924	22787761.61	127.9030	A	4.0
7	☐	10000.000	9888.299	44676084.89	247.0100	A	1.4
8	☐			10352.74	0.0611	P	0.8

y = 0.0250 * x + 0.0148
R = 0.9998
DL = 0.123
BEC = 0.5922

Weight: <None>
Min Conc: 0

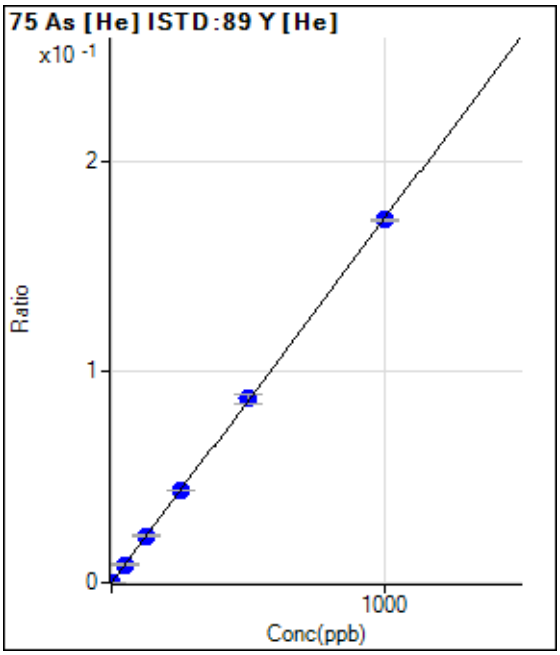
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	367.79	0.0020	P	13.2
2	☐	2.000	5.341	2931.45	0.0163	P	5.7
3	☐	500.000	510.595	243458.95	1.3717	P	0.5
4	☐	1250.000	1289.043	613274.01	3.4600	P	0.9
5	☐	2500.000	2516.538	1200430.23	6.7530	P	1.4
6	☐	5000.000	5182.890	2477812.93	13.9059	A	3.6
7	☐	10000.000	9899.010	4803550.42	26.5576	A	0.8
8	☐			2675.84	0.0158	P	5.2

y = 0.0027 * x + 0.0020
R = 0.9997
DL = 0.2934
BEC = 0.7396

Weight: <None>
Min Conc: 0

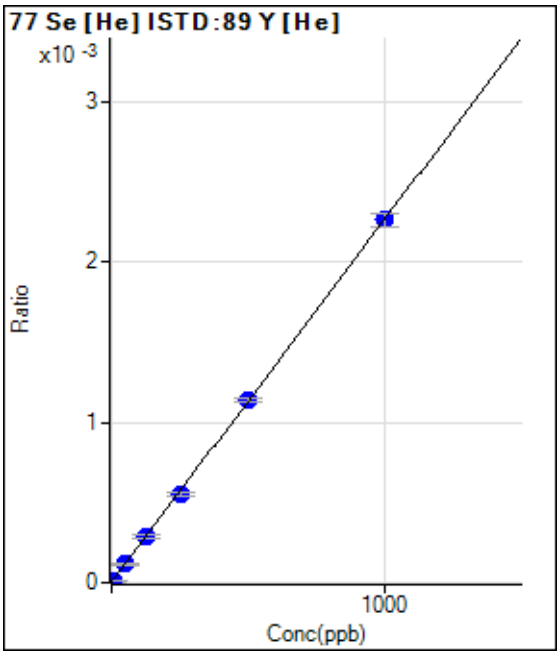


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	47.4
2	☐	1.000	0.975	294.45	0.0002	P	10.4
3	☐	50.000	50.039	14150.52	0.0087	P	1.4
4	☐	125.000	128.289	36113.91	0.0222	P	2.3
5	☐	250.000	254.289	72083.09	0.0440	P	1.3
6	☐	500.000	504.380	142200.10	0.0872	P	4.3
7	☐	1000.000	996.324	282681.75	0.1723	P	0.8
8	☐			121.11	0.0001	P	19.8

y = 1.7290E-004 * x + 6.5149E-006
R = 1.0000
DL = 0.05363
BEC = 0.03768

Weight: <None>
Min Conc: 0

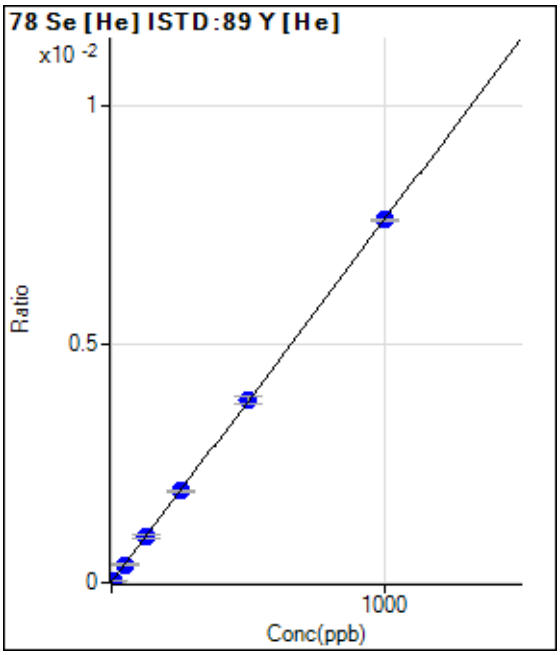
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	98.7
2	☐	5.000	3.247	15.56	0.0000	P	33.3
3	☐	50.000	51.233	192.22	0.0001	P	11.7
4	☐	125.000	127.323	471.12	0.0003	P	6.8
5	☐	250.000	244.879	910.04	0.0006	P	4.2
6	☐	500.000	503.265	1860.14	0.0011	P	2.3
7	☐	1000.000	999.305	3708.30	0.0023	P	3.5
8	☐			2.22	0.0000	P	86.6

y = 2.2593E-006 * x + 1.9310E-006
R = 1.0000
DL = 2.53
BEC = 0.8547

Weight: <None>
Min Conc: 0

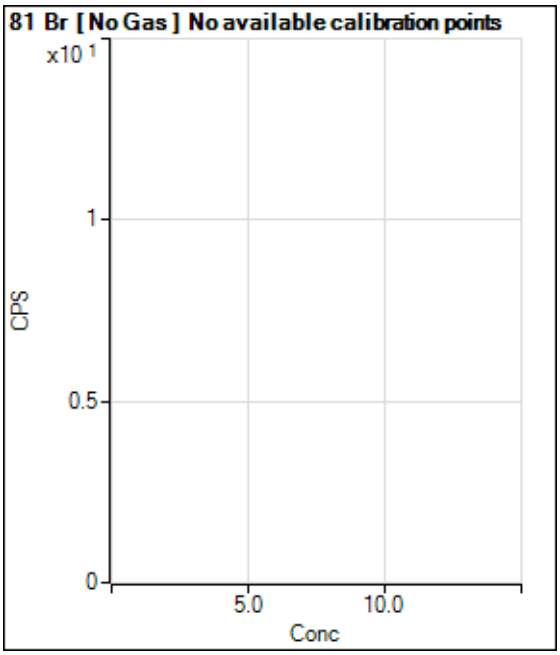


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	15.3
2	☐	5.000	4.985	74.44	0.0000	P	4.0
3	☐	50.000	48.547	613.35	0.0004	P	13.1
4	☐	125.000	125.772	1563.44	0.0010	P	9.5
5	☐	250.000	251.472	3141.50	0.0019	P	1.4
6	☐	500.000	500.626	6209.21	0.0038	P	4.4
7	☐	1000.000	999.295	12462.27	0.0076	P	0.6
8	☐			8.89	0.0000	P	78.7

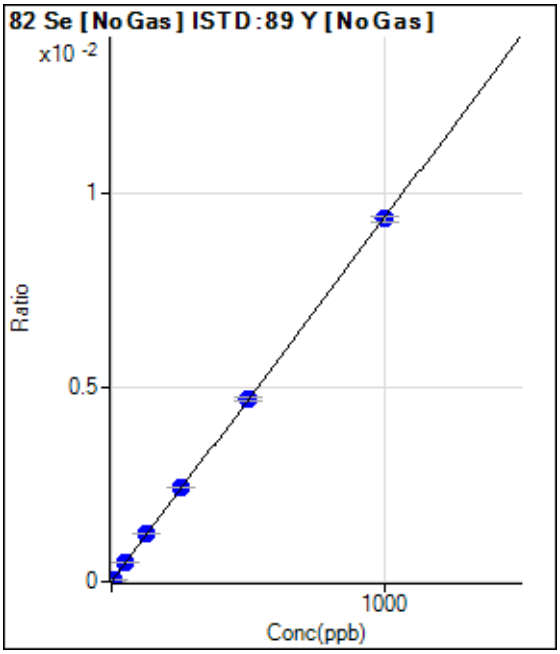
y = 7.5935E-006 * x + 6.4745E-006
R = 1.0000
DL = 0.3904
BEC = 0.8526

Weight: <None>
Min Conc: 0

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4738.63		P	3.6
2	☐			4714.18		P	3.1
3	☐			4579.69		P	2.0
4	☐			4627.48		P	2.0
5	☐			4681.95		P	1.6
6	☐			4821.98		P	2.8
7	☐			4917.58		P	2.1
8	☐			5032.07		P	3.2

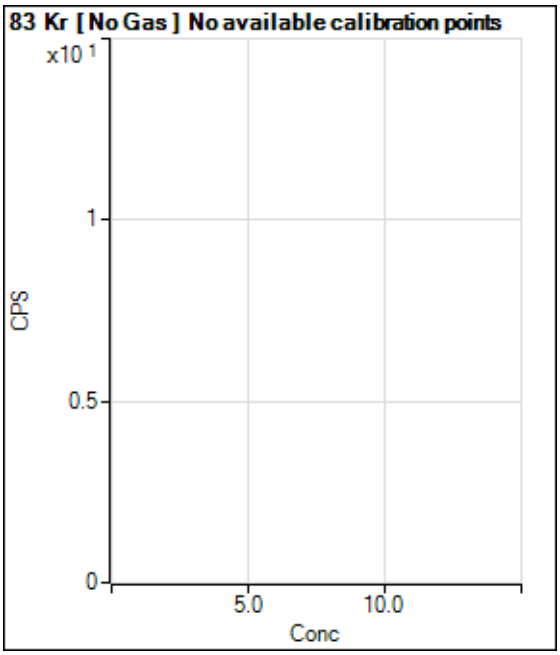


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14.44	0.0000	P	448.
2	☐	5.000	5.177	1296.77	0.0000	P	4.1
3	☐	50.000	51.247	12429.17	0.0005	P	3.1
4	☐	125.000	129.847	31351.25	0.0012	P	0.5
5	☐	250.000	258.259	62239.55	0.0024	P	0.5
6	☐	500.000	501.061	121733.68	0.0047	P	1.7
7	☐	1000.000	996.735	241140.62	0.0093	P	1.6
8	☐			40.00	0.0000	P	69.2

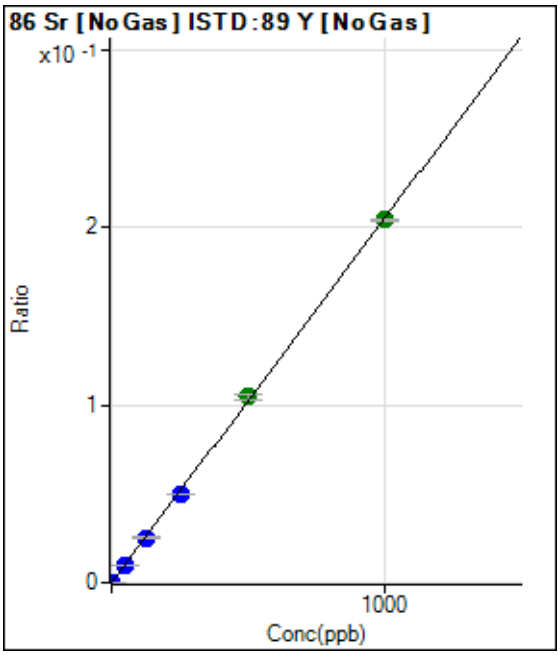
y = 9.3583E-006 * x + 5.5528E-007
R = 1.0000
DL = 0.7978
BEC = 0.05934

Weight: <None>
Min Conc: 0

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			283.34		P	10.3
2	☐			281.12		P	5.3
3	☐			248.89		P	11.2
4	☐			274.45		P	3.9
5	☐			266.67		P	9.9
6	☐			240.00		P	15.5
7	☐			335.56		P	14.7
8	☐			320.01		P	9.9

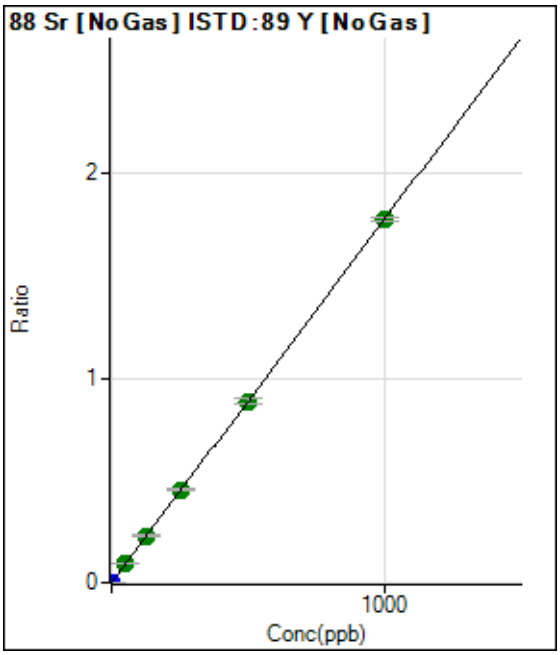


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	914.49	0.0000	P	7.0
2	☐	1.000	1.015	6425.98	0.0002	P	0.7
3	☐	50.000	48.975	260865.93	0.0101	P	1.8
4	☐	125.000	123.469	653622.53	0.0253	P	1.6
5	☐	250.000	243.893	1288337.40	0.0500	P	0.7
6	☐	500.000	510.390	2716456.42	0.1047	A	3.3
7	☐	1000.000	996.574	5283055.90	0.2044	A	0.7
8	☐			15389.65	0.0007	P	5.5

y = 2.0502E-004 * x + 3.4656E-005
R = 0.9999
DL = 0.03561
BEC = 0.169

Weight: <None>
Min Conc: 0

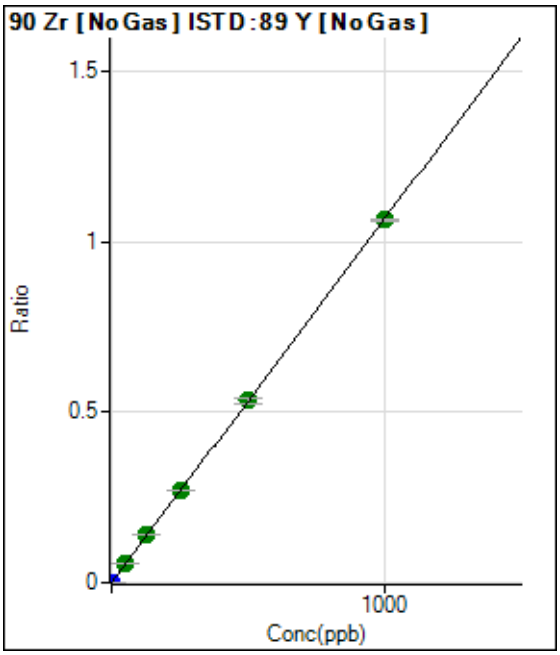
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LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3701.65	0.0001	P	1.4
2	☐	1.000	1.022	51726.48	0.0020	P	1.4
3	☐	50.000	51.397	2367158.02	0.0914	A	1.7
4	☐	125.000	128.995	5910783.38	0.2292	A	2.4
5	☐	250.000	255.252	11676417.60	0.4535	A	1.1
6	☐	500.000	499.802	23038296.05	0.8878	A	3.9
7	☐	1000.000	998.217	45837303.20	1.7731	A	1.0
8	☐			130623.87	0.0057	P	6.6

y = 0.0018 * x + 1.4024E-004
R = 1.0000
DL = 0.003375
BEC = 0.07896

Weight: <None>
Min Conc: 0

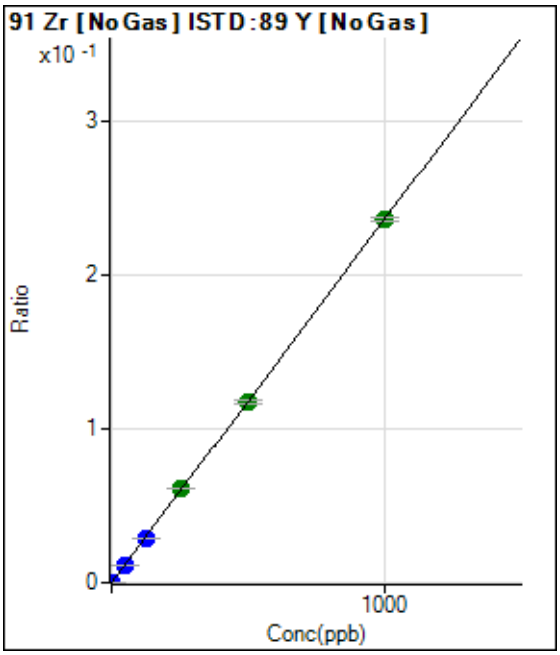


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	908.93	0.0000	P	4.3
2	☐	1.000	1.020	29692.75	0.0011	P	1.2
3	☐	50.000	51.465	1422254.68	0.0549	A	2.3
4	☐	125.000	130.362	3587209.98	0.1391	A	0.7
5	☐	250.000	253.728	6969723.16	0.2707	A	0.8
6	☐	500.000	500.972	13870790.35	0.5345	A	2.9
7	☐	1000.000	997.839	27520084.59	1.0645	A	0.8
8	☐			41314.30	0.0018	P	6.4

y = 0.0011 * x + 3.4430E-005
R = 1.0000
DL = 0.004173
BEC = 0.03227

Weight: <None>
Min Conc: 0

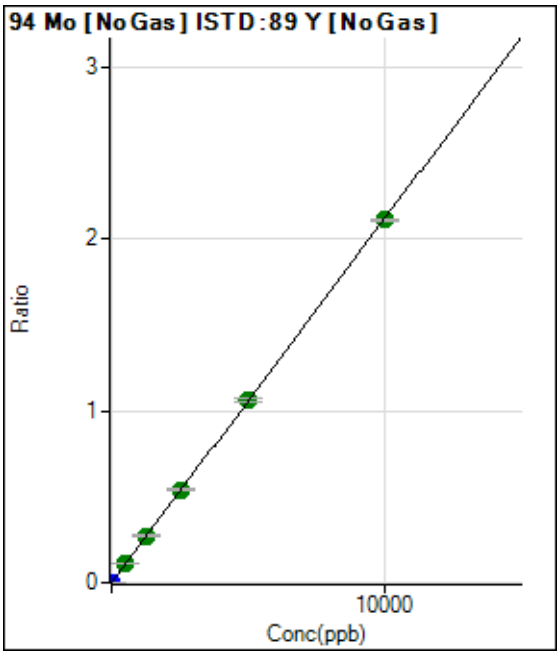
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	171.11	0.0000	P	13.0
2	☐	1.000	1.028	6586.07	0.0002	P	2.8
3	☐	50.000	48.437	295881.05	0.0114	P	1.7
4	☐	125.000	123.032	748268.09	0.0290	P	1.3
5	☐	250.000	258.483	1569397.91	0.0610	A	1.0
6	☐	500.000	498.956	3053913.25	0.1177	A	2.3
7	☐	1000.000	998.725	6088259.98	0.2355	A	1.0
8	☐			9444.40	0.0004	P	6.2

y = 2.3580E-004 * x + 6.4833E-006
R = 1.0000
DL = 0.01076
BEC = 0.02749

Weight: <None>
Min Conc: 0

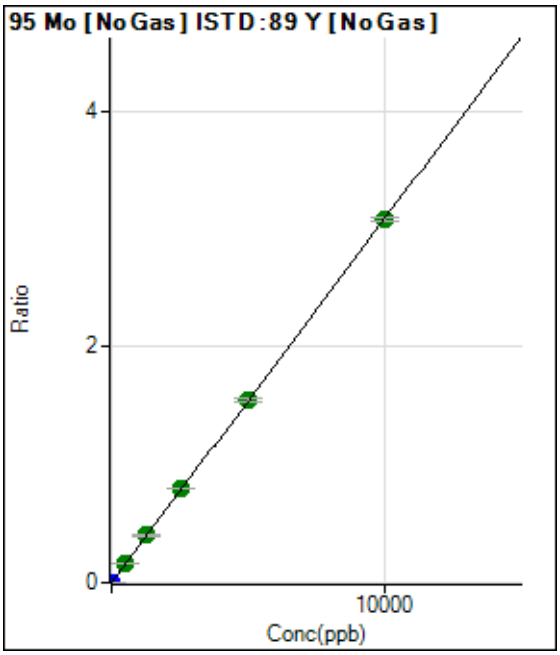


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	612.24	0.0000	P	5.0
2	☐	5.000	6.002	34239.95	0.0013	P	2.2
3	☐	500.000	514.437	2820514.26	0.1089	A	2.5
4	☐	1250.000	1294.694	7069081.42	0.2742	A	1.9
5	☐	2500.000	2558.525	13949071.88	0.5418	A	0.6
6	☐	5000.000	5015.764	27564730.15	1.0621	A	2.6
7	☐	10000.000	9971.178	54582708.63	2.1113	A	0.8
8	☐			37135.01	0.0016	P	5.2

y = 2.1174E-004 * x + 2.3194E-005
R = 1.0000
DL = 0.01639
BEC = 0.1095

Weight: <None>
Min Conc: 0

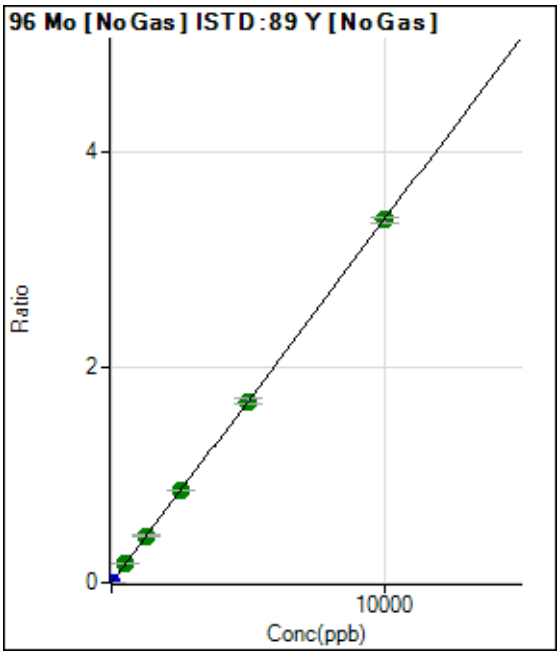
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	591.13	0.0000	P	7.4
2	☐	5.000	5.067	41966.48	0.0016	P	1.8
3	☐	500.000	515.852	4122059.04	0.1592	A	2.1
4	☐	1250.000	1301.323	10356371.37	0.4016	A	1.1
5	☐	2500.000	2572.290	20438569.28	0.7938	A	0.6
6	☐	5000.000	5000.247	40052426.62	1.5431	A	2.3
7	☐	10000.000	9974.596	79578798.26	3.0782	A	0.9
8	☐			39253.11	0.0017	P	6.1

y = 3.0861E-004 * x + 2.2393E-005
R = 1.0000
DL = 0.01614
BEC = 0.07256

Weight: <None>
Min Conc: 0

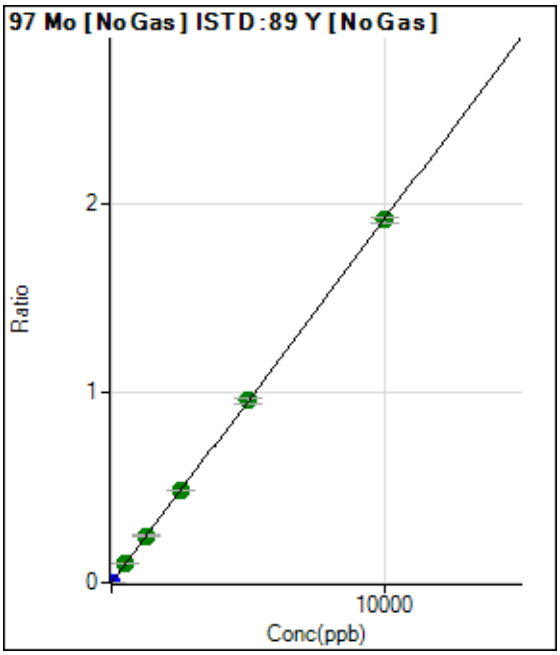


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	687.81	0.0000	P	8.7
2	☐	5.000	5.063	45971.26	0.0017	P	1.6
3	☐	500.000	512.677	4486695.11	0.1733	A	2.3
4	☐	1250.000	1292.259	11263410.25	0.4368	A	1.0
5	☐	2500.000	2550.399	22194179.67	0.8620	A	0.3
6	☐	5000.000	4994.287	43807451.01	1.6880	A	3.0
7	☐	10000.000	9984.340	87235541.48	3.3745	A	1.3
8	☐			45499.80	0.0020	P	6.0

y = 3.3798E-004 * x + 2.6068E-005
R = 1.0000
DL = 0.02024
BEC = 0.07713

Weight: <None>
Min Conc: 0

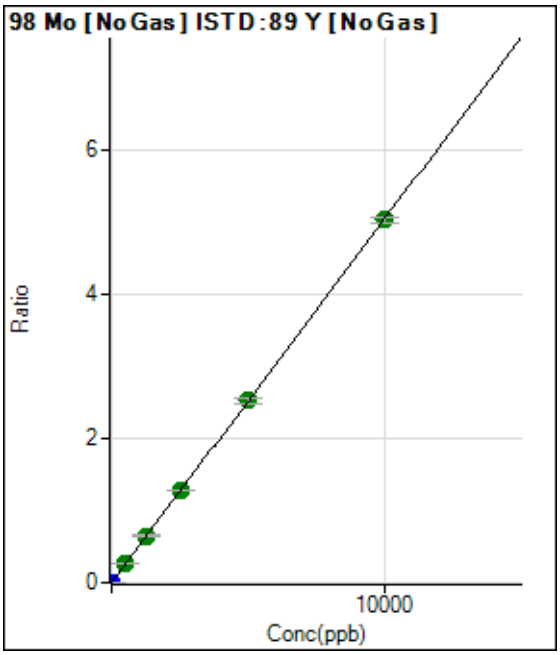
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	365.57	0.0000	P	17.5
2	☐	5.000	5.079	26098.96	0.0010	P	0.4
3	☐	500.000	516.272	2559715.06	0.0989	A	1.5
4	☐	1250.000	1291.725	6377290.67	0.2473	A	1.9
5	☐	2500.000	2555.071	12595907.73	0.4892	A	0.4
6	☐	5000.000	5000.493	24848497.68	0.9574	A	2.6
7	☐	10000.000	9979.956	49397280.93	1.9108	A	1.7
8	☐			23753.78	0.0010	P	4.9

y = 1.9146E-004 * x + 1.3851E-005
R = 1.0000
DL = 0.03792
BEC = 0.07234

Weight: <None>
Min Conc: 0

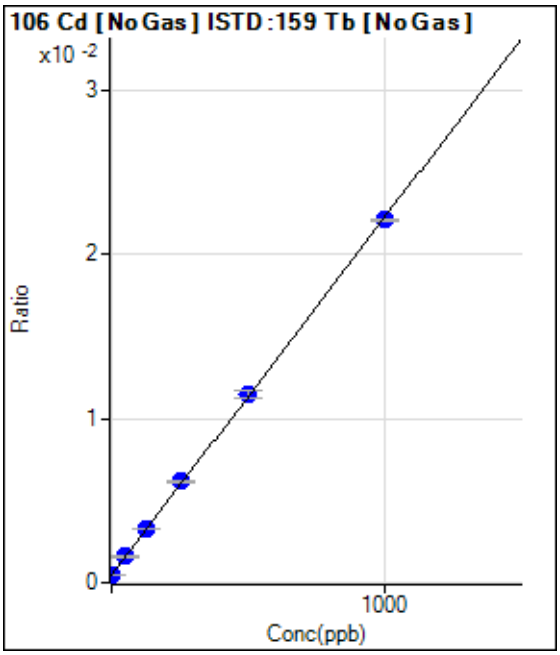


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	912.26	0.0000	P	4.4
2	☐	5.000	5.011	67659.43	0.0026	P	1.2
3	☐	500.000	510.885	6659500.04	0.2572	A	2.1
4	☐	1250.000	1294.750	16806509.61	0.6518	A	2.2
5	☐	2500.000	2559.039	33169423.95	1.2883	A	0.2
6	☐	5000.000	5002.118	65352477.92	2.5182	A	3.1
7	☐	10000.000	9978.043	129852405.8	5.0231	A	1.7
8	☐			60995.49	0.0027	P	6.2

y = 5.0342E-004 * x + 3.4559E-005
R = 1.0000
DL = 0.009118
BEC = 0.06865

Weight: <None>
Min Conc: 0

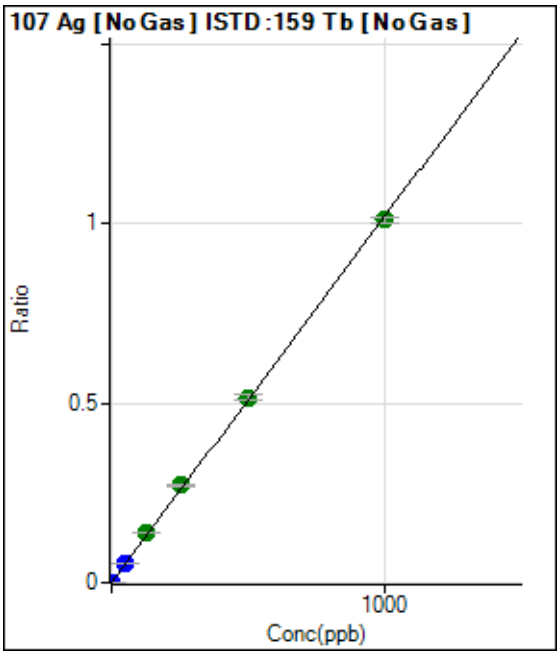
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9269.85	0.0005	P	0.4
2	☐	1.000	0.471	9434.41	0.0005	P	0.6
3	☐	50.000	52.158	31713.07	0.0016	P	3.8
4	☐	125.000	130.144	65396.20	0.0033	P	0.6
5	☐	250.000	261.793	121417.47	0.0062	P	0.7
6	☐	500.000	505.147	228318.12	0.0115	P	3.6
7	☐	1000.000	993.728	438772.91	0.0221	P	0.8
8	☐			7655.53	0.0004	P	1.6

y = 2.1800E-005 * x + 4.6459E-004
R = 0.9999
DL = 0.2346
BEC = 21.31

Weight: <None>
Min Conc: 0

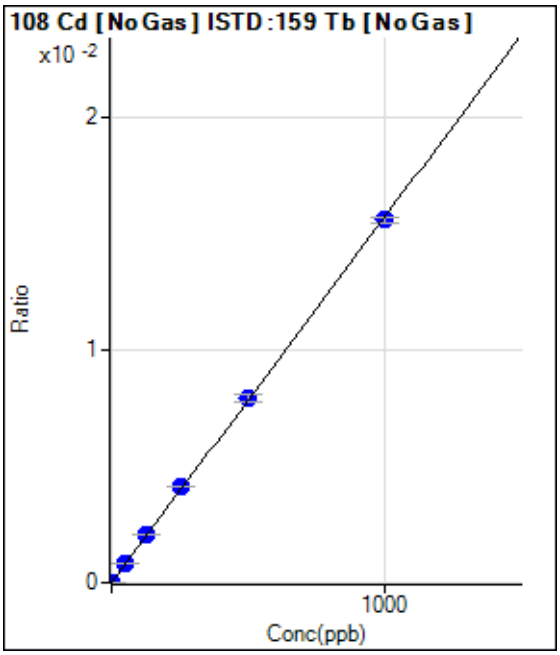


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	247.78	0.0000	P	4.7
2	☐	1.000	1.020	20885.91	0.0011	P	0.8
3	☐	50.000	50.790	1024351.91	0.0517	P	2.1
4	☐	125.000	134.958	2721795.46	0.1374	A	0.4
5	☐	250.000	266.078	5329701.03	0.2709	A	1.1
6	☐	500.000	506.490	10259425.47	0.5157	A	3.2
7	☐	1000.000	991.451	20015585.54	1.0094	A	1.4
8	☐			3030.36	0.0002	P	2.7

y = 0.0010 * x + 1.2415E-005
R = 0.9998
DL = 0.001711
BEC = 0.01219

Weight: <None>
Min Conc: 0

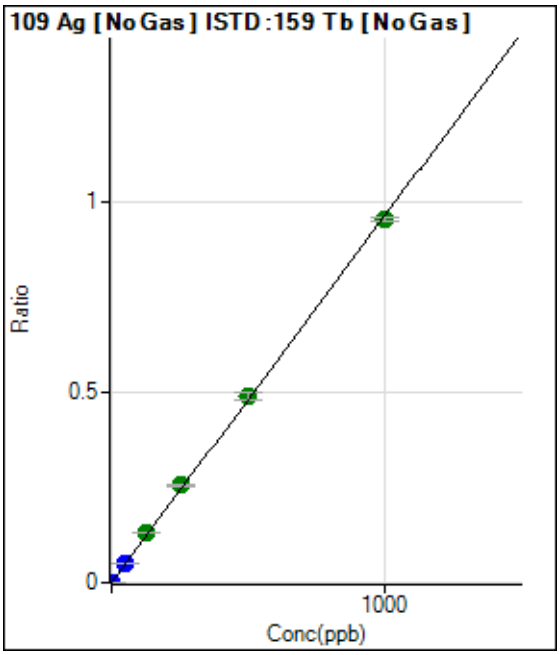
Reviewed By:kareem
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.66	0.0000	P	43.3
2	☐	1.000	1.116	374.45	0.0000	P	8.6
3	☐	50.000	52.812	16436.58	0.0008	P	2.9
4	☐	125.000	131.363	40850.30	0.0021	P	1.0
5	☐	250.000	262.384	81021.70	0.0041	P	1.3
6	☐	500.000	505.527	157817.24	0.0079	P	3.6
7	☐	1000.000	993.204	309039.25	0.0156	P	1.4
8	☐			222.23	0.0000	P	5.2

y = 1.5691E-005 * x + 1.3360E-006
R = 0.9999
DL = 0.1105
BEC = 0.08515

Weight: <None>
Min Conc: 0

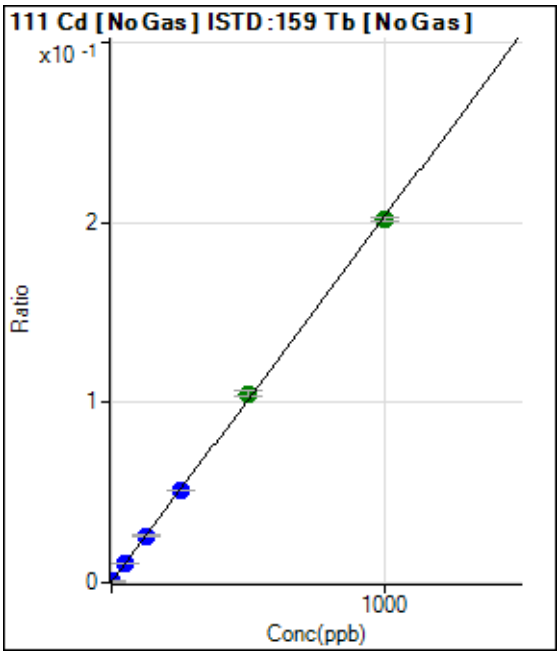


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	82.22	0.0000	P	11.8
2	☐	1.000	1.024	19638.58	0.0010	P	1.5
3	☐	50.000	51.178	974352.08	0.0492	P	2.5
4	☐	125.000	135.187	2574121.39	0.1300	A	1.4
5	☐	250.000	265.171	5014899.27	0.2549	A	0.9
6	☐	500.000	509.414	9742286.59	0.4897	A	3.4
7	☐	1000.000	990.168	18873762.49	0.9518	A	1.1
8	☐			2841.44	0.0002	P	9.1

y = 9.6129E-004 * x + 4.1213E-006
R = 0.9998
DL = 0.001521
BEC = 0.004287

Weight: <None>
Min Conc: 0

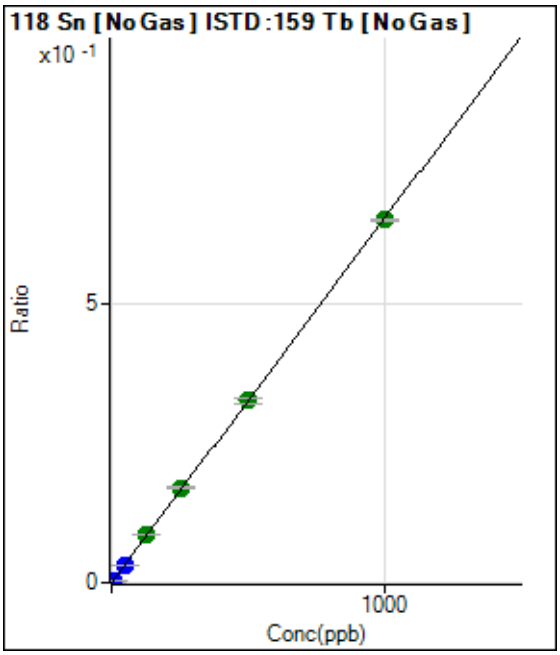
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6498.01	0.0003	P	0.3
2	☐	1.000	1.030	10626.01	0.0005	P	1.1
3	☐	50.000	50.421	209253.36	0.0106	P	2.2
4	☐	125.000	127.108	517744.54	0.0261	P	0.8
5	☐	250.000	250.689	1008041.95	0.0512	P	0.7
6	☐	500.000	516.338	2093187.93	0.1052	A	2.4
7	☐	1000.000	991.374	3998852.42	0.2017	A	1.1
8	☐			6157.80	0.0004	P	1.1

y = 2.0310E-004 * x + 3.2567E-004
R = 0.9998
DL = 0.01293
BEC = 1.604

Weight: <None>
Min Conc: 0

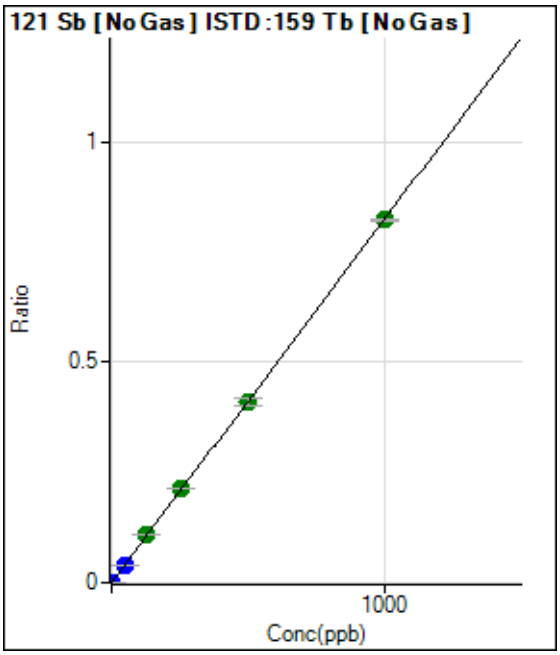


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1256.74	0.0001	P	4.4
2	☐	5.000	5.297	69783.45	0.0035	P	0.6
3	☐	50.000	49.648	641535.20	0.0324	P	1.7
4	☐	125.000	131.357	1695328.60	0.0856	A	1.5
5	☐	250.000	260.777	3341877.38	0.1699	A	1.8
6	☐	500.000	500.379	6483791.99	0.3259	A	3.0
7	☐	1000.000	996.338	12865668.00	0.6488	A	0.3
8	☐			4666.40	0.0003	P	4.5

y = 6.5116E-004 * x + 6.3002E-005
R = 0.9999
DL = 0.01267
BEC = 0.09675

Weight: <None>
Min Conc: 0

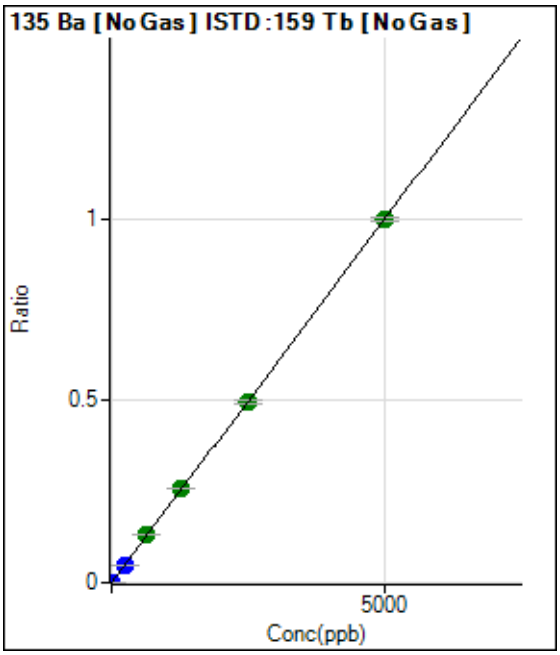
Reviewed By:kareem
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	51.11	0.0000	P	22.0
2	☐	2.000	2.032	33306.21	0.0017	P	1.7
3	☐	50.000	48.724	794788.67	0.0401	P	2.1
4	☐	125.000	131.597	2146593.77	0.1084	A	1.5
5	☐	250.000	257.930	4179197.27	0.2124	A	0.8
6	☐	500.000	497.809	8156417.51	0.4100	A	3.4
7	☐	1000.000	998.352	16304127.67	0.8222	A	0.5
8	☐			6917.38	0.0004	P	9.4

y = 8.2359E-004 * x + 2.5580E-006
R = 0.9999
DL = 0.002048
BEC = 0.003106

Weight: <None>
Min Conc: 0

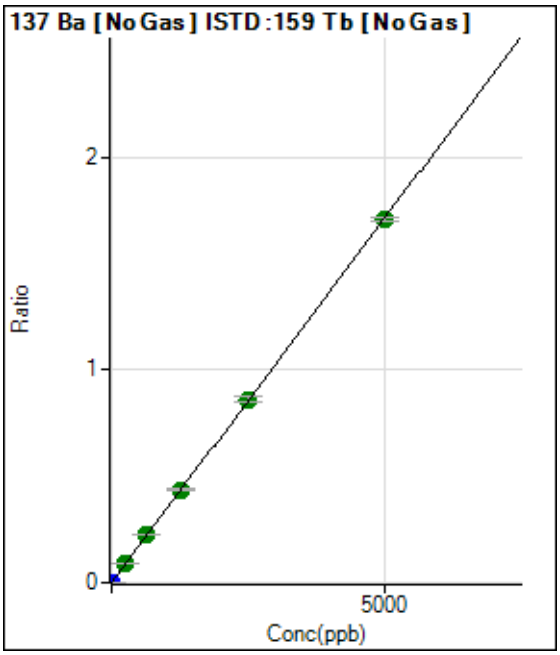


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	224.45	0.0000	P	4.3
2	☐	10.000	10.361	41328.42	0.0021	P	1.4
3	☐	250.000	244.114	965555.57	0.0488	P	2.4
4	☐	625.000	655.600	2592920.76	0.1309	A	1.6
5	☐	1250.000	1291.838	5075035.44	0.2580	A	0.4
6	☐	2500.000	2487.873	9884370.48	0.4968	A	2.9
7	☐	5000.000	4992.073	19765986.24	0.9968	A	0.9
8	☐			8603.93	0.0005	P	3.9

y = 1.9968E-004 * x + 1.1249E-005
R = 0.9999
DL = 0.00727
BEC = 0.05634

Weight: <None>
Min Conc: 0

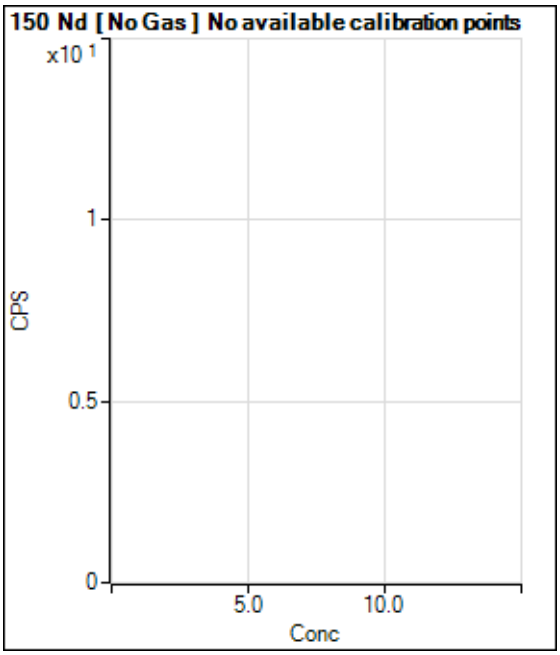
Reviewed By:kareem
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	331.12	0.0000	P	10.3
2	☐	10.000	10.436	71350.32	0.0036	P	0.3
3	☐	250.000	259.894	1763152.91	0.0890	A	2.9
4	☐	625.000	651.585	4420860.21	0.2232	A	1.0
5	☐	1250.000	1278.122	8613020.22	0.4378	A	0.9
6	☐	2500.000	2518.194	17159128.49	0.8626	A	3.5
7	☐	5000.000	4980.054	33823921.16	1.7058	A	0.9
8	☐			14980.65	0.0009	P	4.4

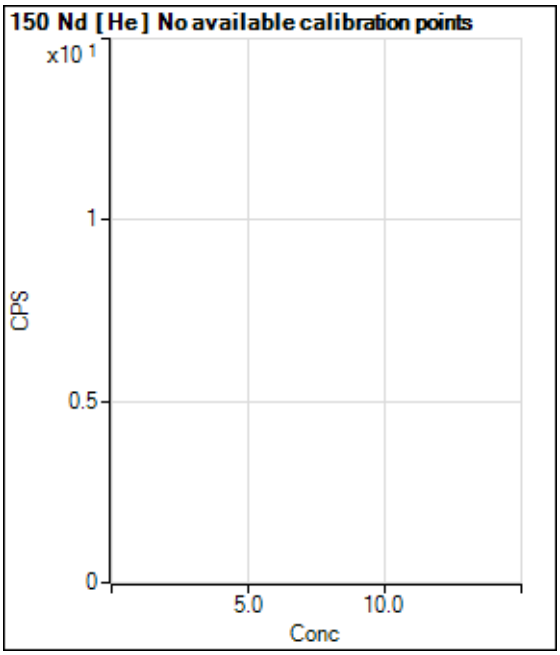
y = 3.4253E-004 * x + 1.6590E-005
R = 1.0000
DL = 0.01492
BEC = 0.04843

Weight: <None>
Min Conc: 0

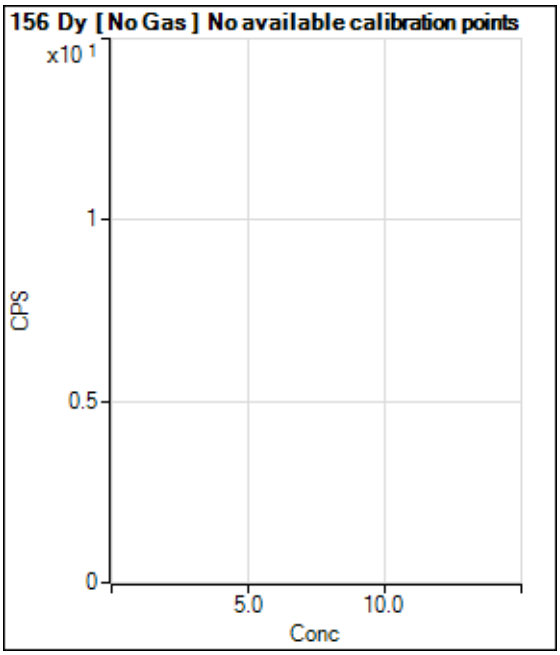


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			14.44		P	13.4
2	☐			15.55		P	24.8
3	☐			101.11		P	33.7
4	☐			185.56		P	5.2
5	☐			363.34		P	2.8
6	☐			765.59		P	10.2
7	☐			1461.21		P	3.0
8	☐			330.01		P	8.1

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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

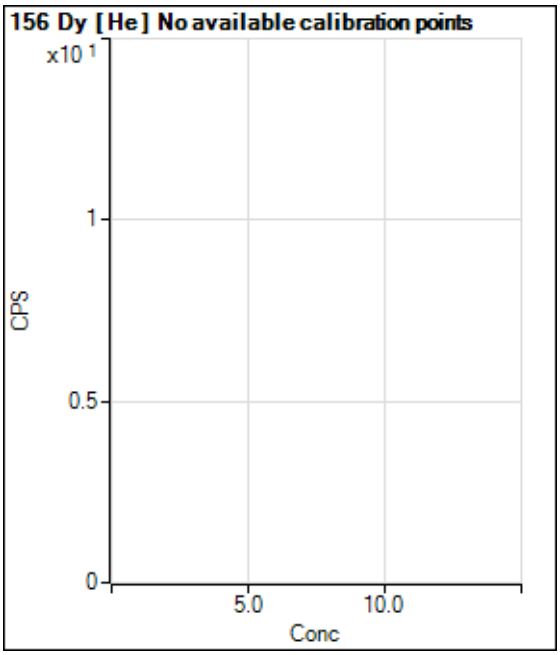


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1.11		P	173.
2	☐			2.22		P	86.6
3	☐			1.11		P	173.
4	☐			8.89		P	57.3
5	☐			17.78		P	10.8
6	☐			18.89		P	27.0
7	☐			47.78		P	46.5
8	☐			48.89		P	20.8

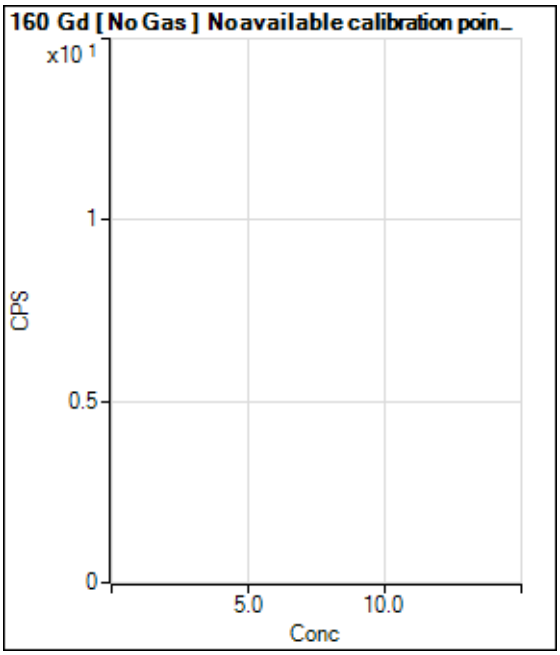


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			362.23		P	12.6
2	☐			288.90		P	12.4
3	☐			378.90		P	5.1
4	☐			362.23		P	3.5
5	☐			336.67		P	6.0
6	☐			494.46		P	8.4
7	☐			653.36		P	2.7
8	☐			780.03		P	8.2

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On:3/3/2025 8:20:34 PM
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LB :LB134802

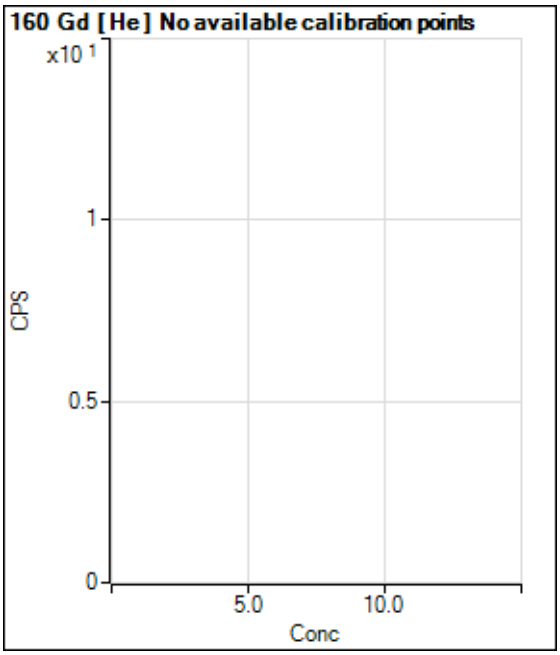


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			10.00		P	33.3
2	☐			4.44		P	114.
3	☐			14.44		P	35.3
4	☐			12.22		P	41.7
5	☐			26.67		P	12.5
6	☐			33.33		P	17.3
7	☐			43.33		P	26.6
8	☐			125.56		P	6.7

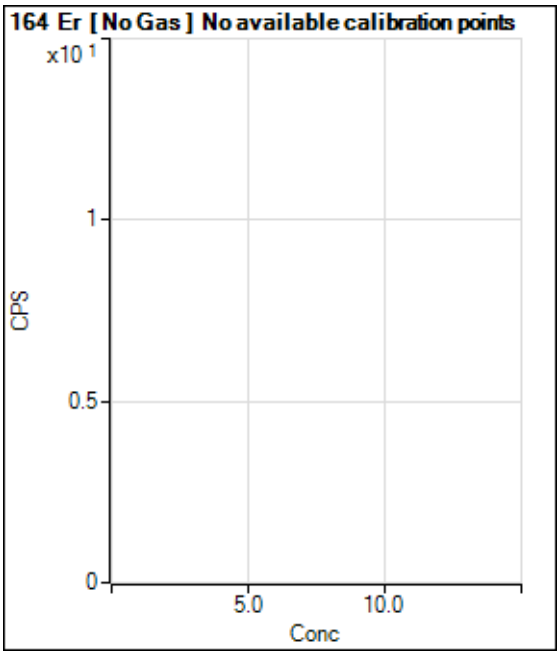


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			114.44		P	16.8
2	☐			132.22		P	26.7
3	☐			127.78		P	6.0
4	☐			144.45		P	16.4
5	☐			166.67		P	16.0
6	☐			185.56		P	20.8
7	☐			304.45		P	8.4
8	☐			636.69		P	2.8

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

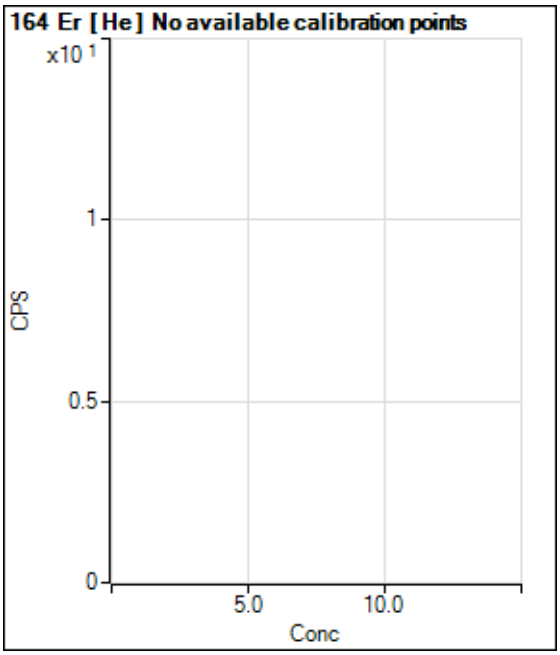


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			22.22		P	45.8
2	☐			35.56		P	23.6
3	☐			22.22		P	48.2
4	☐			28.89		P	37.1
5	☐			37.78		P	27.0
6	☐			57.78		P	23.3
7	☐			74.44		P	24.7
8	☐			183.34		P	6.6

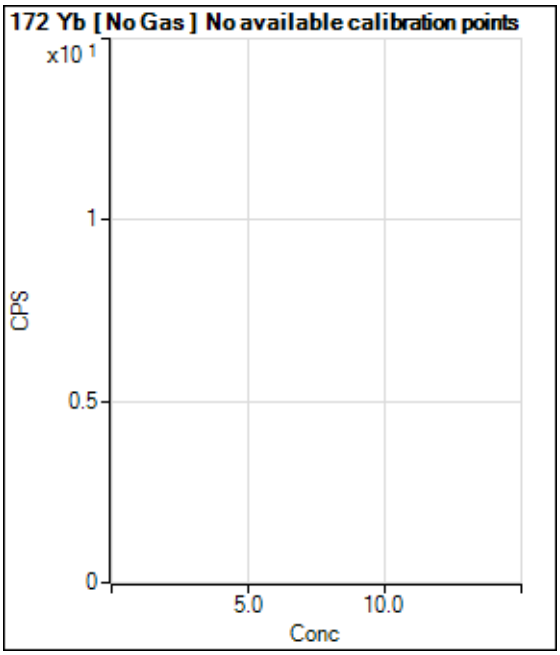


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			108.89		P	6.4
2	☐			98.89		P	7.8
3	☐			94.44		P	2.0
4	☐			140.00		P	24.9
5	☐			135.56		P	11.1
6	☐			176.67		P	10.0
7	☐			275.56		P	9.2
8	☐			718.92		P	3.8

Reviewed By:kareem
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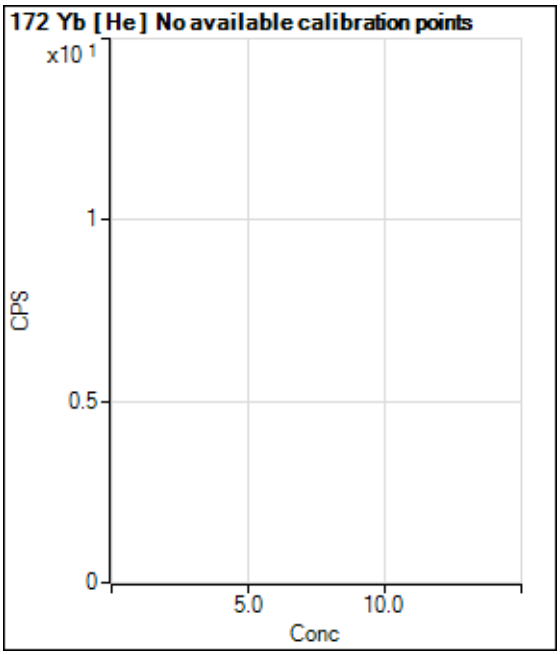


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			34.44		P	5.6
2	☐			25.55		P	15.1
3	☐			35.56		P	42.3
4	☐			36.67		P	9.1
5	☐			44.45		P	24.1
6	☐			51.11		P	32.2
7	☐			65.56		P	2.9
8	☐			215.56		P	17.9

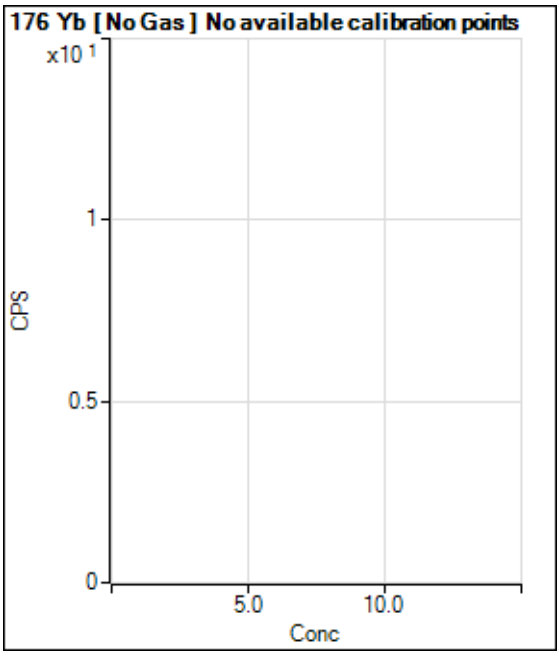


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1	☐			86.67		P	20.0
2	☐			110.01		P	10.5
3	☐			132.23		P	13.9
4	☐			154.45		P	4.5
5	☐			157.78		P	11.6
6	☐			242.23		P	5.2
7	☐			326.67		P	8.7
8	☐			791.14		P	1.3

Reviewed By:kareem
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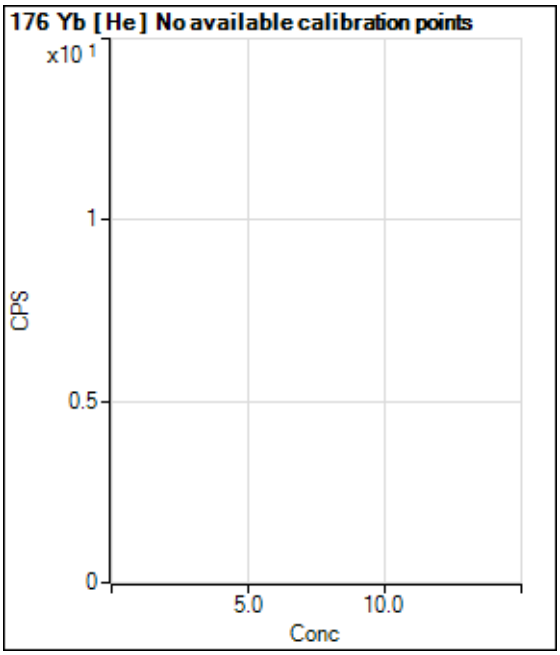


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			38.89		P	17.8
2	☐			38.89		P	17.8
3	☐			36.67		P	24.1
4	☐			34.44		P	14.8
5	☐			52.22		P	9.7
6	☐			104.45		P	8.0
7	☐			125.56		P	21.5
8	☐			253.34		P	5.7

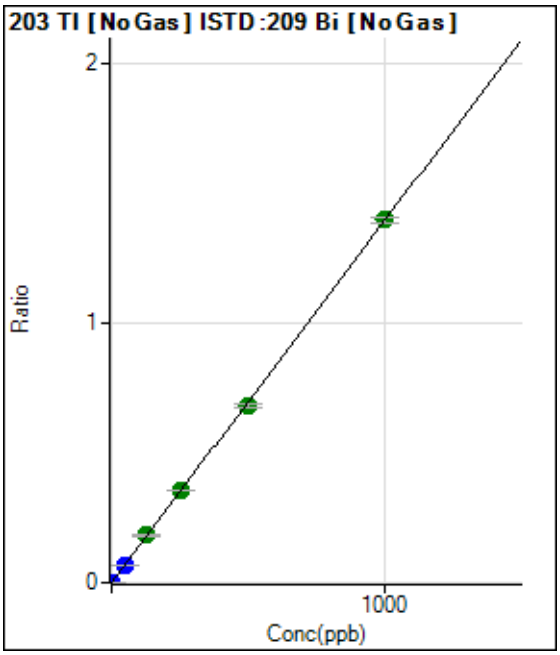


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2691.42		P	2.0
2	☐			2615.84		P	3.8
3	☐			5909.15		P	3.0
4	☐			11496.20		P	0.8
5	☐			20257.90		P	1.3
6	☐			37678.07		P	0.5
7	☐			73116.46		P	0.9
8	☐			2642.52		P	4.5

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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			401.12		P	9.3
2	☐			398.90		P	10.6
3	☐			1446.76		P	6.6
4	☐			3023.72		P	4.6
5	☐			5670.17		P	0.7
6	☐			11113.64		P	1.5
7	☐			21872.64		P	1.2
8	☐			506.68		P	6.9

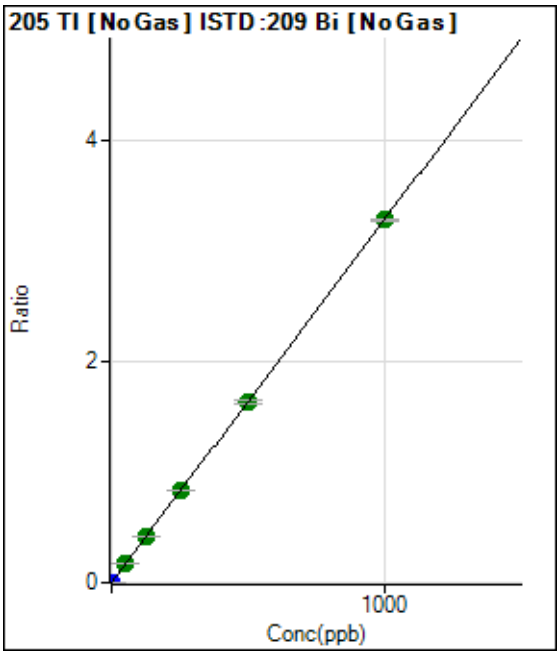


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	256.67	0.0000	P	7.8
2	☐	1.000	0.958	16866.56	0.0014	P	0.6
3	☐	50.000	47.393	816111.79	0.0660	P	2.2
4	☐	125.000	130.560	2215520.09	0.1818	A	1.5
5	☐	250.000	256.710	4318523.37	0.3574	A	0.8
6	☐	500.000	489.313	8225585.30	0.6811	A	2.7
7	☐	1000.000	1003.102	16523386.42	1.3963	A	1.3
8	☐			1574.56	0.0002	P	7.5

y = 0.0014 * x + 2.0662E-005
R = 0.9999
DL = 0.003456
BEC = 0.01484

Weight: <None>
Min Conc: 0

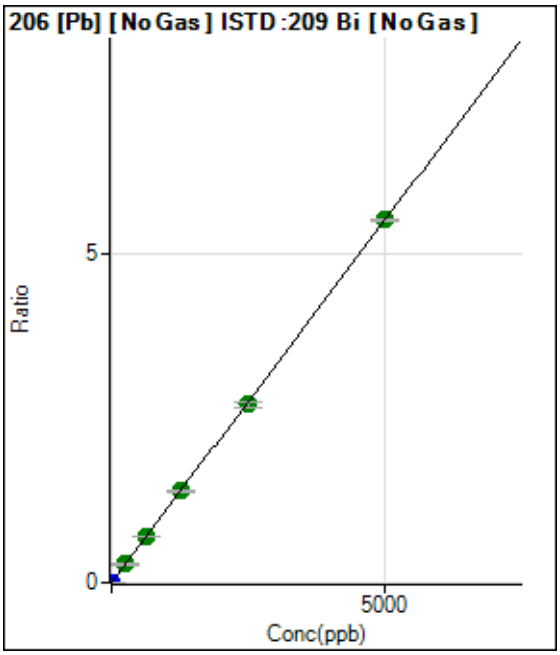
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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	697.80	0.0001	P	6.3
2	☐	1.000	0.971	40354.85	0.0032	P	1.4
3	☐	50.000	50.696	2057830.02	0.1663	A	0.9
4	☐	125.000	129.187	5166756.35	0.4238	A	0.3
5	☐	250.000	253.581	10052845.13	0.8318	A	0.5
6	☐	500.000	497.999	19725853.18	1.6336	A	3.0
7	☐	1000.000	999.547	38798587.20	3.2788	A	0.7
8	☐			3813.94	0.0004	P	3.8

y = 0.0033 * x + 5.6146E-005
R = 1.0000
DL = 0.003223
BEC = 0.01712

Weight: <None>
Min Conc: 0

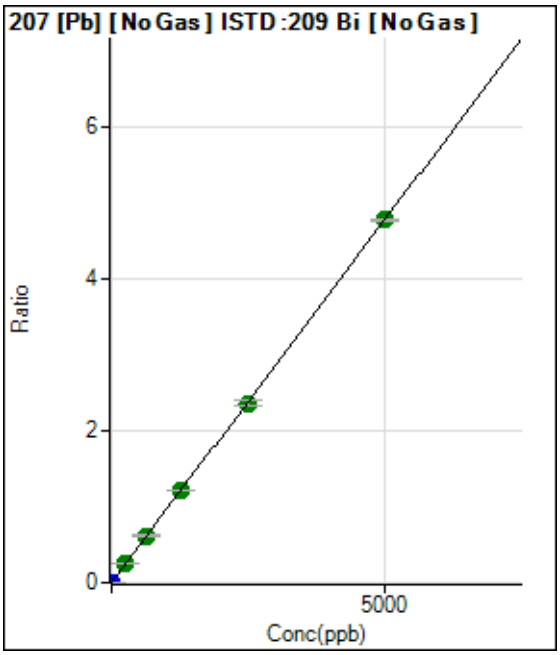


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1215.63	0.0001	P	5.3
2	☐	1.000	0.959	14403.64	0.0012	P	1.4
3	☐	250.000	254.788	3478469.84	0.2813	A	2.3
4	☐	625.000	644.460	8669852.51	0.7113	A	1.6
5	☐	1250.000	1266.867	16895310.72	1.3981	A	1.0
6	☐	2500.000	2465.387	32850729.51	2.7207	A	3.3
7	☐	5000.000	5010.418	65427942.91	5.5291	A	0.7
8	☐			13640.61	0.0014	P	4.2

y = 0.0011 * x + 9.7824E-005
R = 1.0000
DL = 0.0141
BEC = 0.08865

Weight: <None>
Min Conc: 0

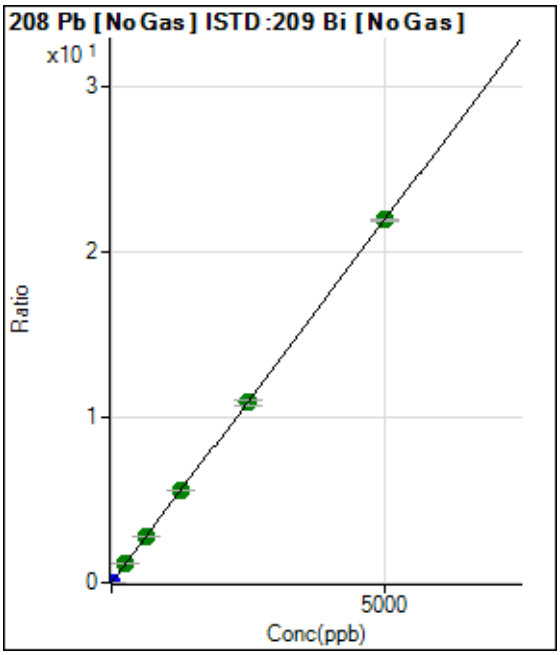
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1064.50	0.0001	P	6.4
2	☐	1.000	0.985	12763.03	0.0010	P	1.5
3	☐	250.000	258.545	3049402.87	0.2466	A	2.8
4	☐	625.000	649.254	7546488.50	0.6191	A	1.8
5	☐	1250.000	1268.607	14617552.84	1.2096	A	1.0
6	☐	2500.000	2474.477	28487481.52	2.3593	A	3.2
7	☐	5000.000	5004.651	56465198.05	4.7716	A	0.5
8	☐			11687.60	0.0012	P	4.5

y = 9.5342E-004 * x + 8.5694E-005
R = 1.0000
DL = 0.0173
BEC = 0.08988

Weight: <None>
Min Conc: 0

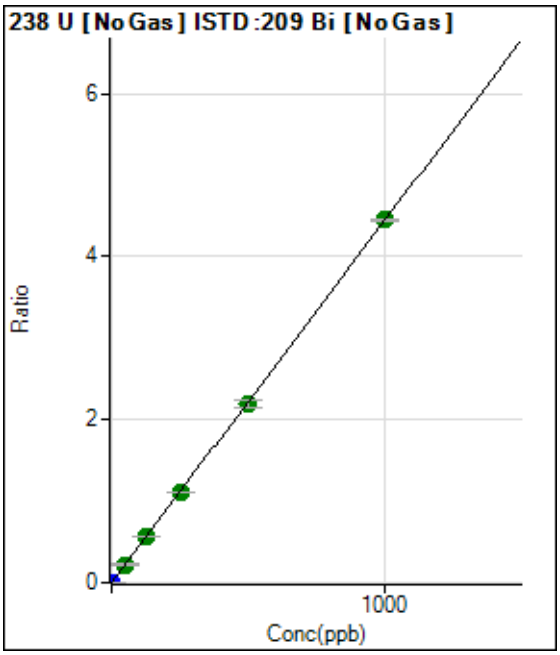


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4707.05	0.0004	P	1.9
2	☐	1.000	0.977	58121.45	0.0047	P	0.9
3	☐	250.000	255.358	13863739.34	1.1210	A	2.2
4	☐	625.000	645.409	34530699.48	2.8327	A	0.8
5	☐	1250.000	1268.233	67261981.08	5.5659	A	0.5
6	☐	2500.000	2481.667	131492545.5	10.8909	A	3.6
7	☐	5000.000	5001.789	259746605.5	21.9501	A	0.6
8	☐			53907.56	0.0056	P	4.6

y = 0.0044 * x + 3.7883E-004
R = 1.0000
DL = 0.004832
BEC = 0.08633

Weight: <None>
Min Conc: 0

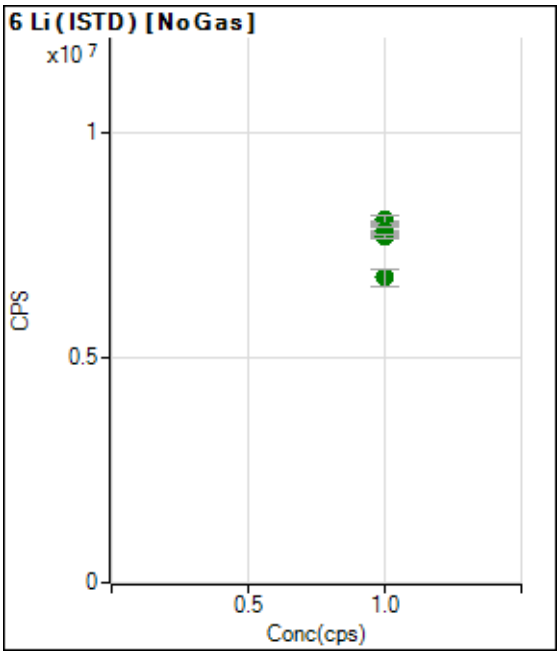
Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	6.5
2	☐	1.000	0.960	53226.39	0.0043	P	0.6
3	☐	50.000	49.731	2729159.49	0.2207	A	3.3
4	☐	125.000	126.525	6844926.43	0.5615	A	1.1
5	☐	250.000	249.964	13405474.11	1.1093	A	1.0
6	☐	500.000	493.996	26469242.94	2.1923	A	3.6
7	☐	1000.000	1002.834	52663566.44	4.4504	A	0.4
8	☐			2016.85	0.0002	P	10.3

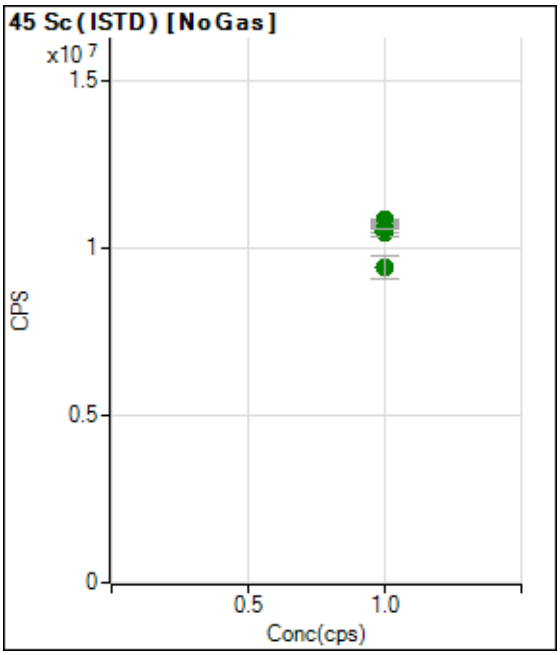
y = 0.0044 * x + 1.1268E-005
R = 1.0000
DL = 0.0004938
BEC = 0.002539

Weight: <None>
Min Conc: 0

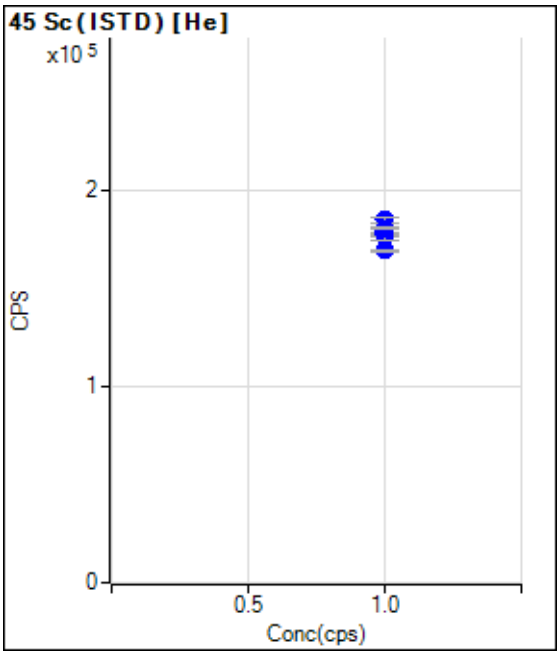


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7998449.89		A	0.8
2	☐	1.000		8074395.14		A	2.0
3	☐	1.000		7849512.37		A	2.3
4	☐	1.000		7750488.44		A	2.1
5	☐	1.000		7765954.27		A	0.9
6	☐	1.000		7815551.35		A	3.0
7	☐	1.000		7717755.19		A	1.2
8	☐	1.000		6791403.48		A	6.0

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

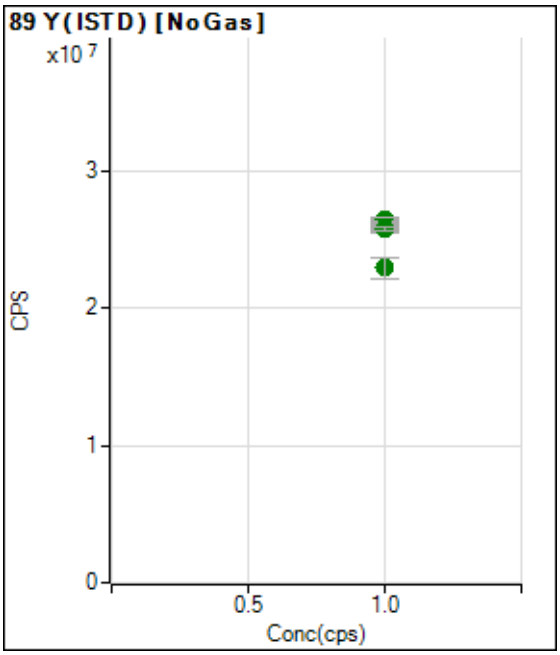


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10849042.06		A	0.6
2	☐	1.000		10738939.84		A	0.3
3	☐	1.000		10567594.70		A	1.8
4	☐	1.000		10511142.41		A	1.4
5	☐	1.000		10527001.51		A	1.1
6	☐	1.000		10482497.41		A	3.0
7	☐	1.000		10588356.44		A	0.1
8	☐	1.000		9439723.05		A	7.6

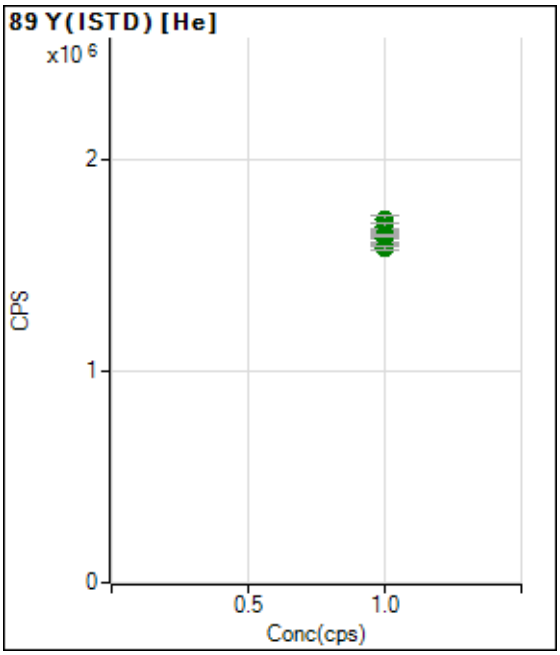


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1	☐	1.000		185298.20		P	1.5
2	☐	1.000		179781.60		P	1.2
3	☐	1.000		177484.52		P	0.8
4	☐	1.000		177252.83		P	0.8
5	☐	1.000		177776.79		P	0.8
6	☐	1.000		178334.74		P	3.6
7	☐	1.000		180874.80		P	0.4
8	☐	1.000		169441.42		P	0.3

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
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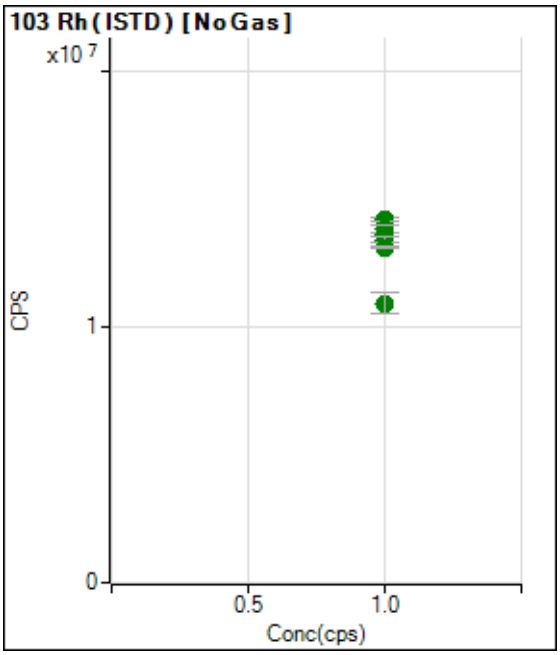


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26394643.49		A	0.6
2	☐	1.000		26462991.83		A	1.2
3	☐	1.000		25896600.17		A	2.0
4	☐	1.000		25789815.73		A	1.7
5	☐	1.000		25746866.56		A	0.7
6	☐	1.000		25964092.67		A	2.3
7	☐	1.000		25853563.23		A	1.2
8	☐	1.000		22958033.41		A	6.4

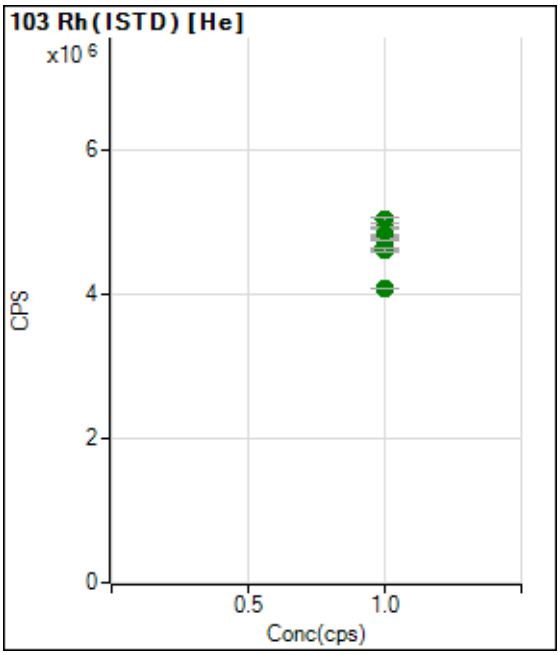


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1712687.54		A	2.1
2	☐	1.000		1680009.87		A	1.7
3	☐	1.000		1634247.02		A	0.8
4	☐	1.000		1628189.92		A	2.1
5	☐	1.000		1639412.46		A	1.1
6	☐	1.000		1632304.78		A	3.9
7	☐	1.000		1640934.49		A	0.4
8	☐	1.000		1579203.40		A	1.1

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

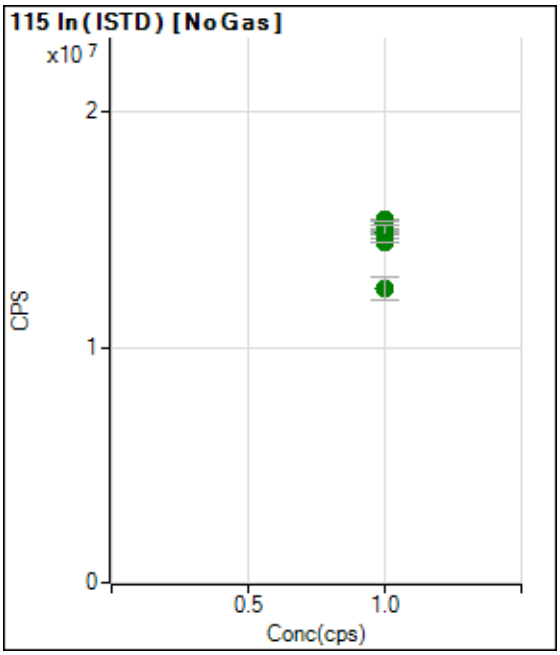


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14160386.59		A	1.0
2	☐	1.000		14113886.04		A	0.5
3	☐	1.000		13844991.74		A	2.2
4	☐	1.000		13583674.38		A	0.9
5	☐	1.000		13512426.05		A	0.3
6	☐	1.000		13382720.22		A	2.0
7	☐	1.000		13080776.34		A	0.6
8	☐	1.000		10906754.84		A	7.3

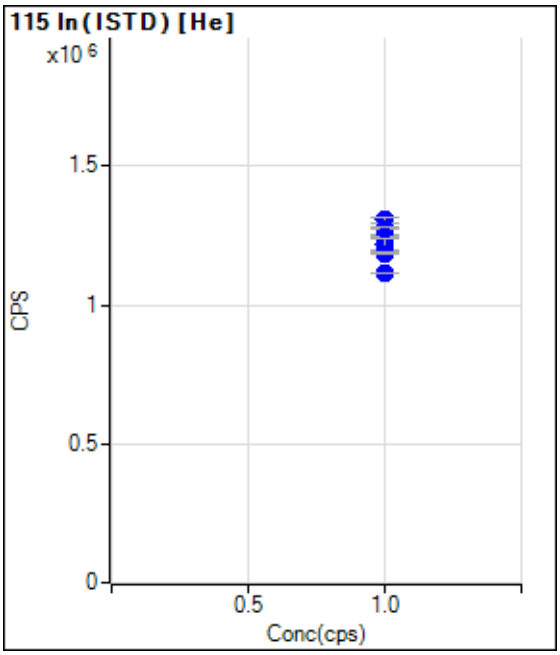


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5032750.69		A	1.4
2	☐	1.000		4921135.38		A	0.7
3	☐	1.000		4834543.12		A	0.2
4	☐	1.000		4775634.48		A	1.3
5	☐	1.000		4762641.60		A	0.5
6	☐	1.000		4675366.77		A	2.8
7	☐	1.000		4613015.97		A	1.3
8	☐	1.000		4082593.48		A	0.5

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

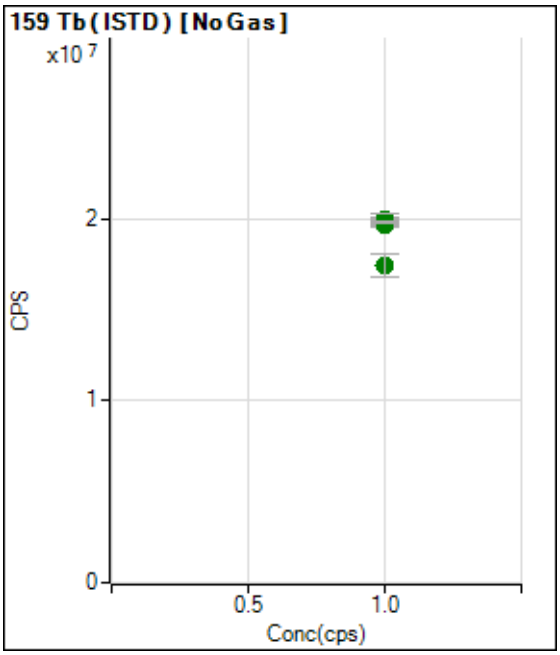


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15431237.32		A	0.6
2	☐	1.000		15301659.50		A	1.2
3	☐	1.000		14987754.80		A	1.0
4	☐	1.000		14882270.83		A	1.3
5	☐	1.000		14941384.28		A	0.5
6	☐	1.000		14902718.35		A	3.8
7	☐	1.000		14476602.06		A	0.2
8	☐	1.000		12518089.35		A	7.3

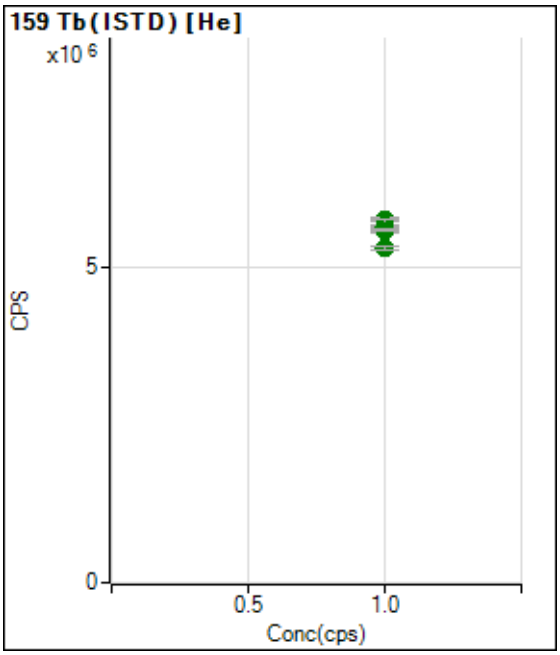


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2	☐	1.000		1275976.70		P	0.5
3	☐	1.000		1248439.31		P	0.3
4	☐	1.000		1245967.35		P	0.6
5	☐	1.000		1246432.42		P	0.2
6	☐	1.000		1220143.46		P	3.6
7	☐	1.000		1186326.95		P	0.5
8	☐	1.000		1114606.54		P	0.3

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

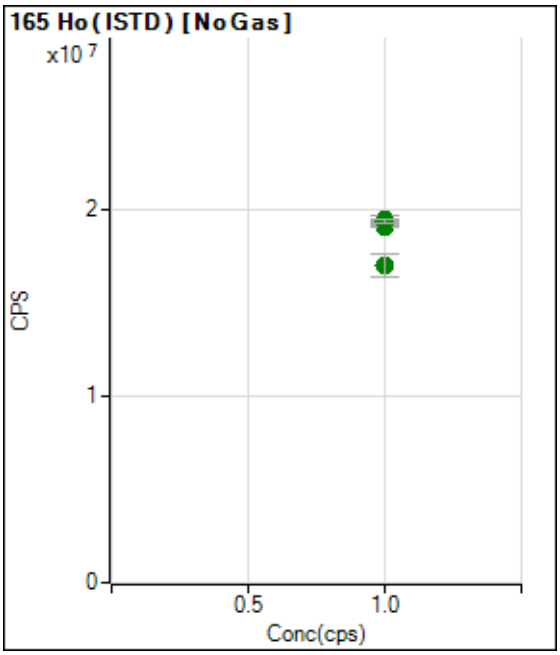


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19953159.70		A	0.9
2	☐	1.000		19868160.82		A	0.6
3	☐	1.000		19809986.09		A	2.0
4	☐	1.000		19807084.71		A	1.0
5	☐	1.000		19673013.18		A	0.1
6	☐	1.000		19910717.90		A	3.8
7	☐	1.000		19828861.51		A	0.2
8	☐	1.000		17439570.57		A	7.6

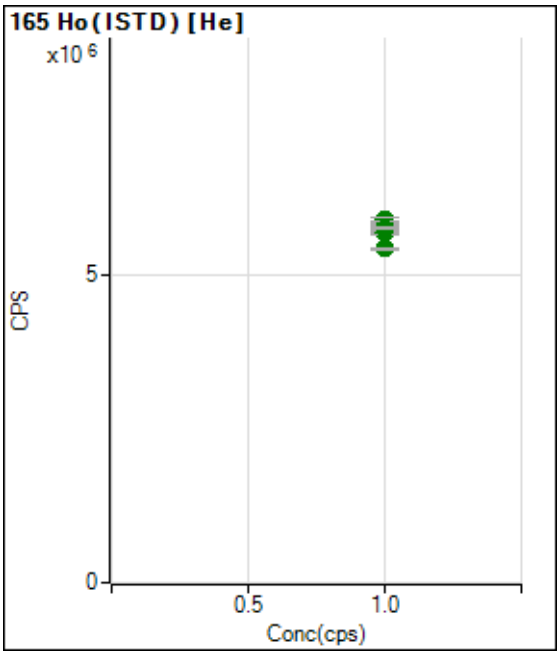


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5735699.64		A	1.0
2	☐	1.000		5639736.65		A	0.8
3	☐	1.000		5577496.86		A	0.8
4	☐	1.000		5599309.92		A	1.2
5	☐	1.000		5589626.10		A	0.3
6	☐	1.000		5630521.13		A	3.9
7	☐	1.000		5575337.42		A	0.2
8	☐	1.000		5284680.41		A	0.8

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

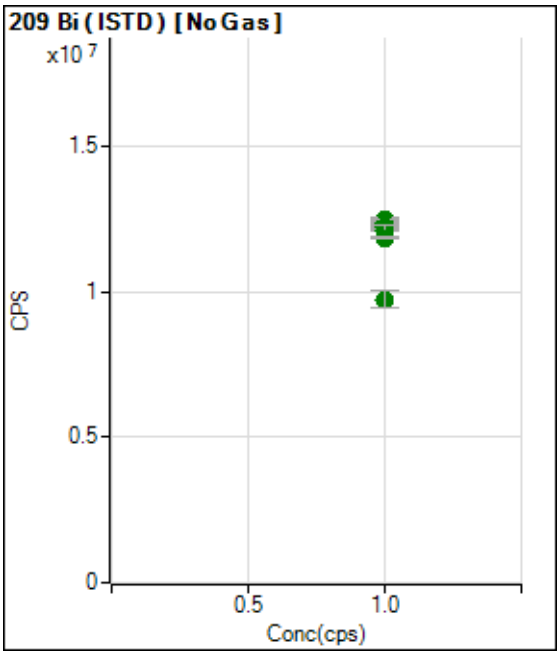


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19216043.05		A	0.4
2	☐	1.000		19213398.46		A	1.1
3	☐	1.000		19132949.02		A	0.7
4	☐	1.000		19249518.47		A	1.1
5	☐	1.000		19141274.57		A	0.6
6	☐	1.000		19460899.71		A	2.6
7	☐	1.000		19365732.90		A	0.9
8	☐	1.000		17020028.63		A	7.6

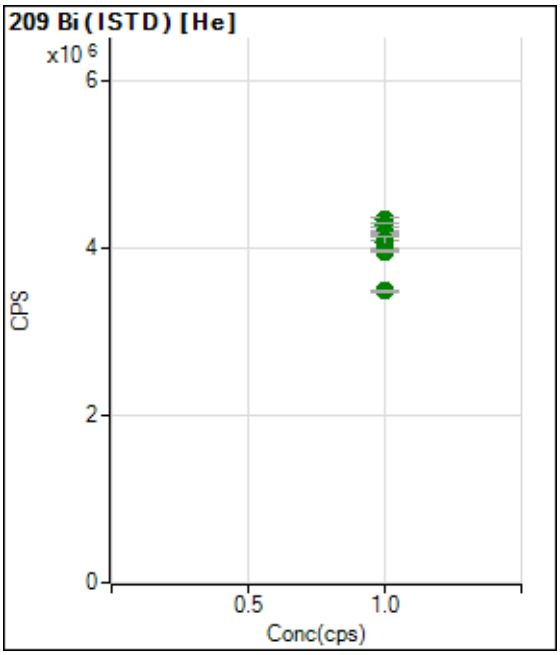


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5897079.56		A	1.6
2	☐	1.000		5738346.86		A	1.4
3	☐	1.000		5698164.98		A	1.1
4	☐	1.000		5793521.58		A	0.3
5	☐	1.000		5775363.94		A	1.3
6	☐	1.000		5792838.04		A	2.4
7	☐	1.000		5761300.89		A	0.7
8	☐	1.000		5425942.63		A	0.4

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12426280.93		A	0.9
2	☐	1.000		12457122.45		A	1.2
3	☐	1.000		12371236.76		A	2.2
4	☐	1.000		12190879.26		A	1.2
5	☐	1.000		12084888.71		A	0.4
6	☐	1.000		12083227.46		A	3.3
7	☐	1.000		11833349.55		A	0.5
8	☐	1.000		9722232.01		A	6.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4330217.40		A	1.4
2	☐	1.000		4265774.21		A	1.4
3	☐	1.000		4183512.02		A	1.2
4	☐	1.000		4168570.81		A	0.5
5	☐	1.000		4090329.70		A	0.3
6	☐	1.000		4063187.13		A	2.9
7	☐	1.000		3950306.61		A	0.7
8	☐	1.000		3480419.92		A	0.6

US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:20:
PM
Inst Id :P8
LB :LB134802

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P8022425 MS.b
Acq. Date-Time	2025-02-24 10:31:00
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		39701	397013.92			0.573	5.000
24		360528	3605280.56			0.724	5.000
25		47190	471902.15			0.767	5.000
26		55473	554734.12			0.883	5.000
59		209542	2095418.67			1.019	5.000
113		23311	233105.71			0.462	5.000
115		311982	3119817.62			1.339	5.000
206		73557	735569.09			0.508	5.000
207		62413	624129.87			0.590	5.000
208		160693	1606929.82			0.735	5.000
220		0	3.70			31.111	

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	39826	39957	39768	39372	39584
24	362881	363221	360466	359049	357023
25	47503	47514	47248	46647	47039
26	55977	55997	55328	54928	55138
59	211954	211676	207865	208785	207429
113	23405	23406	23345	23231	23166
115	315695	316389	312210	306876	308739
206	73932	73836	73660	73322	73034
207	62669	62856	62317	61901	62323
208	162230	160745	160997	160564	158929

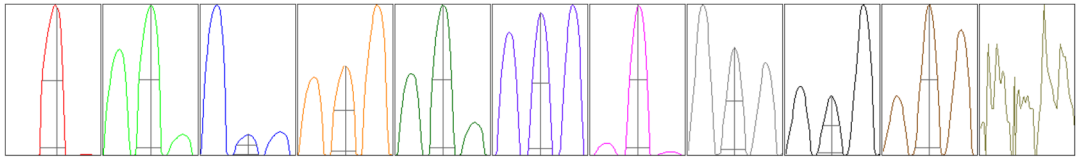
US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:20:
PM
Inst Id :P8
LB :LB134802

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

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	65895.67	9.15	8.90 - 9.10	Fail
24	607462.75	24.05	23.90 - 24.10	
25	81213.02	25.05	24.90 - 25.10	
26	93017.44	26.05	25.90 - 26.10	
59	370214.47	59.05	58.90 - 59.10	
113	45880.06	113.05	112.90 - 113.10	
115	601904.06	115.05	114.90 - 115.10	
206	142414.15	206.00	205.90 - 206.10	
207	121521.72	207.00	206.90 - 207.10	
208	310171.14	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.786	0.900	
24	0.64	0.785	0.900	
25	0.62	0.781	0.900	
26	0.64	0.788	0.900	
59	0.59	0.778	0.900	
113	0.53	0.730	0.900	
115	0.55	0.736	0.900	
206	0.52	0.783	0.900	
207	0.52	0.796	0.900	
208	0.52	0.801	0.900	
220				

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

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.72 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:20:
PM
Inst Id :P8
LB :LB134802

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

Lens Parameters

Extract 1	-6.0 V	Omega Lens	8.3 V	Deflect	14.6 V
Extract 2	-185.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-85 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	190 V		

QP Parameters

Mass Gain	103	Axis Gain	0.9960	QP Bias	-4.0 V
Mass Offset	125	Axis Offset	0.08		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	1.4 mm

EM

Discriminator	4.1 mV	Analog HV	2193 V	Pulse HV	1102 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		36602	366021.98			2.322	
89		36079	360792.66			2.755	
205		36337	363370.91			1.297	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	36422	36364	38093	36041	36090
89	35916	35642	37831	35485	35522
205	36278	36234	37148	36076	35950

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.72 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	8.3 V	Deflect	2.8 V

US EPA Tune Check Report

Reviewed By:kare
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Extract 2	-185.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-85 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	0.9960	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	0.08		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	1.4 mm		

EM

Discriminator	4.1 mV	Analog HV	2193 V	Pulse HV	1102 V

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.15	0.08	-0.22	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.00	-0.02	0.02	0.00	N/A	ppb
Barium	135-1	0.00	0.00	0.00	0.00	N/A	ppb
Barium	137-1	0.00	0.00	-0.01	0.00	N/A	ppb
Beryllium	9-1	0.00	-0.01	0.01	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	-0.04	0.02	0.02	0.00	N/A	ppb
Cadmium	106-1	-0.07	-0.02	0.09	0.00	N/A	ppb
Cadmium	111-1	0.00	0.00	0.00	0.00	N/A	ppb
Calcium	43-1	0.86	-0.27	-0.58	0.00	N/A	ppb
Calcium	44-1	0.09	-0.12	0.03	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	-0.02	0.04	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	-0.05	0.03	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	-0.37	0.11	0.26	0.00	N/A	ppb
Iron	56-2	-0.17	0.15	0.02	0.00	N/A	ppb
Iron	57-2	-0.82	0.65	0.18	0.00	N/A	ppb
Krypton	83-1						cps
Lead	206-1	0.01	0.00	0.00	0.00	N/A	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	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	-0.32	0.57	-0.25	0.00	N/A	ppb
Manganese	55-2	-0.04	0.02	0.02	0.00	N/A	ppb
Molybdenum	94-1	0.01	0.00	-0.01	0.00	N/A	ppb
Molybdenum	95-1	0.01	0.00	-0.01	0.00	N/A	ppb
Molybdenum	96-1	0.00	-0.01	0.01	0.00	N/A	ppb
Molybdenum	97-1	-0.01	0.00	0.01	0.00	N/A	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.02	-0.03	0.01	0.00	N/A	ppb
Phosphorus	31-2	-7.34	-7.31	-21.50	-12.05		ppb
Potassium	39-2	-1.20	2.52	-1.32	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	-0.15	-0.15	0.31	0.00	N/A	ppb
Selenium	77-2	0.83	-0.85	0.02	0.00	N/A	ppb
Selenium	78-2	0.15	-0.08	-0.07	0.00	N/A	ppb
Silicon	28-1	-0.16	-0.02	0.17	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	-1.74	0.03	1.71	0.00	N/A	ppb
Strontium	86-1	0.00	-0.01	0.01	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-56.89	-21.54	36.07	-14.12		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	0.03	-0.02	-0.01	0.00	N/A	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.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	0.04	0.07	-0.11	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:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.51	22.04	20.89	20.48	8.80	ppb
Antimony	121-1	2.00	2.03	2.07	2.03	1.73	ppb
Arsenic	75-2	0.88	1.09	0.95	0.98	10.77	ppb
Barium	135-1	10.49	10.20	10.39	10.36	1.45	ppb
Barium	137-1	10.42	10.41	10.47	10.44	0.31	ppb
Beryllium	9-1	1.01	1.02	1.07	1.03	3.48	ppb
Bismuth	209-1				100		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	1.05	1.06	1.23	1.12	9.23	ppb
Cadmium	106-1	0.33	0.49	0.60	0.47	28.85	ppb
Cadmium	111-1	1.00	1.05	1.04	1.03	2.74	ppb
Calcium	43-1	505.77	501.65	517.33	508.25	1.60	ppb
Calcium	44-1	505.90	513.57	508.84	509.44	0.76	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.08	2.04	2.23	2.12	4.80	ppb
Cobalt	59-2	1.10	1.10	1.13	1.11	1.48	ppb
Copper	63-2	2.33	2.20	2.17	2.23	3.85	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				97		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	54-2	57.61	56.71	57.24	57.19	0.79	ppb
Iron	56-2	56.07	55.08	56.57	55.91	1.35	ppb
Iron	57-2	55.41	53.00	55.13	54.51	2.41	ppb
Krypton	83-1						cps
Lead	206-1	0.97	0.94	0.96	0.96	1.53	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.00	0.97	0.99	0.98	1.66	ppb
Lead	208-1	0.99	0.97	0.97	0.98	1.03	ppb
Lithium	6-1				101		%
Magnesium	24-2	540.63	538.53	551.74	543.63	1.31	ppb
Manganese	55-2	1.12	1.06	1.13	1.10	3.76	ppb
Molybdenum	94-1	5.99	5.88	6.14	6.00	2.22	ppb
Molybdenum	95-1	4.97	5.07	5.16	5.07	1.83	ppb
Molybdenum	96-1	5.02	5.01	5.16	5.06	1.62	ppb
Molybdenum	97-1	5.10	5.08	5.06	5.08	0.41	ppb
Molybdenum	98-1	4.98	4.97	5.08	5.01	1.17	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.20	1.18	1.09	1.16	5.32	ppb
Phosphorus	31-2	9.74	8.71	17.69	12.05	40.77	ppb
Potassium	39-2	508.51	509.47	513.81	510.60	0.55	ppb
Rhodium	103-1				100		%
Rhodium	103-2				98		%
Scandium	45-1				99		%
Scandium	45-2				97		%
Selenium	82-1	5.35	4.94	5.25	5.18	4.11	ppb
Selenium	77-2	1.79	3.46	4.49	3.25	42.03	ppb
Selenium	78-2	4.91	4.79	5.25	4.99	4.71	ppb
Silicon	28-1	4.26	4.53	4.53	4.44	3.51	ppb
Silver	107-1	1.02	1.01	1.03	1.02	0.81	ppb
Silver	109-1	1.01	1.02	1.04	1.02	1.53	ppb
Sodium	23-2	529.32	525.23	541.99	532.18	1.64	ppb
Strontium	86-1	1.02	1.02	1.01	1.02	0.77	ppb
Strontium	88-1	1.01	1.02	1.04	1.02	1.56	ppb
Sulfur	34-1	8.24	33.85	0.26	14.12	124.32	ppb
Terbium	159-1				100		%
Terbium	159-2				98		%
Thallium	203-1	0.95	0.95	0.96	0.96	0.64	ppb
Thallium	205-1	0.98	0.96	0.97	0.97	1.38	ppb
Tin	118-1	5.32	5.26	5.31	5.30	0.57	ppb
Titanium	47-1	5.19	5.17	5.26	5.21	0.85	ppb
Uranium	238-1	0.96	0.96	0.97	0.96	0.60	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.01	5.03	5.14	5.06	1.41	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	5.27	5.03	5.72	5.34	6.53	ppb
Zirconium	90-1	1.01	1.02	1.03	1.02	1.21	ppb
Zirconium	91-1	1.02	1.01	1.06	1.03	2.91	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	972.50	995.18	988.12	985.26	1.18	ppb
Antimony	121-1	47.65	49.69	48.84	48.72	2.10	ppb
Arsenic	75-2	49.22	50.57	50.33	50.04	1.44	ppb
Barium	135-1	238.88	250.61	242.86	244.11	2.44	ppb
Barium	137-1	252.42	267.52	259.74	259.89	2.90	ppb
Beryllium	9-1	49.29	50.71	50.66	50.22	1.61	ppb
Bismuth	209-1				100		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	51.06	54.03	53.35	52.81	2.94	ppb
Cadmium	106-1	49.99	55.26	51.22	52.16	5.28	ppb
Cadmium	111-1	49.14	51.41	50.72	50.42	2.30	ppb
Calcium	43-1	4757.07	4776.67	4915.23	4816.32	1.79	ppb
Calcium	44-1	4939.81	4874.44	4978.51	4930.92	1.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	48.57	50.03	47.99	48.86	2.15	ppb
Cobalt	59-2	50.31	50.81	49.73	50.28	1.07	ppb
Copper	63-2	547.28	554.67	549.89	550.61	0.68	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				97		%
Indium	115-1				97		%
Indium	115-2				96		%
Iron	54-2	2626.65	2627.33	2617.43	2623.80	0.21	ppb
Iron	56-2	2667.92	2734.00	2681.95	2694.62	1.29	ppb
Iron	57-2	2545.59	2586.01	2557.77	2563.12	0.81	ppb
Krypton	83-1						cps
Lead	206-1	248.20	259.72	256.45	254.79	2.33	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	250.25	263.10	262.28	258.54	2.78	ppb
Lead	208-1	248.95	258.84	258.29	255.36	2.18	ppb
Lithium	6-1				98		%
Magnesium	24-2	5467.71	5419.48	5347.22	5411.47	1.12	ppb
Manganese	55-2	490.10	497.10	491.78	493.00	0.74	ppb
Molybdenum	94-1	504.14	510.54	528.63	514.44	2.47	ppb
Molybdenum	95-1	507.08	512.37	528.10	515.85	2.12	ppb
Molybdenum	96-1	506.71	504.88	526.45	512.68	2.33	ppb
Molybdenum	97-1	512.18	511.53	525.11	516.27	1.48	ppb
Molybdenum	98-1	503.93	505.63	523.09	510.88	2.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	49.77	51.74	50.91	50.81	1.94	ppb
Phosphorus	31-2	942.15	982.62	1014.39	979.72	3.70	ppb
Potassium	39-2	2372.71	2417.81	2399.79	2396.77	0.95	ppb
Rhodium	103-1				98		%
Rhodium	103-2				96		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	49.47	51.76	52.52	51.25	3.09	ppb
Selenium	77-2	58.26	47.97	47.47	51.23	11.89	ppb
Selenium	78-2	41.09	52.69	51.87	48.55	13.33	ppb
Silicon	28-1	60.81	64.88	66.95	64.21	4.86	ppb
Silver	107-1	49.66	51.81	50.90	50.79	2.12	ppb
Silver	109-1	50.19	52.59	50.74	51.18	2.46	ppb
Sodium	23-2	5293.50	5449.45	5272.82	5338.59	1.81	ppb
Strontium	86-1	48.01	49.16	49.75	48.98	1.80	ppb
Strontium	88-1	50.43	51.69	52.07	51.40	1.67	ppb
Sulfur	34-1	743.14	790.04	906.33	813.17	10.33	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	46.22	47.75	48.20	47.39	2.20	ppb
Thallium	205-1	50.35	51.22	50.52	50.70	0.91	ppb
Tin	118-1	48.94	50.57	49.44	49.65	1.68	ppb
Titanium	47-1	503.07	508.80	512.17	508.01	0.91	ppb
Uranium	238-1	47.85	50.60	50.75	49.73	3.29	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	48.92	48.76	48.07	48.58	0.93	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	508.12	512.79	510.88	510.59	0.46	ppb
Zirconium	90-1	50.24	51.57	52.59	51.47	2.29	ppb
Zirconium	91-1	47.60	48.50	49.21	48.44	1.67	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2502.09	2482.90	2470.32	2485.10	0.64	ppb
Antimony	121-1	131.22	133.80	129.77	131.60	1.55	ppb
Arsenic	75-2	131.73	126.72	126.42	128.29	2.32	ppb
Barium	135-1	663.60	659.83	643.37	655.60	1.64	ppb
Barium	137-1	646.72	658.75	649.28	651.59	0.97	ppb
Beryllium	9-1	124.89	130.11	126.34	127.11	2.12	ppb
Bismuth	209-1				98		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	132.49	131.60	130.00	131.36	0.96	ppb
Cadmium	106-1	131.07	130.07	129.28	130.14	0.69	ppb
Cadmium	111-1	127.13	128.16	126.03	127.11	0.84	ppb
Calcium	43-1	12027.29	12373.92	12010.95	12137.38	1.69	ppb
Calcium	44-1	12538.94	12874.17	12420.67	12611.26	1.87	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	124.43	123.24	123.78	123.82	0.48	ppb
Cobalt	59-2	129.02	125.14	126.91	127.02	1.53	ppb
Copper	63-2	1385.33	1346.19	1367.75	1366.42	1.43	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				96		%
Indium	115-2				95		%
Iron	54-2	6681.46	6571.66	6587.08	6613.40	0.90	ppb
Iron	56-2	6892.38	6719.92	6769.18	6793.83	1.31	ppb
Iron	57-2	6501.89	6463.64	6488.45	6484.66	0.30	ppb
Krypton	83-1						cps
Lead	206-1	635.90	655.60	641.88	644.46	1.57	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	648.32	661.38	638.06	649.25	1.80	ppb
Lead	208-1	642.30	651.26	642.66	645.41	0.79	ppb
Lithium	6-1				97		%
Magnesium	24-2	13744.88	13638.55	13399.15	13594.19	1.30	ppb
Manganese	55-2	1340.40	1315.88	1320.16	1325.48	0.99	ppb
Molybdenum	94-1	1315.36	1300.76	1267.96	1294.69	1.87	ppb
Molybdenum	95-1	1312.38	1306.77	1284.82	1301.32	1.12	ppb
Molybdenum	96-1	1293.56	1304.57	1278.65	1292.26	1.01	ppb
Molybdenum	97-1	1304.29	1307.01	1263.89	1291.73	1.87	ppb
Molybdenum	98-1	1309.83	1313.09	1261.34	1294.75	2.24	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	128.11	128.07	128.16	128.11	0.04	ppb
Phosphorus	31-2	2462.81	2551.28	2599.39	2537.83	2.73	ppb
Potassium	39-2	6129.76	6053.69	6094.23	6092.56	0.62	ppb
Rhodium	103-1				96		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	130.23	130.14	129.17	129.85	0.45	ppb
Selenium	77-2	134.75	117.76	129.46	127.32	6.83	ppb
Selenium	78-2	138.99	115.38	122.95	125.77	9.58	ppb
Silicon	28-1	159.85	162.65	162.08	161.53	0.92	ppb
Silver	107-1	134.55	135.60	134.73	134.96	0.42	ppb
Silver	109-1	137.06	133.36	135.14	135.19	1.37	ppb
Sodium	23-2	13289.87	13029.04	13167.29	13162.06	0.99	ppb
Strontium	86-1	124.74	124.54	121.13	123.47	1.64	ppb
Strontium	88-1	132.05	129.18	125.75	128.99	2.44	ppb
Sulfur	34-1	2533.48	2699.57	2375.37	2536.14	6.39	ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	129.70	132.82	129.16	130.56	1.51	ppb
Thallium	205-1	129.52	128.78	129.26	129.19	0.29	ppb
Tin	118-1	130.18	133.69	130.20	131.36	1.54	ppb
Titanium	47-1	1305.74	1340.00	1270.37	1305.37	2.67	ppb
Uranium	238-1	127.04	127.61	124.93	126.53	1.12	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	124.47	123.42	123.40	123.77	0.50	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	1300.94	1278.23	1287.96	1289.04	0.88	ppb
Zirconium	90-1	130.71	131.00	129.38	130.36	0.66	ppb
Zirconium	91-1	124.63	122.93	121.54	123.03	1.26	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4867.58	4903.49	4872.46	4881.18	0.40	ppb
Antimony	121-1	256.02	259.94	257.84	257.93	0.76	ppb
Arsenic	75-2	250.90	254.56	257.41	254.29	1.28	ppb
Barium	135-1	1289.27	1287.85	1298.39	1291.84	0.44	ppb
Barium	137-1	1268.97	1274.53	1290.86	1278.12	0.89	ppb
Beryllium	9-1	256.46	262.73	254.73	257.97	1.63	ppb
Bismuth	209-1				97		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	259.41	266.30	261.44	262.38	1.35	ppb
Cadmium	106-1	260.95	260.24	264.18	261.79	0.80	ppb
Cadmium	111-1	248.80	250.79	252.47	250.69	0.73	ppb
Calcium	43-1	24996.47	24912.61	25161.59	25023.56	0.51	ppb
Calcium	44-1	24868.98	24632.87	24864.64	24788.83	0.54	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	240.29	244.76	243.64	242.89	0.96	ppb
Cobalt	59-2	260.66	263.91	264.57	263.05	0.80	ppb
Copper	63-2	2614.27	2638.47	2663.12	2638.62	0.93	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				97		%
Indium	115-2				95		%
Iron	54-2	13768.79	13915.13	13588.82	13757.58	1.19	ppb
Iron	56-2	13356.33	13399.91	13487.72	13414.65	0.50	ppb
Iron	57-2	12503.03	12693.75	12806.54	12667.77	1.21	ppb
Krypton	83-1						cps
Lead	206-1	1257.75	1280.51	1262.34	1266.87	0.95	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1262.51	1282.57	1260.75	1268.61	0.96	ppb
Lead	208-1	1264.85	1275.35	1264.50	1268.23	0.49	ppb
Lithium	6-1				97		%
Magnesium	24-2	26256.24	26561.76	26380.38	26399.46	0.58	ppb
Manganese	55-2	2567.69	2624.71	2623.55	2605.31	1.25	ppb
Molybdenum	94-1	2550.50	2547.85	2577.22	2558.52	0.64	ppb
Molybdenum	95-1	2576.92	2583.62	2556.33	2572.29	0.55	ppb
Molybdenum	96-1	2544.59	2547.78	2558.82	2550.40	0.29	ppb
Molybdenum	97-1	2552.24	2547.42	2565.55	2555.07	0.37	ppb
Molybdenum	98-1	2566.31	2554.73	2556.07	2559.04	0.25	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	244.82	251.05	250.22	248.70	1.36	ppb
Phosphorus	31-2	4956.88	5107.32	4951.59	5005.26	1.77	ppb
Potassium	39-2	12669.96	12644.10	12633.88	12649.31	0.15	ppb
Rhodium	103-1				95		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	259.34	258.69	256.74	258.26	0.52	ppb
Selenium	77-2	236.52	256.55	241.56	244.88	4.25	ppb
Selenium	78-2	255.49	250.15	248.77	251.47	1.41	ppb
Silicon	28-1	315.26	315.98	319.81	317.02	0.77	ppb
Silver	107-1	264.63	269.53	264.08	266.08	1.13	ppb
Silver	109-1	263.82	267.85	263.84	265.17	0.87	ppb
Sodium	23-2	26239.48	26064.28	26146.95	26150.24	0.34	ppb
Strontium	86-1	242.23	245.69	243.76	243.89	0.71	ppb
Strontium	88-1	251.93	257.10	256.72	255.25	1.13	ppb
Sulfur	34-1	5050.97	4945.91	5276.83	5091.24	3.32	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	256.84	258.68	254.61	256.71	0.79	ppb
Thallium	205-1	254.60	253.81	252.33	253.58	0.45	ppb
Tin	118-1	258.76	266.05	257.52	260.78	1.77	ppb
Titanium	47-1	2527.23	2485.22	2533.66	2515.37	1.05	ppb
Uranium	238-1	249.25	252.69	247.95	249.96	0.98	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	240.18	246.38	246.99	244.52	1.54	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				96		%
Zinc	66-2	2474.83	2534.56	2540.23	2516.54	1.44	ppb
Zirconium	90-1	254.05	255.54	251.59	253.73	0.79	ppb
Zirconium	91-1	258.72	260.92	255.81	258.48	0.99	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9977.31	9195.58	9465.33	9546.07	4.16	ppb
Antimony	121-1	505.47	478.41	509.55	497.81	3.40	ppb
Arsenic	75-2	528.49	486.62	498.03	504.38	4.29	ppb
Barium	135-1	2524.48	2404.09	2535.04	2487.87	2.92	ppb
Barium	137-1	2568.50	2416.24	2569.84	2518.19	3.51	ppb
Beryllium	9-1	519.06	489.64	510.39	506.36	2.99	ppb
Bismuth	209-1				97		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	518.20	484.48	513.91	505.53	3.63	ppb
Cadmium	106-1	522.50	485.11	507.84	505.15	3.73	ppb
Cadmium	111-1	526.33	502.46	520.23	516.34	2.40	ppb
Calcium	43-1	50596.82	47178.05	48428.05	48734.31	3.55	ppb
Calcium	44-1	49922.13	47392.72	48124.33	48479.73	2.68	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	531.26	494.28	508.33	511.29	3.65	ppb
Cobalt	59-2	531.01	491.50	510.85	511.12	3.86	ppb
Copper	63-2	5338.05	4927.16	5094.56	5119.92	4.04	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				101		%
Holmium	165-2				98		%
Indium	115-1				97		%
Indium	115-2				93		%
Iron	54-2	28018.00	25849.64	26251.99	26706.54	4.32	ppb
Iron	56-2	27068.79	25083.54	26255.05	26135.79	3.82	ppb
Iron	57-2	27668.26	25102.96	26411.57	26394.26	4.86	ppb
Krypton	83-1						cps
Lead	206-1	2536.91	2377.75	2481.50	2465.39	3.28	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2537.07	2383.78	2502.58	2474.48	3.25	ppb
Lead	208-1	2550.05	2381.04	2513.91	2481.67	3.59	ppb
Lithium	6-1				98		%
Magnesium	24-2	54506.59	50200.13	51462.12	52056.28	4.25	ppb
Manganese	55-2	5254.83	4867.74	5035.11	5052.56	3.84	ppb
Molybdenum	94-1	5152.38	4891.51	5003.40	5015.76	2.61	ppb
Molybdenum	95-1	5117.54	4889.84	4993.36	5000.25	2.28	ppb
Molybdenum	96-1	5150.31	4849.61	4982.94	4994.29	3.02	ppb
Molybdenum	97-1	5123.39	4860.35	5017.74	5000.49	2.65	ppb
Molybdenum	98-1	5163.56	4853.61	4989.18	5002.12	3.11	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	496.15	468.54	477.06	480.58	2.94	ppb
Phosphorus	31-2	10476.35	9747.11	9922.43	10048.63	3.79	ppb
Potassium	39-2	26059.52	24340.44	24817.56	25072.51	3.54	ppb
Rhodium	103-1				95		%
Rhodium	103-2				93		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	504.47	491.21	507.50	501.06	1.73	ppb
Selenium	77-2	492.18	515.12	502.49	503.27	2.28	ppb
Selenium	78-2	522.37	478.60	500.90	500.63	4.37	ppb
Silicon	28-1	637.70	602.96	632.63	624.43	3.01	ppb
Silver	107-1	520.37	488.46	510.64	506.49	3.23	ppb
Silver	109-1	516.10	489.88	522.26	509.41	3.37	ppb
Sodium	23-2	54094.76	49666.73	51196.19	51652.56	4.35	ppb
Strontium	86-1	525.74	492.07	513.37	510.39	3.34	ppb
Strontium	88-1	516.96	478.57	503.87	499.80	3.90	ppb
Sulfur	34-1	10531.52	9494.95	10317.68	10114.72	5.41	ppb
Terbium	159-1				100		%
Terbium	159-2				98		%
Thallium	203-1	502.24	476.19	489.51	489.31	2.66	ppb
Thallium	205-1	510.43	481.31	502.26	498.00	3.02	ppb
Tin	118-1	509.05	483.05	509.04	500.38	3.00	ppb
Titanium	47-1	5085.09	4871.80	4928.82	4961.90	2.23	ppb
Uranium	238-1	504.39	473.75	503.85	494.00	3.55	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	500.39	465.28	503.13	489.60	4.31	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	5373.72	5005.70	5169.24	5182.89	3.56	ppb
Zirconium	90-1	513.62	484.82	504.48	500.97	2.94	ppb
Zirconium	91-1	510.06	487.28	499.53	498.96	2.28	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20093.09	20081.27	19872.43	20015.59	0.62	ppb
Antimony	121-1	1003.00	993.87	998.18	998.35	0.46	ppb
Arsenic	75-2	991.36	992.25	1005.37	996.32	0.79	ppb
Barium	135-1	4972.46	5044.75	4959.01	4992.07	0.92	ppb
Barium	137-1	4961.35	5032.63	4946.18	4980.05	0.93	ppb
Beryllium	9-1	998.18	988.20	997.27	994.55	0.56	ppb
Bismuth	209-1				95		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	980.46	1007.38	991.77	993.20	1.36	ppb
Cadmium	106-1	985.07	1001.61	994.50	993.73	0.83	ppb
Cadmium	111-1	999.10	996.26	978.77	991.37	1.11	ppb
Calcium	43-1	95476.80	97139.80	95010.69	95875.76	1.17	ppb
Calcium	44-1	96679.14	97680.32	96590.50	96983.32	0.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	996.30	996.27	996.43	996.33	0.01	ppb
Cobalt	59-2	1003.09	986.74	982.90	990.91	1.08	ppb
Copper	63-2	10046.23	9825.73	9792.94	9888.30	1.39	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				98		%
Indium	115-1				94		%
Indium	115-2				91		%
Iron	54-2	52513.05	51753.58	51799.24	52021.96	0.82	ppb
Iron	56-2	51804.47	51526.09	51295.23	51541.93	0.49	ppb
Iron	57-2	52624.49	52493.93	51994.00	52370.80	0.64	ppb
Krypton	83-1						cps
Lead	206-1	5023.89	5034.62	4972.74	5010.42	0.66	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4982.17	5033.78	4998.00	5004.65	0.53	ppb
Lead	208-1	4993.33	5035.17	4976.87	5001.79	0.60	ppb
Lithium	6-1				96		%
Magnesium	24-2	102859.05	102740.42	101132.22	102243.90	0.94	ppb
Manganese	55-2	10024.45	9899.02	9891.45	9938.31	0.75	ppb
Molybdenum	94-1	9893.98	9970.32	10049.23	9971.18	0.78	ppb
Molybdenum	95-1	9907.72	9939.73	10076.33	9974.60	0.90	ppb
Molybdenum	96-1	9887.20	9934.21	10131.61	9984.34	1.30	ppb
Molybdenum	97-1	9798.61	9999.97	10141.29	9979.96	1.73	ppb
Molybdenum	98-1	9845.77	9923.74	10164.62	9978.04	1.67	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1019.05	1013.40	996.37	1009.60	1.17	ppb
Phosphorus	31-2	20050.17	19928.02	19933.77	19970.65	0.35	ppb
Potassium	39-2	49588.55	48680.69	48831.63	49033.63	0.99	ppb
Rhodium	103-1				92		%
Rhodium	103-2				92		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	991.70	984.17	1014.33	996.74	1.57	ppb
Selenium	77-2	1032.01	961.70	1004.21	999.30	3.54	ppb
Selenium	78-2	996.21	994.98	1006.70	999.30	0.64	ppb
Silicon	28-1	922.50	914.87	910.06	915.81	0.68	ppb
Silver	107-1	990.83	1005.80	977.72	991.45	1.42	ppb
Silver	109-1	983.53	1002.18	984.79	990.17	1.05	ppb
Sodium	23-2	102490.05	101613.15	101589.59	101897.60	0.50	ppb
Strontium	86-1	993.82	991.35	1004.55	996.57	0.70	ppb
Strontium	88-1	991.71	993.19	1009.76	998.22	1.00	ppb
Sulfur	34-1	20041.61	20207.99	19524.37	19924.66	1.79	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	1001.10	1017.13	991.07	1003.10	1.31	ppb
Thallium	205-1	1003.44	1003.32	991.89	999.55	0.66	ppb
Tin	118-1	996.48	998.81	993.73	996.34	0.26	ppb
Titanium	47-1	9959.62	10100.77	9963.27	10007.88	0.80	ppb
Uranium	238-1	999.32	1007.10	1002.08	1002.83	0.39	ppb

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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	1006.43	987.34	1026.61	1006.80	1.95	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				96		%
Zinc	66-2	9954.96	9812.72	9929.35	9899.01	0.77	ppb
Zirconium	90-1	995.24	991.33	1006.94	997.84	0.81	ppb
Zirconium	91-1	996.38	990.55	1009.24	998.73	0.96	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	101290.88	99989.60	98865.73	100048.73	1.21	ppb
Antimony	121-1	0.47	0.44	0.53	0.48	9.49	ppb
Arsenic	75-2	0.38	0.33	0.50	0.41	21.68	ppb
Barium	135-1	2.45	2.31	2.49	2.42	4.03	ppb
Barium	137-1	2.41	2.39	2.59	2.46	4.49	ppb
Beryllium	9-1	0.30	0.28	0.28	0.29	4.81	ppb
Bismuth	209-1				78		%
Bismuth	209-2				80		%
Bromine	81-1						cps
Cadmium	108-1	0.68	0.77	0.73	0.73	5.82	ppb
Cadmium	106-1	-1.48	-1.16	-0.84	-1.16		ppb
Cadmium	111-1	0.11	0.14	0.15	0.14	14.56	ppb
Calcium	43-1	480645.52	469988.13	552249.75	500961.13	8.93	ppb
Calcium	44-1	483536.10	469612.77	549142.59	500763.82	8.48	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.72	2.61	2.81	2.71	3.69	ppb
Cobalt	59-2	1.92	1.92	2.00	1.95	2.58	ppb
Copper	63-2	1.86	1.87	1.83	1.85	1.04	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				89		%
Holmium	165-2				92		%
Indium	115-1				81		%
Indium	115-2				85		%
Iron	54-2	249054.35	247756.64	251244.26	249351.75	0.71	ppb
Iron	56-2	249992.56	248733.96	249823.76	249516.76	0.27	ppb
Iron	57-2	248331.78	248883.99	250898.81	249371.53	0.54	ppb
Krypton	83-1						cps
Lead	206-1	1.16	1.15	1.25	1.19	4.52	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.12	1.17	1.23	1.17	4.80	ppb
Lead	208-1	1.13	1.16	1.25	1.18	4.99	ppb
Lithium	6-1				85		%
Magnesium	24-2	499308.46	501707.00	496716.87	499244.11	0.50	ppb
Manganese	55-2	4.43	4.47	4.66	4.52	2.64	ppb
Molybdenum	94-1	7.38	7.26	8.00	7.55	5.24	ppb
Molybdenum	95-1	5.36	5.22	5.87	5.48	6.21	ppb
Molybdenum	96-1	5.66	5.54	6.20	5.80	6.09	ppb
Molybdenum	97-1	5.23	5.15	5.65	5.34	5.00	ppb
Molybdenum	98-1	5.06	5.00	5.60	5.22	6.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	3.10	3.00	2.96	3.02	2.39	ppb
Phosphorus	31-2	0.82	-6.46	-13.35	-6.33		ppb
Potassium	39-2	248310.23	251058.42	251181.87	250183.51	0.65	ppb
Rhodium	103-1				77		%
Rhodium	103-2				81		%
Scandium	45-1				87		%
Scandium	45-2				91		%
Selenium	82-1	-0.01	0.17	0.24	0.13	100.53	ppb
Selenium	77-2	-0.85	0.08	0.08	-0.23		ppb
Selenium	78-2	-0.30	-0.57	0.55	-0.11		ppb
Silicon	28-1	15.81	13.55	19.33	16.23	17.95	ppb
Silver	107-1	0.15	0.16	0.16	0.16	2.88	ppb
Silver	109-1	0.17	0.15	0.18	0.17	9.33	ppb
Sodium	23-2	493913.57	502506.76	501712.90	499377.74	0.95	ppb
Strontium	86-1	2.98	3.03	3.31	3.11	5.78	ppb
Strontium	88-1	3.02	3.00	3.38	3.13	6.78	ppb
Sulfur	34-1	-448.80	-656.44	690.10	-138.38		ppb
Terbium	159-1				87		%
Terbium	159-2				92		%
Thallium	203-1	0.11	0.10	0.09	0.10	8.54	ppb
Thallium	205-1	0.11	0.10	0.10	0.10	4.40	ppb
Tin	118-1	0.32	0.30	0.33	0.31	5.90	ppb
Titanium	47-1	2.20	2.17	2.57	2.31	9.50	ppb
Uranium	238-1	0.05	0.04	0.05	0.04	10.89	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.24	0.22	0.25	0.24	6.08	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				87		%
Yttrium	89-2				92		%
Zinc	66-2	5.05	4.90	5.49	5.15	5.91	ppb
Zirconium	90-1	1.60	1.59	1.78	1.66	6.56	ppb
Zirconium	91-1	1.71	1.62	1.84	1.72	6.29	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	478.23	466.12	478.49	474.28	1.49	ppb
Antimony	121-1	199.68	199.39	200.39	199.82	0.26	ppb
Arsenic	75-2	204.68	192.59	201.00	199.42	3.11	ppb
Barium	135-1	97.31	98.15	100.20	98.55	1.51	ppb
Barium	137-1	98.67	99.49	101.90	100.02	1.68	ppb
Beryllium	9-1	98.74	98.85	98.13	98.57	0.39	ppb
Bismuth	209-1				97		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	81.66	83.54	85.65	83.62	2.39	ppb
Cadmium	106-1	77.72	79.80	81.86	79.79	2.59	ppb
Cadmium	111-1	98.21	98.66	99.63	98.83	0.73	ppb
Calcium	43-1	1905.33	1904.46	1878.84	1896.21	0.79	ppb
Calcium	44-1	2000.88	1980.20	1983.72	1988.27	0.56	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	98.87	94.44	96.04	96.45	2.32	ppb
Cobalt	59-2	100.95	96.80	98.45	98.73	2.12	ppb
Copper	63-2	106.20	101.18	103.08	103.49	2.45	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				96		%
Indium	115-1				96		%
Indium	115-2				95		%
Iron	54-2	2151.21	2090.82	2118.20	2120.08	1.43	ppb
Iron	56-2	2146.85	2073.86	2137.29	2119.34	1.87	ppb
Iron	57-2	2055.36	1968.94	2001.68	2008.66	2.17	ppb
Krypton	83-1						cps
Lead	206-1	206.63	210.58	208.63	208.61	0.95	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	196.62	199.75	200.50	198.96	1.03	ppb
Lead	208-1	202.48	202.67	202.62	202.59	0.05	ppb
Lithium	6-1				95		%
Magnesium	24-2	1166.63	1115.61	1144.58	1142.27	2.24	ppb
Manganese	55-2	98.54	96.16	98.71	97.81	1.46	ppb
Molybdenum	94-1	0.08	0.11	0.08	0.09	18.73	ppb
Molybdenum	95-1	0.04	0.03	0.03	0.03	23.36	ppb
Molybdenum	96-1	0.12	0.12	0.13	0.12	5.72	ppb
Molybdenum	97-1	0.04	0.04	0.06	0.05	26.27	ppb
Molybdenum	98-1	0.05	0.06	0.05	0.05	7.51	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	103.69	98.32	99.67	100.56	2.78	ppb
Phosphorus	31-2	-14.15	-12.21	-14.87	-13.74		ppb
Potassium	39-2	1913.43	1862.24	1899.87	1891.85	1.40	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				94		%
Scandium	45-2				96		%
Selenium	82-1	201.45	207.75	203.77	204.32	1.56	ppb
Selenium	77-2	209.25	183.27	209.73	200.75	7.54	ppb
Selenium	78-2	210.42	197.33	213.32	207.02	4.12	ppb
Silicon	28-1	0.09	0.69	0.29	0.36	86.02	ppb
Silver	107-1	45.41	46.35	47.17	46.31	1.90	ppb
Silver	109-1	46.21	46.97	47.69	46.96	1.58	ppb
Sodium	23-2	1978.91	1900.68	1955.88	1945.16	2.07	ppb
Strontium	86-1	0.21	0.21	0.19	0.21	5.79	ppb
Strontium	88-1	0.23	0.23	0.23	0.23	0.37	ppb
Sulfur	34-1	-522.78	-563.01	-550.01	-545.27		ppb
Terbium	159-1				96		%
Terbium	159-2				96		%
Thallium	203-1	200.89	200.45	198.62	199.98	0.60	ppb
Thallium	205-1	199.50	197.92	197.19	198.20	0.60	ppb
Tin	118-1	0.01	0.02	0.01	0.01	67.66	ppb
Titanium	47-1	0.00	-0.03	-0.02	-0.02		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	95.56	91.10	94.63	93.76	2.51	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	204.53	195.87	200.06	200.15	2.16	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	17.54	ppb
Zirconium	91-1	0.12	0.14	0.12	0.13	6.26	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19.28	19.14	18.16	18.86	3.22	ppb
Antimony	121-1	1.91	1.96	1.95	1.94	1.27	ppb
Arsenic	75-2	1.17	1.12	1.23	1.17	4.70	ppb
Barium	135-1	9.77	9.80	9.99	9.85	1.21	ppb
Barium	137-1	9.96	9.96	9.96	9.96	0.02	ppb
Beryllium	9-1	0.96	0.99	1.00	0.98	2.38	ppb
Bismuth	209-1				95		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	1.18	1.37	1.27	1.27	7.39	ppb
Cadmium	106-1	-2.80	-2.93	-2.64	-2.79		ppb
Cadmium	111-1	1.12	0.98	1.10	1.07	6.82	ppb
Calcium	43-1	483.96	469.67	503.44	485.69	3.49	ppb
Calcium	44-1	477.71	475.53	486.75	480.00	1.24	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.97	2.03	1.94	1.98	2.30	ppb
Cobalt	59-2	1.07	1.05	1.07	1.06	0.90	ppb
Copper	63-2	2.03	2.07	1.92	2.01	3.67	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				95		%
Holmium	165-2				94		%
Indium	115-1				93		%
Indium	115-2				92		%
Iron	54-2	55.12	54.94	53.32	54.46	1.83	ppb
Iron	56-2	54.31	53.15	52.87	53.45	1.43	ppb
Iron	57-2	47.80	52.52	54.72	51.68	6.84	ppb
Krypton	83-1						cps
Lead	206-1	0.98	0.96	0.96	0.97	0.80	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.98	1.01	1.00	1.00	1.54	ppb
Lead	208-1	0.99	0.98	1.00	0.99	0.85	ppb
Lithium	6-1				94		%
Magnesium	24-2	524.42	526.42	521.69	524.18	0.45	ppb
Manganese	55-2	1.03	1.06	1.03	1.04	1.35	ppb
Molybdenum	94-1	5.60	5.80	5.74	5.71	1.74	ppb
Molybdenum	95-1	4.82	4.93	4.86	4.87	1.05	ppb
Molybdenum	96-1	4.90	4.96	4.96	4.94	0.64	ppb
Molybdenum	97-1	4.92	4.90	5.05	4.96	1.56	ppb
Molybdenum	98-1	4.75	4.91	4.84	4.83	1.59	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.26	1.17	1.07	1.17	8.48	ppb
Phosphorus	31-2	23.94	9.56	38.86	24.12	60.74	ppb
Potassium	39-2	483.35	485.38	478.00	482.24	0.79	ppb
Rhodium	103-1				92		%
Rhodium	103-2				93		%
Scandium	45-1				91		%
Scandium	45-2				91		%
Selenium	82-1	4.67	5.37	5.06	5.03	7.03	ppb
Selenium	77-2	8.49	4.72	1.02	4.74	78.70	ppb
Selenium	78-2	3.04	4.12	5.29	4.15	27.11	ppb
Silicon	28-1	3.10	3.03	3.55	3.23	8.67	ppb
Silver	107-1	0.92	0.97	0.94	0.94	2.83	ppb
Silver	109-1	0.93	0.96	0.96	0.95	2.10	ppb
Sodium	23-2	508.28	504.24	501.46	504.66	0.68	ppb
Strontium	86-1	0.95	0.95	0.97	0.95	1.32	ppb
Strontium	88-1	0.97	1.00	0.98	0.98	1.42	ppb
Sulfur	34-1	-146.09	-172.99	-102.71	-140.59		ppb
Terbium	159-1				95		%
Terbium	159-2				94		%
Thallium	203-1	0.91	0.92	0.93	0.92	0.84	ppb
Thallium	205-1	0.94	0.92	0.95	0.94	1.80	ppb
Tin	118-1	4.94	4.98	4.97	4.96	0.38	ppb
Titanium	47-1	4.79	4.70	5.00	4.83	3.19	ppb
Uranium	238-1	0.93	0.90	0.91	0.92	1.80	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.80	4.80	4.89	4.83	1.12	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				92		%
Yttrium	89-2				92		%
Zinc	66-2	5.23	5.17	5.11	5.17	1.09	ppb
Zirconium	90-1	0.98	0.97	1.00	0.98	1.76	ppb
Zirconium	91-1	0.99	1.01	0.98	0.99	1.17	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.07	0.01	0.01	0.03	98.51	ppb
Antimony	121-1	0.01	0.01	0.00	0.00	40.01	ppb
Arsenic	75-2	-0.01	-0.04	-0.03	-0.03		ppb
Barium	135-1	0.04	0.05	0.06	0.05	16.32	ppb
Barium	137-1	0.04	0.04	0.04	0.04	7.91	ppb
Beryllium	9-1	0.00	0.01	0.00	0.00	165.85	ppb
Bismuth	209-1				95		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.06	0.00	0.05	0.04	77.42	ppb
Cadmium	106-1	-3.30	-4.37	-4.03	-3.90		ppb
Cadmium	111-1	-0.25	-0.33	-0.30	-0.29		ppb
Calcium	43-1	-8.01	-7.66	-5.73	-7.13		ppb
Calcium	44-1	-10.54	-10.48	-10.36	-10.46		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.03	0.00	0.01	152.28	ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	177.56	ppb
Copper	63-2	-0.15	-0.14	-0.14	-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				95		%
Holmium	165-2				94		%
Indium	115-1				93		%
Indium	115-2				92		%
Iron	54-2	0.11	0.33	0.00	0.15	112.13	ppb
Iron	56-2	0.38	0.32	0.31	0.34	11.65	ppb
Iron	57-2	0.91	-1.00	-0.02	-0.04		ppb
Krypton	83-1						cps
Lead	206-1	0.04	0.04	0.04	0.04	8.13	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.03	0.05	0.04	0.04	17.51	ppb
Lead	208-1	0.04	0.05	0.04	0.04	8.15	ppb
Lithium	6-1				93		%
Magnesium	24-2	-0.31	0.05	0.40	0.05	779.15	ppb
Manganese	55-2	0.09	0.02	0.10	0.07	61.08	ppb
Molybdenum	94-1	-0.01	0.00	0.00	0.00		ppb
Molybdenum	95-1	0.02	0.00	-0.01	0.00	301.09	ppb
Molybdenum	96-1	0.01	-0.01	0.00	0.00	1220.16	ppb
Molybdenum	97-1	0.01	0.00	0.00	0.00	511.86	ppb
Molybdenum	98-1	0.02	0.01	0.01	0.01	30.42	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.09	0.08	0.10	0.09	12.35	ppb
Phosphorus	31-2	-10.85	-15.51	-22.68	-16.34		ppb
Potassium	39-2	-2.81	-4.07	-3.85	-3.58		ppb
Rhodium	103-1				93		%
Rhodium	103-2				92		%
Scandium	45-1				91		%
Scandium	45-2				91		%
Selenium	82-1	0.14	0.09	0.32	0.18	66.75	ppb
Selenium	77-2	-0.85	-0.85	-0.85	-0.85		ppb
Selenium	78-2	0.55	-0.58	-0.57	-0.20		ppb
Silicon	28-1	-1.15	-0.93	-1.27	-1.12		ppb
Silver	107-1	0.00	0.00	0.00	0.00	105.99	ppb
Silver	109-1	0.01	0.00	0.00	0.00	50.06	ppb
Sodium	23-2	-5.24	-4.07	-3.40	-4.24		ppb
Strontium	86-1	-0.03	-0.03	-0.01	-0.02		ppb
Strontium	88-1	-0.01	-0.02	-0.01	-0.01		ppb
Sulfur	34-1	-299.51	-206.32	-249.40	-251.75		ppb
Terbium	159-1				94		%
Terbium	159-2				94		%
Thallium	203-1	0.00	0.00	0.00	0.00	172.36	ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	0.01	0.01	0.02	0.01	27.51	ppb
Titanium	47-1	-0.01	-0.04	-0.03	-0.03		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	134.26	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				92		%
Zinc	66-2	0.13	0.15	-0.01	0.09	96.30	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00		ppb
Zirconium	91-1	0.01	0.01	0.00	0.00	69.49	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	96293.54	95381.45	95972.93	95882.64	0.48	ppb
Antimony	121-1	1.05	1.07	1.07	1.06	0.57	ppb
Arsenic	75-2	0.22	0.43	0.23	0.29	39.97	ppb
Barium	135-1	1.39	1.38	1.35	1.37	1.57	ppb
Barium	137-1	1.41	1.43	1.36	1.40	2.76	ppb
Beryllium	9-1	0.27	0.27	0.26	0.27	2.23	ppb
Bismuth	209-1				88		%
Bismuth	209-2				87		%
Bromine	81-1						cps
Cadmium	108-1	16.68	18.11	17.55	17.45	4.11	ppb
Cadmium	106-1	-4.43	-3.90	-4.14	-4.16		ppb
Cadmium	111-1	0.33	0.25	0.32	0.30	15.41	ppb
Calcium	43-1	102681.77	101247.25	97133.61	100354.21	2.87	ppb
Calcium	44-1	101175.69	100412.56	98493.91	100027.39	1.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	18.62	18.61	18.75	18.66	0.40	ppb
Cobalt	59-2	1.14	1.09	1.12	1.12	2.48	ppb
Copper	63-2	7.84	7.85	7.64	7.78	1.54	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				95		%
Indium	115-1				88		%
Indium	115-2				89		%
Iron	54-2	105857.52	104840.18	104952.86	105216.85	0.53	ppb
Iron	56-2	107110.75	106224.04	105244.09	106192.96	0.88	ppb
Iron	57-2	105673.79	106717.89	105724.59	106038.75	0.56	ppb
Krypton	83-1						cps
Lead	206-1	4.47	4.59	4.51	4.52	1.25	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4.09	4.17	4.23	4.16	1.71	ppb
Lead	208-1	4.23	4.32	4.29	4.28	1.03	ppb
Lithium	6-1				90		%
Magnesium	24-2	98836.01	99078.48	99878.48	99264.32	0.55	ppb
Manganese	55-2	7.66	7.50	7.51	7.56	1.22	ppb
Molybdenum	94-1	1663.09	1676.52	1618.27	1652.62	1.85	ppb
Molybdenum	95-1	2017.28	2036.23	2006.06	2019.86	0.75	ppb
Molybdenum	96-1	1980.38	1969.25	1942.60	1964.08	0.99	ppb
Molybdenum	97-1	2008.91	1994.55	1962.23	1988.56	1.20	ppb
Molybdenum	98-1	2000.79	2026.16	1966.31	1997.75	1.50	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.05	5.11	4.96	5.04	1.58	ppb
Phosphorus	31-2	102327.63	102724.59	103537.93	102863.38	0.60	ppb
Potassium	39-2	100183.64	102028.31	101113.00	101108.32	0.91	ppb
Rhodium	103-1				86		%
Rhodium	103-2				87		%
Scandium	45-1				91		%
Scandium	45-2				91		%
Selenium	82-1	0.00	-0.09	-0.16	-0.08		ppb
Selenium	77-2	-0.85	0.06	-0.85	-0.55		ppb
Selenium	78-2	-0.31	0.24	1.63	0.52	193.26	ppb
Silicon	28-1	17.21	16.79	16.16	16.72	3.16	ppb
Silver	107-1	0.07	0.07	0.07	0.07	3.64	ppb
Silver	109-1	0.08	0.08	0.07	0.08	5.10	ppb
Sodium	23-2	104513.69	105432.19	104853.14	104933.01	0.44	ppb
Strontium	86-1	32.81	33.25	32.93	33.00	0.68	ppb
Strontium	88-1	34.95	34.89	34.78	34.87	0.24	ppb
Sulfur	34-1	101930.97	100624.60	97575.77	100043.78	2.23	ppb
Terbium	159-1				94		%
Terbium	159-2				93		%
Thallium	203-1	0.05	0.07	0.07	0.06	21.33	ppb
Thallium	205-1	0.05	0.07	0.07	0.06	22.02	ppb
Tin	118-1	0.18	0.19	0.15	0.17	12.43	ppb
Titanium	47-1	2066.84	2094.61	2055.16	2072.20	0.98	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	7.37	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.14	0.16	0.15	0.15	8.27	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				92		%
Yttrium	89-2				94		%
Zinc	66-2	10.73	10.94	10.94	10.87	1.14	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	4.76	ppb
Zirconium	91-1	0.01	0.01	0.02	0.01	47.19	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	98506.17	96848.49	95553.05	96969.24	1.53	ppb
Antimony	121-1	20.61	20.56	20.86	20.68	0.78	ppb
Arsenic	75-2	21.18	20.36	19.32	20.29	4.61	ppb
Barium	135-1	21.13	21.61	21.11	21.28	1.32	ppb
Barium	137-1	21.40	21.22	21.69	21.44	1.09	ppb
Beryllium	9-1	20.06	20.36	20.66	20.36	1.47	ppb
Bismuth	209-1				89		%
Bismuth	209-2				88		%
Bromine	81-1						cps
Cadmium	108-1	32.40	31.58	33.09	32.35	2.34	ppb
Cadmium	106-1	11.70	11.51	11.60	11.60	0.79	ppb
Cadmium	111-1	19.15	19.64	19.48	19.42	1.28	ppb
Calcium	43-1	100122.45	101796.73	102123.07	101347.42	1.06	ppb
Calcium	44-1	100337.86	101894.85	102502.62	101578.45	1.10	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	38.11	38.18	37.73	38.01	0.65	ppb
Cobalt	59-2	20.66	20.15	20.57	20.46	1.32	ppb
Copper	63-2	27.53	27.57	27.80	27.63	0.53	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				95		%
Holmium	165-2				96		%
Indium	115-1				90		%
Indium	115-2				91		%
Iron	54-2	108561.34	107761.77	104998.37	107107.16	1.75	ppb
Iron	56-2	108853.25	107538.89	106350.13	107580.76	1.16	ppb
Iron	57-2	109098.82	105429.97	107366.14	107298.31	1.71	ppb
Krypton	83-1						cps
Lead	206-1	24.31	24.50	24.04	24.28	0.95	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	23.52	23.66	23.65	23.61	0.32	ppb
Lead	208-1	23.82	24.00	23.74	23.85	0.55	ppb
Lithium	6-1				92		%
Magnesium	24-2	100510.39	99965.42	100039.92	100171.91	0.29	ppb
Manganese	55-2	27.08	27.04	27.27	27.13	0.46	ppb
Molybdenum	94-1	1642.59	1676.54	1650.90	1656.67	1.07	ppb
Molybdenum	95-1	1983.62	2059.09	2017.62	2020.11	1.87	ppb
Molybdenum	96-1	1971.72	2000.03	1951.99	1974.58	1.22	ppb
Molybdenum	97-1	2006.14	2016.58	1986.39	2003.03	0.77	ppb
Molybdenum	98-1	1993.11	2035.76	2014.96	2014.61	1.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	24.48	23.32	24.14	23.98	2.49	ppb
Phosphorus	31-2	105595.84	103649.59	104126.16	104457.20	0.97	ppb
Potassium	39-2	103338.42	101357.99	102112.49	102269.63	0.98	ppb
Rhodium	103-1				88		%
Rhodium	103-2				88		%
Scandium	45-1				94		%
Scandium	45-2				94		%
Selenium	82-1	20.26	21.44	20.97	20.89	2.84	ppb
Selenium	77-2	23.25	17.65	26.38	22.43	19.72	ppb
Selenium	78-2	20.66	18.97	24.27	21.30	12.71	ppb
Silicon	28-1	18.08	18.62	18.79	18.50	1.99	ppb
Silver	107-1	18.18	18.29	18.48	18.32	0.82	ppb
Silver	109-1	18.48	18.22	18.47	18.39	0.81	ppb
Sodium	23-2	106833.16	103958.57	104811.09	105200.94	1.40	ppb
Strontium	86-1	33.28	33.51	33.38	33.39	0.35	ppb
Strontium	88-1	34.90	35.61	35.25	35.25	1.00	ppb
Sulfur	34-1	101022.14	101649.50	101991.48	101554.37	0.48	ppb
Terbium	159-1				95		%
Terbium	159-2				95		%
Thallium	203-1	19.35	19.39	19.49	19.41	0.38	ppb
Thallium	205-1	19.98	20.03	19.81	19.94	0.56	ppb
Tin	118-1	0.15	0.16	0.15	0.15	2.33	ppb
Titanium	47-1	2085.22	2128.58	2109.84	2107.88	1.03	ppb
Uranium	238-1	0.01	0.02	0.01	0.01	9.85	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	19.56	19.39	19.44	19.46	0.45	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				94		%
Zinc	66-2	30.36	30.78	30.29	30.48	0.86	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	18.28	ppb
Zirconium	91-1	0.03	0.02	0.03	0.02	22.72	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51720.70	50281.29	50882.59	50961.53	1.42	ppb
Antimony	121-1	468.98	479.40	477.20	475.19	1.16	ppb
Arsenic	75-2	465.72	462.13	477.84	468.56	1.76	ppb
Barium	135-1	2521.31	2531.89	2506.11	2519.77	0.51	ppb
Barium	137-1	2536.08	2524.63	2477.80	2512.84	1.23	ppb
Beryllium	9-1	491.23	497.30	506.81	498.45	1.58	ppb
Bismuth	209-1				83		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Cadmium	108-1	477.27	473.20	468.84	473.10	0.89	ppb
Cadmium	106-1	472.90	477.59	469.62	473.37	0.85	ppb
Cadmium	111-1	479.84	476.98	470.32	475.72	1.03	ppb
Calcium	43-1	244007.09	241404.62	244463.42	243291.71	0.68	ppb
Calcium	44-1	246786.51	245578.54	244239.57	245534.87	0.52	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	490.47	471.63	484.17	482.09	1.99	ppb
Cobalt	59-2	465.27	457.26	469.49	464.01	1.34	ppb
Copper	63-2	4605.17	4596.56	4640.72	4614.15	0.51	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				92		%
Holmium	165-2				93		%
Indium	115-1				85		%
Indium	115-2				88		%
Iron	54-2	125017.15	123174.42	123407.56	123866.38	0.81	ppb
Iron	56-2	124244.70	124251.71	124331.55	124275.98	0.04	ppb
Iron	57-2	124340.66	122518.17	123230.11	123362.98	0.74	ppb
Krypton	83-1						cps
Lead	206-1	2579.31	2521.94	2599.31	2566.85	1.56	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2579.75	2499.61	2551.83	2543.73	1.60	ppb
Lead	208-1	2575.58	2520.48	2564.80	2553.62	1.14	ppb
Lithium	6-1				88		%
Magnesium	24-2	247445.46	244222.78	246552.31	246073.51	0.68	ppb
Manganese	55-2	4908.43	4872.68	4888.07	4889.73	0.37	ppb
Molybdenum	94-1	5127.58	5093.99	5045.58	5089.05	0.81	ppb
Molybdenum	95-1	5083.81	5063.36	5012.45	5053.21	0.73	ppb
Molybdenum	96-1	5082.82	5006.63	5037.88	5042.44	0.76	ppb
Molybdenum	97-1	5093.25	4990.00	4964.12	5015.79	1.36	ppb
Molybdenum	98-1	5083.45	5038.47	4942.58	5021.50	1.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	456.64	451.00	455.46	454.37	0.65	ppb
Phosphorus	31-2	9676.50	9593.25	9728.68	9666.14	0.71	ppb
Potassium	39-2	123560.57	120372.01	123722.45	122551.68	1.54	ppb
Rhodium	103-1				82		%
Rhodium	103-2				85		%
Scandium	45-1				90		%
Scandium	45-2				95		%
Selenium	82-1	474.61	470.17	466.54	470.44	0.86	ppb
Selenium	77-2	428.03	465.32	456.44	449.93	4.33	ppb
Selenium	78-2	459.47	445.23	457.46	454.06	1.70	ppb
Silicon	28-1	500.28	498.22	503.40	500.63	0.52	ppb
Silver	107-1	472.94	470.49	472.93	472.12	0.30	ppb
Silver	109-1	477.95	476.15	463.84	472.65	1.62	ppb
Sodium	23-2	246065.57	243980.75	247003.95	245683.42	0.63	ppb
Strontium	86-1	511.14	501.76	506.23	506.37	0.93	ppb
Strontium	88-1	504.39	495.40	496.58	498.79	0.98	ppb
Sulfur	34-1	10026.22	9950.28	10067.80	10014.77	0.60	ppb
Terbium	159-1				91		%
Terbium	159-2				93		%
Thallium	203-1	499.69	496.46	512.36	502.84	1.67	ppb
Thallium	205-1	508.09	499.75	511.47	506.43	1.19	ppb
Tin	118-1	493.44	493.41	492.08	492.98	0.16	ppb
Titanium	47-1	5060.80	4972.30	5019.45	5017.52	0.88	ppb
Uranium	238-1	542.88	520.50	536.51	533.30	2.16	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	457.21	452.37	455.21	454.93	0.53	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				90		%
Yttrium	89-2				93		%
Zinc	66-2	4763.53	4695.13	4802.25	4753.64	1.14	ppb
Zirconium	90-1	530.11	519.90	516.02	522.01	1.40	ppb
Zirconium	91-1	538.38	525.72	524.59	529.56	1.45	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.09	1.33	1.51	1.31	16.03	ppb
Antimony	121-1	0.09	0.07	0.07	0.08	9.88	ppb
Arsenic	75-2	-0.02	-0.01	0.00	-0.01		ppb
Barium	135-1	0.23	0.24	0.22	0.23	3.98	ppb
Barium	137-1	0.26	0.27	0.21	0.25	13.61	ppb
Beryllium	9-1	0.11	0.11	0.11	0.11	3.20	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.05	0.03	0.03	55.38	ppb
Cadmium	106-1	-4.45	-3.96	-4.19	-4.20		ppb
Cadmium	111-1	-0.32	-0.28	-0.29	-0.30		ppb
Calcium	43-1	-0.24	-3.94	-3.10	-2.43		ppb
Calcium	44-1	-5.01	-6.21	-6.25	-5.82		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.04	-0.01	0.01	-0.02		ppb
Cobalt	59-2	0.01	0.01	0.01	0.01	4.21	ppb
Copper	63-2	0.08	-0.01	-0.03	0.01	429.97	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				96		%
Indium	115-1				95		%
Indium	115-2				96		%
Iron	54-2	3.57	3.07	2.48	3.04	18.02	ppb
Iron	56-2	3.14	3.12	3.20	3.15	1.24	ppb
Iron	57-2	3.27	3.33	2.05	2.88	24.97	ppb
Krypton	83-1						cps
Lead	206-1	0.20	0.18	0.17	0.18	8.64	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.20	0.18	0.17	0.18	10.56	ppb
Lead	208-1	0.21	0.18	0.17	0.19	8.81	ppb
Lithium	6-1				96		%
Magnesium	24-2	3.38	2.99	2.94	3.10	7.61	ppb
Manganese	55-2	0.24	0.25	0.22	0.24	7.14	ppb
Molybdenum	94-1	0.15	0.15	0.11	0.14	15.84	ppb
Molybdenum	95-1	0.16	0.11	0.12	0.13	19.71	ppb
Molybdenum	96-1	0.17	0.13	0.12	0.14	18.37	ppb
Molybdenum	97-1	0.15	0.13	0.12	0.13	10.08	ppb
Molybdenum	98-1	0.16	0.14	0.11	0.13	17.99	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	0.01	-0.06	-0.02		ppb
Phosphorus	31-2	-8.32	-13.41	-18.33	-13.35		ppb
Potassium	39-2	4.40	2.49	3.22	3.37	28.59	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				96		%
Scandium	45-2				96		%
Selenium	82-1	-0.12	-0.31	0.26	-0.05		ppb
Selenium	77-2	-0.85	0.02	-0.85	-0.56		ppb
Selenium	78-2	-0.34	0.72	-0.59	-0.07		ppb
Silicon	28-1	-0.25	-0.36	-0.33	-0.31		ppb
Silver	107-1	0.03	0.03	0.03	0.03	2.60	ppb
Silver	109-1	0.03	0.03	0.03	0.03	10.61	ppb
Sodium	23-2	11.06	11.32	9.61	10.66	8.64	ppb
Strontium	86-1	-0.03	-0.06	-0.05	-0.05		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-1211.29	-1185.21	-1131.36	-1175.95		ppb
Terbium	159-1				95		%
Terbium	159-2				97		%
Thallium	203-1	0.05	0.05	0.04	0.04	13.67	ppb
Thallium	205-1	0.05	0.05	0.04	0.04	15.03	ppb
Tin	118-1	0.04	0.02	0.02	0.03	38.70	ppb
Titanium	47-1	0.09	0.07	0.06	0.07	23.31	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	15.56	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.01	0.01	0.01	36.49	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	0.04	0.05	-0.12	-0.01		ppb
Zirconium	90-1	0.02	0.01	0.02	0.02	32.61	ppb
Zirconium	91-1	0.03	0.02	0.01	0.02	41.03	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19.16	20.14	18.95	19.41	3.27	ppb
Antimony	121-1	1.94	1.97	1.95	1.95	0.80	ppb
Arsenic	75-2	1.25	0.85	0.86	0.99	22.97	ppb
Barium	135-1	9.85	9.79	10.12	9.92	1.75	ppb
Barium	137-1	10.14	10.04	10.34	10.17	1.49	ppb
Beryllium	9-1	1.00	1.06	1.05	1.04	2.91	ppb
Bismuth	209-1				97		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	1.31	1.28	1.33	1.31	1.93	ppb
Cadmium	106-1	-2.36	-2.70	-2.51	-2.52		ppb
Cadmium	111-1	1.01	1.04	1.11	1.05	4.92	ppb
Calcium	43-1	480.44	475.39	482.40	479.41	0.76	ppb
Calcium	44-1	468.96	477.82	471.24	472.68	0.97	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.90	1.87	1.88	1.88	0.85	ppb
Cobalt	59-2	1.06	1.08	1.01	1.05	3.06	ppb
Copper	63-2	1.98	1.95	2.02	1.98	1.88	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				96		%
Indium	115-1				97		%
Indium	115-2				96		%
Iron	54-2	54.63	56.13	54.89	55.22	1.45	ppb
Iron	56-2	54.09	54.49	54.75	54.44	0.61	ppb
Iron	57-2	53.34	51.57	55.01	53.31	3.23	ppb
Krypton	83-1						cps
Lead	206-1	1.00	1.03	1.03	1.02	1.37	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.03	1.00	1.02	1.02	1.21	ppb
Lead	208-1	1.02	1.03	1.03	1.03	0.66	ppb
Lithium	6-1				97		%
Magnesium	24-2	513.81	515.01	514.26	514.36	0.12	ppb
Manganese	55-2	1.15	1.34	1.17	1.22	8.63	ppb
Molybdenum	94-1	5.64	5.85	5.77	5.75	1.86	ppb
Molybdenum	95-1	4.74	4.78	4.93	4.81	2.12	ppb
Molybdenum	96-1	4.81	4.95	4.85	4.87	1.44	ppb
Molybdenum	97-1	4.78	4.81	4.85	4.82	0.75	ppb
Molybdenum	98-1	4.72	4.86	4.82	4.80	1.45	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.01	1.06	0.99	1.02	3.59	ppb
Phosphorus	31-2	11.86	19.56	4.40	11.94	63.47	ppb
Potassium	39-2	484.97	491.47	483.35	486.60	0.88	ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				97		%
Scandium	45-2				95		%
Selenium	82-1	4.69	4.47	5.11	4.75	6.88	ppb
Selenium	77-2	3.57	4.49	7.19	5.09	37.01	ppb
Selenium	78-2	4.68	3.92	5.53	4.71	17.14	ppb
Silicon	28-1	2.38	2.87	2.83	2.69	10.11	ppb
Silver	107-1	0.96	0.95	1.01	0.97	3.08	ppb
Silver	109-1	0.96	0.97	1.00	0.98	1.87	ppb
Sodium	23-2	500.35	506.63	505.22	504.07	0.65	ppb
Strontium	86-1	0.86	0.87	0.94	0.89	4.73	ppb
Strontium	88-1	0.91	0.94	0.95	0.93	2.52	ppb
Sulfur	34-1	-1081.35	-914.51	-1019.06	-1004.98		ppb
Terbium	159-1				96		%
Terbium	159-2				96		%
Thallium	203-1	0.92	0.92	0.91	0.92	0.52	ppb
Thallium	205-1	0.94	0.95	0.94	0.94	0.50	ppb
Tin	118-1	4.99	4.94	5.05	4.99	1.12	ppb
Titanium	47-1	4.53	4.87	4.72	4.71	3.60	ppb
Uranium	238-1	0.89	0.89	0.91	0.90	1.08	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.76	4.60	4.87	4.74	2.90	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	5.38	5.34	5.10	5.27	2.91	ppb
Zirconium	90-1	0.94	1.00	0.98	0.97	2.96	ppb
Zirconium	91-1	0.98	0.99	0.96	0.98	1.36	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.30	0.55	0.16	0.34	59.24	ppb
Antimony	121-1	0.02	0.01	0.02	0.02	18.67	ppb
Arsenic	75-2	-0.01	-0.01	-0.03	-0.02		ppb
Barium	135-1	0.14	0.14	0.16	0.15	5.67	ppb
Barium	137-1	0.16	0.14	0.15	0.15	7.06	ppb
Beryllium	9-1	0.04	0.03	0.03	0.03	15.77	ppb
Bismuth	209-1				96		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	0.04	0.06	0.02	0.04	58.44	ppb
Cadmium	106-1	-3.83	-4.60	-4.13	-4.19		ppb
Cadmium	111-1	-0.28	-0.35	-0.31	-0.31		ppb
Calcium	43-1	-6.29	-7.25	-6.67	-6.74		ppb
Calcium	44-1	-10.25	-10.33	-10.77	-10.45		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.01	0.00	0.03	0.01	350.29	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	48.72	ppb
Copper	63-2	-0.12	-0.13	-0.11	-0.12		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				94		%
Indium	115-2				93		%
Iron	54-2	0.06	0.30	0.94	0.43	105.88	ppb
Iron	56-2	1.14	0.84	0.96	0.98	15.30	ppb
Iron	57-2	0.21	0.89	1.26	0.79	67.98	ppb
Krypton	83-1						cps
Lead	206-1	0.07	0.06	0.06	0.07	8.95	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.06	0.07	0.07	0.07	6.09	ppb
Lead	208-1	0.07	0.07	0.07	0.07	1.45	ppb
Lithium	6-1				96		%
Magnesium	24-2	-0.30	-0.25	0.19	-0.12		ppb
Manganese	55-2	0.18	0.16	0.10	0.15	27.92	ppb
Molybdenum	94-1	0.02	0.02	0.03	0.02	22.70	ppb
Molybdenum	95-1	0.02	0.01	0.01	0.02	30.73	ppb
Molybdenum	96-1	0.02	0.01	0.02	0.02	32.30	ppb
Molybdenum	97-1	0.01	0.01	0.02	0.02	47.40	ppb
Molybdenum	98-1	0.02	0.00	0.02	0.01	57.39	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	-0.01	-0.04	-0.02		ppb
Phosphorus	31-2	-30.32	-5.37	-14.87	-16.86		ppb
Potassium	39-2	0.84	1.21	1.27	1.11	21.21	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				95		%
Scandium	45-2				94		%
Selenium	82-1	-0.19	-0.13	-0.14	-0.15		ppb
Selenium	77-2	0.05	-0.85	-0.85	-0.55		ppb
Selenium	78-2	-0.85	0.78	-0.01	-0.03		ppb
Silicon	28-1	-1.15	-0.74	-0.93	-0.94		ppb
Silver	107-1	0.01	0.01	0.00	0.01	28.76	ppb
Silver	109-1	0.01	0.01	0.01	0.01	18.91	ppb
Sodium	23-2	3.47	0.98	3.40	2.62	54.20	ppb
Strontium	86-1	-0.06	-0.05	-0.06	-0.06		ppb
Strontium	88-1	-0.03	-0.04	-0.03	-0.04		ppb
Sulfur	34-1	-684.03	-645.30	-753.53	-694.29		ppb
Terbium	159-1				95		%
Terbium	159-2				96		%
Thallium	203-1	0.02	0.02	0.01	0.02	19.31	ppb
Thallium	205-1	0.02	0.01	0.01	0.02	8.64	ppb
Tin	118-1	0.01	0.01	0.01	0.01	33.39	ppb
Titanium	47-1	-0.03	-0.03	-0.01	-0.03		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	209.66	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				95		%
Yttrium	89-2				93		%
Zinc	66-2	-0.22	-0.04	-0.19	-0.15		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	591.00	ppb
Zirconium	91-1	-0.01	0.01	0.00	0.00	417.69	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9512.44	9466.28	9609.58	9529.43	0.77	ppb
Antimony	121-1	512.96	508.56	503.62	508.38	0.92	ppb
Arsenic	75-2	494.82	506.34	505.12	502.09	1.26	ppb
Barium	135-1	2592.23	2535.60	2491.89	2539.90	1.98	ppb
Barium	137-1	2570.67	2563.74	2559.51	2564.64	0.22	ppb
Beryllium	9-1	505.45	497.05	503.65	502.05	0.88	ppb
Bismuth	209-1				91		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	510.22	507.15	507.65	508.34	0.32	ppb
Cadmium	106-1	501.27	498.77	504.12	501.39	0.53	ppb
Cadmium	111-1	518.54	515.83	520.01	518.13	0.41	ppb
Calcium	43-1	49329.66	49586.89	49682.99	49533.18	0.37	ppb
Calcium	44-1	48863.89	50076.31	50047.97	49662.72	1.39	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	509.68	499.73	511.65	507.02	1.26	ppb
Cobalt	59-2	510.50	509.38	508.91	509.60	0.16	ppb
Copper	63-2	5062.20	5030.94	5129.42	5074.19	0.99	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				96		%
Holmium	165-2				95		%
Indium	115-1				90		%
Indium	115-2				91		%
Iron	54-2	26788.01	26538.93	27135.59	26820.84	1.12	ppb
Iron	56-2	26266.08	25875.93	26439.76	26193.93	1.10	ppb
Iron	57-2	26211.45	25889.89	26456.19	26185.85	1.08	ppb
Krypton	83-1						cps
Lead	206-1	2418.57	2561.14	2508.43	2496.05	2.89	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2467.90	2554.51	2508.51	2510.30	1.73	ppb
Lead	208-1	2480.24	2551.26	2516.10	2515.87	1.41	ppb
Lithium	6-1				93		%
Magnesium	24-2	51905.51	51815.08	52804.92	52175.17	1.05	ppb
Manganese	55-2	5051.03	4996.72	5152.56	5066.77	1.56	ppb
Molybdenum	94-1	4928.21	5051.18	5060.92	5013.44	1.48	ppb
Molybdenum	95-1	4909.84	5068.05	5061.58	5013.16	1.79	ppb
Molybdenum	96-1	4861.48	5068.14	5001.65	4977.09	2.12	ppb
Molybdenum	97-1	4885.38	5073.09	5020.26	4992.91	1.94	ppb
Molybdenum	98-1	4846.22	5039.49	5077.62	4987.78	2.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	470.25	470.18	481.80	474.08	1.41	ppb
Phosphorus	31-2	9849.01	9921.93	10009.62	9926.85	0.81	ppb
Potassium	39-2	25284.31	25223.18	25523.61	25343.70	0.63	ppb
Rhodium	103-1				90		%
Rhodium	103-2				91		%
Scandium	45-1				93		%
Scandium	45-2				95		%
Selenium	82-1	495.41	493.05	504.00	497.49	1.16	ppb
Selenium	77-2	508.51	476.73	542.58	509.27	6.47	ppb
Selenium	78-2	497.91	506.01	501.98	501.97	0.81	ppb
Silicon	28-1	621.88	617.07	630.00	622.98	1.05	ppb
Silver	107-1	520.30	514.95	517.54	517.60	0.52	ppb
Silver	109-1	519.46	513.72	512.35	515.18	0.73	ppb
Sodium	23-2	51385.15	51360.96	52133.01	51626.37	0.85	ppb
Strontium	86-1	508.17	514.34	511.26	511.26	0.60	ppb
Strontium	88-1	499.97	509.68	497.13	502.26	1.31	ppb
Sulfur	34-1	9916.45	9426.14	9574.23	9638.94	2.61	ppb
Terbium	159-1				94		%
Terbium	159-2				94		%
Thallium	203-1	484.40	513.15	501.37	499.64	2.89	ppb
Thallium	205-1	486.07	512.86	504.72	501.22	2.74	ppb
Tin	118-1	512.60	502.78	503.94	506.44	1.06	ppb
Titanium	47-1	4981.79	5101.26	5129.65	5070.90	1.55	ppb
Uranium	238-1	489.26	502.09	500.91	497.42	1.43	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	476.27	476.96	485.16	479.46	1.03	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	5116.79	5088.23	5282.76	5162.59	2.03	ppb
Zirconium	90-1	501.10	507.28	511.55	506.64	1.04	ppb
Zirconium	91-1	498.41	507.72	508.97	505.03	1.14	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	7586.43	7596.36	7591.43	7591.41	0.07	ppb
Antimony	121-1	0.04	0.04	0.04	0.04	5.48	ppb
Arsenic	75-2	0.39	0.49	0.62	0.50	23.74	ppb
Barium	135-1	22.15	23.39	22.67	22.74	2.74	ppb
Barium	137-1	22.19	23.18	23.16	22.84	2.48	ppb
Beryllium	9-1	0.22	0.26	0.24	0.24	10.01	ppb
Bismuth	209-1				94		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.20	0.22	0.32	0.24	27.79	ppb
Cadmium	106-1	-3.51	-3.81	-4.16	-3.83		ppb
Cadmium	111-1	-0.19	-0.19	-0.22	-0.20		ppb
Calcium	43-1	59125.45	60486.41	59872.55	59828.14	1.14	ppb
Calcium	44-1	59342.99	60256.89	59467.94	59689.27	0.83	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.02	2.02	2.05	2.03	0.67	ppb
Cobalt	59-2	18.37	18.27	17.97	18.20	1.13	ppb
Copper	63-2	20.92	21.04	20.87	20.94	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				97		%
Holmium	165-2				98		%
Indium	115-1				94		%
Indium	115-2				95		%
Iron	54-2	54713.41	53304.17	53527.84	53848.47	1.41	ppb
Iron	56-2	54395.33	53550.03	53646.22	53863.86	0.86	ppb
Iron	57-2	54466.56	55087.07	54742.23	54765.28	0.57	ppb
Krypton	83-1						cps
Lead	206-1	1.45	1.46	1.45	1.45	0.16	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.35	1.41	1.41	1.39	2.75	ppb
Lead	208-1	1.40	1.42	1.42	1.41	0.49	ppb
Lithium	6-1				96		%
Magnesium	24-2	11651.50	11685.76	11829.46	11722.24	0.81	ppb
Manganese	55-2	1219.23	1197.25	1198.44	1204.97	1.03	ppb
Molybdenum	94-1	0.33	0.31	0.30	0.31	4.12	ppb
Molybdenum	95-1	0.07	0.06	0.06	0.06	12.40	ppb
Molybdenum	96-1	0.15	0.15	0.14	0.15	5.71	ppb
Molybdenum	97-1	0.08	0.05	0.05	0.06	33.08	ppb
Molybdenum	98-1	0.06	0.05	0.05	0.05	9.02	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.51	7.61	7.59	7.57	0.75	ppb
Phosphorus	31-2	114.45	117.34	106.29	112.69	5.09	ppb
Potassium	39-2	516.33	514.87	513.83	515.01	0.24	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				95		%
Scandium	45-2				97		%
Selenium	82-1	0.15	0.30	-0.29	0.06	551.77	ppb
Selenium	77-2	9.41	15.36	10.10	11.62	28.00	ppb
Selenium	78-2	5.00	2.45	2.66	3.37	42.08	ppb
Silicon	28-1	5195.47	5277.95	5225.33	5232.92	0.80	ppb
Silver	107-1	0.00	0.01	0.01	0.01	71.00	ppb
Silver	109-1	0.01	0.01	0.01	0.01	23.75	ppb
Sodium	23-2	9727.86	9697.52	9719.95	9715.11	0.16	ppb
Strontium	86-1	95.06	97.98	98.76	97.27	2.00	ppb
Strontium	88-1	103.77	104.27	104.33	104.12	0.29	ppb
Sulfur	34-1	79037.15	80529.92	78981.67	79516.25	1.10	ppb
Terbium	159-1				97		%
Terbium	159-2				97		%
Thallium	203-1	0.03	0.02	0.02	0.02	7.68	ppb
Thallium	205-1	0.03	0.02	0.02	0.02	10.78	ppb
Tin	118-1	0.14	0.16	0.14	0.15	6.35	ppb
Titanium	47-1	0.90	0.90	0.79	0.86	7.31	ppb
Uranium	238-1	0.73	0.74	0.74	0.74	1.35	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	43.60	44.40	43.76	43.92	0.97	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	169.90	169.04	170.72	169.89	0.49	ppb
Zirconium	90-1	0.13	0.14	0.13	0.14	4.95	ppb
Zirconium	91-1	0.16	0.15	0.13	0.15	11.56	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5921.14	5825.35	5908.43	5884.97	0.88	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	3.62	ppb
Arsenic	75-2	0.58	0.59	0.55	0.57	4.08	ppb
Barium	135-1	22.95	22.97	22.36	22.76	1.53	ppb
Barium	137-1	23.07	22.92	22.58	22.86	1.11	ppb
Beryllium	9-1	0.24	0.24	0.23	0.24	2.28	ppb
Bismuth	209-1				95		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.17	0.13	0.19	0.17	17.78	ppb
Cadmium	106-1	-3.70	-3.06	-2.90	-3.22		ppb
Cadmium	111-1	-0.19	-0.14	-0.13	-0.15		ppb
Calcium	43-1	61544.72	63413.35	62568.28	62508.78	1.50	ppb
Calcium	44-1	62507.75	63902.36	62703.44	63037.85	1.20	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.80	1.71	1.85	1.79	3.86	ppb
Cobalt	59-2	17.02	17.14	17.43	17.19	1.21	ppb
Copper	63-2	21.39	21.56	21.64	21.53	0.59	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				96		%
Iron	54-2	48521.26	47606.55	48621.78	48249.86	1.16	ppb
Iron	56-2	48383.28	48610.68	48500.18	48498.04	0.23	ppb
Iron	57-2	48600.90	48735.33	48483.80	48606.68	0.26	ppb
Krypton	83-1						cps
Lead	206-1	0.39	0.41	0.42	0.41	3.50	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.41	0.40	0.39	0.40	2.58	ppb
Lead	208-1	0.40	0.40	0.40	0.40	0.03	ppb
Lithium	6-1				98		%
Magnesium	24-2	9589.63	9652.39	9518.49	9586.84	0.70	ppb
Manganese	55-2	1377.43	1329.41	1365.29	1357.38	1.84	ppb
Molybdenum	94-1	0.36	0.40	0.43	0.40	7.91	ppb
Molybdenum	95-1	0.12	0.12	0.11	0.11	7.12	ppb
Molybdenum	96-1	0.21	0.19	0.21	0.20	6.31	ppb
Molybdenum	97-1	0.09	0.09	0.11	0.10	13.33	ppb
Molybdenum	98-1	0.10	0.10	0.09	0.10	6.40	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.02	6.71	6.52	6.75	3.76	ppb
Phosphorus	31-2	67.65	68.44	80.21	72.10	9.76	ppb
Potassium	39-2	470.26	461.67	462.73	464.89	1.01	ppb
Rhodium	103-1				95		%
Rhodium	103-2				95		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	-0.05	-0.01	0.18	0.04	289.54	ppb
Selenium	77-2	13.28	10.99	15.73	13.34	17.79	ppb
Selenium	78-2	3.60	5.19	4.58	4.46	17.97	ppb
Silicon	28-1	4970.65	4836.85	4932.21	4913.24	1.40	ppb
Silver	107-1	0.00	0.01	0.00	0.00	49.26	ppb
Silver	109-1	0.01	0.01	0.00	0.01	50.69	ppb
Sodium	23-2	10305.90	10170.82	10217.05	10231.26	0.67	ppb
Strontium	86-1	101.02	101.37	102.72	101.71	0.88	ppb
Strontium	88-1	109.21	108.90	108.59	108.90	0.29	ppb
Sulfur	34-1	75423.97	76266.47	74532.94	75407.80	1.15	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.02	0.02	0.02	12.09	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.75	ppb
Tin	118-1	0.09	0.08	0.08	0.08	8.98	ppb
Titanium	47-1	0.76	0.78	0.67	0.74	8.02	ppb
Uranium	238-1	0.75	0.77	0.77	0.76	1.55	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	34.28	33.83	34.14	34.08	0.67	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				103		%
Yttrium	89-2				103		%
Zinc	66-2	139.20	138.87	140.14	139.41	0.47	ppb
Zirconium	90-1	0.17	0.17	0.17	0.17	2.62	ppb
Zirconium	91-1	0.16	0.18	0.19	0.18	7.19	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6717.23	6708.49	6689.52	6705.08	0.21	ppb
Antimony	121-1	0.02	0.02	0.03	0.02	17.89	ppb
Arsenic	75-2	0.51	0.37	0.55	0.48	20.17	ppb
Barium	135-1	23.09	22.95	29.80	25.28	15.49	ppb
Barium	137-1	23.58	23.35	30.09	25.67	14.90	ppb
Beryllium	9-1	0.24	0.23	0.32	0.26	18.63	ppb
Bismuth	209-1				89		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.19	0.27	0.26	0.24	19.30	ppb
Cadmium	106-1	-2.95	-2.41	-3.04	-2.80		ppb
Cadmium	111-1	-0.11	-0.08	-0.11	-0.10		ppb
Calcium	43-1	67191.39	69199.47	87373.01	74587.96	14.91	ppb
Calcium	44-1	67833.94	67576.35	88796.27	74735.52	16.29	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.83	1.72	1.70	1.75	3.92	ppb
Cobalt	59-2	18.92	18.55	18.56	18.68	1.14	ppb
Copper	63-2	25.50	25.26	25.52	25.43	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				91		%
Holmium	165-2				98		%
Indium	115-1				90		%
Indium	115-2				97		%
Iron	54-2	49908.87	50039.07	49888.59	49945.51	0.16	ppb
Iron	56-2	50185.21	49397.25	50068.07	49883.51	0.85	ppb
Iron	57-2	50387.00	49596.04	50189.18	50057.40	0.82	ppb
Krypton	83-1						cps
Lead	206-1	0.34	0.31	0.42	0.36	15.42	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.32	0.30	0.43	0.35	19.42	ppb
Lead	208-1	0.34	0.32	0.44	0.37	16.56	ppb
Lithium	6-1				92		%
Magnesium	24-2	10425.39	10296.15	10163.29	10294.95	1.27	ppb
Manganese	55-2	1414.78	1425.84	1428.32	1422.98	0.51	ppb
Molybdenum	94-1	0.32	0.33	0.45	0.37	20.09	ppb
Molybdenum	95-1	0.07	0.04	0.06	0.06	27.01	ppb
Molybdenum	96-1	0.15	0.12	0.20	0.15	26.50	ppb
Molybdenum	97-1	0.06	0.04	0.08	0.06	30.63	ppb
Molybdenum	98-1	0.04	0.04	0.06	0.04	34.62	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.59	7.08	7.54	7.40	3.79	ppb
Phosphorus	31-2	96.81	94.26	83.43	91.50	7.76	ppb
Potassium	39-2	544.31	530.79	535.82	536.97	1.27	ppb
Rhodium	103-1				89		%
Rhodium	103-2				97		%
Scandium	45-1				91		%
Scandium	45-2				99		%
Selenium	82-1	0.12	0.24	0.17	0.18	33.28	ppb
Selenium	77-2	16.85	20.43	20.87	19.38	11.38	ppb
Selenium	78-2	3.91	2.80	3.87	3.53	17.85	ppb
Silicon	28-1	5551.43	5744.58	7146.10	6147.37	14.16	ppb
Silver	107-1	0.00	0.00	0.01	0.00	96.16	ppb
Silver	109-1	0.00	0.00	0.00	0.00	23.44	ppb
Sodium	23-2	11468.24	11169.12	11258.07	11298.48	1.36	ppb
Strontium	86-1	109.83	111.87	143.41	121.70	15.47	ppb
Strontium	88-1	116.72	118.31	151.04	128.69	15.05	ppb
Sulfur	34-1	78835.97	83135.51	107080.11	89683.87	16.97	ppb
Terbium	159-1				91		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.02	0.03	0.02	24.80	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	22.35	ppb
Tin	118-1	0.04	0.03	0.06	0.04	34.83	ppb
Titanium	47-1	0.81	0.79	1.11	0.91	19.83	ppb
Uranium	238-1	0.82	0.82	1.07	0.90	16.08	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	35.03	34.74	34.43	34.73	0.86	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	167.03	162.03	164.68	164.58	1.52	ppb
Zirconium	90-1	0.17	0.17	0.23	0.19	18.27	ppb
Zirconium	91-1	0.17	0.18	0.21	0.18	11.24	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5784.48	5704.95	5669.77	5719.73	1.03	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	4.20	ppb
Arsenic	75-2	0.42	0.26	0.49	0.39	29.85	ppb
Barium	135-1	21.85	21.79	22.11	21.92	0.76	ppb
Barium	137-1	22.21	22.04	22.44	22.23	0.91	ppb
Beryllium	9-1	0.20	0.21	0.20	0.20	3.49	ppb
Bismuth	209-1				95		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.16	0.17	0.14	0.16	9.37	ppb
Cadmium	106-1	-2.65	-3.07	-2.61	-2.78		ppb
Cadmium	111-1	-0.11	-0.14	-0.11	-0.12		ppb
Calcium	43-1	68474.44	67147.07	67881.24	67834.25	0.98	ppb
Calcium	44-1	67530.04	67767.92	67500.28	67599.41	0.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.59	1.50	1.49	1.52	3.76	ppb
Cobalt	59-2	17.47	17.43	16.94	17.28	1.73	ppb
Copper	63-2	20.89	21.03	20.43	20.78	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				98		%
Holmium	165-2				98		%
Indium	115-1				96		%
Indium	115-2				96		%
Iron	54-2	48261.80	47407.77	46635.91	47435.16	1.71	ppb
Iron	56-2	48474.09	47278.74	46911.99	47554.94	1.72	ppb
Iron	57-2	48700.83	47877.44	46928.84	47835.71	1.85	ppb
Krypton	83-1						cps
Lead	206-1	0.28	0.31	0.31	0.30	4.51	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.28	0.27	0.28	0.28	1.25	ppb
Lead	208-1	0.29	0.29	0.30	0.29	1.46	ppb
Lithium	6-1				98		%
Magnesium	24-2	9664.89	9584.46	9399.42	9549.59	1.43	ppb
Manganese	55-2	1380.11	1368.39	1341.96	1363.49	1.43	ppb
Molybdenum	94-1	0.34	0.30	0.33	0.32	6.62	ppb
Molybdenum	95-1	0.04	0.03	0.05	0.04	16.49	ppb
Molybdenum	96-1	0.13	0.13	0.13	0.13	1.09	ppb
Molybdenum	97-1	0.03	0.03	0.03	0.03	3.94	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	22.03	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.79	6.68	6.84	6.77	1.23	ppb
Phosphorus	31-2	55.09	71.61	71.47	66.06	14.38	ppb
Potassium	39-2	477.63	470.06	467.61	471.76	1.11	ppb
Rhodium	103-1				96		%
Rhodium	103-2				95		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	0.27	0.25	0.34	0.29	16.74	ppb
Selenium	77-2	10.89	12.99	15.00	12.96	15.84	ppb
Selenium	78-2	2.89	3.51	1.63	2.68	35.79	ppb
Silicon	28-1	4964.02	5016.06	5009.93	4996.67	0.57	ppb
Silver	107-1	0.00	0.00	0.00	0.00	84.80	ppb
Silver	109-1	0.00	0.00	0.01	0.00	49.87	ppb
Sodium	23-2	10878.77	10825.50	10764.27	10822.85	0.53	ppb
Strontium	86-1	107.61	106.79	107.22	107.21	0.38	ppb
Strontium	88-1	116.27	115.50	114.61	115.46	0.72	ppb
Sulfur	34-1	78454.38	80626.13	78802.48	79294.33	1.47	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	0.02	0.02	0.02	0.02	20.49	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	20.40	ppb
Tin	118-1	0.13	0.13	0.14	0.13	3.52	ppb
Titanium	47-1	0.72	0.69	0.60	0.67	9.30	ppb
Uranium	238-1	0.74	0.73	0.75	0.74	0.85	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	32.51	32.82	32.11	32.48	1.10	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				104		%
Zinc	66-2	149.15	146.31	143.37	146.27	1.98	ppb
Zirconium	90-1	0.17	0.15	0.15	0.16	4.05	ppb
Zirconium	91-1	0.14	0.16	0.16	0.15	5.18	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4338.36	4255.51	4302.96	4298.94	0.97	ppb
Antimony	121-1	0.02	0.02	0.01	0.02	18.22	ppb
Arsenic	75-2	0.51	0.54	0.59	0.55	7.61	ppb
Barium	135-1	21.87	21.51	22.13	21.84	1.43	ppb
Barium	137-1	22.05	21.73	21.95	21.91	0.74	ppb
Beryllium	9-1	0.18	0.19	0.19	0.19	1.25	ppb
Bismuth	209-1				94		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.22	0.18	0.23	0.21	11.98	ppb
Cadmium	106-1	-3.47	-3.79	-3.13	-3.46		ppb
Cadmium	111-1	-0.16	-0.19	-0.13	-0.16		ppb
Calcium	43-1	63064.34	61499.50	63305.88	62623.24	1.57	ppb
Calcium	44-1	63021.21	61831.97	62969.11	62607.43	1.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.42	1.50	1.45	1.46	2.95	ppb
Cobalt	59-2	16.10	16.02	16.21	16.11	0.59	ppb
Copper	63-2	17.52	17.31	17.63	17.49	0.93	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				96		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	45676.35	45003.22	46235.98	45638.52	1.35	ppb
Iron	56-2	44993.67	45249.69	45480.42	45241.26	0.54	ppb
Iron	57-2	45563.97	46137.50	45809.30	45836.93	0.63	ppb
Krypton	83-1						cps
Lead	206-1	0.31	0.29	0.28	0.29	5.78	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.28	0.27	0.28	0.28	3.49	ppb
Lead	208-1	0.29	0.27	0.29	0.28	2.77	ppb
Lithium	6-1				97		%
Magnesium	24-2	8804.02	8818.13	8864.32	8828.83	0.36	ppb
Manganese	55-2	1345.26	1333.85	1365.91	1348.34	1.21	ppb
Molybdenum	94-1	0.30	0.25	0.27	0.27	9.53	ppb
Molybdenum	95-1	0.04	0.05	0.04	0.04	8.22	ppb
Molybdenum	96-1	0.14	0.12	0.13	0.13	6.16	ppb
Molybdenum	97-1	0.04	0.03	0.05	0.04	19.74	ppb
Molybdenum	98-1	0.04	0.03	0.03	0.03	28.74	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.32	6.35	6.53	6.40	1.76	ppb
Phosphorus	31-2	29.14	27.85	23.85	26.95	10.23	ppb
Potassium	39-2	495.29	492.74	496.04	494.69	0.35	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				97		%
Selenium	82-1	0.58	0.26	-0.07	0.26	127.98	ppb
Selenium	77-2	14.84	15.22	18.66	16.24	12.95	ppb
Selenium	78-2	3.57	2.42	2.18	2.72	27.38	ppb
Silicon	28-1	4700.60	4536.61	4665.57	4634.26	1.86	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	53.71	ppb
Sodium	23-2	11842.24	11538.45	11848.27	11742.99	1.51	ppb
Strontium	86-1	107.58	108.20	106.98	107.59	0.57	ppb
Strontium	88-1	115.36	113.49	113.45	114.10	0.95	ppb
Sulfur	34-1	74483.81	69669.67	73095.13	72416.20	3.42	ppb
Terbium	159-1				98		%
Terbium	159-2				96		%
Thallium	203-1	0.01	0.02	0.01	0.01	3.41	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	9.68	ppb
Tin	118-1	0.10	0.09	0.08	0.09	10.69	ppb
Titanium	47-1	0.64	0.58	0.68	0.63	7.85	ppb
Uranium	238-1	0.72	0.71	0.72	0.72	0.88	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	27.33	27.21	27.32	27.29	0.24	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				103		%
Zinc	66-2	149.81	149.11	149.55	149.49	0.24	ppb
Zirconium	90-1	0.14	0.13	0.14	0.14	3.84	ppb
Zirconium	91-1	0.16	0.13	0.14	0.14	10.04	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	7964.45	7857.84	7849.57	7890.62	0.81	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	16.66	ppb
Arsenic	75-2	0.50	0.46	0.56	0.51	9.73	ppb
Barium	135-1	22.64	22.62	22.54	22.60	0.24	ppb
Barium	137-1	22.89	22.83	22.70	22.81	0.42	ppb
Beryllium	9-1	0.22	0.22	0.22	0.22	1.10	ppb
Bismuth	209-1				94		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.09	0.26	0.11	0.16	60.92	ppb
Cadmium	106-1	-3.98	-4.03	-3.71	-3.91		ppb
Cadmium	111-1	-0.21	-0.22	-0.19	-0.21		ppb
Calcium	43-1	63681.13	62747.66	61326.77	62585.19	1.89	ppb
Calcium	44-1	62842.55	63055.01	61307.03	62401.53	1.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.26	2.12	2.04	2.14	5.14	ppb
Cobalt	59-2	19.13	18.95	19.06	19.05	0.49	ppb
Copper	63-2	22.18	21.78	22.12	22.03	0.97	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				96		%
Indium	115-1				94		%
Indium	115-2				94		%
Iron	54-2	53867.44	53684.19	53220.40	53590.68	0.62	ppb
Iron	56-2	53808.25	53771.02	53962.48	53847.25	0.19	ppb
Iron	57-2	53936.31	52727.18	54266.62	53643.37	1.51	ppb
Krypton	83-1						cps
Lead	206-1	0.38	0.39	0.38	0.38	2.11	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.36	0.36	0.37	0.36	1.27	ppb
Lead	208-1	0.37	0.37	0.38	0.37	1.15	ppb
Lithium	6-1				97		%
Magnesium	24-2	11416.53	11326.06	11450.22	11397.60	0.56	ppb
Manganese	55-2	1306.05	1308.85	1327.80	1314.23	0.90	ppb
Molybdenum	94-1	0.29	0.30	0.29	0.29	2.35	ppb
Molybdenum	95-1	0.04	0.04	0.03	0.04	14.42	ppb
Molybdenum	96-1	0.12	0.12	0.13	0.12	1.40	ppb
Molybdenum	97-1	0.04	0.03	0.02	0.03	29.44	ppb
Molybdenum	98-1	0.03	0.02	0.02	0.03	25.71	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.41	7.56	7.70	7.56	1.96	ppb
Phosphorus	31-2	98.18	112.71	114.44	108.44	8.24	ppb
Potassium	39-2	507.94	502.92	502.36	504.41	0.61	ppb
Rhodium	103-1				94		%
Rhodium	103-2				94		%
Scandium	45-1				97		%
Scandium	45-2				97		%
Selenium	82-1	0.27	0.14	0.15	0.19	38.60	ppb
Selenium	77-2	19.41	17.08	20.43	18.97	9.04	ppb
Selenium	78-2	4.17	3.72	2.19	3.36	30.97	ppb
Silicon	28-1	5574.47	5586.28	5496.04	5552.26	0.88	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	38.99	ppb
Sodium	23-2	9922.93	9817.32	9922.48	9887.57	0.62	ppb
Strontium	86-1	95.51	97.39	95.25	96.05	1.22	ppb
Strontium	88-1	101.38	101.86	101.10	101.45	0.38	ppb
Sulfur	34-1	80591.26	81580.93	80476.49	80882.89	0.75	ppb
Terbium	159-1				97		%
Terbium	159-2				96		%
Thallium	203-1	0.01	0.02	0.01	0.01	33.63	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	22.48	ppb
Tin	118-1	0.05	0.05	0.05	0.05	9.81	ppb
Titanium	47-1	0.89	0.83	0.78	0.83	6.36	ppb
Uranium	238-1	0.77	0.80	0.77	0.78	2.53	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	38.14	37.56	37.71	37.80	0.79	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	169.31	166.17	171.33	168.94	1.54	ppb
Zirconium	90-1	0.13	0.14	0.14	0.14	1.32	ppb
Zirconium	91-1	0.15	0.14	0.13	0.14	8.93	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51619.26	51469.48	51130.73	51406.49	0.49	ppb
Antimony	121-1	466.59	478.80	470.23	471.87	1.33	ppb
Arsenic	75-2	460.89	468.68	469.05	466.21	0.99	ppb
Barium	135-1	2455.37	2499.70	2474.52	2476.53	0.90	ppb
Barium	137-1	2454.77	2505.92	2541.35	2500.68	1.74	ppb
Beryllium	9-1	482.92	482.26	488.31	484.50	0.69	ppb
Bismuth	209-1				83		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Cadmium	108-1	458.94	466.85	476.28	467.36	1.86	ppb
Cadmium	106-1	461.36	468.62	466.97	465.65	0.82	ppb
Cadmium	111-1	464.19	468.83	481.06	471.36	1.85	ppb
Calcium	43-1	241797.31	240460.96	240411.50	240889.92	0.33	ppb
Calcium	44-1	241628.55	241449.43	243094.66	242057.55	0.37	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	486.39	479.09	474.40	479.96	1.26	ppb
Cobalt	59-2	476.08	458.64	463.44	466.05	1.93	ppb
Copper	63-2	4667.59	4619.83	4627.47	4638.30	0.55	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				93		%
Holmium	165-2				93		%
Indium	115-1				86		%
Indium	115-2				87		%
Iron	54-2	126015.63	124300.69	123799.94	124705.42	0.93	ppb
Iron	56-2	126257.11	124584.29	124425.19	125088.86	0.81	ppb
Iron	57-2	125428.54	123252.61	124003.02	124228.06	0.89	ppb
Krypton	83-1						cps
Lead	206-1	2482.10	2523.25	2532.73	2512.69	1.07	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2479.19	2518.95	2554.37	2517.50	1.49	ppb
Lead	208-1	2488.64	2522.74	2545.84	2519.07	1.14	ppb
Lithium	6-1				90		%
Magnesium	24-2	247888.35	246617.87	248431.58	247645.93	0.38	ppb
Manganese	55-2	4967.79	4903.46	4887.51	4919.59	0.86	ppb
Molybdenum	94-1	4976.17	4948.08	4995.90	4973.38	0.48	ppb
Molybdenum	95-1	4966.82	4970.63	5011.82	4983.09	0.50	ppb
Molybdenum	96-1	4936.63	4983.03	4977.87	4965.84	0.51	ppb
Molybdenum	97-1	4930.02	4995.83	4969.44	4965.09	0.67	ppb
Molybdenum	98-1	4946.27	4958.08	5014.77	4973.04	0.74	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	456.67	454.02	446.33	452.34	1.19	ppb
Phosphorus	31-2	9765.71	9818.96	9805.50	9796.72	0.28	ppb
Potassium	39-2	125110.76	122881.59	124304.41	124098.92	0.91	ppb
Rhodium	103-1				84		%
Rhodium	103-2				85		%
Scandium	45-1				92		%
Scandium	45-2				95		%
Selenium	82-1	461.68	461.33	463.80	462.27	0.29	ppb
Selenium	77-2	418.97	449.45	460.42	442.95	4.85	ppb
Selenium	78-2	440.25	455.89	433.53	443.22	2.59	ppb
Silicon	28-1	487.69	483.51	496.21	489.14	1.32	ppb
Silver	107-1	462.70	465.92	467.92	465.51	0.57	ppb
Silver	109-1	460.27	466.01	472.21	466.16	1.28	ppb
Sodium	23-2	249473.84	244261.86	247260.39	246998.70	1.06	ppb
Strontium	86-1	500.77	503.03	512.74	505.52	1.26	ppb
Strontium	88-1	489.36	495.09	497.87	494.11	0.88	ppb
Sulfur	34-1	9940.64	9735.94	9963.33	9879.97	1.27	ppb
Terbium	159-1				92		%
Terbium	159-2				93		%
Thallium	203-1	491.41	495.37	501.07	495.95	0.98	ppb
Thallium	205-1	496.80	497.56	496.38	496.91	0.12	ppb
Tin	118-1	476.19	488.01	488.96	484.39	1.47	ppb
Titanium	47-1	4971.55	4884.12	5013.43	4956.37	1.33	ppb
Uranium	238-1	523.84	525.46	531.56	526.95	0.77	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	458.55	458.87	454.82	457.41	0.49	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				92		%
Yttrium	89-2				93		%
Zinc	66-2	4887.09	4773.11	4791.11	4817.10	1.27	ppb
Zirconium	90-1	509.03	506.46	516.64	510.71	1.04	ppb
Zirconium	91-1	522.94	507.13	522.63	517.57	1.75	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.44	-0.19	0.33	0.20	170.41	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	8.14	ppb
Arsenic	75-2	-0.03	-0.01	0.01	-0.01		ppb
Barium	135-1	0.16	0.16	0.13	0.15	12.88	ppb
Barium	137-1	0.17	0.16	0.15	0.16	7.05	ppb
Beryllium	9-1	0.06	0.07	0.06	0.06	7.45	ppb
Bismuth	209-1				97		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.07	0.07	-0.01	0.04	101.34	ppb
Cadmium	106-1	-4.27	-3.67	-4.07	-4.00		ppb
Cadmium	111-1	-0.31	-0.26	-0.30	-0.29		ppb
Calcium	43-1	-2.88	-4.55	-6.01	-4.48		ppb
Calcium	44-1	-9.44	-10.08	-11.25	-10.26		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.01	0.02	-0.04	-0.01		ppb
Cobalt	59-2	0.02	0.01	0.01	0.01	36.09	ppb
Copper	63-2	-0.13	-0.13	-0.10	-0.12		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				96		%
Indium	115-1				96		%
Indium	115-2				96		%
Iron	54-2	1.18	1.39	2.06	1.54	29.83	ppb
Iron	56-2	1.89	1.56	1.55	1.67	11.55	ppb
Iron	57-2	2.05	1.36	1.16	1.53	30.65	ppb
Krypton	83-1						cps
Lead	206-1	0.10	0.09	0.09	0.09	6.09	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.11	0.09	0.09	0.10	9.39	ppb
Lead	208-1	0.10	0.09	0.09	0.09	7.50	ppb
Lithium	6-1				96		%
Magnesium	24-2	0.30	0.10	-0.07	0.11	167.40	ppb
Manganese	55-2	0.30	0.28	0.27	0.28	4.56	ppb
Molybdenum	94-1	0.05	0.05	0.03	0.04	33.91	ppb
Molybdenum	95-1	0.06	0.03	0.03	0.04	35.31	ppb
Molybdenum	96-1	0.06	0.04	0.03	0.04	42.75	ppb
Molybdenum	97-1	0.06	0.04	0.04	0.05	21.07	ppb
Molybdenum	98-1	0.05	0.04	0.03	0.04	35.38	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	-0.03	-0.09	-0.04		ppb
Phosphorus	31-2	-20.32	-24.78	-20.32	-21.81		ppb
Potassium	39-2	1.12	2.13	-0.23	1.01	117.13	ppb
Rhodium	103-1				97		%
Rhodium	103-2				97		%
Scandium	45-1				96		%
Scandium	45-2				95		%
Selenium	82-1	0.03	-0.10	-0.23	-0.10		ppb
Selenium	77-2	-0.85	-0.85	-0.85	-0.85		ppb
Selenium	78-2	0.48	-0.32	-0.05	0.03	1174.82	ppb
Silicon	28-1	-0.19	-1.13	-1.31	-0.88		ppb
Silver	107-1	0.01	0.01	0.01	0.01	23.07	ppb
Silver	109-1	0.01	0.01	0.01	0.01	20.49	ppb
Sodium	23-2	5.35	3.40	3.36	4.03	28.19	ppb
Strontium	86-1	-0.05	-0.08	-0.06	-0.06		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-659.52	-850.91	-937.52	-815.98		ppb
Terbium	159-1				96		%
Terbium	159-2				97		%
Thallium	203-1	0.02	0.01	0.01	0.02	14.61	ppb
Thallium	205-1	0.01	0.01	0.02	0.01	15.98	ppb
Tin	118-1	0.01	0.01	0.01	0.01	17.85	ppb
Titanium	47-1	0.02	-0.02	-0.01	-0.01		ppb
Uranium	238-1	0.00	0.00	0.00	0.00	186.70	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.00	0.01	0.01	111.63	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				96		%
Zinc	66-2	-0.05	-0.28	-0.17	-0.17		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	52.49	ppb
Zirconium	91-1	0.01	0.01	0.00	0.01	57.75	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6043.13	6039.40	5988.33	6023.62	0.51	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	5.65	ppb
Arsenic	75-2	0.41	0.45	0.45	0.44	5.55	ppb
Barium	135-1	22.72	22.52	22.97	22.74	0.99	ppb
Barium	137-1	23.31	23.00	23.22	23.18	0.69	ppb
Beryllium	9-1	0.22	0.21	0.21	0.22	1.27	ppb
Bismuth	209-1				94		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	0.28	0.13	0.16	0.19	41.96	ppb
Cadmium	106-1	-3.60	-3.47	-3.98	-3.68		ppb
Cadmium	111-1	-0.20	-0.19	-0.20	-0.20		ppb
Calcium	43-1	61313.77	58224.94	59114.38	59551.03	2.67	ppb
Calcium	44-1	60980.19	59360.50	59684.27	60008.32	1.43	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.66	1.70	1.68	1.68	1.20	ppb
Cobalt	59-2	18.53	18.42	18.25	18.40	0.75	ppb
Copper	63-2	20.53	20.53	20.56	20.54	0.08	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				95		%
Indium	115-2				96		%
Iron	54-2	52465.31	53237.81	52511.11	52738.08	0.82	ppb
Iron	56-2	53056.01	53021.14	53197.06	53091.40	0.18	ppb
Iron	57-2	53173.04	53068.52	53025.45	53089.00	0.14	ppb
Krypton	83-1						cps
Lead	206-1	0.29	0.29	0.29	0.29	1.05	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.27	0.27	0.27	0.27	1.13	ppb
Lead	208-1	0.29	0.28	0.29	0.29	1.21	ppb
Lithium	6-1				96		%
Magnesium	24-2	10720.67	10646.26	10512.87	10626.60	0.99	ppb
Manganese	55-2	1277.46	1319.34	1307.59	1301.46	1.66	ppb
Molybdenum	94-1	0.28	0.29	0.31	0.29	4.40	ppb
Molybdenum	95-1	0.04	0.03	0.04	0.04	6.36	ppb
Molybdenum	96-1	0.13	0.12	0.14	0.13	7.80	ppb
Molybdenum	97-1	0.02	0.02	0.01	0.02	54.09	ppb
Molybdenum	98-1	0.03	0.02	0.03	0.02	17.29	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.98	7.36	7.16	7.17	2.63	ppb
Phosphorus	31-2	45.58	54.87	46.09	48.85	10.70	ppb
Potassium	39-2	460.66	455.36	470.23	462.08	1.63	ppb
Rhodium	103-1				94		%
Rhodium	103-2				96		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	0.28	0.25	0.42	0.32	27.81	ppb
Selenium	77-2	14.17	19.45	11.68	15.10	26.28	ppb
Selenium	78-2	2.13	3.93	6.11	4.05	49.18	ppb
Silicon	28-1	5462.74	5346.51	5347.72	5385.66	1.24	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	15.04	ppb
Sodium	23-2	10312.92	10379.00	10104.73	10265.55	1.39	ppb
Strontium	86-1	102.18	100.70	103.54	102.14	1.39	ppb
Strontium	88-1	108.15	106.98	109.01	108.05	0.94	ppb
Sulfur	34-1	77870.05	75438.12	76069.23	76459.13	1.65	ppb
Terbium	159-1				98		%
Terbium	159-2				97		%
Thallium	203-1	0.01	0.01	0.01	0.01	9.36	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	17.43	ppb
Tin	118-1	0.51	0.49	0.52	0.51	3.55	ppb
Titanium	47-1	0.69	0.70	0.69	0.69	1.19	ppb
Uranium	238-1	0.76	0.76	0.76	0.76	0.46	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	34.88	35.20	34.90	34.99	0.52	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				103		%
Zinc	66-2	141.98	141.50	143.19	142.22	0.61	ppb
Zirconium	90-1	0.15	0.14	0.15	0.15	2.82	ppb
Zirconium	91-1	0.16	0.15	0.16	0.15	5.90	ppb

Reviewed By:kareem
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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8342.85	8681.39	9175.95	8733.40	4.80	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	15.77	ppb
Arsenic	75-2	0.71	0.86	0.67	0.75	13.53	ppb
Barium	135-1	21.98	21.54	21.03	21.52	2.22	ppb
Barium	137-1	22.16	22.38	21.06	21.87	3.22	ppb
Beryllium	9-1	0.23	0.25	0.24	0.24	4.46	ppb
Bismuth	209-1				96		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.17	0.30	0.25	0.24	28.15	ppb
Cadmium	106-1	-2.95	-3.17	-2.95	-3.02		ppb
Cadmium	111-1	-0.13	-0.13	-0.16	-0.14		ppb
Calcium	43-1	58497.08	57765.86	54908.07	57057.01	3.32	ppb
Calcium	44-1	58689.34	57704.66	54957.95	57117.32	3.39	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.94	2.12	2.23	2.10	6.98	ppb
Cobalt	59-2	18.23	19.03	19.88	19.05	4.33	ppb
Copper	63-2	24.36	25.50	27.13	25.67	5.43	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				100		%
Indium	115-1				96		%
Indium	115-2				98		%
Iron	54-2	48834.76	51009.66	53208.41	51017.61	4.29	ppb
Iron	56-2	48976.87	51030.39	54150.93	51386.06	5.07	ppb
Iron	57-2	49232.80	51255.30	54686.77	51724.96	5.33	ppb
Krypton	83-1						cps
Lead	206-1	0.50	0.50	0.49	0.50	1.79	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.45	0.50	0.46	0.47	4.62	ppb
Lead	208-1	0.48	0.50	0.46	0.48	3.98	ppb
Lithium	6-1				98		%
Magnesium	24-2	10503.44	11016.36	11594.39	11038.07	4.94	ppb
Manganese	55-2	1199.73	1261.29	1308.33	1256.45	4.33	ppb
Molybdenum	94-1	0.33	0.29	0.27	0.29	10.86	ppb
Molybdenum	95-1	0.05	0.03	0.03	0.04	23.57	ppb
Molybdenum	96-1	0.13	0.14	0.12	0.13	5.34	ppb
Molybdenum	97-1	0.02	0.02	0.02	0.02	6.34	ppb
Molybdenum	98-1	0.03	0.02	0.01	0.02	43.75	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.22	7.47	7.99	7.56	5.16	ppb
Phosphorus	31-2	212.25	177.21	184.63	191.36	9.65	ppb
Potassium	39-2	494.59	515.78	551.73	520.70	5.55	ppb
Rhodium	103-1				95		%
Rhodium	103-2				98		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.12	0.53	-0.12	0.18	185.48	ppb
Selenium	77-2	14.60	24.60	16.99	18.73	27.90	ppb
Selenium	78-2	4.20	3.30	3.70	3.73	12.11	ppb
Silicon	28-1	5656.68	5766.18	5597.07	5673.31	1.51	ppb
Silver	107-1	0.00	0.00	0.00	0.00	68.51	ppb
Silver	109-1	0.00	0.01	0.00	0.00	13.94	ppb
Sodium	23-2	9225.25	9602.71	10125.76	9651.24	4.69	ppb
Strontium	86-1	95.57	97.71	90.75	94.68	3.76	ppb
Strontium	88-1	102.12	103.49	97.73	101.11	2.97	ppb
Sulfur	34-1	80690.84	79862.34	77064.97	79206.05	2.40	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.01	0.01	0.01	0.01	23.66	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	16.69	ppb
Tin	118-1	0.12	0.11	0.12	0.12	4.21	ppb
Titanium	47-1	0.95	0.86	0.86	0.89	5.98	ppb
Uranium	238-1	0.85	0.85	0.80	0.83	3.19	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	42.50	44.95	47.33	44.93	5.38	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				105		%
Yttrium	89-2				106		%
Zinc	66-2	153.11	162.84	171.62	162.52	5.70	ppb
Zirconium	90-1	0.15	0.16	0.15	0.15	3.48	ppb
Zirconium	91-1	0.16	0.16	0.13	0.15	12.91	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4043.25	4006.94	4007.17	4019.12	0.52	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	11.15	ppb
Arsenic	75-2	0.37	0.53	0.35	0.42	24.15	ppb
Barium	135-1	20.81	21.07	20.95	20.94	0.63	ppb
Barium	137-1	21.23	21.33	21.19	21.25	0.32	ppb
Beryllium	9-1	0.16	0.18	0.17	0.17	4.56	ppb
Bismuth	209-1				94		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	0.24	0.14	0.22	0.20	25.86	ppb
Cadmium	106-1	-3.84	-4.10	-3.48	-3.81		ppb
Cadmium	111-1	-0.20	-0.22	-0.18	-0.20		ppb
Calcium	43-1	63734.76	61463.85	61130.95	62109.85	2.28	ppb
Calcium	44-1	62340.84	61312.89	60560.56	61404.77	1.46	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.99	0.98	1.00	0.99	0.83	ppb
Cobalt	59-2	15.75	15.69	15.77	15.74	0.28	ppb
Copper	63-2	15.38	15.38	15.29	15.35	0.34	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				99		%
Holmium	165-2				97		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	46651.77	46338.17	45633.72	46207.88	1.13	ppb
Iron	56-2	46777.45	46059.50	45526.54	46121.16	1.36	ppb
Iron	57-2	47195.11	46424.64	46313.22	46644.33	1.03	ppb
Krypton	83-1						cps
Lead	206-1	0.18	0.17	0.17	0.17	3.67	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.19	0.17	0.19	0.19	7.44	ppb
Lead	208-1	0.19	0.18	0.18	0.18	3.23	ppb
Lithium	6-1				98		%
Magnesium	24-2	9422.21	9724.97	9372.71	9506.63	2.01	ppb
Manganese	55-2	1217.88	1214.96	1197.95	1210.26	0.89	ppb
Molybdenum	94-1	0.20	0.21	0.21	0.21	2.56	ppb
Molybdenum	95-1	0.03	0.02	0.04	0.03	22.96	ppb
Molybdenum	96-1	0.10	0.11	0.10	0.10	0.60	ppb
Molybdenum	97-1	0.04	0.03	0.02	0.03	25.72	ppb
Molybdenum	98-1	0.03	0.01	0.02	0.02	50.40	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.37	6.29	6.03	6.23	2.85	ppb
Phosphorus	31-2	21.02	16.33	17.37	18.24	13.50	ppb
Potassium	39-2	401.00	397.72	399.37	399.37	0.41	ppb
Rhodium	103-1				95		%
Rhodium	103-2				95		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Selenium	82-1	0.18	0.41	-0.03	0.19	118.83	ppb
Selenium	77-2	9.51	14.21	21.04	14.92	38.89	ppb
Selenium	78-2	3.00	2.38	5.66	3.68	47.32	ppb
Silicon	28-1	4651.37	4501.92	4390.52	4514.60	2.90	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	477.64	ppb
Sodium	23-2	10346.76	10423.68	10485.69	10418.71	0.67	ppb
Strontium	86-1	97.46	97.04	96.57	97.02	0.45	ppb
Strontium	88-1	103.97	102.48	100.44	102.29	1.73	ppb
Sulfur	34-1	72822.35	70858.03	70621.95	71434.11	1.69	ppb
Terbium	159-1				98		%
Terbium	159-2				97		%
Thallium	203-1	0.01	0.01	0.01	0.01	28.19	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	15.10	ppb
Tin	118-1	0.02	0.02	0.01	0.02	36.45	ppb
Titanium	47-1	0.57	0.53	0.56	0.55	4.15	ppb
Uranium	238-1	0.65	0.64	0.63	0.64	1.89	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	23.59	23.52	23.71	23.61	0.42	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				102		%
Zinc	66-2	121.66	123.72	121.59	122.32	0.99	ppb
Zirconium	90-1	0.10	0.10	0.10	0.10	1.30	ppb
Zirconium	91-1	0.10	0.09	0.11	0.10	9.64	ppb

Reviewed By:kareem
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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9571.60	9641.52	9651.71	9621.61	0.45	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	8.51	ppb
Arsenic	75-2	0.61	0.61	0.57	0.60	3.81	ppb
Barium	135-1	21.66	20.97	21.78	21.47	2.03	ppb
Barium	137-1	21.82	21.73	22.36	21.97	1.54	ppb
Beryllium	9-1	0.22	0.20	0.22	0.21	4.99	ppb
Bismuth	209-1				94		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	0.17	0.13	0.28	0.19	39.26	ppb
Cadmium	106-1	-3.34	-4.33	-3.02	-3.56		ppb
Cadmium	111-1	-0.16	-0.23	-0.15	-0.18		ppb
Calcium	43-1	51583.35	52886.88	50650.53	51706.92	2.17	ppb
Calcium	44-1	51624.02	51966.84	50885.84	51492.23	1.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.36	2.29	2.28	2.31	1.79	ppb
Cobalt	59-2	18.57	18.30	18.88	18.58	1.57	ppb
Copper	63-2	23.37	22.89	23.40	23.22	1.23	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				96		%
Indium	115-1				96		%
Indium	115-2				95		%
Iron	54-2	49568.72	48753.72	49588.15	49303.53	0.97	ppb
Iron	56-2	48998.36	49070.11	49313.21	49127.22	0.34	ppb
Iron	57-2	49295.07	49573.53	49594.30	49487.63	0.34	ppb
Krypton	83-1						cps
Lead	206-1	0.47	0.47	0.50	0.48	3.61	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.44	0.43	0.46	0.45	3.52	ppb
Lead	208-1	0.48	0.47	0.48	0.48	1.07	ppb
Lithium	6-1				98		%
Magnesium	24-2	11325.82	11355.60	11283.29	11321.57	0.32	ppb
Manganese	55-2	1089.69	1093.77	1106.15	1096.54	0.78	ppb
Molybdenum	94-1	0.26	0.25	0.25	0.25	2.86	ppb
Molybdenum	95-1	0.04	0.01	0.03	0.03	48.62	ppb
Molybdenum	96-1	0.10	0.09	0.11	0.10	6.40	ppb
Molybdenum	97-1	0.03	0.01	0.02	0.02	42.71	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	2.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.80	7.81	7.70	7.77	0.82	ppb
Phosphorus	31-2	260.12	274.22	243.36	259.23	5.96	ppb
Potassium	39-2	534.12	533.83	543.25	537.07	1.00	ppb
Rhodium	103-1				94		%
Rhodium	103-2				94		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	0.02	0.20	0.21	0.14	74.35	ppb
Selenium	77-2	23.88	18.75	21.94	21.52	12.03	ppb
Selenium	78-2	2.45	3.46	2.16	2.69	25.36	ppb
Silicon	28-1	5479.53	5459.47	5303.53	5414.18	1.78	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	88.72	ppb
Sodium	23-2	8660.49	8569.59	8798.52	8676.20	1.33	ppb
Strontium	86-1	84.61	83.71	85.58	84.64	1.10	ppb
Strontium	88-1	90.80	88.68	91.39	90.29	1.58	ppb
Sulfur	34-1	77487.07	76918.34	74883.66	76429.69	1.79	ppb
Terbium	159-1				97		%
Terbium	159-2				96		%
Thallium	203-1	0.01	0.01	0.01	0.01	12.52	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	34.09	ppb
Tin	118-1	0.03	0.04	0.03	0.04	9.99	ppb
Titanium	47-1	1.01	1.02	1.02	1.02	0.31	ppb
Uranium	238-1	0.79	0.79	0.79	0.79	0.33	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	50.12	49.28	50.27	49.89	1.07	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	181.45	182.20	181.57	181.74	0.22	ppb
Zirconium	90-1	0.12	0.12	0.11	0.12	3.69	ppb
Zirconium	91-1	0.15	0.11	0.14	0.13	15.37	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11890.85	11965.75	12016.21	11957.60	0.53	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	12.30	ppb
Arsenic	75-2	0.40	0.43	0.36	0.40	8.96	ppb
Barium	135-1	19.32	20.18	19.70	19.73	2.19	ppb
Barium	137-1	19.83	21.13	19.56	20.17	4.17	ppb
Beryllium	9-1	0.11	0.12	0.11	0.11	7.03	ppb
Bismuth	209-1				95		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	0.17	0.18	0.16	0.17	7.28	ppb
Cadmium	106-1	-3.85	-3.42	-3.99	-3.76		ppb
Cadmium	111-1	-0.21	-0.17	-0.22	-0.20		ppb
Calcium	43-1	36887.98	37314.07	36714.67	36972.24	0.83	ppb
Calcium	44-1	36452.19	36549.20	36646.38	36549.26	0.27	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.13	2.08	2.06	2.09	1.69	ppb
Cobalt	59-2	22.98	23.08	23.03	23.03	0.24	ppb
Copper	63-2	45.47	46.02	45.94	45.81	0.65	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				97		%
Holmium	165-2				97		%
Indium	115-1				95		%
Indium	115-2				94		%
Iron	54-2	44574.43	45229.69	44256.17	44686.76	1.11	ppb
Iron	56-2	44592.62	44764.87	44769.92	44709.14	0.23	ppb
Iron	57-2	44581.41	44567.84	45248.06	44799.10	0.87	ppb
Krypton	83-1						cps
Lead	206-1	0.81	0.82	0.79	0.81	1.69	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.79	0.80	0.78	0.79	1.53	ppb
Lead	208-1	0.80	0.81	0.80	0.80	0.86	ppb
Lithium	6-1				97		%
Magnesium	24-2	14271.08	14218.51	14325.14	14271.58	0.37	ppb
Manganese	55-2	626.35	626.77	631.19	628.10	0.43	ppb
Molybdenum	94-1	0.15	0.14	0.15	0.15	6.37	ppb
Molybdenum	95-1	0.02	0.02	0.02	0.02	22.57	ppb
Molybdenum	96-1	0.10	0.10	0.08	0.09	9.23	ppb
Molybdenum	97-1	0.01	0.02	0.02	0.02	18.50	ppb
Molybdenum	98-1	0.02	0.02	0.01	0.02	26.20	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	14.67	14.65	14.82	14.71	0.63	ppb
Phosphorus	31-2	236.75	227.94	180.97	215.22	13.93	ppb
Potassium	39-2	570.21	577.93	565.01	571.05	1.14	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				98		%
Scandium	45-2				97		%
Selenium	82-1	0.63	0.13	0.59	0.45	62.12	ppb
Selenium	77-2	11.43	19.36	12.25	14.35	30.40	ppb
Selenium	78-2	1.76	4.12	3.57	3.15	39.22	ppb
Silicon	28-1	5960.81	6036.89	5887.88	5961.86	1.25	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	151.17	ppb
Sodium	23-2	14505.69	14941.11	14705.81	14717.54	1.48	ppb
Strontium	86-1	90.75	93.07	90.48	91.43	1.56	ppb
Strontium	88-1	97.61	98.89	97.21	97.90	0.90	ppb
Sulfur	34-1	75538.56	75630.29	74706.16	75291.67	0.68	ppb
Terbium	159-1				97		%
Terbium	159-2				95		%
Thallium	203-1	0.01	0.01	0.02	0.01	6.08	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	18.79	ppb
Tin	118-1	0.02	0.02	0.03	0.03	19.64	ppb
Titanium	47-1	1.01	1.03	0.93	0.99	5.16	ppb
Uranium	238-1	0.61	0.61	0.62	0.62	0.65	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	39.79	40.31	40.37	40.16	0.80	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				98		%
Zinc	66-2	167.63	170.82	170.37	169.61	1.02	ppb
Zirconium	90-1	0.07	0.08	0.07	0.07	2.88	ppb
Zirconium	91-1	0.09	0.07	0.07	0.08	12.16	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12153.32	12107.82	11968.71	12076.62	0.80	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	12.46	ppb
Arsenic	75-2	0.43	0.52	0.45	0.47	10.05	ppb
Barium	135-1	19.79	19.99	19.99	19.92	0.60	ppb
Barium	137-1	20.28	20.37	20.19	20.28	0.44	ppb
Beryllium	9-1	0.11	0.11	0.11	0.11	2.04	ppb
Bismuth	209-1				93		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	0.19	0.12	0.09	0.13	38.80	ppb
Cadmium	106-1	-4.27	-4.07	-4.36	-4.23		ppb
Cadmium	111-1	-0.24	-0.21	-0.23	-0.23		ppb
Calcium	43-1	35922.45	37247.93	36591.09	36587.16	1.81	ppb
Calcium	44-1	36528.33	36849.92	36407.06	36595.10	0.63	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.15	2.15	2.06	2.12	2.42	ppb
Cobalt	59-2	23.32	23.28	23.23	23.28	0.18	ppb
Copper	63-2	46.24	46.04	46.04	46.11	0.26	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				96		%
Indium	115-1				94		%
Indium	115-2				94		%
Iron	54-2	44868.90	44633.04	44786.58	44762.84	0.27	ppb
Iron	56-2	45466.06	44883.35	44762.46	45037.29	0.84	ppb
Iron	57-2	45609.33	45537.02	44698.74	45281.70	1.12	ppb
Krypton	83-1						cps
Lead	206-1	0.83	0.81	0.84	0.83	1.66	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.79	0.77	0.80	0.79	2.06	ppb
Lead	208-1	0.82	0.80	0.82	0.81	1.00	ppb
Lithium	6-1				96		%
Magnesium	24-2	14345.70	14373.21	14166.19	14295.03	0.79	ppb
Manganese	55-2	631.01	628.16	628.21	629.12	0.26	ppb
Molybdenum	94-1	0.15	0.16	0.16	0.16	5.45	ppb
Molybdenum	95-1	0.02	0.02	0.02	0.02	0.91	ppb
Molybdenum	96-1	0.10	0.09	0.10	0.09	7.70	ppb
Molybdenum	97-1	0.02	0.01	0.01	0.01	63.64	ppb
Molybdenum	98-1	0.02	0.01	0.01	0.01	43.74	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	14.76	14.96	14.75	14.82	0.78	ppb
Phosphorus	31-2	191.68	220.34	240.20	217.41	11.22	ppb
Potassium	39-2	572.11	567.54	563.47	567.71	0.76	ppb
Rhodium	103-1				94		%
Rhodium	103-2				94		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	0.41	0.21	-0.11	0.17	157.08	ppb
Selenium	77-2	13.41	10.46	17.52	13.80	25.71	ppb
Selenium	78-2	3.13	4.07	2.01	3.07	33.53	ppb
Silicon	28-1	6063.82	5971.84	5917.16	5984.28	1.24	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	137.53	ppb
Sodium	23-2	14974.32	14447.33	14480.53	14634.06	2.02	ppb
Strontium	86-1	91.90	92.28	92.38	92.19	0.27	ppb
Strontium	88-1	99.40	96.27	97.73	97.80	1.60	ppb
Sulfur	34-1	75753.14	74953.15	75875.65	75527.31	0.66	ppb
Terbium	159-1				95		%
Terbium	159-2				95		%
Thallium	203-1	0.01	0.01	0.01	0.01	11.45	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	30.84	ppb
Tin	118-1	0.03	0.02	0.03	0.03	19.09	ppb
Titanium	47-1	1.05	0.94	0.95	0.98	5.77	ppb
Uranium	238-1	0.61	0.61	0.62	0.61	0.54	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	40.19	40.43	40.12	40.24	0.41	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	171.90	174.66	170.73	172.43	1.17	ppb
Zirconium	90-1	0.07	0.08	0.08	0.08	5.35	ppb
Zirconium	91-1	0.09	0.07	0.07	0.08	10.33	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2459.10	2400.26	2489.11	2449.49	1.85	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	17.35	ppb
Arsenic	75-2	0.05	0.11	0.04	0.07	52.14	ppb
Barium	135-1	4.05	4.04	4.07	4.06	0.28	ppb
Barium	137-1	4.18	4.16	4.01	4.11	2.31	ppb
Beryllium	9-1	0.04	0.03	0.03	0.03	13.70	ppb
Bismuth	209-1				95		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	0.06	0.05	0.07	0.06	19.43	ppb
Cadmium	106-1	-4.12	-5.01	-4.47	-4.53		ppb
Cadmium	111-1	-0.30	-0.36	-0.33	-0.33		ppb
Calcium	43-1	7140.14	7097.04	7209.04	7148.74	0.79	ppb
Calcium	44-1	7489.50	7392.72	7485.95	7456.06	0.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.41	0.46	0.42	0.43	5.54	ppb
Cobalt	59-2	4.76	4.62	4.77	4.72	1.69	ppb
Copper	63-2	9.39	9.26	9.32	9.32	0.68	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				96		%
Indium	115-1				94		%
Indium	115-2				95		%
Iron	54-2	8736.84	8645.40	8707.60	8696.61	0.54	ppb
Iron	56-2	9230.29	9045.55	9114.74	9130.19	1.02	ppb
Iron	57-2	8576.23	8490.87	8614.77	8560.62	0.74	ppb
Krypton	83-1						cps
Lead	206-1	0.18	0.17	0.17	0.18	3.00	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.17	0.18	0.17	0.17	5.16	ppb
Lead	208-1	0.18	0.19	0.18	0.18	2.66	ppb
Lithium	6-1				97		%
Magnesium	24-2	2747.90	2723.15	2787.72	2752.92	1.18	ppb
Manganese	55-2	129.74	128.83	129.50	129.36	0.37	ppb
Molybdenum	94-1	0.03	0.03	0.00	0.02	72.90	ppb
Molybdenum	95-1	0.01	0.01	0.00	0.00	142.82	ppb
Molybdenum	96-1	0.03	0.03	0.02	0.03	25.51	ppb
Molybdenum	97-1	0.02	0.01	0.02	0.02	20.32	ppb
Molybdenum	98-1	0.01	0.00	0.00	0.00	113.58	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.75	2.83	2.97	2.85	3.96	ppb
Phosphorus	31-2	29.22	32.55	1.27	21.01	81.75	ppb
Potassium	39-2	114.85	110.70	109.60	111.72	2.48	ppb
Rhodium	103-1				96		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Selenium	82-1	0.05	-0.17	0.06	-0.02		ppb
Selenium	77-2	0.90	0.91	2.75	1.52	69.91	ppb
Selenium	78-2	0.45	0.20	0.22	0.29	48.43	ppb
Silicon	28-1	1211.26	1188.30	1216.88	1205.48	1.26	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	2989.17	3005.24	3057.16	3017.19	1.18	ppb
Strontium	86-1	19.24	19.18	19.25	19.23	0.19	ppb
Strontium	88-1	19.17	19.06	18.98	19.07	0.51	ppb
Sulfur	34-1	15058.02	14459.78	15083.47	14867.09	2.37	ppb
Terbium	159-1				96		%
Terbium	159-2				95		%
Thallium	203-1	0.00	0.00	0.00	0.00	24.20	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	32.16	ppb
Tin	118-1	0.01	0.01	0.01	0.01	11.42	ppb
Titanium	47-1	0.18	0.18	0.19	0.18	5.15	ppb
Uranium	238-1	0.12	0.12	0.12	0.12	1.05	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	7.81	8.19	8.20	8.07	2.73	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	35.66	35.04	34.67	35.12	1.42	ppb
Zirconium	90-1	0.02	0.01	0.02	0.02	18.65	ppb
Zirconium	91-1	0.02	0.02	0.01	0.02	16.11	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	13075.54	12913.88	12969.59	12986.33	0.63	ppb
Antimony	121-1	100.21	102.98	102.08	101.76	1.39	ppb
Arsenic	75-2	0.44	0.21	0.34	0.33	34.29	ppb
Barium	135-1	459.66	475.81	477.50	470.99	2.09	ppb
Barium	137-1	460.09	473.04	477.60	470.24	1.93	ppb
Beryllium	9-1	86.75	84.58	85.99	85.78	1.28	ppb
Bismuth	209-1				92		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	88.33	89.81	90.43	89.52	1.21	ppb
Cadmium	106-1	88.41	92.36	93.27	91.34	2.83	ppb
Cadmium	111-1	89.87	91.38	92.70	91.32	1.55	ppb
Calcium	43-1	44831.78	43868.45	45219.78	44640.00	1.56	ppb
Calcium	44-1	44225.06	43677.15	43983.48	43961.90	0.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	89.76	87.98	88.95	88.90	1.00	ppb
Cobalt	59-2	113.70	111.81	112.57	112.69	0.85	ppb
Copper	63-2	1041.02	1027.72	1050.28	1039.67	1.09	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				95		%
Indium	115-1				93		%
Indium	115-2				93		%
Iron	54-2	46621.44	45674.91	45750.49	46015.61	1.14	ppb
Iron	56-2	46636.39	46504.87	45915.98	46352.41	0.83	ppb
Iron	57-2	46413.62	46965.79	47128.80	46836.07	0.80	ppb
Krypton	83-1						cps
Lead	206-1	486.15	473.44	483.00	480.86	1.38	ppb

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	491.03	478.19	482.58	483.94	1.35	ppb
Lead	208-1	488.86	472.67	481.05	480.86	1.68	ppb
Lithium	6-1				95		%
Magnesium	24-2	22962.45	22880.01	22661.81	22834.76	0.68	ppb
Manganese	55-2	1642.21	1630.42	1619.24	1630.62	0.70	ppb
Molybdenum	94-1	461.22	437.63	448.45	449.10	2.63	ppb
Molybdenum	95-1	346.20	332.72	338.02	338.98	2.00	ppb
Molybdenum	96-1	356.66	345.78	350.47	350.97	1.56	ppb
Molybdenum	97-1	343.13	330.28	337.50	336.97	1.91	ppb
Molybdenum	98-1	338.70	332.40	332.81	334.64	1.05	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	103.46	103.55	102.90	103.30	0.34	ppb
Phosphorus	31-2	256.94	284.78	252.46	264.73	6.61	ppb
Potassium	39-2	4839.96	4756.27	4832.40	4809.54	0.96	ppb
Rhodium	103-1				93		%
Rhodium	103-2				92		%
Scandium	45-1				96		%
Scandium	45-2				95		%
Selenium	82-1	93.97	91.11	90.14	91.74	2.17	ppb
Selenium	77-2	100.53	103.62	96.10	100.08	3.78	ppb
Selenium	78-2	101.86	95.54	97.64	98.35	3.28	ppb
Silicon	28-1	5666.32	5569.18	5657.76	5631.08	0.96	ppb
Silver	107-1	15.03	15.54	15.59	15.39	2.01	ppb
Silver	109-1	15.12	15.81	15.64	15.52	2.29	ppb
Sodium	23-2	23525.60	23050.94	23191.43	23255.99	1.05	ppb
Strontium	86-1	194.73	191.80	194.95	193.83	0.91	ppb
Strontium	88-1	204.91	201.47	201.17	202.52	1.03	ppb
Sulfur	34-1	72182.02	71623.37	72955.38	72253.59	0.93	ppb
Terbium	159-1				96		%
Terbium	159-2				96		%
Thallium	203-1	88.20	87.02	86.78	87.33	0.87	ppb
Thallium	205-1	95.52	93.85	95.18	94.85	0.93	ppb
Tin	118-1	81.92	84.88	84.51	83.77	1.93	ppb
Titanium	47-1	1.16	1.18	1.30	1.22	6.36	ppb
Uranium	238-1	95.59	93.19	94.17	94.31	1.28	ppb

Reviewed By:kareem
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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	130.49	128.61	129.34	129.48	0.73	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	1107.18	1097.27	1119.12	1107.86	0.99	ppb
Zirconium	90-1	95.40	94.81	95.85	95.35	0.55	ppb
Zirconium	91-1	89.60	88.65	88.73	88.99	0.59	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50392.25	51316.57	51269.36	50992.73	1.02	ppb
Antimony	121-1	474.01	482.21	481.11	479.11	0.93	ppb
Arsenic	75-2	481.82	473.85	482.06	479.24	0.97	ppb
Barium	135-1	2489.59	2486.58	2498.99	2491.72	0.26	ppb
Barium	137-1	2501.07	2480.21	2532.33	2504.54	1.05	ppb
Beryllium	9-1	486.06	497.75	492.78	492.20	1.19	ppb
Bismuth	209-1				83		%
Bismuth	209-2				83		%
Bromine	81-1						cps
Cadmium	108-1	469.05	470.43	480.71	473.40	1.35	ppb
Cadmium	106-1	471.26	471.75	482.30	475.10	1.31	ppb
Cadmium	111-1	472.16	475.36	477.34	474.95	0.55	ppb
Calcium	43-1	239100.51	242804.99	237470.61	239792.03	1.14	ppb
Calcium	44-1	239984.90	243209.75	240005.14	241066.60	0.77	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	479.22	482.84	485.71	482.59	0.67	ppb
Cobalt	59-2	479.26	473.65	477.95	476.95	0.62	ppb
Copper	63-2	4709.37	4670.38	4653.96	4677.90	0.61	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				93		%
Holmium	165-2				92		%
Indium	115-1				86		%
Indium	115-2				86		%
Iron	54-2	125002.40	125265.23	125626.84	125298.16	0.25	ppb
Iron	56-2	124344.21	125616.61	124277.92	124746.25	0.60	ppb
Iron	57-2	124593.78	125001.69	124254.68	124616.71	0.30	ppb
Krypton	83-1						cps
Lead	206-1	2487.05	2509.97	2528.40	2508.47	0.83	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2490.47	2511.91	2529.66	2510.68	0.78	ppb
Lead	208-1	2493.86	2526.35	2523.60	2514.60	0.72	ppb
Lithium	6-1				88		%
Magnesium	24-2	250974.34	249503.28	248263.64	249580.42	0.54	ppb
Manganese	55-2	4924.45	4935.33	4939.49	4933.09	0.16	ppb
Molybdenum	94-1	4942.33	5068.60	5048.21	5019.71	1.35	ppb
Molybdenum	95-1	4873.33	5059.49	5073.51	5002.11	2.23	ppb
Molybdenum	96-1	4863.32	4996.41	5039.90	4966.54	1.85	ppb
Molybdenum	97-1	4869.31	4947.36	5006.91	4941.19	1.40	ppb
Molybdenum	98-1	4838.21	4975.49	5026.35	4946.68	1.97	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	452.91	452.57	456.55	454.01	0.49	ppb
Phosphorus	31-2	9649.32	9883.66	9905.22	9812.73	1.45	ppb
Potassium	39-2	123167.32	125240.14	124563.51	124323.66	0.85	ppb
Rhodium	103-1				83		%
Rhodium	103-2				84		%
Scandium	45-1				92		%
Scandium	45-2				93		%
Selenium	82-1	458.49	472.28	468.73	466.50	1.53	ppb
Selenium	77-2	460.19	460.96	452.80	457.99	0.98	ppb
Selenium	78-2	466.01	477.08	454.62	465.90	2.41	ppb
Silicon	28-1	471.24	498.18	488.92	486.11	2.82	ppb
Silver	107-1	469.16	472.02	471.97	471.05	0.35	ppb
Silver	109-1	470.68	471.27	480.57	474.17	1.17	ppb
Sodium	23-2	249097.62	250030.21	249243.42	249457.08	0.20	ppb
Strontium	86-1	498.05	506.95	497.25	500.75	1.08	ppb
Strontium	88-1	485.67	497.81	498.07	493.85	1.43	ppb
Sulfur	34-1	9812.33	10481.08	9980.52	10091.31	3.45	ppb
Terbium	159-1				92		%
Terbium	159-2				91		%
Thallium	203-1	494.53	489.40	502.94	495.63	1.38	ppb
Thallium	205-1	489.69	495.48	497.45	494.21	0.82	ppb
Tin	118-1	493.29	497.08	504.71	498.36	1.17	ppb
Titanium	47-1	4894.98	5007.48	4954.06	4952.17	1.14	ppb
Uranium	238-1	519.22	518.72	520.00	519.31	0.12	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	457.70	461.41	459.43	459.51	0.40	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				92		%
Yttrium	89-2				91		%
Zinc	66-2	4946.43	4858.46	4846.93	4883.94	1.11	ppb
Zirconium	90-1	502.27	518.29	513.41	511.32	1.61	ppb
Zirconium	91-1	508.70	524.11	521.12	517.98	1.58	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.31	0.06	0.37	0.25	65.95	ppb
Antimony	121-1	0.05	0.05	0.05	0.05	7.28	ppb
Arsenic	75-2	0.01	-0.03	-0.04	-0.02		ppb
Barium	135-1	0.18	0.18	0.21	0.19	8.77	ppb
Barium	137-1	0.19	0.20	0.19	0.20	3.95	ppb
Beryllium	9-1	0.09	0.07	0.08	0.08	11.00	ppb
Bismuth	209-1				94		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	0.00	0.06	0.04	0.04	81.93	ppb
Cadmium	106-1	-5.10	-5.41	-4.37	-4.96		ppb
Cadmium	111-1	-0.36	-0.41	-0.32	-0.36		ppb
Calcium	43-1	-2.19	-3.75	-4.52	-3.49		ppb
Calcium	44-1	-9.23	-10.04	-10.53	-9.94		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.01	0.02	0.01	0.01	262.61	ppb
Cobalt	59-2	0.01	0.03	0.01	0.02	71.05	ppb
Copper	63-2	-0.12	-0.13	-0.09	-0.11		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				95		%
Holmium	165-2				94		%
Indium	115-1				94		%
Indium	115-2				93		%
Iron	54-2	2.03	1.29	2.82	2.04	37.49	ppb
Iron	56-2	1.97	2.25	2.15	2.12	6.64	ppb
Iron	57-2	2.08	1.87	2.33	2.09	10.83	ppb
Krypton	83-1						cps
Lead	206-1	0.11	0.10	0.10	0.10	2.11	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.13	0.10	0.11	0.11	12.65	ppb
Lead	208-1	0.11	0.11	0.10	0.11	4.53	ppb
Lithium	6-1				94		%
Magnesium	24-2	0.56	0.67	0.61	0.61	8.68	ppb
Manganese	55-2	0.29	0.34	0.36	0.33	10.71	ppb
Molybdenum	94-1	0.10	0.08	0.08	0.09	16.35	ppb
Molybdenum	95-1	0.10	0.07	0.07	0.08	24.41	ppb
Molybdenum	96-1	0.10	0.07	0.06	0.08	26.74	ppb
Molybdenum	97-1	0.08	0.07	0.06	0.07	20.69	ppb
Molybdenum	98-1	0.07	0.08	0.07	0.07	5.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.11	-0.05	-0.06	-0.07		ppb
Phosphorus	31-2	-18.56	-21.63	-8.09	-16.09		ppb
Potassium	39-2	2.13	2.14	-0.53	1.25	123.33	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				94		%
Scandium	45-2				92		%
Selenium	82-1	-0.22	0.01	-0.17	-0.13		ppb
Selenium	77-2	-0.85	-0.85	-0.85	-0.85		ppb
Selenium	78-2	0.24	1.07	-0.30	0.33	205.61	ppb
Silicon	28-1	-0.57	-0.86	-1.17	-0.87		ppb
Silver	107-1	0.02	0.01	0.01	0.01	7.59	ppb
Silver	109-1	0.02	0.01	0.02	0.02	19.46	ppb
Sodium	23-2	5.35	5.14	4.43	4.98	9.66	ppb
Strontium	86-1	-0.06	-0.08	-0.07	-0.07		ppb
Strontium	88-1	-0.05	-0.05	-0.05	-0.05		ppb
Sulfur	34-1	-829.63	-884.44	-917.55	-877.21		ppb
Terbium	159-1				94		%
Terbium	159-2				92		%
Thallium	203-1	0.03	0.02	0.03	0.03	8.94	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	5.41	ppb
Tin	118-1	0.04	0.01	0.03	0.03	58.69	ppb
Titanium	47-1	0.03	-0.01	0.03	0.02	130.07	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	47.89	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.01	0.00	58.10	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	-0.23	-0.26	0.00	-0.16		ppb
Zirconium	90-1	0.01	0.02	0.01	0.01	29.98	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	11.17	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12927.76	12919.43	12787.35	12878.18	0.61	ppb
Antimony	121-1	90.30	95.57	92.20	92.69	2.88	ppb
Arsenic	75-2	0.42	0.34	0.59	0.45	28.26	ppb
Barium	135-1	454.38	455.55	459.47	456.47	0.58	ppb
Barium	137-1	456.43	460.42	459.35	458.73	0.45	ppb
Beryllium	9-1	83.31	83.40	85.70	84.14	1.61	ppb
Bismuth	209-1				93		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	87.34	89.76	88.48	88.53	1.37	ppb
Cadmium	106-1	88.32	88.74	90.27	89.11	1.15	ppb
Cadmium	111-1	88.36	89.37	89.94	89.22	0.90	ppb
Calcium	43-1	43797.27	42996.49	43769.90	43521.22	1.04	ppb
Calcium	44-1	42936.34	43081.93	43464.45	43160.91	0.63	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	89.08	87.75	86.47	87.77	1.49	ppb
Cobalt	59-2	111.41	111.74	109.70	110.95	0.99	ppb
Copper	63-2	1042.03	1021.66	1032.53	1032.07	0.99	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				96		%
Holmium	165-2				94		%
Indium	115-1				92		%
Indium	115-2				92		%
Iron	54-2	46062.09	46444.78	44984.18	45830.35	1.65	ppb
Iron	56-2	46136.36	45824.00	45170.42	45710.26	1.08	ppb
Iron	57-2	46347.73	46250.86	45480.65	46026.41	1.03	ppb
Krypton	83-1						cps
Lead	206-1	450.50	460.97	465.21	458.90	1.65	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	458.92	463.96	472.82	465.23	1.51	ppb
Lead	208-1	461.13	462.02	469.55	464.23	1.00	ppb
Lithium	6-1				95		%
Magnesium	24-2	23084.21	22693.02	22530.13	22769.12	1.25	ppb
Manganese	55-2	1607.51	1605.10	1591.16	1601.25	0.55	ppb
Molybdenum	94-1	434.38	447.95	435.76	439.36	1.70	ppb
Molybdenum	95-1	325.56	339.14	335.14	333.28	2.09	ppb
Molybdenum	96-1	338.79	351.48	341.21	343.82	1.96	ppb
Molybdenum	97-1	325.26	342.84	326.06	331.39	3.00	ppb
Molybdenum	98-1	321.53	338.86	325.79	328.73	2.75	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	102.73	102.47	101.77	102.32	0.48	ppb
Phosphorus	31-2	201.32	238.98	183.41	207.90	13.64	ppb
Potassium	39-2	4745.61	4736.69	4700.04	4727.45	0.51	ppb
Rhodium	103-1				92		%
Rhodium	103-2				92		%
Scandium	45-1				94		%
Scandium	45-2				94		%
Selenium	82-1	89.74	94.20	92.57	92.17	2.45	ppb
Selenium	77-2	89.27	109.17	122.02	106.82	15.45	ppb
Selenium	78-2	96.32	93.40	95.77	95.16	1.63	ppb
Silicon	28-1	5544.63	5456.24	5577.70	5526.19	1.14	ppb
Silver	107-1	14.71	15.11	15.29	15.04	1.97	ppb
Silver	109-1	14.99	15.09	15.47	15.18	1.66	ppb
Sodium	23-2	23462.98	23196.53	22948.84	23202.78	1.11	ppb
Strontium	86-1	186.61	192.21	191.18	190.00	1.57	ppb
Strontium	88-1	196.85	200.90	202.45	200.07	1.45	ppb
Sulfur	34-1	70451.53	68813.65	70579.47	69948.22	1.41	ppb
Terbium	159-1				95		%
Terbium	159-2				94		%
Thallium	203-1	83.57	84.58	85.62	84.59	1.21	ppb
Thallium	205-1	91.09	92.90	93.79	92.59	1.49	ppb
Tin	118-1	80.89	81.39	82.83	81.70	1.23	ppb
Titanium	47-1	1.17	1.22	1.27	1.22	4.04	ppb
Uranium	238-1	91.78	91.96	92.26	92.00	0.27	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	128.56	128.44	125.98	127.66	1.14	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	1108.06	1100.01	1084.73	1097.60	1.08	ppb
Zirconium	90-1	92.91	95.90	94.45	94.42	1.59	ppb
Zirconium	91-1	85.46	88.28	86.37	86.70	1.66	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12988.23	12745.85	13048.87	12927.65	1.24	ppb
Antimony	121-1	92.38	89.49	92.26	91.38	1.78	ppb
Arsenic	75-2	0.34	0.51	0.43	0.43	20.08	ppb
Barium	135-1	469.77	446.48	467.89	461.38	2.80	ppb
Barium	137-1	466.62	449.48	461.57	459.22	1.92	ppb
Beryllium	9-1	84.47	83.49	83.72	83.90	0.61	ppb
Bismuth	209-1				93		%
Bismuth	209-2				91		%
Bromine	81-1						cps
Cadmium	108-1	90.34	87.57	90.22	89.38	1.75	ppb
Cadmium	106-1	91.56	88.07	90.07	89.90	1.95	ppb
Cadmium	111-1	90.44	88.19	90.56	89.73	1.49	ppb
Calcium	43-1	44075.97	43059.28	43752.93	43629.39	1.19	ppb
Calcium	44-1	43197.65	42892.23	43126.70	43072.19	0.37	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	87.92	86.64	89.30	87.96	1.51	ppb
Cobalt	59-2	110.24	109.35	112.62	110.74	1.53	ppb
Copper	63-2	1031.64	1016.27	1036.97	1028.29	1.04	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				94		%
Indium	115-2				93		%
Iron	54-2	45780.92	45523.98	46830.58	46045.16	1.50	ppb
Iron	56-2	45878.31	45078.94	46588.74	45848.66	1.65	ppb
Iron	57-2	46381.23	44687.50	47118.15	46062.29	2.71	ppb
Krypton	83-1						cps
Lead	206-1	477.49	466.24	474.03	472.59	1.22	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	478.21	464.19	473.67	472.03	1.52	ppb
Lead	208-1	475.33	461.00	472.08	469.47	1.60	ppb
Lithium	6-1				96		%
Magnesium	24-2	22829.95	22698.52	22813.28	22780.58	0.31	ppb
Manganese	55-2	1609.13	1596.88	1622.25	1609.42	0.79	ppb
Molybdenum	94-1	445.18	448.35	440.88	444.80	0.84	ppb
Molybdenum	95-1	337.31	339.98	336.65	337.98	0.52	ppb
Molybdenum	96-1	351.05	349.19	342.60	347.61	1.28	ppb
Molybdenum	97-1	341.58	339.01	331.49	337.36	1.55	ppb
Molybdenum	98-1	327.33	332.52	333.81	331.22	1.03	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	102.29	101.09	103.37	102.25	1.12	ppb
Phosphorus	31-2	186.92	228.81	190.69	202.14	11.46	ppb
Potassium	39-2	4707.92	4636.58	4718.81	4687.77	0.95	ppb
Rhodium	103-1				93		%
Rhodium	103-2				92		%
Scandium	45-1				96		%
Scandium	45-2				95		%
Selenium	82-1	92.07	93.30	90.67	92.01	1.43	ppb
Selenium	77-2	97.18	100.31	118.22	105.24	10.78	ppb
Selenium	78-2	94.47	95.32	96.57	95.46	1.11	ppb
Silicon	28-1	5560.58	5467.20	5490.80	5506.19	0.88	ppb
Silver	107-1	15.72	15.17	15.51	15.47	1.79	ppb
Silver	109-1	15.45	15.01	15.27	15.24	1.43	ppb
Sodium	23-2	23120.59	22742.49	23227.08	23030.05	1.11	ppb
Strontium	86-1	189.42	189.80	190.00	189.74	0.16	ppb
Strontium	88-1	200.03	195.49	198.10	197.87	1.15	ppb
Sulfur	34-1	71550.63	69845.95	69870.12	70422.23	1.39	ppb
Terbium	159-1				96		%
Terbium	159-2				95		%
Thallium	203-1	86.40	84.69	85.73	85.61	1.01	ppb
Thallium	205-1	93.37	89.83	93.11	92.10	2.14	ppb
Tin	118-1	83.46	80.61	82.98	82.35	1.85	ppb
Titanium	47-1	1.15	1.15	1.18	1.16	1.66	ppb
Uranium	238-1	93.48	90.70	93.96	92.72	1.90	ppb

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	128.44	127.08	129.31	128.28	0.88	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				99		%
Zinc	66-2	1102.92	1083.26	1112.25	1099.48	1.35	ppb
Zirconium	90-1	95.48	92.56	94.11	94.05	1.55	ppb
Zirconium	91-1	87.44	88.37	87.14	87.65	0.73	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.82	2.29	2.75	2.62	11.07	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	17.43	ppb
Arsenic	75-2	-0.01	0.00	0.03	0.01	360.05	ppb
Barium	135-1	0.17	0.18	0.21	0.19	10.63	ppb
Barium	137-1	0.21	0.18	0.19	0.19	5.57	ppb
Beryllium	9-1	0.04	0.04	0.04	0.04	7.83	ppb
Bismuth	209-1				93		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	0.09	0.05	0.01	0.05	83.22	ppb
Cadmium	106-1	-4.20	-4.18	-4.53	-4.30		ppb
Cadmium	111-1	-0.31	-0.31	-0.34	-0.32		ppb
Calcium	43-1	8.26	6.60	7.28	7.38	11.26	ppb
Calcium	44-1	1.04	0.83	0.59	0.82	27.51	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.20	0.16	0.17	0.18	10.91	ppb
Cobalt	59-2	0.02	0.02	0.01	0.02	20.16	ppb
Copper	63-2	-0.09	-0.10	-0.10	-0.09		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				94		%
Holmium	165-2				93		%
Indium	115-1				93		%
Indium	115-2				91		%
Iron	54-2	9.47	11.01	10.07	10.18	7.64	ppb
Iron	56-2	10.50	10.28	10.46	10.41	1.09	ppb
Iron	57-2	9.64	10.23	9.40	9.76	4.42	ppb
Krypton	83-1						cps
Lead	206-1	0.13	0.13	0.12	0.12	5.95	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.12	0.12	0.12	0.12	2.21	ppb
Lead	208-1	0.12	0.12	0.12	0.12	1.81	ppb
Lithium	6-1				94		%
Magnesium	24-2	0.90	0.60	0.73	0.74	20.76	ppb
Manganese	55-2	2.05	2.10	1.99	2.04	2.73	ppb
Molybdenum	94-1	0.03	0.04	0.02	0.03	28.13	ppb
Molybdenum	95-1	0.02	0.00	0.00	0.01	116.39	ppb
Molybdenum	96-1	0.02	0.01	0.03	0.02	46.93	ppb
Molybdenum	97-1	0.01	0.01	0.00	0.01	83.35	ppb
Molybdenum	98-1	0.02	0.01	0.01	0.01	40.32	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.19	0.09	0.26	0.18	47.03	ppb
Phosphorus	31-2	-24.01	-20.86	-21.77	-22.21		ppb
Potassium	39-2	6.08	6.67	4.97	5.90	14.60	ppb
Rhodium	103-1				94		%
Rhodium	103-2				93		%
Scandium	45-1				92		%
Scandium	45-2				92		%
Selenium	82-1	0.01	0.00	0.04	0.02	124.19	ppb
Selenium	77-2	-0.85	-0.85	-0.85	-0.85		ppb
Selenium	78-2	-0.57	0.27	-0.85	-0.39		ppb
Silicon	28-1	2.22	2.08	3.07	2.46	21.60	ppb
Silver	107-1	0.01	0.01	0.01	0.01	15.46	ppb
Silver	109-1	0.01	0.01	0.01	0.01	10.26	ppb
Sodium	23-2	31.79	30.16	31.33	31.09	2.70	ppb
Strontium	86-1	0.01	-0.02	0.00	0.00		ppb
Strontium	88-1	0.02	0.02	0.02	0.02	9.75	ppb
Sulfur	34-1	9921.28	9548.71	9529.03	9666.34	2.29	ppb
Terbium	159-1				93		%
Terbium	159-2				93		%
Thallium	203-1	0.01	0.01	0.01	0.01	41.16	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	9.38	ppb
Tin	118-1	0.35	0.37	0.36	0.36	2.23	ppb
Titanium	47-1	0.04	0.02	0.03	0.03	35.61	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	64.25	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.01	0.00	70.26	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				92		%
Zinc	66-2	0.90	0.86	0.78	0.85	7.45	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	19.87	ppb
Zirconium	91-1	0.00	0.01	0.01	0.01	66.64	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51223.56	52073.87	50928.56	51408.66	1.16	ppb
Antimony	121-1	468.92	483.28	479.37	477.19	1.56	ppb
Arsenic	75-2	460.94	469.30	472.51	467.58	1.28	ppb
Barium	135-1	2448.48	2493.53	2497.87	2479.96	1.10	ppb
Barium	137-1	2451.23	2514.90	2528.90	2498.34	1.66	ppb
Beryllium	9-1	482.45	473.88	487.58	481.30	1.44	ppb
Bismuth	209-1				79		%
Bismuth	209-2				78		%
Bromine	81-1						cps
Cadmium	108-1	458.07	466.33	472.28	465.56	1.53	ppb
Cadmium	106-1	462.40	465.63	469.68	465.90	0.78	ppb
Cadmium	111-1	472.44	473.86	472.60	472.97	0.16	ppb
Calcium	43-1	241554.39	246384.79	242406.77	243448.65	1.06	ppb
Calcium	44-1	242806.02	246336.76	244717.30	244620.03	0.72	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	518.53	489.20	475.90	494.55	4.41	ppb
Cobalt	59-2	472.79	472.50	467.12	470.81	0.68	ppb
Copper	63-2	4673.78	4751.21	4695.70	4706.90	0.85	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				88		%
Holmium	165-2				87		%
Indium	115-1				81		%
Indium	115-2				81		%
Iron	54-2	125202.14	126578.46	125306.31	125695.64	0.61	ppb
Iron	56-2	124464.93	127294.69	125784.91	125848.18	1.13	ppb
Iron	57-2	124429.52	125631.86	124448.82	124836.74	0.55	ppb
Krypton	83-1						cps
Lead	206-1	2533.27	2505.87	2509.23	2516.12	0.59	ppb

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2520.83	2530.73	2529.92	2527.16	0.22	ppb
Lead	208-1	2520.69	2525.38	2534.06	2526.71	0.27	ppb
Lithium	6-1				84		%
Magnesium	24-2	251901.88	251767.86	249550.95	251073.56	0.53	ppb
Manganese	55-2	4920.57	5018.23	4956.83	4965.21	0.99	ppb
Molybdenum	94-1	4953.00	5074.63	4975.70	5001.11	1.29	ppb
Molybdenum	95-1	4942.16	5070.60	4963.37	4992.04	1.38	ppb
Molybdenum	96-1	4931.21	4991.98	4935.50	4952.89	0.68	ppb
Molybdenum	97-1	4953.07	4960.77	4950.29	4954.71	0.11	ppb
Molybdenum	98-1	4911.15	4957.22	4931.19	4933.19	0.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	454.46	462.88	453.78	457.04	1.11	ppb
Phosphorus	31-2	9715.48	10171.01	10085.15	9990.55	2.42	ppb
Potassium	39-2	123827.13	125164.63	125385.35	124792.37	0.68	ppb
Rhodium	103-1				79		%
Rhodium	103-2				80		%
Scandium	45-1				85		%
Scandium	45-2				87		%
Selenium	82-1	455.70	466.99	467.33	463.34	1.43	ppb
Selenium	77-2	445.29	466.64	462.87	458.26	2.49	ppb
Selenium	78-2	433.55	461.47	458.32	451.11	3.39	ppb
Silicon	28-1	488.81	494.86	492.01	491.90	0.61	ppb
Silver	107-1	458.93	473.35	468.68	466.99	1.58	ppb
Silver	109-1	463.50	468.17	469.49	467.05	0.67	ppb
Sodium	23-2	251123.00	251536.61	248050.34	250236.65	0.76	ppb
Strontium	86-1	498.54	497.86	500.67	499.02	0.29	ppb
Strontium	88-1	495.33	494.69	495.52	495.18	0.09	ppb
Sulfur	34-1	10310.47	10375.94	10081.33	10255.91	1.51	ppb
Terbium	159-1				87		%
Terbium	159-2				86		%
Thallium	203-1	501.09	496.67	498.08	498.61	0.45	ppb
Thallium	205-1	499.92	494.56	496.41	496.96	0.55	ppb
Tin	118-1	483.30	498.30	495.12	492.24	1.61	ppb
Titanium	47-1	4957.49	5015.35	4978.78	4983.87	0.59	ppb
Uranium	238-1	522.22	525.54	526.69	524.82	0.44	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	460.36	461.98	459.79	460.71	0.25	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				86		%
Yttrium	89-2				87		%
Zinc	66-2	4902.23	4903.77	4891.38	4899.13	0.14	ppb
Zirconium	90-1	509.60	516.40	508.93	511.64	0.81	ppb
Zirconium	91-1	512.84	523.24	516.84	517.64	1.01	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.30	0.08	0.59	0.12	365.72	ppb
Antimony	121-1	0.04	0.04	0.04	0.04	1.43	ppb
Arsenic	75-2	0.03	-0.03	0.01	0.00	630.28	ppb
Barium	135-1	0.19	0.15	0.18	0.17	13.93	ppb
Barium	137-1	0.16	0.19	0.19	0.18	9.98	ppb
Beryllium	9-1	0.06	0.07	0.06	0.06	9.76	ppb
Bismuth	209-1				91		%
Bismuth	209-2				90		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.06	0.07	0.05	52.00	ppb
Cadmium	106-1	-5.46	-4.98	-5.23	-5.22		ppb
Cadmium	111-1	-0.41	-0.37	-0.39	-0.39		ppb
Calcium	43-1	-5.15	-5.24	-5.36	-5.25		ppb
Calcium	44-1	-10.93	-12.46	-11.60	-11.67		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	0.01	-0.01	0.01	247.75	ppb
Cobalt	59-2	0.02	0.02	0.01	0.02	23.97	ppb
Copper	63-2	-0.15	-0.17	-0.14	-0.15		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				92		%
Holmium	165-2				91		%
Indium	115-1				90		%
Indium	115-2				90		%
Iron	54-2	0.74	2.09	0.80	1.21	63.05	ppb
Iron	56-2	1.66	1.54	1.56	1.58	4.02	ppb
Iron	57-2	0.75	0.84	1.10	0.90	20.01	ppb
Krypton	83-1						cps
Lead	206-1	0.08	0.07	0.07	0.07	7.27	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.07	0.06	0.07	0.07	9.72	ppb
Lead	208-1	0.08	0.08	0.07	0.07	2.52	ppb
Lithium	6-1				91		%
Magnesium	24-2	0.46	0.45	0.49	0.47	3.64	ppb
Manganese	55-2	0.23	0.25	0.30	0.26	13.53	ppb
Molybdenum	94-1	0.05	0.07	0.05	0.06	19.60	ppb
Molybdenum	95-1	0.05	0.03	0.03	0.04	25.88	ppb
Molybdenum	96-1	0.04	0.05	0.04	0.04	7.76	ppb
Molybdenum	97-1	0.06	0.03	0.03	0.04	39.71	ppb
Molybdenum	98-1	0.05	0.04	0.05	0.05	12.41	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.02	-0.08	-0.06	-0.05		ppb
Phosphorus	31-2	-15.03	-16.45	-20.90	-17.46		ppb
Potassium	39-2	1.25	2.15	0.93	1.44	43.56	ppb
Rhodium	103-1				91		%
Rhodium	103-2				91		%
Scandium	45-1				90		%
Scandium	45-2				89		%
Selenium	82-1	0.13	-0.27	-0.34	-0.16		ppb
Selenium	77-2	-0.85	1.05	-0.85	-0.22		ppb
Selenium	78-2	-0.28	-0.57	-0.85	-0.57		ppb
Silicon	28-1	-0.73	-1.14	-1.16	-1.01		ppb
Silver	107-1	0.01	0.01	0.01	0.01	19.23	ppb
Silver	109-1	0.01	0.01	0.01	0.01	28.59	ppb
Sodium	23-2	3.74	2.55	4.36	3.55	25.94	ppb
Strontium	86-1	-0.05	-0.07	-0.06	-0.06		ppb
Strontium	88-1	-0.05	-0.05	-0.04	-0.05		ppb
Sulfur	34-1	-761.08	-867.32	-911.97	-846.79		ppb
Terbium	159-1				91		%
Terbium	159-2				91		%
Thallium	203-1	0.02	0.01	0.02	0.02	21.71	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	9.58	ppb
Tin	118-1	0.03	0.02	0.02	0.02	25.02	ppb
Titanium	47-1	0.02	-0.03	-0.01	-0.01		ppb
Uranium	238-1	0.00	0.00	0.00	0.00	41.88	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	230.44	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				91		%
Yttrium	89-2				90		%
Zinc	66-2	-0.08	-0.03	-0.04	-0.05		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	38.29	ppb
Zirconium	91-1	0.02	0.01	0.01	0.01	20.06	ppb

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	80	73	53	69	20.15	cps
Antimony	121-1	50	63	40	51	22.90	cps
Arsenic	75-2	10	7	17	11	45.82	cps
Barium	135-1	213	230	230	224	4.29	cps
Barium	137-1	363	337	293	331	10.67	cps
Beryllium	9-1	339	306	370	338	9.42	cps
Bismuth	209-1	12428887	12315509	12534447	12426281	0.88	cps
Bismuth	209-2	4396763	4307431	4286458	4330217	1.35	cps
Bromine	81-1	4577	4718	4921	4739	3.64	cps
Cadmium	108-1	13	33	33	27	43.31	cps
Cadmium	106-1	9230	9353	9226	9270	0.78	cps
Cadmium	111-1	6482	6551	6462	6498	0.72	cps
Calcium	43-1	913	843	820	859	5.66	cps
Calcium	44-1	27897	27553	27513	27654	0.76	cps
Carbon	12-1	5138178	5047175	4984461	5056605	1.53	cps
Carbon	12-2	32138	31878	32322	32113	0.70	cps
Chlorine	35-1	139676	138128	137162	138322	0.92	cps
Chlorine	35-2	563	510	460	511	10.11	cps
Chromium	52-2	1923	1860	2050	1945	4.98	cps
Cobalt	59-2	187	230	193	203	11.47	cps
Copper	63-2	2567	2837	2814	2739	5.46	cps
Dysprosium	156-1	383	393	310	362	12.56	cps
Dysprosium	156-2	10	7	13	10	33.30	cps
Erbium	164-1	117	107	103	109	6.37	cps
Erbium	164-2	33	37	33	34	5.60	cps
Gadolinium	160-1	103	103	137	114	16.82	cps
Gadolinium	160-2	20	33	13	22	45.83	cps
Holmium	165-1	19120894	19286906	19240329	19216043	0.45	cps
Holmium	165-2	6004824	5839910	5846504	5897080	1.58	cps
Indium	115-1	15488050	15486609	15319053	15431237	0.63	cps
Indium	115-2	1329736	1296156	1293742	1306544	1.54	cps
Iron	54-2	657	700	720	692	4.68	cps
Iron	56-2	9553	10040	9743	9779	2.51	cps
Iron	57-2	220	300	273	264	15.41	cps
Krypton	83-1	317	270	263	283	10.26	cps
Lead	206-1	1290	1163	1193	1216	5.45	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1030	1133	1030	1065	5.61	cps
Lead	208-1	4770	4704	4647	4707	1.31	cps
Lithium	6-1	8037057	8031945	7926348	7998450	0.78	cps
Magnesium	24-2	1627	1790	1603	1673	6.08	cps
Manganese	55-2	327	403	393	374	11.13	cps
Molybdenum	94-1	640	620	577	612	5.29	cps
Molybdenum	95-1	633	597	543	591	7.66	cps
Molybdenum	96-1	700	627	737	688	8.14	cps
Molybdenum	97-1	293	390	413	366	17.41	cps
Molybdenum	98-1	947	927	863	912	4.77	cps
Neodymium	150-1	13	13	17	14	13.35	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	1060	950	1023	1011	5.54	cps
Phosphorus	31-2	127	123	80	110	23.67	cps
Potassium	39-2	8499	8753	8272	8508	2.82	cps
Rhodium	103-1	14014038	14291320	14175802	14160387	0.98	cps
Rhodium	103-2	5112919	4995441	4989892	5032751	1.38	cps
Scandium	45-1	10912549	10853028	10781549	10849042	0.60	cps
Scandium	45-2	188556	183474	183864	185298	1.53	cps
Selenium	82-1	-23	-23	90	14	453.04	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	13	10	10	11	17.30	cps
Silicon	28-1	569789	569364	569228	569460	0.05	cps
Silver	107-1	243	263	237	248	5.60	cps
Silver	109-1	93	77	77	82	11.70	cps
Sodium	23-2	31928	31895	32743	32189	1.49	cps
Strontium	86-1	907	860	977	914	6.42	cps
Strontium	88-1	3734	3751	3621	3702	1.91	cps
Sulfur	34-1	682829	681682	681365	681959	0.11	cps
Terbium	159-1	19931008	20147872	19780599	19953160	0.93	cps
Terbium	159-2	5797751	5685668	5723680	5735700	0.99	cps
Thallium	203-1	273	260	237	257	7.23	cps
Thallium	205-1	743	650	700	698	6.69	cps
Tin	118-1	1257	1213	1300	1257	3.45	cps
Titanium	47-1	347	233	253	278	21.78	cps
Uranium	238-1	150	137	133	140	6.30	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:05:38	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	3	10	10	66.70	cps
Ytterbium	172-1	77	107	77	87	19.98	cps
Ytterbium	172-2	37	33	47	39	17.85	cps
Ytterbium	176-1	2750	2644	2680	2691	2.01	cps
Ytterbium	176-2	387	443	373	401	9.27	cps
Yttrium	89-1	26366951	26570797	26246182	26394643	0.62	cps
Yttrium	89-2	1750744	1708269	1679050	1712688	2.10	cps
Zinc	66-2	393	400	310	368	13.63	cps
Zirconium	90-1	890	960	877	909	4.93	cps
Zirconium	91-1	197	160	157	171	12.97	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1283	1513	1410	1402	8.22	cps
Antimony	121-1	32616	33561	33742	33306	1.82	cps
Arsenic	75-2	267	333	283	294	11.78	cps
Barium	135-1	41731	40962	41293	41328	0.93	cps
Barium	137-1	71045	71672	71334	71350	0.44	cps
Beryllium	9-1	6478	6403	6623	6501	1.72	cps
Bismuth	209-1	12359484	12624372	12387511	12457122	1.17	cps
Bismuth	209-2	4263948	4324481	4208894	4265774	1.36	cps
Bromine	81-1	4634	4884	4624	4714	3.13	cps
Cadmium	108-1	353	360	410	374	8.27	cps
Cadmium	106-1	9343	9507	9453	9434	0.88	cps
Cadmium	111-1	10464	10780	10634	10626	1.49	cps
Calcium	43-1	29707	29317	30208	29744	1.50	cps
Calcium	44-1	489628	494012	489746	491129	0.51	cps
Carbon	12-1	5185083	5039056	5007770	5077303	1.86	cps
Carbon	12-2	31634	31430	31834	31633	0.64	cps
Chlorine	35-1	138209	138932	137351	138164	0.57	cps
Chlorine	35-2	533	497	523	518	3.66	cps
Chromium	52-2	8769	8616	9076	8821	2.66	cps
Cobalt	59-2	6972	6988	7012	6991	0.29	cps
Copper	63-2	13226	12602	12245	12691	3.91	cps
Dysprosium	156-1	330	273	263	289	12.45	cps
Dysprosium	156-2	3	0	10	4	114.60	cps
Erbium	164-1	103	90	103	99	7.78	cps
Erbium	164-2	30	23	23	26	15.07	cps
Gadolinium	160-1	100	127	170	132	26.72	cps
Gadolinium	160-2	43	27	37	36	23.58	cps
Holmium	165-1	19314510	19347716	18977970	19213398	1.06	cps
Holmium	165-2	5785917	5782980	5646143	5738347	1.39	cps
Indium	115-1	15515054	15241488	15148437	15301659	1.25	cps
Indium	115-2	1282706	1274833	1270391	1275977	0.49	cps
Iron	54-2	7862	7739	7655	7752	1.34	cps
Iron	56-2	137788	135344	136075	136402	0.92	cps
Iron	57-2	3457	3314	3370	3380	2.14	cps
Krypton	83-1	267	297	280	281	5.35	cps
Lead	206-1	14458	14371	14381	14404	0.33	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	12830	12720	12740	12763	0.46	cps
Lead	208-1	58288	58486	57590	58121	0.81	cps
Lithium	6-1	8239550	8059499	7924136	8074395	1.96	cps
Magnesium	24-2	125764	125104	125679	125516	0.29	cps
Manganese	55-2	1840	1753	1820	1805	2.51	cps
Molybdenum	94-1	34473	33694	34553	34240	1.39	cps
Molybdenum	95-1	41542	42237	42120	41966	0.89	cps
Molybdenum	96-1	45986	45732	46196	45971	0.51	cps
Molybdenum	97-1	26429	26228	25640	26099	1.57	cps
Molybdenum	98-1	67878	67460	67640	67659	0.31	cps
Neodymium	150-1	20	13	13	16	24.76	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	3010	2967	2757	2911	4.65	cps
Phosphorus	31-2	173	170	193	179	7.06	cps
Potassium	39-2	73539	73559	72695	73265	0.67	cps
Rhodium	103-1	14125472	14172031	14044156	14113886	0.46	cps
Rhodium	103-2	4948726	4932378	4882303	4921135	0.70	cps
Scandium	45-1	10776637	10719727	10720456	10738940	0.30	cps
Scandium	45-2	181106	180852	177387	179782	1.16	cps
Selenium	82-1	1350	1243	1297	1297	4.11	cps
Selenium	77-2	10	17	20	16	32.73	cps
Selenium	78-2	73	73	77	74	2.59	cps
Silicon	28-1	647033	648746	648786	648188	0.15	cps
Silver	107-1	20742	20916	20999	20886	0.63	cps
Silver	109-1	19380	19627	19908	19639	1.34	cps
Sodium	23-2	274766	272502	274830	274033	0.48	cps
Strontium	86-1	6512	6475	6291	6426	1.84	cps
Strontium	88-1	51468	51903	51809	51726	0.44	cps
Sulfur	34-1	679039	677298	674925	677087	0.31	cps
Terbium	159-1	19807218	20003429	19793836	19868161	0.59	cps
Terbium	159-2	5673788	5654536	5590885	5639737	0.77	cps
Thallium	203-1	16667	17038	16894	16867	1.11	cps
Thallium	205-1	40500	40289	40276	40355	0.31	cps
Tin	118-1	69887	69824	69639	69783	0.18	cps
Titanium	47-1	13493	13376	13590	13486	0.79	cps
Uranium	238-1	52742	53659	53278	53226	0.87	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:12:23	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	12953	12973	13016	12980	0.25	cps
Ytterbium	172-1	103	103	123	110	10.50	cps
Ytterbium	172-2	33	37	47	39	17.85	cps
Ytterbium	176-1	2704	2637	2507	2616	3.82	cps
Ytterbium	176-2	350	427	420	399	10.65	cps
Yttrium	89-1	26692915	26588379	26107681	26462992	1.18	cps
Yttrium	89-2	1674557	1710162	1655311	1680010	1.66	cps
Zinc	66-2	2920	2800	3074	2931	4.67	cps
Zirconium	90-1	29555	29966	29558	29693	0.80	cps
Zirconium	91-1	6572	6478	6708	6586	1.76	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	62658	63628	64254	63513	1.27	cps
Antimony	121-1	791159	793255	799952	794789	0.58	cps
Arsenic	75-2	13817	14277	14357	14151	2.06	cps
Barium	135-1	961821	970162	964684	965556	0.44	cps
Barium	137-1	1743342	1776363	1769754	1763153	0.99	cps
Beryllium	9-1	293698	290431	290470	291533	0.64	cps
Bismuth	209-1	12674348	12281638	12157725	12371237	2.18	cps
Bismuth	209-2	4166258	4144832	4239446	4183512	1.19	cps
Bromine	81-1	4671	4484	4584	4580	2.04	cps
Cadmium	108-1	16180	16457	16674	16437	1.51	cps
Cadmium	106-1	31336	32355	31449	31713	1.76	cps
Cadmium	111-1	207761	208669	211330	209253	0.89	cps
Calcium	43-1	271510	268570	270584	270221	0.56	cps
Calcium	44-1	4527938	4401918	4401735	4443864	1.64	cps
Carbon	12-1	5098260	4964185	4938622	5000355	1.71	cps
Carbon	12-2	31196	31340	31333	31290	0.26	cps
Chlorine	35-1	129197	129436	130472	129702	0.52	cps
Chlorine	35-2	510	413	550	491	14.31	cps
Chromium	52-2	158702	162175	158288	159722	1.34	cps
Cobalt	59-2	303421	304124	302739	303428	0.23	cps
Copper	63-2	2427559	2441511	2461754	2443608	0.70	cps
Dysprosium	156-1	357	390	390	379	5.08	cps
Dysprosium	156-2	20	13	10	14	35.26	cps
Erbium	164-1	93	97	93	94	2.04	cps
Erbium	164-2	50	37	20	36	42.27	cps
Gadolinium	160-1	123	123	137	128	6.02	cps
Gadolinium	160-2	30	27	10	22	48.22	cps
Holmium	165-1	19198730	18985371	19214746	19132949	0.67	cps
Holmium	165-2	5641414	5764158	5688923	5698165	1.09	cps
Indium	115-1	15158508	14924190	14880566	14987755	1.00	cps
Indium	115-2	1244274	1248842	1252202	1248439	0.32	cps
Iron	54-2	321526	319156	323374	321352	0.66	cps
Iron	56-2	5985357	6086575	6072650	6048194	0.91	cps
Iron	57-2	144174	145342	146208	145241	0.70	cps
Krypton	83-1	263	217	267	249	11.23	cps
Lead	206-1	3472634	3521088	3441688	3478470	1.15	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3025140	3081822	3041246	3049403	0.96	cps
Lead	208-1	13851061	13954982	13785175	13863739	0.62	cps
Lithium	6-1	8055243	7742709	7750586	7849512	2.27	cps
Magnesium	24-2	1231188	1211034	1215272	1219165	0.87	cps
Manganese	55-2	631609	635744	639663	635672	0.63	cps
Molybdenum	94-1	2820007	2801195	2840340	2820514	0.69	cps
Molybdenum	95-1	4133766	4097058	4135353	4122059	0.53	cps
Molybdenum	96-1	4523887	4421407	4514791	4486695	1.26	cps
Molybdenum	97-1	2590404	2537667	2551074	2559715	1.07	cps
Molybdenum	98-1	6701334	6595393	6681773	6659500	0.85	cps
Neodymium	150-1	77	87	140	101	33.67	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	82819	85394	85471	84561	1.78	cps
Phosphorus	31-2	2934	3030	3177	3047	4.02	cps
Potassium	39-2	306222	309510	312499	309410	1.01	cps
Rhodium	103-1	14192556	13623461	13718959	13844992	2.20	cps
Rhodium	103-2	4821218	4839981	4842431	4834543	0.24	cps
Scandium	45-1	10747641	10587786	10367357	10567595	1.81	cps
Scandium	45-2	177386	176033	179034	177485	0.85	cps
Selenium	82-1	12242	12563	12483	12429	1.34	cps
Selenium	77-2	217	180	180	192	11.01	cps
Selenium	78-2	517	663	660	613	13.65	cps
Silicon	28-1	1722096	1772956	1773909	1756320	1.69	cps
Silver	107-1	1019569	1022567	1030919	1024352	0.57	cps
Silver	109-1	972807	980045	970204	974352	0.52	cps
Sodium	23-2	2413982	2465244	2427006	2435411	1.09	cps
Strontium	86-1	260909	262033	259655	260866	0.46	cps
Strontium	88-1	2369394	2382310	2349770	2367158	0.69	cps
Sulfur	34-1	730267	722741	715792	722934	1.00	cps
Terbium	159-1	20159405	19382538	19888016	19809986	1.99	cps
Terbium	159-2	5534880	5576122	5621488	5577497	0.78	cps
Thallium	203-1	815676	816637	816022	816112	0.06	cps
Thallium	205-1	2094054	2064075	2015361	2057830	1.93	cps
Tin	118-1	643716	639438	641451	641535	0.33	cps
Titanium	47-1	1277286	1272618	1254380	1268095	0.95	cps
Uranium	238-1	2691290	2757905	2738283	2729159	1.25	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:15:43	DataFile Name :	007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	123756	122428	122747	122977	0.56	cps
Ytterbium	172-1	133	150	113	132	13.88	cps
Ytterbium	172-2	47	30	33	37	24.06	cps
Ytterbium	176-1	5848	5771	6108	5909	2.99	cps
Ytterbium	176-2	1527	1340	1473	1447	6.65	cps
Yttrium	89-1	26412083	25907142	25370575	25896600	2.01	cps
Yttrium	89-2	1622277	1631711	1648753	1634247	0.82	cps
Zinc	66-2	242148	242507	245722	243459	0.81	cps
Zirconium	90-1	1416483	1426124	1424158	1422255	0.36	cps
Zirconium	91-1	296608	296452	294583	295881	0.38	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	159604	160740	159318	159887	0.47	cps
Antimony	121-1	2129017	2168113	2142652	2146594	0.92	cps
Arsenic	75-2	36190	36256	35896	36114	0.53	cps
Barium	135-1	2610639	2592532	2575591	2592921	0.68	cps
Barium	137-1	4364251	4439724	4458606	4420860	1.13	cps
Beryllium	9-1	724871	727671	731671	728071	0.47	cps
Bismuth	209-1	12296159	12031545	12244933	12190879	1.15	cps
Bismuth	209-2	4177553	4146961	4181199	4168571	0.45	cps
Bromine	81-1	4521	4664	4698	4627	2.03	cps
Cadmium	108-1	40981	40653	40917	40850	0.43	cps
Cadmium	106-1	65444	64932	65813	65396	0.68	cps
Cadmium	111-1	515075	518515	519644	517745	0.46	cps
Calcium	43-1	674107	678656	675552	676105	0.34	cps
Calcium	44-1	11266616	11319351	11199720	11261896	0.53	cps
Carbon	12-1	5154226	5160899	5052453	5122526	1.19	cps
Carbon	12-2	31864	32362	32609	32279	1.18	cps
Chlorine	35-1	131639	129046	131746	130810	1.17	cps
Chlorine	35-2	520	577	450	516	12.31	cps
Chromium	52-2	399930	402030	402250	401403	0.32	cps
Cobalt	59-2	770615	758582	766402	765200	0.80	cps
Copper	63-2	6083570	5999872	6072728	6052057	0.75	cps
Dysprosium	156-1	377	357	353	362	3.48	cps
Dysprosium	156-2	13	7	17	12	41.65	cps
Erbium	164-1	180	123	117	140	24.86	cps
Erbium	164-2	33	37	40	37	9.10	cps
Gadolinium	160-1	140	123	170	144	16.37	cps
Gadolinium	160-2	17	37	33	29	37.08	cps
Holmium	165-1	19057275	19211991	19479290	19249518	1.11	cps
Holmium	165-2	5798090	5810448	5772027	5793522	0.34	cps
Indium	115-1	15047473	14680511	14918829	14882271	1.25	cps
Indium	115-2	1240910	1242437	1254555	1245967	0.60	cps
Iron	54-2	809235	807805	806623	807888	0.16	cps
Iron	56-2	15303929	15143523	15196498	15214650	0.54	cps
Iron	57-2	364423	367678	367687	366596	0.51	cps
Krypton	83-1	287	267	270	274	3.90	cps
Lead	206-1	8629687	8705427	8674443	8669853	0.44	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	7601511	7587817	7450138	7546488	1.11	cps
Lead	208-1	34663229	34390586	34538283	34530699	0.40	cps
Lithium	6-1	7851415	7565924	7834126	7750488	2.07	cps
Magnesium	24-2	3063747	3085349	3019702	3056266	1.09	cps
Manganese	55-2	1710699	1704432	1703475	1706202	0.23	cps
Molybdenum	94-1	7100397	7049024	7057823	7069081	0.39	cps
Molybdenum	95-1	10325001	10321026	10423087	10356371	0.56	cps
Molybdenum	96-1	11145528	11284362	11360342	11263410	0.97	cps
Molybdenum	97-1	6366212	6404421	6361239	6377291	0.37	cps
Molybdenum	98-1	16809935	16917608	16691986	16806510	0.67	cps
Neodymium	150-1	180	180	197	186	5.19	cps
Neodymium	150-2	3	10	13	9	57.30	cps
Nickel	60-2	209668	212723	212070	211487	0.76	cps
Phosphorus	31-2	7372	7745	7859	7659	3.33	cps
Potassium	39-2	770956	772833	774998	772929	0.26	cps
Rhodium	103-1	13587747	13463313	13699964	13583674	0.87	cps
Rhodium	103-2	4752222	4730203	4844479	4775634	1.27	cps
Scandium	45-1	10574285	10347792	10611350	10511142	1.36	cps
Scandium	45-2	175733	178351	177674	177253	0.77	cps
Selenium	82-1	31082	31182	31790	31351	1.22	cps
Selenium	77-2	487	443	483	471	5.12	cps
Selenium	78-2	1687	1460	1543	1563	7.33	cps
Silicon	28-1	3549887	3525309	3604367	3559854	1.14	cps
Silver	107-1	2698814	2716580	2749992	2721795	0.95	cps
Silver	109-1	2595693	2522348	2604324	2574121	1.75	cps
Sodium	23-2	5957947	5928640	5968460	5951682	0.35	cps
Strontium	86-1	652810	654323	653735	653623	0.12	cps
Strontium	88-1	5982168	5875417	5874766	5910783	1.05	cps
Sulfur	34-1	845655	839086	837349	840697	0.52	cps
Terbium	159-1	19699910	19674851	20046494	19807085	1.05	cps
Terbium	159-2	5616798	5655485	5525647	5599310	1.19	cps
Thallium	203-1	2220161	2224627	2201773	2215520	0.55	cps
Thallium	205-1	5224632	5083202	5192435	5166756	1.43	cps
Tin	118-1	1671203	1713986	1700797	1695329	1.29	cps
Titanium	47-1	3261371	3275233	3184159	3240254	1.51	cps
Uranium	238-1	6932468	6813578	6788733	6844926	1.12	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:18:49	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	311969	313941	312701	312870	0.32	cps
Ytterbium	172-1	157	147	160	154	4.49	cps
Ytterbium	172-2	40	33	30	34	14.78	cps
Ytterbium	176-1	11392	11515	11582	11496	0.84	cps
Ytterbium	176-2	3074	3130	2867	3024	4.59	cps
Yttrium	89-1	25491856	25591491	26286100	25789816	1.68	cps
Yttrium	89-2	1588502	1654317	1641751	1628190	2.15	cps
Zinc	66-2	613654	611927	614241	613274	0.20	cps
Zirconium	90-1	3555460	3577250	3628919	3587210	1.05	cps
Zirconium	91-1	749342	741970	753493	748268	0.78	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	316947	314931	312868	314915	0.65	cps
Antimony	121-1	4142111	4214809	4180672	4179197	0.87	cps
Arsenic	75-2	72003	71912	72334	72083	0.31	cps
Barium	135-1	5057515	5063108	5104483	5075035	0.51	cps
Barium	137-1	8538814	8595121	8705126	8613020	0.98	cps
Beryllium	9-1	1472636	1494568	1474272	1480492	0.83	cps
Bismuth	209-1	12138512	12034809	12081345	12084889	0.43	cps
Bismuth	209-2	4092932	4100737	4077320	4090330	0.29	cps
Bromine	81-1	4594	4734	4718	4682	1.63	cps
Cadmium	108-1	79987	82290	80788	81022	1.44	cps
Cadmium	106-1	120880	120840	122532	121417	0.80	cps
Cadmium	111-1	999034	1009188	1015904	1008042	0.84	cps
Calcium	43-1	1403699	1397045	1385165	1395303	0.67	cps
Calcium	44-1	22376382	22133326	21932273	22147327	1.00	cps
Carbon	12-1	5331423	5332902	5262895	5309073	0.75	cps
Carbon	12-2	35202	34440	34711	34784	1.11	cps
Chlorine	35-1	132671	133822	135830	134108	1.19	cps
Chlorine	35-2	477	497	497	490	2.36	cps
Chromium	52-2	786753	790415	786629	787933	0.27	cps
Cobalt	59-2	1589401	1587259	1590878	1589179	0.11	cps
Copper	63-2	11718989	11666132	11772471	11719198	0.45	cps
Dysprosium	156-1	313	347	350	337	6.02	cps
Dysprosium	156-2	23	30	27	27	12.51	cps
Erbium	164-1	150	120	137	136	11.09	cps
Erbium	164-2	57	37	40	44	24.11	cps
Gadolinium	160-1	167	193	140	167	16.00	cps
Gadolinium	160-2	27	40	47	38	26.95	cps
Holmium	165-1	19003333	19221155	19199336	19141275	0.63	cps
Holmium	165-2	5802837	5830951	5692303	5775364	1.27	cps
Indium	115-1	15001121	14960177	14862855	14941384	0.48	cps
Indium	115-2	1243520	1248866	1246910	1246432	0.22	cps
Iron	54-2	1701913	1696538	1656398	1684950	1.48	cps
Iron	56-2	30270049	29954635	30144118	30122934	0.53	cps
Iron	57-2	715250	716254	722454	717986	0.54	cps
Krypton	83-1	257	247	297	267	9.92	cps
Lead	206-1	16848588	17006934	16830410	16895311	0.57	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	14612119	14717469	14523070	14617553	0.67	cps
Lead	208-1	67381020	67359841	67045082	67261981	0.28	cps
Lithium	6-1	7769742	7697166	7830955	7765954	0.86	cps
Magnesium	24-2	5973886	5960962	5918944	5951264	0.48	cps
Manganese	55-2	3345482	3373130	3370886	3363166	0.46	cps
Molybdenum	94-1	13839629	13845711	14161876	13949072	1.32	cps
Molybdenum	95-1	20379646	20462927	20473135	20438569	0.25	cps
Molybdenum	96-1	22039346	22099683	22443510	22194180	0.98	cps
Molybdenum	97-1	12522644	12517541	12747539	12595908	1.04	cps
Molybdenum	98-1	33107634	33007100	33393538	33169424	0.60	cps
Neodymium	150-1	373	363	353	363	2.75	cps
Neodymium	150-2	17	17	20	18	10.81	cps
Nickel	60-2	408194	412862	411406	410821	0.58	cps
Phosphorus	31-2	15005	15245	14781	15010	1.55	cps
Potassium	39-2	1618184	1592875	1591238	1600766	0.94	cps
Rhodium	103-1	13493118	13557820	13486340	13512426	0.29	cps
Rhodium	103-2	4787192	4747653	4753079	4762642	0.45	cps
Scandium	45-1	10601456	10586691	10392858	10527002	1.11	cps
Scandium	45-2	179421	176974	176935	177777	0.80	cps
Selenium	82-1	62208	62145	62366	62240	0.18	cps
Selenium	77-2	890	950	890	910	3.81	cps
Selenium	78-2	3230	3114	3080	3141	2.51	cps
Silicon	28-1	6478234	6482797	6434482	6465171	0.41	cps
Silver	107-1	5292877	5402819	5293407	5329701	1.19	cps
Silver	109-1	4982111	5069277	4993310	5014899	0.95	cps
Sodium	23-2	11979842	11737772	11772269	11829961	1.11	cps
Strontium	86-1	1273547	1293653	1297813	1288337	1.01	cps
Strontium	88-1	11470264	11722564	11836424	11676418	1.60	cps
Sulfur	34-1	1027102	1018200	1022659	1022654	0.44	cps
Terbium	159-1	19644225	19687525	19687289	19673013	0.13	cps
Terbium	159-2	5579900	5607619	5581360	5589626	0.28	cps
Thallium	203-1	4339998	4333606	4281966	4318523	0.74	cps
Thallium	205-1	10137943	10020325	10000268	10052845	0.74	cps
Tin	118-1	3311169	3411919	3302544	3341877	1.82	cps
Titanium	47-1	6328266	6214408	6219546	6254073	1.03	cps
Uranium	238-1	13426799	13495712	13293911	13405474	0.77	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:21:47	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	614594	621850	623253	619899	0.75	cps
Ytterbium	172-1	140	157	177	158	11.64	cps
Ytterbium	172-2	47	57	53	52	9.75	cps
Ytterbium	176-1	20333	20476	19965	20258	1.30	cps
Ytterbium	176-2	5685	5701	5625	5670	0.71	cps
Yttrium	89-1	25625932	25663908	25950760	25746867	0.69	cps
Yttrium	89-2	1659559	1633617	1625062	1639412	1.10	cps
Zinc	66-2	1191552	1203659	1206080	1200430	0.65	cps
Zirconium	90-1	6945928	6997243	6965998	6969723	0.37	cps
Zirconium	91-1	1563527	1579150	1565517	1569398	0.54	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	621487	614831	615127	617148	0.61	cps
Antimony	121-1	8079686	8186929	8202638	8156418	0.82	cps
Arsenic	75-2	142479	141243	142879	142200	0.60	cps
Barium	135-1	9783884	9974913	9894314	9884370	0.97	cps
Barium	137-1	17075354	17196904	17205128	17159128	0.42	cps
Beryllium	9-1	2926938	2921531	2919826	2922765	0.13	cps
Bismuth	209-1	11769823	12533881	11945979	12083227	3.31	cps
Bismuth	209-2	3971963	4195628	4021971	4063187	2.89	cps
Bromine	81-1	4667	4921	4878	4822	2.81	cps
Cadmium	108-1	157835	157981	157636	157817	0.11	cps
Cadmium	106-1	230090	229393	225471	228318	1.09	cps
Cadmium	111-1	2080982	2127112	2071470	2093188	1.42	cps
Calcium	43-1	2733982	2704648	2671571	2703400	1.15	cps
Calcium	44-1	43208565	43520262	42524860	43084562	1.18	cps
Carbon	12-1	5907204	5922451	5992929	5940861	0.77	cps
Carbon	12-2	40676	39777	39694	40049	1.36	cps
Chlorine	35-1	141588	142877	144166	142877	0.90	cps
Chlorine	35-2	563	580	557	567	2.12	cps
Chromium	52-2	1662019	1659923	1659212	1660385	0.09	cps
Cobalt	59-2	3097524	3077487	3108971	3094660	0.51	cps
Copper	63-2	22890909	22679605	22792771	22787762	0.46	cps
Dysprosium	156-1	447	523	513	494	8.43	cps
Dysprosium	156-2	40	30	30	33	17.32	cps
Erbium	164-1	183	190	157	177	9.98	cps
Erbium	164-2	40	43	70	51	32.17	cps
Gadolinium	160-1	160	230	167	186	20.82	cps
Gadolinium	160-2	50	50	73	58	23.31	cps
Holmium	165-1	18912384	19915926	19554389	19460900	2.61	cps
Holmium	165-2	5659368	5935741	5783405	5792838	2.39	cps
Indium	115-1	14330042	15476966	14901148	14902718	3.85	cps
Indium	115-2	1173290	1261212	1225928	1220143	3.63	cps
Iron	54-2	3312707	3280663	3238334	3277234	1.14	cps
Iron	56-2	58683674	58370964	59384259	58812966	0.88	cps
Iron	57-2	1514016	1474467	1507837	1498773	1.42	cps
Krypton	83-1	247	273	200	240	15.47	cps
Lead	206-1	32950595	32888215	32713380	32850730	0.37	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	28470895	28487294	28504255	28487482	0.06	cps
Lead	208-1	131715311	130970032	131792294	131492546	0.35	cps
Lithium	6-1	7630758	8074315	7741582	7815551	2.95	cps
Magnesium	24-2	11863250	11727853	11685669	11758924	0.79	cps
Manganese	55-2	6550023	6512786	6547890	6536900	0.32	cps
Molybdenum	94-1	27766670	27568440	27359080	27564730	0.74	cps
Molybdenum	95-1	40195533	40166622	39795125	40052427	0.56	cps
Molybdenum	96-1	44303078	43627549	43491726	43807451	0.99	cps
Molybdenum	97-1	24966205	24769442	24809845	24848498	0.42	cps
Molybdenum	98-1	66158982	65036634	64861817	65352478	1.08	cps
Neodymium	150-1	687	767	843	766	10.23	cps
Neodymium	150-2	13	20	23	19	26.96	cps
Nickel	60-2	790507	801351	793029	794962	0.71	cps
Phosphorus	31-2	30188	30158	29837	30061	0.65	cps
Potassium	39-2	3175944	3184675	3155930	3172183	0.46	cps
Rhodium	103-1	13187107	13691448	13269606	13382720	2.02	cps
Rhodium	103-2	4529498	4778756	4717846	4675367	2.78	cps
Scandium	45-1	10204077	10825871	10417545	10482497	3.01	cps
Scandium	45-2	171658	184255	179091	178335	3.55	cps
Selenium	82-1	120168	122370	122663	121734	1.12	cps
Selenium	77-2	1737	1957	1887	1860	6.04	cps
Selenium	78-2	6195	6111	6321	6209	1.70	cps
Silicon	28-1	12064992	12133790	12223799	12140860	0.66	cps
Silver	107-1	10282870	10333482	10161925	10259425	0.86	cps
Silver	109-1	9628943	9785010	9812907	9742287	1.02	cps
Sodium	23-2	23597176	23258065	23301371	23385537	0.79	cps
Strontium	86-1	2744225	2686197	2718948	2716456	1.07	cps
Strontium	88-1	23372321	22628120	23114447	23038296	1.64	cps
Sulfur	34-1	1364252	1372006	1377828	1371362	0.50	cps
Terbium	159-1	19408340	20778175	19545639	19910718	3.79	cps
Terbium	159-2	5392469	5816875	5682220	5630521	3.85	cps
Thallium	203-1	8228582	8308173	8140000	8225585	1.02	cps
Thallium	205-1	19706782	19789033	19681745	19725853	0.28	cps
Tin	118-1	6434520	6536868	6479988	6483792	0.79	cps
Titanium	47-1	12255699	12457127	12127574	12280133	1.35	cps
Uranium	238-1	26345409	26351165	26711155	26469243	0.79	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:24:39	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1225020	1222652	1285050	1244241	2.84	cps
Ytterbium	172-1	237	257	233	242	5.21	cps
Ytterbium	172-2	97	113	103	104	8.03	cps
Ytterbium	176-1	37871	37507	37657	37678	0.49	cps
Ytterbium	176-2	11268	10935	11138	11114	1.51	cps
Yttrium	89-1	25451084	26617029	25824165	25964093	2.29	cps
Yttrium	89-2	1559169	1678604	1659142	1632305	3.93	cps
Zinc	66-2	2474938	2474645	2483856	2477813	0.21	cps
Zirconium	90-1	13946355	13767260	13898756	13870790	0.67	cps
Zirconium	91-1	3061227	3058513	3042000	3053913	0.34	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1312264	1319659	1308955	1313626	0.42	cps
Antimony	121-1	16402078	16189865	16320441	16304128	0.66	cps
Arsenic	75-2	282597	280628	284820	282682	0.74	cps
Barium	135-1	19715146	19924334	19658478	19765986	0.71	cps
Barium	137-1	33742788	34095094	33633882	33823921	0.71	cps
Beryllium	9-1	5665671	5715066	5633831	5671523	0.72	cps
Bismuth	209-1	11765972	11894186	11839891	11833350	0.54	cps
Bismuth	209-2	3919393	3963763	3967764	3950307	0.68	cps
Bromine	81-1	5038	4841	4874	4918	2.14	cps
Cadmium	108-1	305491	312664	308962	309039	1.16	cps
Cadmium	106-1	435622	441068	439629	438773	0.64	cps
Cadmium	111-1	4035406	4008386	3952764	3998852	1.05	cps
Calcium	43-1	5355099	5452249	5317692	5375014	1.29	cps
Calcium	44-1	86844174	87805882	86581114	87077056	0.74	cps
Carbon	12-1	6339882	6484414	6443967	6422754	1.16	cps
Carbon	12-2	44698	44520	45182	44800	0.76	cps
Chlorine	35-1	168633	171941	174174	171583	1.62	cps
Chlorine	35-2	567	743	683	664	13.52	cps
Chromium	52-2	3266441	3286674	3294818	3282644	0.45	cps
Cobalt	59-2	6135102	6072662	6063032	6090266	0.64	cps
Copper	63-2	45168853	44452638	44406764	44676085	0.96	cps
Dysprosium	156-1	643	643	673	653	2.65	cps
Dysprosium	156-2	30	50	50	43	26.65	cps
Erbium	164-1	303	253	270	276	9.24	cps
Erbium	164-2	63	67	67	66	2.94	cps
Gadolinium	160-1	310	277	327	304	8.36	cps
Gadolinium	160-2	73	57	93	74	24.66	cps
Holmium	165-1	19267548	19575529	19254122	19365733	0.94	cps
Holmium	165-2	5712770	5792050	5779083	5761301	0.74	cps
Indium	115-1	14475859	14449559	14504388	14476602	0.19	cps
Indium	115-2	1181516	1183979	1193486	1186327	0.53	cps
Iron	54-2	6509568	6455385	6476018	6480324	0.42	cps
Iron	56-2	117750305	117846942	117590215	117729154	0.11	cps
Iron	57-2	3019129	3030393	3008475	3019332	0.36	cps
Krypton	83-1	293	323	390	336	14.75	cps
Lead	206-1	65230232	66081902	64971694	65427943	0.89	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	55890524	57084799	56420271	56465198	1.06	cps
Lead	208-1	257827324	262820746	258591746	259746606	1.04	cps
Lithium	6-1	7681380	7826646	7645239	7717755	1.24	cps
Magnesium	24-2	23471930	23590860	23275308	23446032	0.68	cps
Manganese	55-2	13101216	13017861	13037989	13052355	0.33	cps
Molybdenum	94-1	54281204	55143954	54322968	54582709	0.89	cps
Molybdenum	95-1	79223607	80124647	79388140	79578798	0.60	cps
Molybdenum	96-1	86583974	87701769	87420882	87235541	0.67	cps
Molybdenum	97-1	48609809	50011329	49570704	49397281	1.45	cps
Molybdenum	98-1	128426135	130493771	130637311	129852406	0.95	cps
Neodymium	150-1	1463	1417	1503	1461	2.97	cps
Neodymium	150-2	23	53	67	48	46.46	cps
Nickel	60-2	1701367	1702477	1677765	1693870	0.82	cps
Phosphorus	31-2	60448	60455	60612	60505	0.15	cps
Potassium	39-2	6329280	6252250	6286111	6289214	0.61	cps
Rhodium	103-1	13011614	13068200	13162516	13080776	0.58	cps
Rhodium	103-2	4608839	4556733	4673477	4613016	1.27	cps
Scandium	45-1	10593302	10600866	10570902	10588356	0.15	cps
Scandium	45-2	179988	181109	181528	180875	0.44	cps
Selenium	82-1	240479	240590	242353	241141	0.44	cps
Selenium	77-2	3847	3557	3721	3708	3.92	cps
Selenium	78-2	12482	12369	12536	12462	0.68	cps
Silicon	28-1	17870828	17740188	17600078	17737031	0.76	cps
Silver	107-1	20030360	20254393	19762003	20015586	1.23	cps
Silver	109-1	18772873	19054674	18793741	18873762	0.83	cps
Sodium	23-2	46849571	46738253	46835461	46807762	0.13	cps
Strontium	86-1	5280321	5309933	5258914	5283056	0.48	cps
Strontium	88-1	45641689	46080709	45789511	45837303	0.49	cps
Sulfur	34-1	2092997	2106339	2051844	2083727	1.36	cps
Terbium	159-1	19855595	19778749	19852241	19828862	0.22	cps
Terbium	159-2	5562563	5580173	5583276	5575337	0.20	cps
Thallium	203-1	16396142	16840206	16333811	16523386	1.67	cps
Thallium	205-1	38727989	39145198	38522575	38798587	0.82	cps
Tin	118-1	12884870	12864976	12847158	12865668	0.15	cps
Titanium	47-1	24919240	25290449	24875670	25028453	0.91	cps
Uranium	238-1	52179494	53158854	52652351	52663566	0.93	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:27:24	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	2583408	2550201	2657760	2597123	2.12	cps
Ytterbium	172-1	330	353	297	327	8.72	cps
Ytterbium	172-2	110	110	157	126	21.46	cps
Ytterbium	176-1	72746	73885	72719	73116	0.91	cps
Ytterbium	176-2	22185	21718	21715	21873	1.24	cps
Yttrium	89-1	25910349	26120641	25529700	25853563	1.16	cps
Yttrium	89-2	1648651	1635693	1638459	1640934	0.42	cps
Zinc	66-2	4807058	4767886	4835708	4803550	0.71	cps
Zirconium	90-1	27510510	27624816	27424928	27520085	0.36	cps
Zirconium	91-1	6087781	6101256	6075743	6088260	0.21	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6216360	6166956	6069587	6150968	1.21	cps
Antimony	121-1	7055	6688	7009	6917	2.89	cps
Arsenic	75-2	117	100	147	121	19.53	cps
Barium	135-1	9140	8576	8096	8604	6.07	cps
Barium	137-1	15379	15172	14391	14981	3.48	cps
Beryllium	9-1	1885	1760	1565	1737	9.29	cps
Bismuth	209-1	10125340	10029337	9012020	9722232	6.35	cps
Bismuth	209-2	3456648	3494868	3489743	3480420	0.60	cps
Bromine	81-1	5068	4854	5174	5032	3.24	cps
Cadmium	108-1	220	243	203	222	9.04	cps
Cadmium	106-1	7882	7982	7102	7656	6.30	cps
Cadmium	111-1	6364	6431	5679	6158	6.76	cps
Calcium	43-1	24757910	24799815	25207382	24921702	1.00	cps
Calcium	44-1	398843661	396813687	401384474	399013941	0.57	cps
Carbon	12-1	6496390	6727158	6861580	6695043	2.76	cps
Carbon	12-2	53982	54253	55347	54527	1.33	cps
Chlorine	35-1	120869	119249	116242	118787	1.98	cps
Chlorine	35-2	467	427	410	434	6.70	cps
Chromium	52-2	10154	9864	10434	10150	2.81	cps
Cobalt	59-2	11204	11261	11708	11391	2.42	cps
Copper	63-2	10381	10434	10244	10353	0.95	cps
Dysprosium	156-1	753	733	853	780	8.24	cps
Dysprosium	156-2	127	133	117	126	6.68	cps
Erbium	164-1	750	700	707	719	3.78	cps
Erbium	164-2	193	193	260	216	17.86	cps
Gadolinium	160-1	643	617	650	637	2.77	cps
Gadolinium	160-2	170	187	193	183	6.56	cps
Holmium	165-1	17785570	17745495	15529021	17020029	7.59	cps
Holmium	165-2	5428806	5402872	5446151	5425943	0.40	cps
Indium	115-1	13115181	12977892	11461195	12518089	7.33	cps
Indium	115-2	1112883	1117942	1112995	1114607	0.26	cps
Iron	54-2	29010333	29002410	29275353	29096032	0.53	cps
Iron	56-2	533953152	533901739	533773859	533876250	0.02	cps
Iron	57-2	13387698	13484061	13530680	13467480	0.54	cps
Krypton	83-1	357	300	303	320	9.94	cps
Lead	206-1	13934	13707	13280	13641	2.43	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	11672	12036	11355	11688	2.91	cps
Lead	208-1	54141	54913	52669	53908	2.11	cps
Lithium	6-1	7060653	6989684	6323873	6791403	5.98	cps
Magnesium	24-2	107068172	108116438	106548635	107244415	0.74	cps
Manganese	55-2	5785	5861	6061	5902	2.42	cps
Molybdenum	94-1	37778	37109	36518	37135	1.70	cps
Molybdenum	95-1	39900	38861	38998	39253	1.44	cps
Molybdenum	96-1	46153	45183	45163	45500	1.24	cps
Molybdenum	97-1	24201	23764	23296	23754	1.90	cps
Molybdenum	98-1	61542	60715	60729	60995	0.78	cps
Neodymium	150-1	330	357	303	330	8.08	cps
Neodymium	150-2	47	60	40	49	20.83	cps
Nickel	60-2	5781	5661	5561	5668	1.94	cps
Phosphorus	31-2	137	117	97	117	17.14	cps
Potassium	39-2	29752429	30230930	30106640	30029999	0.83	cps
Rhodium	103-1	11506465	11214793	9999006	10906755	7.33	cps
Rhodium	103-2	4065429	4105055	4077296	4082593	0.50	cps
Scandium	45-1	9729830	9967297	8622042	9439723	7.61	cps
Scandium	45-2	169142	169982	169200	169441	0.28	cps
Selenium	82-1	10	50	60	40	66.14	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	7	3	17	9	78.08	cps
Silicon	28-1	783305	762487	747923	764572	2.33	cps
Silver	107-1	3074	3220	2797	3030	7.10	cps
Silver	109-1	3047	2674	2804	2841	6.67	cps
Sodium	23-2	212057744	216817430	215479023	214784732	1.14	cps
Strontium	86-1	15372	15609	15188	15390	1.37	cps
Strontium	88-1	131206	130025	130641	130624	0.45	cps
Sulfur	34-1	583209	583541	582768	583173	0.07	cps
Terbium	159-1	18236275	18171052	15911384	17439571	7.59	cps
Terbium	159-2	5331573	5250312	5272156	5284680	0.80	cps
Thallium	203-1	1757	1620	1347	1575	13.26	cps
Thallium	205-1	4134	3804	3504	3814	8.26	cps
Tin	118-1	4898	4648	4454	4666	4.76	cps
Titanium	47-1	5314	5358	5444	5372	1.23	cps
Uranium	238-1	2224	1837	1990	2017	9.66	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 11:30:12	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	577	550	617	581	5.78	cps
Ytterbium	172-1	780	800	793	791	1.29	cps
Ytterbium	172-2	270	243	247	253	5.74	cps
Ytterbium	176-1	2674	2744	2510	2643	4.53	cps
Ytterbium	176-2	530	523	467	507	6.87	cps
Yttrium	89-1	23819605	23780445	21274051	22958033	6.35	cps
Yttrium	89-2	1598696	1569565	1569350	1579203	1.07	cps
Zinc	66-2	2627	2574	2827	2676	4.99	cps
Zirconium	90-1	41602	41107	41234	41314	0.62	cps
Zirconium	91-1	9747	9240	9347	9444	2.83	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	30135	30626	30809	30523	1.14	cps
Antimony	121-1	3178890	3167464	3147543	3164633	0.50	cps
Arsenic	75-2	55679	55776	56499	55985	0.80	cps
Barium	135-1	375822	378254	381778	378618	0.79	cps
Barium	137-1	653620	657630	665933	659061	0.95	cps
Beryllium	9-1	553018	557677	557171	555955	0.46	cps
Bismuth	209-1	11985830	11937007	12079253	12000697	0.60	cps
Bismuth	209-2	4044284	4235484	4134759	4138176	2.31	cps
Bromine	81-1	4274	4517	4471	4421	2.92	cps
Cadmium	108-1	24792	25310	25654	25252	1.72	cps
Cadmium	106-1	41730	42515	42893	42379	1.40	cps
Cadmium	111-1	391826	392757	392085	392223	0.12	cps
Calcium	43-1	103082	103512	101760	102785	0.89	cps
Calcium	44-1	1745776	1735998	1732726	1738166	0.39	cps
Carbon	12-1	4748795	4704798	4633552	4695715	1.24	cps
Carbon	12-2	30816	30331	30391	30513	0.87	cps
Chlorine	35-1	99945	100358	100909	100404	0.48	cps
Chlorine	35-2	340	303	390	344	12.63	cps
Chromium	52-2	313737	312563	311466	312589	0.36	cps
Cobalt	59-2	594627	594525	592603	593918	0.19	cps
Copper	63-2	462272	459333	458548	460051	0.43	cps
Dysprosium	156-1	173	193	210	192	9.55	cps
Dysprosium	156-2	10	0	13	8	89.21	cps
Erbium	164-1	77	83	83	81	4.74	cps
Erbium	164-2	20	23	13	19	26.96	cps
Gadolinium	160-1	113	147	117	126	14.62	cps
Gadolinium	160-2	10	23	17	17	39.99	cps
Holmium	165-1	18665140	18787568	18622971	18691893	0.46	cps
Holmium	165-2	5523251	5753998	5666425	5647891	2.06	cps
Indium	115-1	14917181	14660257	14640278	14739239	1.05	cps
Indium	115-2	1216479	1271233	1242981	1243565	2.20	cps
Iron	54-2	257373	260837	258970	259060	0.67	cps
Iron	56-2	4707083	4741321	4788560	4745654	0.86	cps
Iron	57-2	113772	113648	113228	113550	0.25	cps
Krypton	83-1	257	313	277	282	10.18	cps
Lead	206-1	2734079	2775021	2782140	2763747	0.94	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2247911	2274326	2310105	2277447	1.37	cps
Lead	208-1	10654753	10621133	10744895	10673594	0.60	cps
Lithium	6-1	7575356	7631300	7679993	7628883	0.69	cps
Magnesium	24-2	257870	257181	258553	257868	0.27	cps
Manganese	55-2	124345	126531	127281	126053	1.21	cps
Molybdenum	94-1	1033	1187	1030	1083	8.26	cps
Molybdenum	95-1	880	767	797	814	7.21	cps
Molybdenum	96-1	1673	1687	1790	1717	3.72	cps
Molybdenum	97-1	553	543	657	584	10.74	cps
Molybdenum	98-1	1570	1583	1497	1550	3.01	cps
Neodymium	150-1	63	60	57	60	5.55	cps
Neodymium	150-2	3	3	3	3	0.00	cps
Nickel	60-2	167537	165688	164599	165941	0.89	cps
Phosphorus	31-2	97	107	97	100	5.77	cps
Potassium	39-2	242793	246599	246398	245264	0.87	cps
Rhodium	103-1	13574504	13478780	13436566	13496617	0.52	cps
Rhodium	103-2	4772717	4948060	4830442	4850406	1.84	cps
Scandium	45-1	10140219	10187179	10150184	10159194	0.24	cps
Scandium	45-2	173296	180688	177082	177022	2.09	cps
Selenium	82-1	47835	49127	48474	48479	1.33	cps
Selenium	77-2	747	697	773	739	5.27	cps
Selenium	78-2	2524	2520	2644	2562	2.74	cps
Silicon	28-1	533828	547182	538046	539685	1.26	cps
Silver	107-1	893811	910364	916035	906737	1.27	cps
Silver	109-1	858693	870990	874335	868006	0.95	cps
Sodium	23-2	900482	903019	909806	904436	0.53	cps
Strontium	86-1	1987	1980	1883	1950	2.97	cps
Strontium	88-1	13784	13804	13847	13811	0.23	cps
Sulfur	34-1	602769	602808	601505	602360	0.12	cps
Terbium	159-1	19329210	19288266	19070677	19229384	0.72	cps
Terbium	159-2	5408655	5604663	5454678	5489332	1.87	cps
Thallium	203-1	3351814	3330861	3339852	3340842	0.31	cps
Thallium	205-1	7844194	7750426	7813690	7802770	0.61	cps
Tin	118-1	1290	1480	1313	1361	7.62	cps
Titanium	47-1	257	200	213	223	13.27	cps
Uranium	238-1	120	87	100	102	16.41	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:02:04	DataFile Name :	013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	236183	234768	238986	236646	0.91	cps
Ytterbium	172-1	83	90	113	96	16.49	cps
Ytterbium	172-2	27	27	20	24	15.75	cps
Ytterbium	176-1	2087	2144	2310	2180	5.33	cps
Ytterbium	176-2	360	363	357	360	0.93	cps
Yttrium	89-1	25365805	25261531	25412875	25346737	0.31	cps
Yttrium	89-2	1573043	1674712	1625484	1624413	3.13	cps
Zinc	66-2	95428	95301	95388	95372	0.07	cps
Zirconium	90-1	1040	1080	1113	1078	3.41	cps
Zirconium	91-1	903	983	907	931	4.86	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1233	1227	1173	1211	2.72	cps
Antimony	121-1	29679	30457	30394	30177	1.43	cps
Arsenic	75-2	330	317	343	330	4.04	cps
Barium	135-1	36923	37161	37856	37314	1.30	cps
Barium	137-1	64533	64707	64714	64651	0.16	cps
Beryllium	9-1	5719	5698	5922	5780	2.14	cps
Bismuth	209-1	11741171	11861781	11765875	11789609	0.54	cps
Bismuth	209-2	4053036	4018698	4064685	4045473	0.59	cps
Bromine	81-1	4334	4497	4044	4292	5.35	cps
Cadmium	108-1	373	430	400	401	7.07	cps
Cadmium	106-1	7599	7569	7682	7617	0.77	cps
Cadmium	111-1	10402	9921	10365	10230	2.62	cps
Calcium	43-1	26204	25546	26882	26211	2.55	cps
Calcium	44-1	427068	426779	429153	427667	0.30	cps
Carbon	12-1	4528492	4412480	4283253	4408075	2.78	cps
Carbon	12-2	27459	27082	27375	27305	0.73	cps
Chlorine	35-1	90393	90440	90826	90553	0.26	cps
Chlorine	35-2	387	313	293	331	14.84	cps
Chromium	52-2	7769	7949	7712	7810	1.58	cps
Cobalt	59-2	6255	6175	6305	6245	1.05	cps
Copper	63-2	10948	11144	10597	10896	2.54	cps
Dysprosium	156-1	170	87	160	139	32.76	cps
Dysprosium	156-2	7	7	10	8	24.71	cps
Erbium	164-1	103	83	73	87	17.63	cps
Erbium	164-2	17	13	30	20	44.10	cps
Gadolinium	160-1	60	113	73	82	33.76	cps
Gadolinium	160-2	10	17	17	14	26.66	cps
Holmium	165-1	18366361	18283787	18174619	18274922	0.53	cps
Holmium	165-2	5523547	5529180	5489762	5514163	0.39	cps
Indium	115-1	14344148	14340253	14305727	14330043	0.15	cps
Indium	115-2	1196253	1201488	1196426	1198056	0.25	cps
Iron	54-2	6982	6972	6818	6924	1.32	cps
Iron	56-2	123684	121404	121425	122171	1.07	cps
Iron	57-2	2790	3047	3180	3006	6.60	cps
Krypton	83-1	273	203	210	229	16.88	cps
Lead	206-1	13794	13771	13641	13735	0.60	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	12022	12489	12273	12261	1.91	cps
Lead	208-1	55337	55540	55958	55612	0.57	cps
Lithium	6-1	7621451	7382045	7547958	7517151	1.63	cps
Magnesium	24-2	112835	113430	112997	113087	0.27	cps
Manganese	55-2	1597	1627	1603	1609	0.98	cps
Molybdenum	94-1	29912	30346	30002	30087	0.76	cps
Molybdenum	95-1	37363	37434	36879	37225	0.81	cps
Molybdenum	96-1	41629	41332	41181	41380	0.55	cps
Molybdenum	97-1	23654	23116	23724	23498	1.41	cps
Molybdenum	98-1	60012	60772	59845	60210	0.82	cps
Neodymium	150-1	27	20	20	22	17.33	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	2877	2730	2587	2731	5.31	cps
Phosphorus	31-2	200	160	243	201	20.73	cps
Potassium	39-2	65009	65347	64798	65051	0.43	cps
Rhodium	103-1	13274524	13029097	12978228	13093950	1.21	cps
Rhodium	103-2	4697630	4684591	4647537	4676586	0.56	cps
Scandium	45-1	9921502	9957543	9795540	9891529	0.86	cps
Scandium	45-2	167445	167696	168549	167897	0.34	cps
Selenium	82-1	1093	1233	1160	1162	6.02	cps
Selenium	77-2	33	20	7	20	66.65	cps
Selenium	78-2	47	60	73	60	22.22	cps
Silicon	28-1	575265	576190	575738	575731	0.08	cps
Silver	107-1	17792	18870	18356	18339	2.94	cps
Silver	109-1	16857	17558	17501	17305	2.25	cps
Sodium	23-2	245098	243746	243797	244214	0.31	cps
Strontium	86-1	5648	5568	5648	5621	0.82	cps
Strontium	88-1	46113	46380	45327	45940	1.19	cps
Sulfur	34-1	614872	615306	609920	613366	0.49	cps
Terbium	159-1	18826831	18883459	18876406	18862232	0.16	cps
Terbium	159-2	5373016	5336591	5390571	5366726	0.51	cps
Thallium	203-1	15159	15409	15443	15337	1.01	cps
Thallium	205-1	36702	36448	37454	36868	1.42	cps
Tin	118-1	61779	62378	62334	62164	0.54	cps
Titanium	47-1	11471	11298	11808	11526	2.25	cps
Uranium	238-1	48796	47572	47846	48071	1.34	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:31:18	DataFile Name :	018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	11468	11491	11772	11577	1.46	cps
Ytterbium	172-1	103	100	90	98	7.10	cps
Ytterbium	172-2	33	30	23	29	17.63	cps
Ytterbium	176-1	2087	1990	2100	2059	2.92	cps
Ytterbium	176-2	333	243	277	284	16.00	cps
Yttrium	89-1	24724602	24267194	24206635	24399477	1.16	cps
Yttrium	89-2	1578992	1588642	1572310	1579982	0.52	cps
Zinc	66-2	2680	2660	2647	2662	0.63	cps
Zirconium	90-1	26639	25884	26689	26404	1.71	cps
Zirconium	91-1	5938	5921	5778	5879	1.50	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	67	63	63	64	2.99	cps
Antimony	121-1	127	133	83	114	23.73	cps
Arsenic	75-2	7	0	3	3	100.05	cps
Barium	135-1	367	397	423	396	7.17	cps
Barium	137-1	583	550	577	570	3.09	cps
Beryllium	9-1	316	364	315	332	8.38	cps
Bismuth	209-1	11986671	11814091	11756455	11852406	1.01	cps
Bismuth	209-2	4049291	4067031	4047221	4054514	0.27	cps
Bromine	81-1	4261	4214	4377	4284	1.96	cps
Cadmium	108-1	43	27	40	37	24.04	cps
Cadmium	106-1	7392	6992	7035	7140	3.08	cps
Cadmium	111-1	5184	4902	4947	5011	3.02	cps
Calcium	43-1	367	380	483	410	15.58	cps
Calcium	44-1	16526	16339	16536	16467	0.67	cps
Carbon	12-1	4461872	4383407	4307172	4384150	1.76	cps
Carbon	12-2	27863	27776	28033	27891	0.47	cps
Chlorine	35-1	91745	91285	91906	91645	0.35	cps
Chlorine	35-2	297	333	310	313	5.92	cps
Chromium	52-2	1793	1863	1757	1805	3.00	cps
Cobalt	59-2	180	230	190	200	13.23	cps
Copper	63-2	1850	1913	1903	1889	1.80	cps
Dysprosium	156-1	153	150	173	159	7.94	cps
Dysprosium	156-2	10	7	3	7	50.03	cps
Erbium	164-1	70	93	77	80	15.02	cps
Erbium	164-2	30	27	17	24	28.38	cps
Gadolinium	160-1	60	103	93	86	26.52	cps
Gadolinium	160-2	3	13	23	13	75.02	cps
Holmium	165-1	18138511	18126279	18286119	18183637	0.49	cps
Holmium	165-2	5480988	5647861	5528165	5552338	1.55	cps
Indium	115-1	14481301	14303729	14432194	14405741	0.64	cps
Indium	115-2	1194771	1204369	1204453	1201198	0.46	cps
Iron	54-2	643	667	630	647	2.87	cps
Iron	56-2	9710	9560	9550	9607	0.93	cps
Iron	57-2	290	187	240	239	21.63	cps
Krypton	83-1	220	197	210	209	5.60	cps
Lead	206-1	1680	1720	1733	1711	1.62	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1397	1530	1480	1469	4.59	cps
Lead	208-1	6614	6881	6707	6734	2.01	cps
Lithium	6-1	7529282	7547092	7353301	7476558	1.43	cps
Magnesium	24-2	1457	1530	1607	1531	4.90	cps
Manganese	55-2	447	367	467	427	12.40	cps
Molybdenum	94-1	533	570	543	549	3.45	cps
Molybdenum	95-1	670	570	497	579	15.03	cps
Molybdenum	96-1	743	590	610	648	12.87	cps
Molybdenum	97-1	407	320	323	350	14.03	cps
Molybdenum	98-1	1070	1003	963	1012	5.32	cps
Neodymium	150-1	13	7	3	8	65.47	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	1060	1040	1077	1059	1.73	cps
Phosphorus	31-2	103	90	70	88	19.12	cps
Potassium	39-2	7405	7239	7279	7307	1.19	cps
Rhodium	103-1	13147570	13243085	13030088	13140248	0.81	cps
Rhodium	103-2	4667473	4660542	4597742	4641919	0.83	cps
Scandium	45-1	9981276	9841785	9898640	9907233	0.71	cps
Scandium	45-2	168555	168168	168495	168406	0.12	cps
Selenium	82-1	47	33	87	56	49.96	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	17	3	3	8	99.04	cps
Silicon	28-1	503537	500411	497344	500431	0.62	cps
Silver	107-1	297	253	237	262	11.81	cps
Silver	109-1	190	157	113	153	25.07	cps
Sodium	23-2	27045	27483	27823	27450	1.42	cps
Strontium	86-1	727	717	800	748	6.08	cps
Strontium	88-1	3040	2767	2807	2871	5.14	cps
Sulfur	34-1	608290	605950	606586	606942	0.20	cps
Terbium	159-1	18824148	18927702	18673775	18808542	0.68	cps
Terbium	159-2	5422524	5322339	5364676	5369846	0.94	cps
Thallium	203-1	220	300	297	272	16.63	cps
Thallium	205-1	670	653	657	660	1.34	cps
Tin	118-1	1353	1323	1400	1359	2.84	cps
Titanium	47-1	233	170	173	192	18.54	cps
Uranium	238-1	27	33	53	38	36.73	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:35:15	DataFile Name :	019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	17	7	13	43.29	cps
Ytterbium	172-1	60	113	113	96	32.22	cps
Ytterbium	172-2	13	53	40	36	57.29	cps
Ytterbium	176-1	2030	2064	2204	2099	4.38	cps
Ytterbium	176-2	297	313	360	323	10.15	cps
Yttrium	89-1	24698024	24589999	24478620	24588881	0.45	cps
Yttrium	89-2	1561184	1579729	1563479	1568131	0.64	cps
Zinc	66-2	393	400	330	374	10.32	cps
Zirconium	90-1	827	873	830	843	3.09	cps
Zirconium	91-1	190	193	163	182	9.02	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5914488	5842003	5916492	5890995	0.72	cps
Antimony	121-1	16130	16083	17021	16411	3.22	cps
Arsenic	75-2	73	130	73	92	35.48	cps
Barium	135-1	5351	5228	5428	5336	1.89	cps
Barium	137-1	9267	9250	9303	9273	0.29	cps
Beryllium	9-1	1729	1699	1690	1706	1.19	cps
Bismuth	209-1	10972325	10917072	11090863	10993420	0.81	cps
Bismuth	209-2	3716799	3782655	3772740	3757398	0.95	cps
Bromine	81-1	6712	7445	7392	7183	5.70	cps
Cadmium	108-1	4871	5218	5351	5147	4.82	cps
Cadmium	106-1	6812	6938	7242	6997	3.16	cps
Cadmium	111-1	7287	6872	7555	7238	4.75	cps
Calcium	43-1	5227261	5253675	5174237	5218391	0.78	cps
Calcium	44-1	82488625	83445925	84027819	83320790	0.93	cps
Carbon	12-1	43836964	43873188	44714098	44141417	1.12	cps
Carbon	12-2	294733	295016	294406	294718	0.10	cps
Chlorine	35-1	72314594	78208614	80314694	76945967	5.39	cps
Chlorine	35-2	312963	316499	319639	316367	1.06	cps
Chromium	52-2	59165	58961	59764	59297	0.70	cps
Cobalt	59-2	6772	6435	6642	6616	2.57	cps
Copper	63-2	35668	35598	34936	35401	1.14	cps
Dysprosium	156-1	127	150	130	136	9.31	cps
Dysprosium	156-2	27	10	50	29	69.55	cps
Erbium	164-1	173	147	150	157	9.28	cps
Erbium	164-2	43	40	47	43	7.70	cps
Gadolinium	160-1	167	107	147	140	21.82	cps
Gadolinium	160-2	33	27	27	29	13.31	cps
Holmium	165-1	18250306	17663527	18591767	18168533	2.58	cps
Holmium	165-2	5554320	5534445	5639567	5576111	1.00	cps
Indium	115-1	13699114	13221316	13857015	13592482	2.44	cps
Indium	115-2	1152305	1160145	1167933	1160127	0.67	cps
Iron	54-2	12340908	12187963	12280481	12269784	0.63	cps
Iron	56-2	228966970	226433417	225804870	227068419	0.74	cps
Iron	57-2	5701715	5741866	5725451	5723011	0.35	cps
Krypton	83-1	250	283	257	263	6.70	cps
Lead	206-1	55247	56308	56288	55948	1.08	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	43693	44336	45663	44564	2.25	cps
Lead	208-1	207833	210911	212898	210547	1.21	cps
Lithium	6-1	7175953	7063595	7248288	7162612	1.30	cps
Magnesium	24-2	21212203	21204480	21514819	21310501	0.83	cps
Manganese	55-2	9760	9530	9607	9632	1.22	cps
Molybdenum	94-1	8499393	8511994	8447486	8486291	0.40	cps
Molybdenum	95-1	15025490	15067499	15262017	15118335	0.83	cps
Molybdenum	96-1	16154576	15958795	16185864	16099745	0.76	cps
Molybdenum	97-1	9283282	9156695	9261829	9233935	0.73	cps
Molybdenum	98-1	24310041	24457498	24402918	24390152	0.31	cps
Neodymium	150-1	93	77	70	80	15.02	cps
Neodymium	150-2	7	37	13	19	83.40	cps
Nickel	60-2	8856	8923	8733	8837	1.09	cps
Phosphorus	31-2	289598	289904	294100	291201	0.86	cps
Potassium	39-2	12018388	12205141	12174451	12132660	0.83	cps
Rhodium	103-1	12208162	11782289	12474270	12154907	2.87	cps
Rhodium	103-2	4339330	4343321	4400205	4360952	0.78	cps
Scandium	45-1	9614956	9800439	10060965	9825453	2.28	cps
Scandium	45-2	169280	168805	169903	169329	0.33	cps
Selenium	82-1	13	-7	-23	-6	-330.33	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	7	13	30	17	72.11	cps
Silicon	28-1	797805	805980	816114	806633	1.14	cps
Silver	107-1	1583	1470	1597	1550	4.49	cps
Silver	109-1	1497	1410	1420	1442	3.29	cps
Sodium	23-2	44931878	45199113	45243629	45124873	0.37	cps
Strontium	86-1	163193	164262	167304	164920	1.29	cps
Strontium	88-1	1501512	1489212	1526434	1505719	1.26	cps
Sulfur	34-1	7188529	7241203	7227654	7219129	0.38	cps
Terbium	159-1	18511490	18277091	19343407	18710663	2.99	cps
Terbium	159-2	5319438	5343964	5340314	5334572	0.25	cps
Thallium	203-1	973	1313	1370	1219	17.60	cps
Thallium	205-1	2340	3054	3344	2913	17.73	cps
Tin	118-1	3284	3464	3124	3290	5.17	cps
Titanium	47-1	4693888	4848718	4883883	4808830	2.10	cps
Uranium	238-1	743	837	817	799	6.15	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:40:31	DataFile Name :	020ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	337	393	380	370	8.01	cps
Ytterbium	172-1	150	113	113	126	16.86	cps
Ytterbium	172-2	33	33	43	37	15.75	cps
Ytterbium	176-1	1970	1843	2060	1958	5.56	cps
Ytterbium	176-2	213	277	313	268	18.89	cps
Yttrium	89-1	24134730	23977019	24651758	24254502	1.46	cps
Yttrium	89-2	1627124	1610601	1591420	1609715	1.11	cps
Zinc	66-2	5208	5291	5324	5274	1.14	cps
Zirconium	90-1	1113	1083	1137	1111	2.41	cps
Zirconium	91-1	200	220	273	231	16.40	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6170803	6128272	6035288	6111454	1.13	cps
Antimony	121-1	319833	323442	326224	323167	0.99	cps
Arsenic	75-2	5838	5624	5438	5633	3.55	cps
Barium	135-1	79686	82596	80212	80832	1.92	cps
Barium	137-1	138407	139133	141320	139620	1.09	cps
Beryllium	9-1	110419	111373	111240	111011	0.47	cps
Bismuth	209-1	11028066	11065748	11145588	11079801	0.54	cps
Bismuth	209-2	3819909	3829824	3793141	3814291	0.50	cps
Bromine	81-1	6602	7162	7425	7063	5.96	cps
Cadmium	108-1	9600	9487	9880	9656	2.10	cps
Cadmium	106-1	13553	13664	13620	13612	0.41	cps
Cadmium	111-1	79406	82388	81271	81021	1.86	cps
Calcium	43-1	5422259	5460043	5519297	5467200	0.89	cps
Calcium	44-1	87026222	87528615	88721712	87758850	0.99	cps
Carbon	12-1	46248496	48224209	48330263	47600989	2.46	cps
Carbon	12-2	312513	311949	312354	312272	0.09	cps
Chlorine	35-1	78770927	84187187	86162785	83040300	4.61	cps
Chlorine	35-2	333907	333336	339002	335415	0.93	cps
Chromium	52-2	121608	123060	121383	122017	0.75	cps
Cobalt	59-2	121378	119610	121879	120956	0.99	cps
Copper	63-2	121269	122671	123454	122464	0.90	cps
Dysprosium	156-1	130	180	200	170	21.21	cps
Dysprosium	156-2	20	20	20	20	0.00	cps
Erbium	164-1	193	117	140	150	26.20	cps
Erbium	164-2	57	43	43	48	16.12	cps
Gadolinium	160-1	183	147	113	148	23.69	cps
Gadolinium	160-2	60	40	43	48	22.43	cps
Holmium	165-1	18342393	18416353	18285715	18348154	0.36	cps
Holmium	165-2	5675512	5697364	5586092	5652989	1.04	cps
Indium	115-1	14000298	13925401	13807062	13910921	0.70	cps
Indium	115-2	1182117	1191380	1193939	1189146	0.52	cps
Iron	54-2	12907980	12942401	12587559	12812647	1.53	cps
Iron	56-2	237322650	236826556	233782110	235977105	0.81	cps
Iron	57-2	6003658	5860403	5957151	5940404	1.23	cps
Krypton	83-1	210	263	223	232	11.95	cps
Lead	206-1	296882	300213	296707	297934	0.66	cps

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LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	248276	250577	252220	250358	0.79	cps
Lead	208-1	1157178	1169471	1165221	1163957	0.54	cps
Lithium	6-1	7429392	7380845	7268299	7359512	1.12	cps
Magnesium	24-2	22000841	22102693	22078873	22060802	0.24	cps
Manganese	55-2	34294	34595	34826	34572	0.77	cps
Molybdenum	94-1	8720657	8754270	8734924	8736617	0.19	cps
Molybdenum	95-1	15348635	15670111	15558531	15525759	1.05	cps
Molybdenum	96-1	16708645	16669314	16485096	16621018	0.72	cps
Molybdenum	97-1	9630554	9521194	9503236	9551661	0.72	cps
Molybdenum	98-1	25157420	25272450	25346525	25258798	0.38	cps
Neodymium	150-1	83	80	100	88	12.21	cps
Neodymium	150-2	20	13	13	16	24.76	cps
Nickel	60-2	40116	38649	39909	39558	2.01	cps
Phosphorus	31-2	304791	302199	303035	303342	0.44	cps
Potassium	39-2	12643315	12526488	12596688	12588830	0.47	cps
Rhodium	103-1	12474601	12402060	12378373	12418345	0.40	cps
Rhodium	103-2	4453431	4419003	4425917	4432784	0.41	cps
Scandium	45-1	10228539	10130437	10207656	10188877	0.51	cps
Scandium	45-2	172649	174394	174076	173707	0.53	cps
Selenium	82-1	4768	4961	4918	4882	2.08	cps
Selenium	77-2	87	67	100	84	19.87	cps
Selenium	78-2	260	240	310	270	13.36	cps
Silicon	28-1	864635	865965	875621	868740	0.69	cps
Silver	107-1	348902	355782	357309	353998	1.27	cps
Silver	109-1	334652	334442	337018	335370	0.43	cps
Sodium	23-2	46842446	46043504	46336281	46407410	0.87	cps
Strontium	86-1	171956	170289	171844	171363	0.54	cps
Strontium	88-1	1557777	1563134	1567901	1562937	0.32	cps
Sulfur	34-1	7584826	7554770	7635804	7591800	0.54	cps
Terbium	159-1	18835608	19095210	18981193	18970670	0.69	cps
Terbium	159-2	5416082	5517800	5451192	5461691	0.95	cps
Thallium	203-1	297304	298868	302657	299610	0.92	cps
Thallium	205-1	723432	727521	724965	725306	0.28	cps
Tin	118-1	3014	3137	3107	3086	2.08	cps
Titanium	47-1	5037848	5093255	5086917	5072673	0.60	cps
Uranium	238-1	823	880	750	818	7.97	cps

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LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:44:04	DataFile Name :	021ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	48167	48234	48264	48222	0.10	cps
Ytterbium	172-1	120	103	150	124	19.00	cps
Ytterbium	172-2	43	47	30	40	22.05	cps
Ytterbium	176-1	1797	2040	1967	1935	6.45	cps
Ytterbium	176-2	217	250	303	257	17.03	cps
Yttrium	89-1	25072176	24659126	24986718	24906007	0.88	cps
Yttrium	89-2	1591435	1594618	1625115	1603723	1.16	cps
Zinc	66-2	14404	14744	14491	14546	1.22	cps
Zirconium	90-1	1153	1240	1157	1183	4.15	cps
Zirconium	91-1	327	267	330	308	11.58	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3263433	3228758	3226632	3239608	0.64	cps
Antimony	121-1	6977306	7163006	7178501	7106271	1.58	cps
Arsenic	75-2	128271	128987	130366	129208	0.82	cps
Barium	135-1	9094900	9172291	9140417	9135869	0.43	cps
Barium	137-1	15692300	15688516	15501849	15627555	0.70	cps
Beryllium	9-1	2576680	2587367	2617234	2593761	0.81	cps
Bismuth	209-1	10185634	10466823	10183543	10278667	1.59	cps
Bismuth	209-2	3612250	3664859	3675878	3650996	0.93	cps
Bromine	81-1	5238	4828	5018	5028	4.08	cps
Cadmium	108-1	135303	134726	134390	134807	0.34	cps
Cadmium	106-1	194623	197317	195481	195807	0.70	cps
Cadmium	111-1	1766322	1763359	1750615	1760099	0.47	cps
Calcium	43-1	12616361	12570111	12685545	12624006	0.46	cps
Calcium	44-1	204338670	204777124	202959504	204025099	0.46	cps
Carbon	12-1	5604182	5595444	5674379	5624668	0.77	cps
Carbon	12-2	41325	40659	41826	41270	1.42	cps
Chlorine	35-1	1255927	1215565	1201486	1224326	2.31	cps
Chlorine	35-2	4314	4114	4001	4143	3.83	cps
Chromium	52-2	1554560	1521366	1542280	1539402	1.09	cps
Cobalt	59-2	2749498	2749994	2788300	2762597	0.81	cps
Copper	63-2	20006060	20322034	20261463	20196519	0.83	cps
Dysprosium	156-1	570	450	497	506	11.97	cps
Dysprosium	156-2	60	113	90	88	30.46	cps
Erbium	164-1	403	393	353	383	6.90	cps
Erbium	164-2	120	123	120	121	1.59	cps
Gadolinium	160-1	407	393	413	404	2.52	cps
Gadolinium	160-2	120	113	83	106	18.51	cps
Holmium	165-1	17553349	17467396	17746230	17588992	0.81	cps
Holmium	165-2	5517211	5514699	5461667	5497859	0.57	cps
Indium	115-1	13037764	13113607	13036504	13062625	0.34	cps
Indium	115-2	1136584	1152622	1146419	1145208	0.71	cps
Iron	54-2	14971933	15012312	14853203	14945816	0.55	cps
Iron	56-2	272835943	277679989	274394169	274970034	0.90	cps
Iron	57-2	6891835	6911001	6864494	6889110	0.34	cps
Krypton	83-1	193	270	283	249	19.52	cps
Lead	206-1	28992084	29129794	29210943	29110940	0.38	cps

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LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	25053298	24945167	24777046	24925170	0.56	cps
Lead	208-1	115128001	115775417	114622695	115175371	0.50	cps
Lithium	6-1	7098150	7040683	6988307	7042380	0.78	cps
Magnesium	24-2	54552864	54795248	54628216	54658776	0.23	cps
Manganese	55-2	6198058	6261807	6203272	6221046	0.57	cps
Molybdenum	94-1	25465345	25806923	25871445	25714571	0.85	cps
Molybdenum	95-1	36798307	37386732	37459400	37214813	0.97	cps
Molybdenum	96-1	40292712	40486294	41232749	40670585	1.22	cps
Molybdenum	97-1	22872396	22859038	23016114	22915849	0.38	cps
Molybdenum	98-1	60023281	60687642	60254196	60321706	0.56	cps
Neodymium	150-1	777	760	707	748	4.89	cps
Neodymium	150-2	77	33	37	49	49.33	cps
Nickel	60-2	737117	740908	738891	738972	0.26	cps
Phosphorus	31-2	28258	28511	28551	28440	0.56	cps
Potassium	39-2	15225181	15094983	15321476	15213880	0.75	cps
Rhodium	103-1	11456275	11862580	11655595	11658150	1.74	cps
Rhodium	103-2	4212330	4326168	4268742	4269080	1.33	cps
Scandium	45-1	9766404	9835497	9801632	9801178	0.35	cps
Scandium	45-2	173897	176975	174768	175213	0.91	cps
Selenium	82-1	104188	105287	105740	105071	0.76	cps
Selenium	77-2	1543	1700	1630	1625	4.83	cps
Selenium	78-2	5568	5468	5491	5509	0.95	cps
Silicon	28-1	9169659	9198527	9256789	9208325	0.48	cps
Silver	107-1	8698354	8690458	8794825	8727879	0.67	cps
Silver	109-1	8299822	8303937	8144209	8249323	1.10	cps
Sodium	23-2	108631292	109617322	109591622	109280078	0.51	cps
Strontium	86-1	2458738	2462159	2514175	2478357	1.25	cps
Strontium	88-1	21015142	21055343	21361261	21143915	0.90	cps
Sulfur	34-1	1272588	1276574	1279915	1276359	0.29	cps
Terbium	159-1	18064325	18141878	18264834	18157012	0.56	cps
Terbium	159-2	5360297	5285441	5308215	5317984	0.72	cps
Thallium	203-1	7084872	7233343	7262955	7193723	1.33	cps
Thallium	205-1	16976138	17158576	17085566	17073427	0.54	cps
Tin	118-1	5805367	5829911	5853568	5829615	0.41	cps
Titanium	47-1	11673986	11550999	11620381	11615122	0.53	cps
Uranium	238-1	24539129	24177238	24246246	24320871	0.79	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:51:57	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1133899	1141755	1134591	1136748	0.38	cps
Ytterbium	172-1	457	467	467	463	1.25	cps
Ytterbium	172-2	153	173	200	176	13.33	cps
Ytterbium	176-1	34812	35404	35207	35141	0.86	cps
Ytterbium	176-2	11028	10701	10781	10837	1.57	cps
Yttrium	89-1	23454580	23925902	24215879	23865454	1.61	cps
Yttrium	89-2	1592855	1614182	1577798	1594945	1.15	cps
Zinc	66-2	2222559	2229418	2251844	2234607	0.69	cps
Zirconium	90-1	13264949	13270707	13331316	13288991	0.28	cps
Zirconium	91-1	2977759	2966125	2995628	2979837	0.50	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	137	150	163	150	8.89	cps
Antimony	121-1	1410	1210	1220	1280	8.80	cps
Arsenic	75-2	7	7	10	8	24.71	cps
Barium	135-1	1073	1107	1047	1076	2.79	cps
Barium	137-1	2004	2067	1680	1917	10.82	cps
Beryllium	9-1	964	956	917	946	2.62	cps
Bismuth	209-1	11652399	11883826	11763510	11766579	0.98	cps
Bismuth	209-2	4164937	4134917	4213427	4171094	0.95	cps
Bromine	81-1	4681	4721	4728	4710	0.54	cps
Cadmium	108-1	30	40	33	34	14.78	cps
Cadmium	106-1	6925	7185	7142	7084	1.97	cps
Cadmium	111-1	4917	5095	5089	5034	2.01	cps
Calcium	43-1	817	610	653	693	15.72	cps
Calcium	44-1	22281	21172	21019	21491	3.20	cps
Carbon	12-1	4630413	4610830	4519968	4587071	1.28	cps
Carbon	12-2	29346	29316	29874	29512	1.06	cps
Chlorine	35-1	743253	724360	717781	728465	1.82	cps
Chlorine	35-2	2814	2660	2700	2725	2.92	cps
Chromium	52-2	1737	1793	1893	1808	4.39	cps
Cobalt	59-2	277	277	273	276	0.70	cps
Copper	63-2	2974	2540	2514	2676	9.65	cps
Dysprosium	156-1	30	30	43	34	22.34	cps
Dysprosium	156-2	7	7	0	4	86.60	cps
Erbium	164-1	137	97	80	104	27.88	cps
Erbium	164-2	33	37	27	32	15.80	cps
Gadolinium	160-1	103	93	93	97	5.97	cps
Gadolinium	160-2	7	7	20	11	69.25	cps
Holmium	165-1	18469890	18806431	18436391	18570904	1.10	cps
Holmium	165-2	5631033	5720288	5676159	5675827	0.79	cps
Indium	115-1	14734295	14703687	14754917	14730966	0.17	cps
Indium	115-2	1256414	1260416	1260822	1259218	0.19	cps
Iron	54-2	1103	1027	967	1032	6.64	cps
Iron	56-2	16450	16176	16543	16390	1.16	cps
Iron	57-2	440	437	370	416	9.50	cps
Krypton	83-1	253	293	183	243	22.88	cps
Lead	206-1	3717	3497	3357	3524	5.15	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3274	3054	2877	3068	6.48	cps
Lead	208-1	14904	14127	13360	14130	5.46	cps
Lithium	6-1	7715008	7730105	7647535	7697549	0.57	cps
Magnesium	24-2	2370	2250	2267	2296	2.83	cps
Manganese	55-2	673	673	640	662	2.91	cps
Molybdenum	94-1	1427	1397	1207	1343	8.88	cps
Molybdenum	95-1	1820	1460	1493	1591	12.50	cps
Molybdenum	96-1	2104	1793	1683	1860	11.71	cps
Molybdenum	97-1	1087	987	963	1012	6.47	cps
Molybdenum	98-1	2900	2674	2284	2619	11.91	cps
Neodymium	150-1	60	37	43	47	25.75	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	950	970	877	932	5.27	cps
Phosphorus	31-2	117	100	87	101	14.87	cps
Potassium	39-2	8729	8362	8559	8550	2.15	cps
Rhodium	103-1	13639276	13685121	13521880	13615426	0.62	cps
Rhodium	103-2	4883948	4910324	4881217	4891830	0.33	cps
Scandium	45-1	10487185	10466891	10408984	10454353	0.39	cps
Scandium	45-2	178014	175365	177565	176981	0.80	cps
Selenium	82-1	-13	-60	77	1	6258.68	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	7	20	3	10	88.20	cps
Silicon	28-1	545877	542674	540274	542942	0.52	cps
Silver	107-1	793	817	793	801	1.68	cps
Silver	109-1	660	653	563	626	8.63	cps
Sodium	23-2	35928	35507	35182	35539	1.05	cps
Strontium	86-1	707	583	640	643	9.60	cps
Strontium	88-1	1903	1840	1700	1815	5.73	cps
Sulfur	34-1	574892	575614	576194	575567	0.11	cps
Terbium	159-1	18843223	18993160	19135428	18990604	0.77	cps
Terbium	159-2	5546377	5502945	5587454	5545592	0.76	cps
Thallium	203-1	977	1020	833	943	10.36	cps
Thallium	205-1	2554	2457	2080	2364	10.58	cps
Tin	118-1	1703	1457	1510	1557	8.34	cps
Titanium	47-1	493	433	410	446	9.65	cps
Uranium	238-1	563	470	473	502	10.54	cps

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Inst Id :P8
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LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:55:52	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	47	37	27	37	27.27	cps
Ytterbium	172-1	110	87	113	103	14.06	cps
Ytterbium	172-2	43	27	30	33	26.45	cps
Ytterbium	176-1	1994	2050	1930	1991	3.02	cps
Ytterbium	176-2	253	280	270	268	5.03	cps
Yttrium	89-1	25562890	25640305	25571146	25591447	0.17	cps
Yttrium	89-2	1712344	1676007	1678451	1688934	1.20	cps
Zinc	66-2	370	370	293	344	12.85	cps
Zirconium	90-1	1507	1203	1347	1352	11.22	cps
Zirconium	91-1	330	317	233	293	17.86	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1303	1347	1280	1310	2.58	cps
Antimony	121-1	30858	31590	30594	31014	1.66	cps
Arsenic	75-2	370	253	257	293	22.64	cps
Barium	135-1	38104	38167	38648	38306	0.78	cps
Barium	137-1	67223	67078	67681	67327	0.47	cps
Beryllium	9-1	6199	6351	6259	6270	1.22	cps
Bismuth	209-1	12148598	11937105	11930929	12005544	1.03	cps
Bismuth	209-2	4100126	4132354	4210983	4147821	1.37	cps
Bromine	81-1	4701	4761	4587	4683	1.88	cps
Cadmium	108-1	420	417	423	420	0.79	cps
Cadmium	106-1	7956	7879	7799	7878	0.99	cps
Cadmium	111-1	10213	10415	10481	10369	1.35	cps
Calcium	43-1	27957	27092	27713	27588	1.62	cps
Calcium	44-1	450963	449356	447306	449208	0.41	cps
Carbon	12-1	4618420	4508504	4428941	4518622	2.11	cps
Carbon	12-2	27997	28120	27636	27918	0.90	cps
Chlorine	35-1	587025	582267	570786	580026	1.44	cps
Chlorine	35-2	2114	2157	1967	2079	4.79	cps
Chromium	52-2	8032	7816	7906	7918	1.38	cps
Cobalt	59-2	6578	6608	6278	6488	2.81	cps
Copper	63-2	11415	11141	11545	11367	1.81	cps
Dysprosium	156-1	50	57	73	60	20.03	cps
Dysprosium	156-2	0	0	0	0	0.00	cps
Erbium	164-1	103	93	93	97	5.97	cps
Erbium	164-2	47	10	33	30	61.87	cps
Gadolinium	160-1	90	87	103	93	9.45	cps
Gadolinium	160-2	27	7	50	28	78.06	cps
Holmium	165-1	19039606	18878536	18502380	18806841	1.47	cps
Holmium	165-2	5722560	5687261	5641045	5683622	0.72	cps
Indium	115-1	15023144	14781817	14930464	14911808	0.82	cps
Indium	115-2	1256730	1261274	1252124	1256709	0.36	cps
Iron	54-2	7362	7435	7339	7379	0.68	cps
Iron	56-2	130974	129942	131465	130794	0.59	cps
Iron	57-2	3280	3134	3350	3255	3.40	cps
Krypton	83-1	283	280	257	273	5.32	cps
Lead	206-1	14625	14675	14692	14664	0.24	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	12937	12433	12596	12655	2.03	cps
Lead	208-1	58923	58559	58409	58630	0.45	cps
Lithium	6-1	7911595	7703948	7634722	7750089	1.86	cps
Magnesium	24-2	117549	116107	116779	116812	0.62	cps
Manganese	55-2	1850	2064	1853	1922	6.36	cps
Molybdenum	94-1	31683	32578	31729	31997	1.58	cps
Molybdenum	95-1	38644	38624	39359	38875	1.08	cps
Molybdenum	96-1	43020	43856	42485	43120	1.60	cps
Molybdenum	97-1	24194	24144	24044	24128	0.32	cps
Molybdenum	98-1	62808	64047	62688	63181	1.19	cps
Neodymium	150-1	33	30	23	29	17.63	cps
Neodymium	150-2	0	3	7	3	100.05	cps
Nickel	60-2	2640	2687	2590	2639	1.83	cps
Phosphorus	31-2	177	197	153	176	12.35	cps
Potassium	39-2	69309	69108	68592	69003	0.54	cps
Rhodium	103-1	13813049	13813153	13652206	13759469	0.68	cps
Rhodium	103-2	4860266	4830897	4878084	4856416	0.49	cps
Scandium	45-1	10660360	10437053	10525780	10541064	1.07	cps
Scandium	45-2	177994	175406	176674	176691	0.73	cps
Selenium	82-1	1157	1093	1233	1161	6.04	cps
Selenium	77-2	17	20	30	22	31.22	cps
Selenium	78-2	70	60	80	70	14.29	cps
Silicon	28-1	604465	600852	605244	603520	0.39	cps
Silver	107-1	19113	19057	19771	19314	2.06	cps
Silver	109-1	17868	18269	18319	18152	1.36	cps
Sodium	23-2	256960	256019	257238	256739	0.25	cps
Strontium	86-1	5511	5514	5801	5609	2.97	cps
Strontium	88-1	45511	46501	46661	46224	1.35	cps
Sulfur	34-1	593690	592950	590599	592413	0.27	cps
Terbium	159-1	19254721	19416064	19026941	19232576	1.02	cps
Terbium	159-2	5524533	5553914	5489259	5522569	0.59	cps
Thallium	203-1	15733	15556	15393	15561	1.09	cps
Thallium	205-1	38096	37782	37481	37786	0.81	cps
Tin	118-1	63751	63657	63761	63723	0.09	cps
Titanium	47-1	11688	12279	11995	11987	2.46	cps
Uranium	238-1	48322	47468	48342	48044	1.04	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 12:59:55	DataFile Name :	025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	12082	11515	12289	11962	3.35	cps
Ytterbium	172-1	70	140	107	106	33.17	cps
Ytterbium	172-2	43	30	30	34	22.34	cps
Ytterbium	176-1	2100	2117	2110	2109	0.40	cps
Ytterbium	176-2	220	260	330	270	20.62	cps
Yttrium	89-1	26036021	25817343	25495340	25782902	1.05	cps
Yttrium	89-2	1666432	1655731	1649752	1657305	0.51	cps
Zinc	66-2	2924	2860	2767	2850	2.77	cps
Zirconium	90-1	26989	28305	27494	27596	2.41	cps
Zirconium	91-1	6198	6165	5941	6101	2.29	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	83	100	73	86	15.75	cps
Antimony	121-1	357	263	337	319	15.41	cps
Arsenic	75-2	7	7	3	6	34.70	cps
Barium	135-1	753	757	813	774	4.35	cps
Barium	137-1	1320	1200	1267	1262	4.76	cps
Beryllium	9-1	551	496	490	512	6.58	cps
Bismuth	209-1	11924323	11993589	11988918	11968944	0.32	cps
Bismuth	209-2	4139569	4141008	4037050	4105875	1.45	cps
Bromine	81-1	4844	4698	4861	4801	1.87	cps
Cadmium	108-1	37	43	30	37	18.18	cps
Cadmium	106-1	7175	6932	7122	7076	1.81	cps
Cadmium	111-1	5047	4859	5004	4970	1.99	cps
Calcium	43-1	473	417	450	447	6.38	cps
Calcium	44-1	17344	17090	16793	17076	1.61	cps
Carbon	12-1	4480513	4376395	4299731	4385546	2.07	cps
Carbon	12-2	27613	26845	26935	27131	1.55	cps
Chlorine	35-1	426733	416361	407212	416769	2.34	cps
Chlorine	35-2	1517	1553	1543	1538	1.23	cps
Chromium	52-2	1797	1833	1873	1835	2.09	cps
Cobalt	59-2	213	200	210	208	3.34	cps
Copper	63-2	2057	2010	2074	2047	1.60	cps
Dysprosium	156-1	100	57	93	83	28.00	cps
Dysprosium	156-2	7	3	3	4	43.40	cps
Erbium	164-1	83	77	97	86	11.90	cps
Erbium	164-2	17	27	20	21	24.12	cps
Gadolinium	160-1	100	80	83	88	12.21	cps
Gadolinium	160-2	20	13	10	14	35.26	cps
Holmium	165-1	18369924	18396610	18407501	18391345	0.11	cps
Holmium	165-2	5612358	5667847	5521552	5600586	1.32	cps
Indium	115-1	14519217	14545435	14546014	14536889	0.11	cps
Indium	115-2	1226177	1228530	1209933	1221546	0.83	cps
Iron	54-2	657	690	750	699	6.77	cps
Iron	56-2	11672	11098	11091	11287	2.95	cps
Iron	57-2	260	300	313	291	9.53	cps
Krypton	83-1	257	253	267	259	2.68	cps
Lead	206-1	2124	2000	2000	2041	3.49	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1743	1847	1813	1801	2.93	cps
Lead	208-1	8311	8408	8294	8338	0.73	cps
Lithium	6-1	7729249	7624769	7629860	7661293	0.77	cps
Magnesium	24-2	1503	1527	1587	1539	2.79	cps
Manganese	55-2	583	553	473	537	10.60	cps
Molybdenum	94-1	710	677	730	706	3.82	cps
Molybdenum	95-1	733	663	660	686	6.04	cps
Molybdenum	96-1	853	757	847	819	6.59	cps
Molybdenum	97-1	400	407	460	422	7.79	cps
Molybdenum	98-1	1130	930	1090	1050	10.08	cps
Neodymium	150-1	20	23	30	24	20.83	cps
Neodymium	150-2	10	0	3	4	114.60	cps
Nickel	60-2	907	940	870	906	3.87	cps
Phosphorus	31-2	50	123	93	89	41.48	cps
Potassium	39-2	8086	8189	8006	8093	1.14	cps
Rhodium	103-1	13313853	13588459	13411645	13437986	1.04	cps
Rhodium	103-2	4773435	4765699	4617660	4718931	1.86	cps
Scandium	45-1	10323330	10213480	10263907	10266906	0.54	cps
Scandium	45-2	173820	175044	170974	173279	1.20	cps
Selenium	82-1	-30	-17	-20	-22	-31.22	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	0	20	10	10	100.00	cps
Silicon	28-1	520762	522700	521758	521740	0.19	cps
Silver	107-1	373	357	313	348	8.91	cps
Silver	109-1	187	240	213	213	12.50	cps
Sodium	23-2	31731	30849	31183	31255	1.42	cps
Strontium	86-1	587	600	577	588	1.99	cps
Strontium	88-1	2017	1867	1960	1948	3.89	cps
Sulfur	34-1	602472	598718	594212	598468	0.69	cps
Terbium	159-1	18828137	19032943	19011366	18957482	0.59	cps
Terbium	159-2	5530063	5546122	5374567	5483584	1.73	cps
Thallium	203-1	593	543	483	540	10.20	cps
Thallium	205-1	1323	1237	1247	1269	3.74	cps
Tin	118-1	1333	1380	1287	1333	3.50	cps
Titanium	47-1	187	183	233	201	13.90	cps
Uranium	238-1	77	40	57	58	31.78	cps

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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BL	Instrumnet Name :	P8
Client Sample ID :	PB166779BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:04:50	DataFile Name :	026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13	13	7	11	34.61	cps
Ytterbium	172-1	140	107	87	111	24.25	cps
Ytterbium	172-2	43	37	20	33	36.05	cps
Ytterbium	176-1	1887	1900	2070	1952	5.24	cps
Ytterbium	176-2	293	270	310	291	6.90	cps
Yttrium	89-1	25362385	25135449	25080170	25192668	0.59	cps
Yttrium	89-2	1629531	1609948	1558152	1599210	2.31	cps
Zinc	66-2	243	327	253	274	16.58	cps
Zirconium	90-1	970	827	843	880	8.91	cps
Zirconium	91-1	127	207	187	173	24.02	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	601439	608607	608134	606060	0.66	cps
Antimony	121-1	7884657	7900454	7853648	7879586	0.30	cps
Arsenic	75-2	139041	140384	140862	140096	0.67	cps
Barium	135-1	9660763	9550494	9421743	9544333	1.25	cps
Barium	137-1	16433731	16564216	16600114	16532687	0.53	cps
Beryllium	9-1	2785215	2728046	2805614	2772958	1.45	cps
Bismuth	209-1	11536500	11173497	11374787	11361595	1.60	cps
Bismuth	209-2	3916061	3987732	3901613	3935135	1.17	cps
Bromine	81-1	4771	4898	4868	4845	1.37	cps
Cadmium	108-1	149440	150124	150849	150137	0.47	cps
Cadmium	106-1	212621	213859	216887	214456	1.02	cps
Cadmium	111-1	1971583	1982222	2005866	1986557	0.88	cps
Calcium	43-1	2673890	2665607	2636539	2658678	0.74	cps
Calcium	44-1	42425819	43118384	42541643	42695282	0.87	cps
Carbon	12-1	5342904	5385514	5446510	5391643	0.97	cps
Carbon	12-2	35780	36402	35710	35964	1.06	cps
Chlorine	35-1	345258	346870	341346	344491	0.82	cps
Chlorine	35-2	1350	1393	1373	1372	1.58	cps
Chromium	52-2	1618549	1613711	1626270	1619510	0.39	cps
Cobalt	59-2	3022662	3066882	3015972	3035172	0.91	cps
Copper	63-2	22034380	22267386	22347313	22216359	0.73	cps
Dysprosium	156-1	313	253	217	261	18.69	cps
Dysprosium	156-2	27	27	17	23	24.74	cps
Erbium	164-1	153	190	143	162	15.14	cps
Erbium	164-2	37	67	47	50	30.55	cps
Gadolinium	160-1	140	170	140	150	11.55	cps
Gadolinium	160-2	33	40	33	36	10.83	cps
Holmium	165-1	18464656	18078656	18530774	18358029	1.33	cps
Holmium	165-2	5561524	5630756	5612155	5601478	0.64	cps
Indium	115-1	14188717	13923171	13761953	13957947	1.54	cps
Indium	115-2	1175587	1197218	1191608	1188138	0.94	cps
Iron	54-2	3214911	3238698	3259586	3237732	0.69	cps
Iron	56-2	57799589	57900749	58234727	57978355	0.39	cps
Iron	57-2	1455870	1462246	1470801	1462972	0.51	cps
Krypton	83-1	230	270	263	254	8.42	cps
Lead	206-1	30790842	31579936	31487219	31285999	1.38	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	27145712	27214164	27205546	27188474	0.14	cps
Lead	208-1	125570051	125101264	125600076	125423797	0.22	cps
Lithium	6-1	7456842	7427149	7538254	7474082	0.77	cps
Magnesium	24-2	11467000	11639929	11676302	11594411	0.96	cps
Manganese	55-2	6390629	6428452	6525014	6448032	1.07	cps
Molybdenum	94-1	26421505	26698265	26652525	26590765	0.56	cps
Molybdenum	95-1	38365166	39041984	38850456	38752535	0.90	cps
Molybdenum	96-1	41602719	42758538	42044239	42135165	1.38	cps
Molybdenum	97-1	23683534	24246112	23906430	23945359	1.18	cps
Molybdenum	98-1	61772586	63328664	63575976	62892409	1.55	cps
Neodymium	150-1	680	613	770	688	11.43	cps
Neodymium	150-2	23	27	20	23	14.29	cps
Nickel	60-2	760541	773251	779913	771235	1.28	cps
Phosphorus	31-2	28815	29517	29310	29214	1.23	cps
Potassium	39-2	3128020	3173062	3160425	3153836	0.74	cps
Rhodium	103-1	12616362	12777118	12782106	12725195	0.74	cps
Rhodium	103-2	4542135	4554282	4591826	4562748	0.57	cps
Scandium	45-1	10236076	10151447	10021331	10136285	1.07	cps
Scandium	45-2	174238	177175	174397	175270	0.94	cps
Selenium	82-1	117402	115190	117322	116638	1.08	cps
Selenium	77-2	1870	1730	1980	1860	6.74	cps
Selenium	78-2	6155	6171	6158	6161	0.14	cps
Silicon	28-1	11815942	11631716	11712214	11719957	0.79	cps
Silver	107-1	9886841	9889437	9977189	9917822	0.52	cps
Silver	109-1	9319683	9315003	9325601	9320096	0.06	cps
Sodium	23-2	22753610	23126174	23105362	22995049	0.91	cps
Strontium	86-1	2638849	2633185	2607892	2626642	0.63	cps
Strontium	88-1	22487460	22600451	21963851	22350587	1.52	cps
Sulfur	34-1	1326240	1281841	1275379	1294487	2.14	cps
Terbium	159-1	18663294	18862334	18934448	18820025	0.75	cps
Terbium	159-2	5395772	5445444	5416575	5419264	0.46	cps
Thallium	203-1	7778928	7981248	7938599	7899592	1.35	cps
Thallium	205-1	18394579	18797371	18832427	18674792	1.30	cps
Tin	118-1	6230712	6176583	6214438	6207244	0.45	cps
Titanium	47-1	12044386	12231255	12141660	12139100	0.77	cps
Uranium	238-1	25048590	24896670	25285495	25076918	0.78	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779BS	Instrumnet Name :	P8
Client Sample ID :	PB166779BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:08:11	DataFile Name :	027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1183489	1205182	1206677	1198449	1.08	cps
Ytterbium	172-1	213	183	197	198	7.60	cps
Ytterbium	172-2	60	87	57	68	24.26	cps
Ytterbium	176-1	35715	35935	35501	35717	0.61	cps
Ytterbium	176-2	10491	10304	10711	10502	1.94	cps
Yttrium	89-1	25319720	24962047	24871342	25051037	0.95	cps
Yttrium	89-2	1625070	1603431	1612793	1613764	0.67	cps
Zinc	66-2	2392041	2418777	2471868	2427562	1.67	cps
Zirconium	90-1	13536061	13509351	13573675	13539696	0.24	cps
Zirconium	91-1	2975917	2988648	2985094	2983220	0.22	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	491584	493599	496576	493920	0.51	cps
Antimony	121-1	647	690	657	664	3.41	cps
Arsenic	75-2	127	157	200	161	22.88	cps
Barium	135-1	87403	89147	87634	88061	1.08	cps
Barium	137-1	150109	151463	153534	151702	1.14	cps
Beryllium	9-1	1575	1800	1635	1670	6.98	cps
Bismuth	209-1	11740311	11690824	11584775	11671970	0.68	cps
Bismuth	209-2	4051912	4030762	4092833	4058502	0.78	cps
Bromine	81-1	5214	5121	5108	5148	1.13	cps
Cadmium	108-1	87	90	123	100	20.28	cps
Cadmium	106-1	7646	7265	7222	7378	3.16	cps
Cadmium	111-1	5661	5456	5416	5511	2.39	cps
Calcium	43-1	3246299	3253870	3265212	3255127	0.29	cps
Calcium	44-1	52187303	51919386	51945608	52017432	0.28	cps
Carbon	12-1	5512825	5452614	5571170	5512203	1.08	cps
Carbon	12-2	35800	35559	36007	35789	0.63	cps
Chlorine	35-1	236498	236108	235452	236019	0.22	cps
Chlorine	35-2	970	840	937	916	7.38	cps
Chromium	52-2	8453	8469	8606	8509	0.99	cps
Cobalt	59-2	111640	111331	110272	111081	0.65	cps
Copper	63-2	95954	96750	96639	96448	0.45	cps
Dysprosium	156-1	58631	58256	58410	58433	0.32	cps
Dysprosium	156-2	18219	18233	18560	18337	1.05	cps
Erbium	164-1	71142	72090	72074	71769	0.76	cps
Erbium	164-2	21120	21387	21531	21346	0.98	cps
Gadolinium	160-1	59555	60034	59294	59628	0.63	cps
Gadolinium	160-2	21638	21815	21845	21766	0.51	cps
Holmium	165-1	18786558	18640438	18726115	18717704	0.39	cps
Holmium	165-2	5743248	5776054	5756732	5758678	0.29	cps
Indium	115-1	14784635	14421899	14471299	14559277	1.35	cps
Indium	115-2	1233094	1238804	1248827	1240242	0.64	cps
Iron	54-2	6728628	6573592	6645302	6649174	1.17	cps
Iron	56-2	122660392	121090662	122119115	121956723	0.65	cps
Iron	57-2	3100074	3144119	3145326	3129840	0.82	cps
Krypton	83-1	370	363	427	387	9.00	cps
Lead	206-1	19979	19942	19705	19875	0.75	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	16073	16744	16594	16471	2.14	cps
Lead	208-1	76793	77083	76378	76751	0.46	cps
Lithium	6-1	7789868	7589232	7569836	7649646	1.59	cps
Magnesium	24-2	2639205	2654332	2704915	2666151	1.29	cps
Manganese	55-2	1581146	1556977	1568942	1569022	0.77	cps
Molybdenum	94-1	2500	2370	2324	2398	3.82	cps
Molybdenum	95-1	1200	1107	1057	1121	6.49	cps
Molybdenum	96-1	2064	2090	1944	2032	3.84	cps
Molybdenum	97-1	817	610	643	690	16.08	cps
Molybdenum	98-1	1747	1617	1603	1656	4.78	cps
Neodymium	150-1	58423	59170	60107	59233	1.42	cps
Neodymium	150-2	12536	12903	12746	12728	1.45	cps
Nickel	60-2	13400	13613	13673	13562	1.06	cps
Phosphorus	31-2	483	493	463	480	3.18	cps
Potassium	39-2	73496	73516	73874	73629	0.29	cps
Rhodium	103-1	13420108	13031339	13203270	13218239	1.47	cps
Rhodium	103-2	4713505	4733756	4767834	4738365	0.58	cps
Scandium	45-1	10368929	10159320	10299232	10275827	1.04	cps
Scandium	45-2	178564	179061	180258	179294	0.49	cps
Selenium	82-1	53	90	-57	29	264.22	cps
Selenium	77-2	40	63	43	49	25.81	cps
Selenium	78-2	77	43	47	56	33.05	cps
Silicon	28-1	95994379	95538509	95894092	95808993	0.25	cps
Silver	107-1	267	400	370	346	20.24	cps
Silver	109-1	200	260	260	240	14.43	cps
Sodium	23-2	4439627	4438203	4478132	4451987	0.51	cps
Strontium	86-1	530138	538253	543396	537262	1.24	cps
Strontium	88-1	5008327	4957296	4967893	4977839	0.54	cps
Sulfur	34-1	6157683	6135074	6112455	6135071	0.37	cps
Terbium	159-1	19706510	19038038	19313308	19352619	1.74	cps
Terbium	159-2	5565155	5544060	5534570	5547928	0.28	cps
Thallium	203-1	670	610	617	632	5.20	cps
Thallium	205-1	1650	1530	1440	1540	6.84	cps
Tin	118-1	3057	3134	2964	3051	2.79	cps
Titanium	47-1	2460	2414	2180	2351	6.38	cps
Uranium	238-1	37913	38398	38421	38244	0.75	cps

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LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-11-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:15:08	DataFile Name :	029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	111036	113405	112511	112317	1.07	cps
Ytterbium	172-1	25912	26720	27024	26552	2.16	cps
Ytterbium	172-2	9470	9393	9363	9409	0.59	cps
Ytterbium	176-1	18059	18126	17341	17842	2.44	cps
Ytterbium	176-2	6485	6108	5941	6178	4.51	cps
Yttrium	89-1	27152114	26748457	26790395	26896988	0.83	cps
Yttrium	89-2	1724518	1728678	1750810	1734669	0.81	cps
Zinc	66-2	81740	81556	82910	82069	0.89	cps
Zirconium	90-1	4814	5034	4677	4842	3.72	cps
Zirconium	91-1	1200	1150	983	1111	10.21	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	390741	385420	388377	388180	0.69	cps
Antimony	121-1	497	467	490	484	3.25	cps
Arsenic	75-2	190	190	180	187	3.09	cps
Barium	135-1	88590	88775	88694	88686	0.10	cps
Barium	137-1	152694	151912	153594	152733	0.55	cps
Beryllium	9-1	1729	1681	1670	1693	1.84	cps
Bismuth	209-1	11818489	11763588	11714492	11765523	0.44	cps
Bismuth	209-2	4048167	4042471	4117354	4069331	1.02	cps
Bromine	81-1	5198	5328	5528	5351	3.11	cps
Cadmium	108-1	77	67	87	77	13.04	cps
Cadmium	106-1	7402	7686	7956	7681	3.60	cps
Cadmium	111-1	5528	5757	5945	5743	3.64	cps
Calcium	43-1	3476036	3587615	3544299	3535983	1.59	cps
Calcium	44-1	56545997	57904881	56890949	57113942	1.24	cps
Carbon	12-1	5223233	5178013	5159586	5186944	0.63	cps
Carbon	12-2	33254	33161	33391	33269	0.35	cps
Chlorine	35-1	229090	229647	230839	229859	0.39	cps
Chlorine	35-2	860	797	873	843	4.86	cps
Chromium	52-2	7882	7599	7996	7826	2.61	cps
Cobalt	59-2	105362	106383	107451	106399	0.98	cps
Copper	63-2	99861	100895	100606	100454	0.53	cps
Dysprosium	156-1	55441	57148	57489	56693	1.94	cps
Dysprosium	156-2	17512	17612	18249	17791	2.25	cps
Erbium	164-1	70690	72208	71478	71458	1.06	cps
Erbium	164-2	20973	21020	20876	20957	0.35	cps
Gadolinium	160-1	58558	59200	59321	59027	0.70	cps
Gadolinium	160-2	21164	20716	21434	21105	1.72	cps
Holmium	165-1	18890345	18812858	18853080	18852095	0.21	cps
Holmium	165-2	5836050	5692562	5821124	5783245	1.36	cps
Indium	115-1	14866092	14660627	14636354	14721024	0.86	cps
Indium	115-2	1258744	1247371	1253818	1253311	0.46	cps
Iron	54-2	6076834	5977772	6065598	6040068	0.90	cps
Iron	56-2	111109012	111921072	110941678	111323921	0.47	cps
Iron	57-2	2817071	2832198	2799289	2816186	0.58	cps
Krypton	83-1	390	447	387	408	8.27	cps
Lead	206-1	6292	6455	6605	6451	2.43	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5635	5451	5361	5482	2.54	cps
Lead	208-1	25287	25180	25076	25181	0.42	cps
Lithium	6-1	7889914	7729719	7892783	7837472	1.19	cps
Magnesium	24-2	2212368	2232619	2187377	2210788	1.03	cps
Manganese	55-2	1819091	1760246	1796006	1791781	1.65	cps
Molybdenum	94-1	2750	2927	3080	2919	5.66	cps
Molybdenum	95-1	1613	1630	1490	1578	4.85	cps
Molybdenum	96-1	2637	2437	2630	2568	4.42	cps
Molybdenum	97-1	867	827	950	881	7.14	cps
Molybdenum	98-1	2390	2270	2197	2286	4.27	cps
Neodymium	150-1	55149	55537	55581	55423	0.43	cps
Neodymium	150-2	11812	12269	11705	11929	2.51	cps
Nickel	60-2	12833	12332	11938	12368	3.62	cps
Phosphorus	31-2	350	353	387	363	5.58	cps
Potassium	39-2	68913	67982	67677	68191	0.94	cps
Rhodium	103-1	13389104	13643446	13423324	13485291	1.02	cps
Rhodium	103-2	4768867	4796836	4794823	4786842	0.33	cps
Scandium	45-1	10666394	10684457	10697986	10682946	0.15	cps
Scandium	45-2	181845	182317	181133	181765	0.33	cps
Selenium	82-1	3	13	60	26	118.37	cps
Selenium	77-2	57	47	67	57	17.65	cps
Selenium	78-2	60	80	73	71	14.32	cps
Silicon	28-1	94499395	92126642	94050785	93558941	1.35	cps
Silver	107-1	320	390	307	339	13.21	cps
Silver	109-1	250	173	147	190	28.23	cps
Sodium	23-2	4787975	4737908	4728396	4751427	0.67	cps
Strontium	86-1	568401	568494	571747	569547	0.33	cps
Strontium	88-1	5317866	5285609	5231090	5278188	0.83	cps
Sulfur	34-1	6075460	6146213	6029425	6083699	0.97	cps
Terbium	159-1	19280451	19311349	19818351	19470051	1.55	cps
Terbium	159-2	5636853	5588878	5624262	5616664	0.44	cps
Thallium	203-1	563	627	550	580	7.06	cps
Thallium	205-1	1357	1397	1327	1360	2.58	cps
Tin	118-1	2380	2277	2250	2302	2.98	cps
Titanium	47-1	2177	2250	1967	2131	6.90	cps
Uranium	238-1	39521	40163	40377	40021	1.11	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-12-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:18:23	DataFile Name :	030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	88911	87975	88193	88359	0.55	cps
Ytterbium	172-1	24913	25708	26410	25677	2.92	cps
Ytterbium	172-2	9457	8806	9430	9231	3.99	cps
Ytterbium	176-1	17572	17352	17612	17512	0.80	cps
Ytterbium	176-2	6121	6031	6081	6078	0.74	cps
Yttrium	89-1	27397028	27307080	27103909	27269339	0.55	cps
Yttrium	89-2	1774213	1743967	1778924	1765701	1.07	cps
Zinc	66-2	68267	68283	68457	68336	0.15	cps
Zirconium	90-1	5798	5751	5941	5830	1.70	cps
Zirconium	91-1	1233	1367	1367	1322	5.82	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	444658	448633	443692	445661	0.59	cps
Antimony	121-1	413	400	417	410	2.15	cps
Arsenic	75-2	167	127	180	158	17.59	cps
Barium	135-1	89909	89597	91423	90309	1.08	cps
Barium	137-1	157407	156322	158271	157333	0.62	cps
Beryllium	9-1	1686	1672	1767	1709	3.00	cps
Bismuth	209-1	12015206	12008951	9234203	11086120	14.47	cps
Bismuth	209-2	4174734	4161941	4107833	4148170	0.86	cps
Bromine	81-1	5381	5701	5848	5643	4.23	cps
Cadmium	108-1	83	110	83	92	16.70	cps
Cadmium	106-1	7786	8036	6108	7310	14.34	cps
Cadmium	111-1	5882	6038	4657	5526	13.68	cps
Calcium	43-1	3826613	3845373	3871312	3847766	0.58	cps
Calcium	44-1	61874979	60145204	63011462	61677215	2.34	cps
Carbon	12-1	5201329	5236118	5266653	5234700	0.62	cps
Carbon	12-2	34133	34019	34233	34128	0.31	cps
Chlorine	35-1	220952	222356	221055	221454	0.35	cps
Chlorine	35-2	810	810	827	816	1.18	cps
Chromium	52-2	7982	7695	7579	7752	2.68	cps
Cobalt	59-2	117500	116357	115500	116452	0.86	cps
Copper	63-2	118903	118983	119198	119028	0.13	cps
Dysprosium	156-1	63430	63895	63493	63606	0.40	cps
Dysprosium	156-2	19201	19418	19201	19273	0.65	cps
Erbium	164-1	79150	78165	80568	79295	1.52	cps
Erbium	164-2	23247	23491	22790	23176	1.54	cps
Gadolinium	160-1	63698	64759	66176	64878	1.92	cps
Gadolinium	160-2	23347	23391	23337	23358	0.12	cps
Holmium	165-1	19179372	18862594	14670626	17570864	14.32	cps
Holmium	165-2	5837527	5791071	5776571	5801723	0.55	cps
Indium	115-1	14918717	15121466	11438119	13826100	14.98	cps
Indium	115-2	1258607	1271141	1275201	1268316	0.68	cps
Iron	54-2	6270206	6351029	6279952	6300396	0.70	cps
Iron	56-2	115608168	114960048	115564582	115377599	0.31	cps
Iron	57-2	2929751	2913337	2923974	2922354	0.28	cps
Krypton	83-1	427	340	417	394	12.02	cps
Lead	206-1	5695	5268	5138	5367	5.43	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4728	4504	4581	4604	2.47	cps
Lead	208-1	22391	21621	21140	21717	2.91	cps
Lithium	6-1	7786967	7830496	6369708	7329057	11.34	cps
Magnesium	24-2	2412583	2407129	2356584	2392099	1.29	cps
Manganese	55-2	1874257	1908287	1895914	1892819	0.91	cps
Molybdenum	94-1	2554	2564	2567	2561	0.27	cps
Molybdenum	95-1	1183	950	913	1016	14.42	cps
Molybdenum	96-1	2120	1810	1997	1976	7.90	cps
Molybdenum	97-1	707	600	617	641	8.95	cps
Molybdenum	98-1	1457	1450	1413	1440	1.62	cps
Neodymium	150-1	62274	62518	64283	63025	1.74	cps
Neodymium	150-2	13407	13083	13183	13224	1.25	cps
Nickel	60-2	13830	13103	13773	13569	2.98	cps
Phosphorus	31-2	440	437	400	426	5.22	cps
Potassium	39-2	78696	77738	77751	78062	0.70	cps
Rhodium	103-1	13640735	13491745	10613373	12581951	13.56	cps
Rhodium	103-2	4867810	4905284	4827869	4866988	0.80	cps
Scandium	45-1	10755585	10494736	8368281	9872867	13.26	cps
Scandium	45-2	182415	184286	182773	183158	0.54	cps
Selenium	82-1	47	77	47	57	30.56	cps
Selenium	77-2	70	87	87	81	11.87	cps
Selenium	78-2	63	50	63	59	13.07	cps
Silicon	28-1	106357512	107369702	106394648	106707287	0.54	cps
Silver	107-1	253	283	283	273	6.34	cps
Silver	109-1	133	127	120	127	5.27	cps
Sodium	23-2	5341120	5255988	5254105	5283738	0.94	cps
Strontium	86-1	628451	635643	633617	632570	0.59	cps
Strontium	88-1	5780931	5818595	5777010	5792179	0.40	cps
Sulfur	34-1	6372768	6521308	6545902	6479993	1.45	cps
Terbium	159-1	19448830	19504986	15333757	18095857	13.22	cps
Terbium	159-2	5557928	5639718	5623806	5607151	0.77	cps
Thallium	203-1	547	637	570	584	7.99	cps
Thallium	205-1	1420	1253	1220	1298	8.26	cps
Tin	118-1	1683	1643	1567	1631	3.63	cps
Titanium	47-1	2344	2234	2417	2331	3.96	cps
Uranium	238-1	43688	43819	43932	43813	0.28	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-13-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:21:35	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	91137	91319	89762	90740	0.94	cps
Ytterbium	172-1	28611	28898	29122	28877	0.89	cps
Ytterbium	172-2	10194	10217	10157	10190	0.30	cps
Ytterbium	176-1	20112	19418	19401	19644	2.07	cps
Ytterbium	176-2	6382	6785	6775	6647	3.46	cps
Yttrium	89-1	27866887	27671214	21524078	25687393	14.04	cps
Yttrium	89-2	1750278	1802216	1766147	1772880	1.50	cps
Zinc	66-2	82099	80467	81110	81225	1.01	cps
Zirconium	90-1	5941	5828	5911	5894	1.00	cps
Zirconium	91-1	1270	1323	1180	1258	5.76	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	375371	374335	379382	376363	0.71	cps
Antimony	121-1	417	390	393	400	3.63	cps
Arsenic	75-2	140	93	160	131	26.09	cps
Barium	135-1	86058	86259	86390	86236	0.19	cps
Barium	137-1	150018	149566	150390	149991	0.28	cps
Beryllium	9-1	1531	1564	1464	1519	3.36	cps
Bismuth	209-1	11862445	11854178	11689241	11801954	0.83	cps
Bismuth	209-2	4000741	4081716	4163439	4081966	1.99	cps
Bromine	81-1	5461	5568	5524	5518	0.97	cps
Cadmium	108-1	77	80	70	76	6.74	cps
Cadmium	106-1	8002	7862	7959	7941	0.90	cps
Cadmium	111-1	5975	5878	5939	5930	0.83	cps
Calcium	43-1	3886133	3754984	3817269	3819462	1.72	cps
Calcium	44-1	61384092	60697719	60796351	60959387	0.61	cps
Carbon	12-1	5289341	5234177	5321239	5281586	0.83	cps
Carbon	12-2	33257	33355	33131	33248	0.34	cps
Chlorine	35-1	209532	208119	206572	208074	0.71	cps
Chlorine	35-2	797	737	813	782	5.15	cps
Chromium	52-2	7055	6825	6925	6935	1.66	cps
Cobalt	59-2	106350	107310	106310	106657	0.53	cps
Copper	63-2	95954	97676	96803	96811	0.89	cps
Dysprosium	156-1	56760	56408	57513	56894	0.99	cps
Dysprosium	156-2	17151	17548	17194	17298	1.26	cps
Erbium	164-1	71293	71055	71859	71403	0.58	cps
Erbium	164-2	21113	20302	20746	20721	1.96	cps
Gadolinium	160-1	58427	58732	58712	58624	0.29	cps
Gadolinium	160-2	20709	20579	21093	20794	1.29	cps
Holmium	165-1	19187618	18705472	18877268	18923453	1.29	cps
Holmium	165-2	5727492	5744042	5849848	5773794	1.15	cps
Indium	115-1	14860435	14955293	14770654	14862127	0.62	cps
Indium	115-2	1234538	1256672	1266454	1252554	1.31	cps
Iron	54-2	5943731	5903605	5922321	5923219	0.34	cps
Iron	56-2	109464585	107954828	109235335	108884916	0.75	cps
Iron	57-2	2775875	2759348	2758157	2764460	0.36	cps
Krypton	83-1	403	297	327	342	16.07	cps
Lead	206-1	4871	5158	5114	5048	3.06	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4177	4104	4111	4131	0.98	cps
Lead	208-1	19439	19676	19589	19568	0.61	cps
Lithium	6-1	7958545	7878416	7784609	7873857	1.11	cps
Magnesium	24-2	2192602	2198592	2198808	2196667	0.16	cps
Manganese	55-2	1792290	1796867	1797013	1795390	0.15	cps
Molybdenum	94-1	2574	2340	2537	2484	5.05	cps
Molybdenum	95-1	917	897	1003	939	6.04	cps
Molybdenum	96-1	1913	1937	1943	1931	0.82	cps
Molybdenum	97-1	513	510	523	516	1.35	cps
Molybdenum	98-1	1283	1250	1167	1233	4.87	cps
Neodymium	150-1	54898	54782	54708	54796	0.18	cps
Neodymium	150-2	11752	11585	11862	11733	1.19	cps
Nickel	60-2	12239	12182	12699	12373	2.29	cps
Phosphorus	31-2	307	360	367	344	9.55	cps
Potassium	39-2	68699	68495	69530	68908	0.80	cps
Rhodium	103-1	13494543	13557681	13590197	13547474	0.36	cps
Rhodium	103-2	4722134	4879887	4794158	4798726	1.65	cps
Scandium	45-1	10718253	10561218	10620304	10633258	0.75	cps
Scandium	45-2	178818	180810	184385	181337	1.56	cps
Selenium	82-1	83	80	103	89	14.20	cps
Selenium	77-2	47	57	63	56	15.09	cps
Selenium	78-2	50	60	33	48	28.20	cps
Silicon	28-1	94833039	94417339	94830319	94693565	0.25	cps
Silver	107-1	247	277	290	271	8.19	cps
Silver	109-1	143	147	220	170	25.49	cps
Sodium	23-2	4968269	4999169	5069358	5012265	1.03	cps
Strontium	86-1	603698	598669	604424	602264	0.52	cps
Strontium	88-1	5645278	5603959	5592144	5613794	0.50	cps
Sulfur	34-1	6323175	6384600	6290224	6332666	0.76	cps
Terbium	159-1	19673346	19770590	19521450	19655128	0.64	cps
Terbium	159-2	5518201	5589225	5558731	5555386	0.64	cps
Thallium	203-1	633	507	537	559	11.84	cps
Thallium	205-1	1320	1167	1093	1193	9.69	cps
Tin	118-1	2874	2897	2957	2909	1.48	cps
Titanium	47-1	2097	2003	1780	1960	8.30	cps
Uranium	238-1	39267	38789	38889	38982	0.65	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-14-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:24:50	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	82925	84645	84444	84004	1.12	cps
Ytterbium	172-1	26390	26109	26697	26399	1.11	cps
Ytterbium	172-2	9627	9250	9367	9415	2.05	cps
Ytterbium	176-1	17889	18343	17705	17979	1.83	cps
Ytterbium	176-2	6308	6035	6021	6121	2.64	cps
Yttrium	89-1	27318871	27299974	27452438	27357094	0.30	cps
Yttrium	89-2	1758568	1811785	1768432	1779595	1.59	cps
Zinc	66-2	71901	71325	71281	71502	0.48	cps
Zirconium	90-1	5771	5451	5468	5563	3.24	cps
Zirconium	91-1	1103	1200	1183	1162	4.45	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	282611	277905	279273	279930	0.86	cps
Antimony	121-1	360	380	277	339	16.17	cps
Arsenic	75-2	170	173	190	178	6.03	cps
Barium	135-1	84803	84850	85756	85136	0.63	cps
Barium	137-1	146604	146958	145793	146451	0.41	cps
Beryllium	9-1	1372	1401	1409	1394	1.37	cps
Bismuth	209-1	11656914	11843115	11669696	11723242	0.89	cps
Bismuth	209-2	4076965	4057431	4046492	4060296	0.38	cps
Bromine	81-1	5434	5284	5568	5429	2.61	cps
Cadmium	108-1	93	83	97	91	7.62	cps
Cadmium	106-1	7532	7525	7672	7577	1.09	cps
Cadmium	111-1	5667	5660	5786	5704	1.25	cps
Calcium	43-1	3479626	3512843	3510817	3501095	0.53	cps
Calcium	44-1	55694311	56568797	55932951	56065353	0.81	cps
Carbon	12-1	5243493	5261904	5158256	5221218	1.06	cps
Carbon	12-2	33014	33662	33679	33451	1.13	cps
Chlorine	35-1	188541	185860	187245	187215	0.72	cps
Chlorine	35-2	727	683	743	718	4.31	cps
Chromium	52-2	6508	6805	6605	6639	2.28	cps
Cobalt	59-2	98407	98155	98705	98422	0.28	cps
Copper	63-2	81214	80453	81385	81017	0.61	cps
Dysprosium	156-1	50455	48912	49582	49650	1.56	cps
Dysprosium	156-2	14962	15482	15576	15340	2.16	cps
Erbium	164-1	63698	62385	62887	62990	1.05	cps
Erbium	164-2	18563	18596	18877	18679	0.92	cps
Gadolinium	160-1	50642	50960	50692	50765	0.34	cps
Gadolinium	160-2	18309	18436	18326	18357	0.38	cps
Holmium	165-1	18782096	18723251	18552427	18685924	0.64	cps
Holmium	165-2	5702186	5643797	5686577	5677520	0.53	cps
Indium	115-1	14630254	14674245	14792789	14699096	0.57	cps
Indium	115-2	1243175	1240736	1237863	1240592	0.21	cps
Iron	54-2	5646669	5577304	5694782	5639585	1.05	cps
Iron	56-2	101990745	102826192	102714105	102510347	0.44	cps
Iron	57-2	2606935	2646314	2611313	2621521	0.82	cps
Krypton	83-1	347	307	340	331	6.47	cps
Lead	206-1	5131	4951	4704	4929	4.35	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4097	4014	4164	4092	1.84	cps
Lead	208-1	19119	18669	19022	18937	1.25	cps
Lithium	6-1	7700693	7721268	7789012	7736991	0.60	cps
Magnesium	24-2	2005017	2013224	2011300	2009847	0.21	cps
Manganese	55-2	1753662	1743106	1774010	1756926	0.89	cps
Molybdenum	94-1	2304	2030	2177	2170	6.30	cps
Molybdenum	95-1	963	983	923	957	3.19	cps
Molybdenum	96-1	1930	1810	1840	1860	3.36	cps
Molybdenum	97-1	550	543	613	569	6.79	cps
Molybdenum	98-1	1513	1280	1333	1376	8.89	cps
Neodymium	150-1	46172	47477	47186	46945	1.46	cps
Neodymium	150-2	10004	10324	10234	10187	1.62	cps
Nickel	60-2	11495	11581	11802	11626	1.36	cps
Phosphorus	31-2	230	227	213	223	3.95	cps
Potassium	39-2	71204	71057	71037	71099	0.13	cps
Rhodium	103-1	13278156	13349532	13369414	13332367	0.36	cps
Rhodium	103-2	4831299	4810926	4722642	4788289	1.21	cps
Scandium	45-1	10420184	10787261	10473487	10560310	1.88	cps
Scandium	45-2	179495	179942	178834	179424	0.31	cps
Selenium	82-1	160	80	-3	79	103.53	cps
Selenium	77-2	63	63	77	68	11.36	cps
Selenium	78-2	60	43	40	48	22.43	cps
Silicon	28-1	87332342	87274422	87129009	87245258	0.12	cps
Silver	107-1	293	260	147	233	32.95	cps
Silver	109-1	97	130	140	122	18.56	cps
Sodium	23-2	5426010	5300769	5408750	5378509	1.26	cps
Strontium	86-1	589638	598978	589251	592622	0.93	cps
Strontium	88-1	5472310	5437950	5408747	5439669	0.58	cps
Sulfur	34-1	5869415	5727350	5801744	5799503	1.23	cps
Terbium	159-1	19370769	19701233	19352908	19474970	1.01	cps
Terbium	159-2	5532910	5578367	5422652	5511309	1.45	cps
Thallium	203-1	477	500	480	486	2.60	cps
Thallium	205-1	1120	1230	1137	1162	5.10	cps
Tin	118-1	2514	2414	2264	2397	5.25	cps
Titanium	47-1	1833	1753	1947	1845	5.27	cps
Uranium	238-1	37438	37385	37265	37363	0.24	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-15-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:28:03	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	69980	69849	69698	69842	0.20	cps
Ytterbium	172-1	22927	23280	22866	23025	0.97	cps
Ytterbium	172-2	7979	8103	8026	8036	0.78	cps
Ytterbium	176-1	15883	16317	15913	16038	1.51	cps
Ytterbium	176-2	5311	5318	5545	5391	2.46	cps
Yttrium	89-1	26690875	26958848	26823078	26824267	0.50	cps
Yttrium	89-2	1785895	1743856	1739257	1756336	1.46	cps
Zinc	66-2	72491	72333	72102	72309	0.27	cps
Zirconium	90-1	4841	4718	4994	4851	2.86	cps
Zirconium	91-1	1157	987	1083	1076	7.93	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	514345	514704	512153	513734	0.27	cps
Antimony	121-1	290	223	243	252	13.56	cps
Arsenic	75-2	163	150	180	164	9.14	cps
Barium	135-1	88131	88003	86920	87685	0.76	cps
Barium	137-1	152799	152321	150146	151755	0.93	cps
Beryllium	9-1	1575	1596	1607	1593	1.04	cps
Bismuth	209-1	11766676	11594136	11691078	11683964	0.74	cps
Bismuth	209-2	4026169	4042135	4091808	4053371	0.84	cps
Bromine	81-1	5238	5601	5204	5348	4.12	cps
Cadmium	108-1	53	107	60	73	39.63	cps
Cadmium	106-1	7349	7322	7392	7354	0.48	cps
Cadmium	111-1	5503	5464	5519	5496	0.52	cps
Calcium	43-1	3562360	3505230	3446912	3504834	1.65	cps
Calcium	44-1	56306422	56417431	55191046	55971633	1.21	cps
Carbon	12-1	4952572	5044417	5096178	5031056	1.45	cps
Carbon	12-2	32807	32927	32787	32840	0.23	cps
Chlorine	35-1	169284	169651	170980	169972	0.52	cps
Chlorine	35-2	637	643	650	643	1.04	cps
Chromium	52-2	9176	8873	8556	8868	3.50	cps
Cobalt	59-2	115883	116401	116676	116320	0.35	cps
Copper	63-2	101247	100891	101999	101379	0.56	cps
Dysprosium	156-1	60573	61527	61531	61210	0.90	cps
Dysprosium	156-2	18730	18743	18917	18797	0.55	cps
Erbium	164-1	75395	76585	76197	76059	0.80	cps
Erbium	164-2	21845	22392	22205	22147	1.26	cps
Gadolinium	160-1	61846	62730	62167	62248	0.72	cps
Gadolinium	160-2	22252	22990	22215	22486	1.94	cps
Holmium	165-1	18956279	18615680	19013894	18861951	1.14	cps
Holmium	165-2	5623847	5693486	5658278	5658537	0.62	cps
Indium	115-1	14524282	14397167	14653467	14524972	0.88	cps
Indium	115-2	1224576	1234848	1241472	1233632	0.69	cps
Iron	54-2	6602387	6673843	6590327	6622185	0.68	cps
Iron	56-2	120929755	122570928	122526418	122009034	0.77	cps
Iron	57-2	3059601	3033708	3110067	3067792	1.27	cps
Krypton	83-1	353	360	423	379	10.20	cps
Lead	206-1	6038	6135	6015	6063	1.05	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5008	4988	5078	5024	0.94	cps
Lead	208-1	23455	23375	23742	23524	0.82	cps
Lithium	6-1	7742917	7720579	7795846	7753114	0.50	cps
Magnesium	24-2	2577343	2593427	2611588	2594119	0.66	cps
Manganese	55-2	1688042	1715797	1733829	1712556	1.35	cps
Molybdenum	94-1	2297	2304	2264	2288	0.94	cps
Molybdenum	95-1	967	917	880	921	4.72	cps
Molybdenum	96-1	1813	1810	1857	1827	1.43	cps
Molybdenum	97-1	557	540	477	524	8.05	cps
Molybdenum	98-1	1400	1207	1273	1293	7.59	cps
Neodymium	150-1	60653	60405	60981	60680	0.48	cps
Neodymium	150-2	13127	12950	13187	13088	0.94	cps
Nickel	60-2	13190	13630	13820	13547	2.39	cps
Phosphorus	31-2	433	483	487	468	6.39	cps
Potassium	39-2	72193	72581	72226	72333	0.30	cps
Rhodium	103-1	13334273	13254521	13327912	13305569	0.33	cps
Rhodium	103-2	4698733	4781749	4787070	4755850	1.04	cps
Scandium	45-1	10564643	10549822	10614606	10576357	0.32	cps
Scandium	45-2	177965	180505	179799	179423	0.73	cps
Selenium	82-1	83	50	53	62	29.51	cps
Selenium	77-2	80	70	83	78	8.92	cps
Selenium	78-2	67	60	40	56	24.98	cps
Silicon	28-1	104900592	104974225	103921735	104598851	0.56	cps
Silver	107-1	200	217	253	223	12.22	cps
Silver	109-1	113	157	137	136	16.00	cps
Sodium	23-2	4512845	4528875	4559159	4533626	0.52	cps
Strontium	86-1	527181	532185	529076	529481	0.48	cps
Strontium	88-1	4842502	4817037	4860341	4839960	0.45	cps
Sulfur	34-1	6384196	6445373	6406206	6411925	0.48	cps
Terbium	159-1	19449700	19436934	19267849	19384828	0.52	cps
Terbium	159-2	5432962	5577473	5551286	5520573	1.39	cps
Thallium	203-1	393	497	393	428	13.95	cps
Thallium	205-1	1143	1113	967	1075	8.80	cps
Tin	118-1	1813	1810	1900	1841	2.77	cps
Titanium	47-1	2480	2340	2227	2349	5.40	cps
Uranium	238-1	40143	41494	40321	40653	1.81	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-16-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:31:18	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	96804	96703	96697	96735	0.06	cps
Ytterbium	172-1	27963	28207	28013	28061	0.46	cps
Ytterbium	172-2	10307	10077	9704	10029	3.04	cps
Ytterbium	176-1	18496	18880	18870	18749	1.17	cps
Ytterbium	176-2	6452	6515	6175	6380	2.84	cps
Yttrium	89-1	26873387	26605580	27045523	26841497	0.83	cps
Yttrium	89-2	1747470	1727683	1733210	1736121	0.59	cps
Zinc	66-2	81184	80822	82997	81668	1.43	cps
Zirconium	90-1	4758	4808	4864	4810	1.11	cps
Zirconium	91-1	1127	1040	977	1048	7.19	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3245356	3287725	3272028	3268370	0.66	cps
Antimony	121-1	7099352	7223851	7041883	7121696	1.31	cps
Arsenic	75-2	127157	129320	129196	128558	0.94	cps
Barium	135-1	9058079	9143966	8984793	9062279	0.88	cps
Barium	137-1	15533892	15724113	15828255	15695420	0.95	cps
Beryllium	9-1	2568477	2590280	2587379	2582045	0.46	cps
Bismuth	209-1	10415694	10370761	10296570	10361008	0.58	cps
Bismuth	209-2	3665569	3594766	3597308	3619214	1.11	cps
Bromine	81-1	5121	4958	4881	4986	2.46	cps
Cadmium	108-1	133061	134216	135912	134396	1.07	cps
Cadmium	106-1	194393	195656	193555	194535	0.54	cps
Cadmium	111-1	1747696	1750229	1782409	1760111	1.10	cps
Calcium	43-1	12663392	12753781	12587586	12668253	0.66	cps
Calcium	44-1	202649357	205077890	203826450	203851233	0.60	cps
Carbon	12-1	5546829	5560944	5572722	5560165	0.23	cps
Carbon	12-2	40980	40606	41188	40925	0.72	cps
Chlorine	35-1	179191	179343	180409	179648	0.37	cps
Chlorine	35-2	673	653	680	669	2.08	cps
Chromium	52-2	1536103	1537298	1525017	1532806	0.44	cps
Cobalt	59-2	2803282	2743799	2777579	2774887	1.08	cps
Copper	63-2	20204488	20317812	20388443	20303581	0.46	cps
Dysprosium	156-1	517	580	610	569	8.38	cps
Dysprosium	156-2	83	90	83	86	4.50	cps
Erbium	164-1	423	403	450	426	5.50	cps
Erbium	164-2	117	130	103	117	11.43	cps
Gadolinium	160-1	327	353	340	340	3.92	cps
Gadolinium	160-2	110	97	147	118	21.98	cps
Holmium	165-1	17948110	17734880	17746854	17809948	0.67	cps
Holmium	165-2	5483833	5372190	5530547	5462190	1.49	cps
Indium	115-1	13180396	13320433	13220404	13240411	0.54	cps
Indium	115-2	1135333	1137429	1143197	1138653	0.36	cps
Iron	54-2	15037399	15070140	15036733	15048090	0.13	cps
Iron	56-2	276260949	276963363	277112816	276779043	0.16	cps
Iron	57-2	6927206	6915974	6970737	6937972	0.42	cps
Krypton	83-1	230	313	317	287	17.13	cps
Lead	206-1	28529577	28877450	28778654	28728560	0.62	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24620558	24907411	25076991	24868320	0.93	cps
Lead	208-1	113754326	114815922	115038304	114536184	0.60	cps
Lithium	6-1	7197321	7268435	7170287	7212014	0.70	cps
Magnesium	24-2	54454569	55042481	55548129	55015060	0.99	cps
Manganese	55-2	6250526	6268316	6259294	6259379	0.14	cps
Molybdenum	94-1	25577925	25508290	25504261	25530159	0.16	cps
Molybdenum	95-1	37209113	37347151	37290219	37282161	0.19	cps
Molybdenum	96-1	40502809	41003676	40562712	40689732	0.67	cps
Molybdenum	97-1	22913823	23287976	22939598	23047132	0.91	cps
Molybdenum	98-1	60446519	60769014	60865816	60693783	0.36	cps
Neodymium	150-1	707	757	770	744	4.49	cps
Neodymium	150-2	63	43	43	50	23.10	cps
Nickel	60-2	734517	741948	730737	735734	0.78	cps
Phosphorus	31-2	28415	29026	29039	28826	1.24	cps
Potassium	39-2	15360826	15328724	15534324	15407958	0.72	cps
Rhodium	103-1	11749251	11873372	11931905	11851509	0.79	cps
Rhodium	103-2	4291985	4232948	4288870	4271268	0.78	cps
Scandium	45-1	9892394	10018369	9889854	9933539	0.74	cps
Scandium	45-2	173274	176047	176367	175229	0.97	cps
Selenium	82-1	104894	105122	104659	104892	0.22	cps
Selenium	77-2	1513	1623	1660	1599	4.77	cps
Selenium	78-2	5344	5534	5254	5378	2.66	cps
Silicon	28-1	9067168	9108548	9214162	9129959	0.83	cps
Silver	107-1	8703197	8690019	8662584	8685267	0.24	cps
Silver	109-1	8174053	8206483	8253991	8211509	0.49	cps
Sodium	23-2	109740675	109168162	110708935	109872591	0.71	cps
Strontium	86-1	2493166	2511783	2535349	2513433	0.84	cps
Strontium	88-1	21102418	21411891	21322946	21279085	0.75	cps
Sulfur	34-1	1283318	1285885	1284495	1284566	0.10	cps
Terbium	159-1	18474300	18318796	18183038	18325378	0.80	cps
Terbium	159-2	5314200	5320679	5293251	5309377	0.27	cps
Thallium	203-1	7124883	7151289	7181741	7152638	0.40	cps
Thallium	205-1	16973901	16926589	16765744	16888744	0.65	cps
Tin	118-1	5729587	5822316	5790459	5780787	0.82	cps
Titanium	47-1	11616066	11557100	11710911	11628026	0.67	cps
Uranium	238-1	24213271	24183545	24289327	24228714	0.23	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:34:47	DataFile Name :	035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1133142	1152080	1143990	1143071	0.83	cps
Ytterbium	172-1	407	413	517	446	13.84	cps
Ytterbium	172-2	113	120	147	127	13.92	cps
Ytterbium	176-1	34769	35257	35090	35039	0.71	cps
Ytterbium	176-2	10364	10327	10571	10421	1.26	cps
Yttrium	89-1	24275039	24346418	24109549	24243669	0.50	cps
Yttrium	89-2	1595564	1595723	1592964	1594750	0.10	cps
Zinc	66-2	2272026	2254554	2267172	2264584	0.40	cps
Zirconium	90-1	13183016	13154987	13288701	13208901	0.53	cps
Zirconium	91-1	2993544	2911578	2971328	2958817	1.43	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	93	53	87	78	27.56	cps
Antimony	121-1	507	503	567	526	6.78	cps
Arsenic	75-2	3	7	13	8	65.47	cps
Barium	135-1	833	837	700	790	9.87	cps
Barium	137-1	1450	1400	1287	1379	6.07	cps
Beryllium	9-1	661	709	670	680	3.72	cps
Bismuth	209-1	12017903	12149985	12020952	12062947	0.62	cps
Bismuth	209-2	4251332	4176173	4224032	4217179	0.90	cps
Bromine	81-1	4798	5038	4864	4900	2.53	cps
Cadmium	108-1	47	47	23	39	34.65	cps
Cadmium	106-1	7205	7399	7185	7263	1.62	cps
Cadmium	111-1	5088	5230	5067	5128	1.73	cps
Calcium	43-1	650	577	497	574	13.35	cps
Calcium	44-1	17784	17738	16740	17421	3.39	cps
Carbon	12-1	4407054	4312335	4303101	4340830	1.33	cps
Carbon	12-2	27279	26861	26604	26915	1.26	cps
Chlorine	35-1	144739	146630	145546	145639	0.65	cps
Chlorine	35-2	513	560	517	530	4.91	cps
Chromium	52-2	1823	1907	1713	1815	5.34	cps
Cobalt	59-2	287	263	237	262	9.54	cps
Copper	63-2	2020	2044	2174	2079	3.97	cps
Dysprosium	156-1	137	157	117	137	14.63	cps
Dysprosium	156-2	3	3	0	2	86.60	cps
Erbium	164-1	80	100	113	98	17.16	cps
Erbium	164-2	30	23	33	29	17.63	cps
Gadolinium	160-1	107	77	90	91	16.50	cps
Gadolinium	160-2	17	17	20	18	10.81	cps
Holmium	165-1	18453177	18614266	18919088	18662177	1.27	cps
Holmium	165-2	5690475	5644462	5669306	5668081	0.41	cps
Indium	115-1	14807093	14843872	14715839	14788935	0.45	cps
Indium	115-2	1261466	1243225	1249865	1251519	0.74	cps
Iron	54-2	800	823	907	843	6.65	cps
Iron	56-2	13487	12709	12736	12977	3.40	cps
Iron	57-2	367	327	317	337	7.86	cps
Krypton	83-1	247	257	270	258	4.54	cps
Lead	206-1	2477	2360	2370	2402	2.69	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2237	2090	2054	2127	4.56	cps
Lead	208-1	9942	9361	9345	9549	3.56	cps
Lithium	6-1	7694422	7640961	7598007	7644464	0.63	cps
Magnesium	24-2	1657	1607	1573	1612	2.60	cps
Manganese	55-2	737	717	703	719	2.33	cps
Molybdenum	94-1	853	897	730	827	10.46	cps
Molybdenum	95-1	1017	833	830	893	11.96	cps
Molybdenum	96-1	1207	1017	897	1040	15.03	cps
Molybdenum	97-1	630	557	553	580	7.47	cps
Molybdenum	98-1	1537	1353	1203	1365	12.24	cps
Neodymium	150-1	23	43	33	33	30.00	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	950	903	817	890	7.60	cps
Phosphorus	31-2	80	67	80	76	10.19	cps
Potassium	39-2	8219	8316	8049	8195	1.65	cps
Rhodium	103-1	13571984	13640353	13826153	13679496	0.96	cps
Rhodium	103-2	4956864	4794508	4937296	4896223	1.81	cps
Scandium	45-1	10168653	10468996	10493753	10377134	1.74	cps
Scandium	45-2	175919	175324	175881	175708	0.19	cps
Selenium	82-1	20	-10	-40	-10	-299.95	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	17	7	10	11	45.82	cps
Silicon	28-1	530421	528490	526544	528485	0.37	cps
Silver	107-1	413	383	343	380	9.24	cps
Silver	109-1	297	290	223	270	15.02	cps
Sodium	23-2	32954	31975	32059	32329	1.68	cps
Strontium	86-1	620	493	560	558	11.36	cps
Strontium	88-1	1543	1577	1530	1550	1.55	cps
Sulfur	34-1	595119	599238	594550	596302	0.43	cps
Terbium	159-1	19391676	19236407	19121792	19249958	0.70	cps
Terbium	159-2	5603586	5514789	5498912	5539096	1.02	cps
Thallium	203-1	553	503	480	512	7.31	cps
Thallium	205-1	1107	1193	1270	1190	6.87	cps
Tin	118-1	1320	1333	1290	1315	1.69	cps
Titanium	47-1	300	217	237	251	17.33	cps
Uranium	238-1	257	127	140	174	41.00	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 13:41:36	DataFile Name :	037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	40	7	27	24	68.62	cps
Ytterbium	172-1	110	97	80	96	15.73	cps
Ytterbium	172-2	43	23	47	38	33.41	cps
Ytterbium	176-1	1837	1970	2020	1942	4.88	cps
Ytterbium	176-2	243	277	223	248	10.87	cps
Yttrium	89-1	25331169	25935200	25344012	25536794	1.35	cps
Yttrium	89-2	1653395	1640691	1650555	1648214	0.40	cps
Zinc	66-2	323	217	270	270	19.75	cps
Zirconium	90-1	903	950	967	940	3.49	cps
Zirconium	91-1	237	217	183	212	12.69	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	399344	397027	393568	396647	0.73	cps
Antimony	121-1	253	247	267	256	3.98	cps
Arsenic	75-2	137	147	150	144	4.80	cps
Barium	135-1	87829	88768	89359	88652	0.87	cps
Barium	137-1	154495	155449	154926	154956	0.31	cps
Beryllium	9-1	1572	1526	1559	1552	1.53	cps
Bismuth	209-1	11711912	11735796	11597889	11681866	0.63	cps
Bismuth	209-2	4079134	4077774	3959880	4038929	1.70	cps
Bromine	81-1	5074	5204	5088	5122	1.40	cps
Cadmium	108-1	110	67	73	83	28.00	cps
Cadmium	106-1	7455	7659	7342	7485	2.14	cps
Cadmium	111-1	5498	5641	5525	5555	1.37	cps
Calcium	43-1	3387812	3307075	3360392	3351760	1.22	cps
Calcium	44-1	53967143	54002289	54342144	54103859	0.38	cps
Carbon	12-1	4895821	4903866	4986179	4928622	1.01	cps
Carbon	12-2	31621	32369	31981	31990	1.17	cps
Chlorine	35-1	129204	128400	130132	129245	0.67	cps
Chlorine	35-2	453	473	537	488	8.92	cps
Chromium	52-2	7405	7499	7449	7451	0.63	cps
Cobalt	59-2	114831	113585	112523	113647	1.02	cps
Copper	63-2	96075	95599	95696	95790	0.26	cps
Dysprosium	156-1	58159	58377	57962	58166	0.36	cps
Dysprosium	156-2	17925	17388	17792	17702	1.58	cps
Erbium	164-1	71397	72064	73223	72228	1.28	cps
Erbium	164-2	21601	21391	21100	21364	1.18	cps
Gadolinium	160-1	59194	59950	59472	59539	0.64	cps
Gadolinium	160-2	21664	21020	20967	21217	1.83	cps
Holmium	165-1	18485171	19135992	18859490	18826884	1.73	cps
Holmium	165-2	5844361	5763160	5697642	5768388	1.27	cps
Indium	115-1	14463482	14802053	14896919	14720818	1.55	cps
Indium	115-2	1255289	1239477	1255119	1249961	0.73	cps
Iron	54-2	6579867	6642101	6549741	6590570	0.71	cps
Iron	56-2	122008045	121295292	121666062	121656466	0.29	cps
Iron	57-2	3086347	3064300	3061017	3070555	0.45	cps
Krypton	83-1	383	383	340	369	6.78	cps
Lead	206-1	4858	4914	4888	4887	0.58	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4024	4007	4027	4020	0.27	cps
Lead	208-1	19202	19106	19233	19180	0.35	cps
Lithium	6-1	7715581	7617851	7783326	7705586	1.08	cps
Magnesium	24-2	2476548	2446611	2415349	2446169	1.25	cps
Manganese	55-2	1689431	1735758	1719850	1715013	1.37	cps
Molybdenum	94-1	2227	2297	2347	2290	2.63	cps
Molybdenum	95-1	913	887	890	897	1.62	cps
Molybdenum	96-1	1934	1827	1970	1910	3.90	cps
Molybdenum	97-1	490	497	403	463	11.24	cps
Molybdenum	98-1	1310	1213	1267	1263	3.83	cps
Neodymium	150-1	57636	57784	57981	57800	0.30	cps
Neodymium	150-2	12556	12179	12209	12315	1.70	cps
Nickel	60-2	12783	13350	13016	13049	2.18	cps
Phosphorus	31-2	283	310	283	292	5.27	cps
Potassium	39-2	67771	66740	68629	67713	1.40	cps
Rhodium	103-1	13161317	13529631	13421603	13370850	1.42	cps
Rhodium	103-2	4807548	4836148	4805658	4816451	0.35	cps
Scandium	45-1	10434822	10726379	10735361	10632187	1.61	cps
Scandium	45-2	182097	181153	181105	181452	0.31	cps
Selenium	82-1	87	80	120	96	22.43	cps
Selenium	77-2	60	80	50	63	24.12	cps
Selenium	78-2	40	63	93	66	40.79	cps
Silicon	28-1	101545822	102174212	102282782	102000938	0.39	cps
Silver	107-1	253	247	217	239	8.18	cps
Silver	109-1	87	90	87	88	2.19	cps
Sodium	23-2	4797873	4803365	4676048	4759095	1.51	cps
Strontium	86-1	566442	564740	568466	566549	0.33	cps
Strontium	88-1	5189138	5192959	5180126	5187408	0.13	cps
Sulfur	34-1	6115010	6110646	6161272	6128976	0.46	cps
Terbium	159-1	19311440	19690427	19435719	19479195	0.99	cps
Terbium	159-2	5617692	5555994	5538457	5570715	0.75	cps
Thallium	203-1	430	437	400	422	4.63	cps
Thallium	205-1	1107	997	983	1029	6.58	cps
Tin	118-1	7629	7492	7846	7656	2.33	cps
Titanium	47-1	1973	2054	2013	2013	1.99	cps
Uranium	238-1	39441	39595	39401	39479	0.26	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-18-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:55:24	DataFile Name :	040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	90587	90960	90141	90563	0.45	cps
Ytterbium	172-1	26036	26834	26603	26491	1.55	cps
Ytterbium	172-2	9710	9530	9564	9601	1.00	cps
Ytterbium	176-1	18403	18216	17665	18095	2.12	cps
Ytterbium	176-2	6155	5901	6252	6103	2.96	cps
Yttrium	89-1	26995210	27308857	26735152	27013073	1.06	cps
Yttrium	89-2	1768086	1744115	1765642	1759281	0.75	cps
Zinc	66-2	69717	69124	69925	69589	0.60	cps
Zirconium	90-1	5124	5108	5231	5154	1.30	cps
Zirconium	91-1	1217	1113	1153	1161	4.49	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	590458	587191	589355	589001	0.28	cps
Antimony	121-1	270	267	223	253	10.28	cps
Arsenic	75-2	247	280	213	247	13.51	cps
Barium	135-1	84743	82556	84578	83959	1.45	cps
Barium	137-1	146443	147069	145264	146258	0.63	cps
Beryllium	9-1	1647	1735	1705	1696	2.62	cps
Bismuth	209-1	11781139	11568396	12252126	11867220	2.95	cps
Bismuth	209-2	4371572	4097170	3951640	4140127	5.15	cps
Bromine	81-1	5254	5304	5141	5233	1.60	cps
Cadmium	108-1	77	117	107	100	20.82	cps
Cadmium	106-1	7709	7572	8042	7774	3.11	cps
Cadmium	111-1	5746	5716	5892	5784	1.63	cps
Calcium	43-1	3292827	3265226	3222273	3260109	1.09	cps
Calcium	44-1	52914736	52244174	51659136	52272682	1.20	cps
Carbon	12-1	4831827	4952646	5021546	4935340	1.95	cps
Carbon	12-2	32319	31323	32205	31949	1.71	cps
Chlorine	35-1	138165	138687	139232	138695	0.38	cps
Chlorine	35-2	590	573	600	588	2.29	cps
Chromium	52-2	8943	9136	9053	9044	1.07	cps
Cobalt	59-2	121039	120726	119766	120510	0.55	cps
Copper	63-2	121575	121491	122584	121883	0.50	cps
Dysprosium	156-1	68015	68464	68729	68403	0.53	cps
Dysprosium	156-2	20633	20953	21057	20881	1.06	cps
Erbium	164-1	84526	84312	82477	83772	1.34	cps
Erbium	164-2	24055	24282	23648	23995	1.34	cps
Gadolinium	160-1	69587	69369	68789	69248	0.60	cps
Gadolinium	160-2	25017	25067	25040	25041	0.10	cps
Holmium	165-1	18886341	18921935	19446286	19084854	1.64	cps
Holmium	165-2	6098623	5914424	5665446	5892831	3.69	cps
Indium	115-1	14502987	14408654	15441073	14784238	3.86	cps
Indium	115-2	1347963	1277624	1226834	1284140	4.74	cps
Iron	54-2	6559741	6548252	6486192	6531395	0.61	cps
Iron	56-2	120630508	120118782	121038735	120596008	0.38	cps
Iron	57-2	3060695	3045231	3085317	3063748	0.66	cps
Krypton	83-1	420	360	427	402	9.13	cps
Lead	206-1	7676	7539	7776	7663	1.55	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	6105	6458	6478	6347	3.31	cps
Lead	208-1	29196	29780	29493	29490	0.99	cps
Lithium	6-1	7857216	7702634	7864373	7808074	1.17	cps
Magnesium	24-2	2598792	2604846	2603253	2602297	0.12	cps
Manganese	55-2	1699395	1707411	1681793	1696200	0.77	cps
Molybdenum	94-1	2527	2284	2274	2361	6.08	cps
Molybdenum	95-1	990	893	893	926	6.03	cps
Molybdenum	96-1	1880	1963	1940	1928	2.23	cps
Molybdenum	97-1	490	503	520	504	2.98	cps
Molybdenum	98-1	1323	1217	1143	1228	7.37	cps
Neodymium	150-1	67847	70567	67224	68546	2.59	cps
Neodymium	150-2	14581	14648	14958	14729	1.37	cps
Nickel	60-2	14120	13927	14070	14039	0.72	cps
Phosphorus	31-2	847	700	687	744	11.93	cps
Potassium	39-2	77272	76645	77289	77069	0.48	cps
Rhodium	103-1	13293206	13193711	13887362	13458093	2.79	cps
Rhodium	103-2	5151776	4877454	4703301	4910844	4.60	cps
Scandium	45-1	10630493	10674787	11082495	10795925	2.31	cps
Scandium	45-2	195035	186393	176998	186142	4.85	cps
Selenium	82-1	47	150	-17	60	140.22	cps
Selenium	77-2	67	103	70	80	25.34	cps
Selenium	78-2	73	57	60	63	13.92	cps
Silicon	28-1	107102968	109620235	110486335	109069846	1.61	cps
Silver	107-1	253	323	310	296	12.58	cps
Silver	109-1	160	180	167	169	6.03	cps
Sodium	23-2	4600367	4575092	4579449	4584969	0.29	cps
Strontium	86-1	534684	544983	533483	537716	1.18	cps
Strontium	88-1	4944347	4995578	4971681	4970535	0.52	cps
Sulfur	34-1	6431100	6398490	6434627	6421405	0.31	cps
Terbium	159-1	19254848	19145745	20087564	19496052	2.64	cps
Terbium	159-2	6043778	5609407	5346117	5666434	6.22	cps
Thallium	203-1	463	457	400	440	7.91	cps
Thallium	205-1	1133	990	1177	1100	8.88	cps
Tin	118-1	2734	2597	2777	2703	3.48	cps
Titanium	47-1	2664	2447	2530	2547	4.29	cps
Uranium	238-1	44317	43966	43855	44046	0.55	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-19-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 13:58:38	DataFile Name :	041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	118223	119510	119490	119074	0.62	cps
Ytterbium	172-1	31664	31457	31394	31505	0.45	cps
Ytterbium	172-2	11028	11151	10801	10994	1.62	cps
Ytterbium	176-1	20633	21331	20740	20901	1.80	cps
Ytterbium	176-2	7285	7069	7162	7172	1.52	cps
Yttrium	89-1	27239960	27157972	28618120	27672017	2.96	cps
Yttrium	89-2	1909918	1796629	1736313	1814287	4.86	cps
Zinc	66-2	80497	81794	81841	81377	0.94	cps
Zirconium	90-1	5421	5478	5461	5453	0.53	cps
Zirconium	91-1	1207	1197	1040	1148	8.14	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	264725	263452	263683	263953	0.26	cps
Antimony	121-1	220	220	257	232	9.12	cps
Arsenic	75-2	120	173	117	137	23.27	cps
Barium	135-1	80682	82312	82030	81674	1.07	cps
Barium	137-1	141168	142852	142303	142108	0.60	cps
Beryllium	9-1	1276	1375	1312	1321	3.78	cps
Bismuth	209-1	11489729	11827089	11748617	11688478	1.51	cps
Bismuth	209-2	4096204	4075980	4076551	4082912	0.28	cps
Bromine	81-1	5248	5264	5258	5257	0.16	cps
Cadmium	108-1	100	70	93	88	17.95	cps
Cadmium	106-1	7375	7319	7602	7432	2.02	cps
Cadmium	111-1	5519	5481	5663	5554	1.73	cps
Calcium	43-1	3522481	3449636	3482783	3484966	1.05	cps
Calcium	44-1	55185338	55116774	55263161	55188424	0.13	cps
Carbon	12-1	4898184	4914570	4913199	4908651	0.19	cps
Carbon	12-2	31303	31928	32112	31781	1.33	cps
Chlorine	35-1	127371	128235	127240	127615	0.42	cps
Chlorine	35-2	463	490	400	451	10.25	cps
Chromium	52-2	5151	5134	5191	5159	0.56	cps
Cobalt	59-2	96746	96762	97370	96959	0.37	cps
Copper	63-2	71981	72273	71924	72059	0.26	cps
Dysprosium	156-1	48257	49096	48748	48700	0.87	cps
Dysprosium	156-2	14918	14738	14945	14867	0.76	cps
Erbium	164-1	61411	60594	61377	61127	0.76	cps
Erbium	164-2	17805	17522	17315	17547	1.40	cps
Gadolinium	160-1	48762	48996	49839	49199	1.15	cps
Gadolinium	160-2	17662	17338	17488	17496	0.93	cps
Holmium	165-1	18657041	18993067	19322205	18990771	1.75	cps
Holmium	165-2	5679041	5742897	5787857	5736598	0.95	cps
Indium	115-1	14655787	14568892	14831905	14685528	0.91	cps
Indium	115-2	1248878	1246394	1246364	1247212	0.12	cps
Iron	54-2	5796428	5781690	5698491	5758870	0.92	cps
Iron	56-2	106570475	105376418	104242905	105396600	1.10	cps
Iron	57-2	2713918	2680848	2676616	2690461	0.76	cps
Krypton	83-1	380	327	390	366	9.31	cps
Lead	206-1	3384	3364	3304	3350	1.24	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3084	2924	3187	3065	4.33	cps
Lead	208-1	13790	13593	13730	13704	0.74	cps
Lithium	6-1	7782387	7851039	7857184	7830203	0.53	cps
Magnesium	24-2	2156548	2235155	2156025	2182576	2.09	cps
Manganese	55-2	1595680	1598551	1577464	1590565	0.72	cps
Molybdenum	94-1	1747	1810	1813	1790	2.10	cps
Molybdenum	95-1	853	790	920	854	7.61	cps
Molybdenum	96-1	1633	1643	1657	1645	0.71	cps
Molybdenum	97-1	567	533	493	531	6.91	cps
Molybdenum	98-1	1260	1030	1183	1158	10.12	cps
Neodymium	150-1	46594	46310	45791	46232	0.88	cps
Neodymium	150-2	9807	9423	9787	9672	2.23	cps
Nickel	60-2	11635	11545	11121	11434	2.40	cps
Phosphorus	31-2	207	193	197	199	3.49	cps
Potassium	39-2	59519	59348	59609	59492	0.22	cps
Rhodium	103-1	13382744	13411541	13429476	13407920	0.18	cps
Rhodium	103-2	4789048	4771230	4836165	4798814	0.70	cps
Scandium	45-1	10437586	10599308	10759416	10598770	1.52	cps
Scandium	45-2	180404	181163	181312	180959	0.27	cps
Selenium	82-1	60	117	7	61	90.01	cps
Selenium	77-2	40	60	87	62	37.63	cps
Selenium	78-2	50	43	87	60	38.89	cps
Silicon	28-1	86567665	85102342	84264167	85311392	1.37	cps
Silver	107-1	200	210	197	202	3.43	cps
Silver	109-1	90	93	67	83	17.43	cps
Sodium	23-2	4768747	4824174	4856679	4816534	0.92	cps
Strontium	86-1	532029	531016	536460	533169	0.54	cps
Strontium	88-1	4912056	4853065	4828768	4864630	0.88	cps
Sulfur	34-1	5762732	5712166	5781389	5752096	0.62	cps
Terbium	159-1	19367034	19510063	19557280	19478125	0.51	cps
Terbium	159-2	5542034	5522033	5561158	5541742	0.35	cps
Thallium	203-1	323	403	380	369	11.15	cps
Thallium	205-1	850	950	907	902	5.56	cps
Tin	118-1	1520	1530	1377	1476	5.81	cps
Titanium	47-1	1670	1587	1697	1651	3.48	cps
Uranium	238-1	33320	33504	32826	33217	1.06	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-20-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:01:50	DataFile Name :	042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	60708	60772	61324	60934	0.56	cps
Ytterbium	172-1	22042	22115	21865	22007	0.58	cps
Ytterbium	172-2	7729	7699	7916	7781	1.51	cps
Ytterbium	176-1	15189	15115	15840	15381	2.59	cps
Ytterbium	176-2	5121	5098	5214	5144	1.20	cps
Yttrium	89-1	26581125	26643639	27046427	26757063	0.94	cps
Yttrium	89-2	1708774	1763128	1751746	1741216	1.65	cps
Zinc	66-2	59236	60488	59501	59742	1.10	cps
Zirconium	90-1	3734	3714	3844	3764	1.86	cps
Zirconium	91-1	807	760	897	821	8.46	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	617062	629031	622037	622710	0.97	cps
Antimony	121-1	260	237	230	242	6.51	cps
Arsenic	75-2	193	193	183	190	3.04	cps
Barium	135-1	83133	81490	83626	82750	1.35	cps
Barium	137-1	143647	144786	147214	145216	1.25	cps
Beryllium	9-1	1591	1507	1586	1562	3.01	cps
Bismuth	209-1	11871905	11689162	11589543	11716870	1.22	cps
Bismuth	209-2	4044816	3974092	4051656	4023521	1.07	cps
Bromine	81-1	5324	5051	5118	5164	2.76	cps
Cadmium	108-1	77	67	110	84	26.87	cps
Cadmium	106-1	7512	7185	7649	7449	3.20	cps
Cadmium	111-1	5621	5410	5664	5565	2.45	cps
Calcium	43-1	2879448	2926675	2872436	2892853	1.02	cps
Calcium	44-1	46158303	46063031	46223504	46148279	0.17	cps
Carbon	12-1	5128795	5173065	5206401	5169420	0.75	cps
Carbon	12-2	33338	33268	33482	33362	0.33	cps
Chlorine	35-1	125320	126355	124879	125518	0.60	cps
Chlorine	35-2	407	457	493	452	9.62	cps
Chromium	52-2	9493	9383	9250	9375	1.30	cps
Cobalt	59-2	112298	111972	114120	112797	1.03	cps
Copper	63-2	106334	105475	106448	106086	0.50	cps
Dysprosium	156-1	63185	62649	61340	62391	1.52	cps
Dysprosium	156-2	18930	18656	19077	18888	1.13	cps
Erbium	164-1	75158	75020	75037	75071	0.10	cps
Erbium	164-2	21875	22119	21708	21900	0.94	cps
Gadolinium	160-1	63222	64210	63008	63480	1.01	cps
Gadolinium	160-2	22496	23340	22583	22806	2.04	cps
Holmium	165-1	18682184	18612099	18986730	18760338	1.06	cps
Holmium	165-2	5665907	5762366	5633268	5687180	1.18	cps
Indium	115-1	14859755	14812539	14619977	14764090	0.86	cps
Indium	115-2	1230582	1238241	1236071	1234965	0.32	cps
Iron	54-2	6065139	6037041	6065678	6055953	0.27	cps
Iron	56-2	109931908	111414508	110604722	110650379	0.67	cps
Iron	57-2	2791549	2841017	2807641	2813402	0.90	cps
Krypton	83-1	400	400	350	383	7.53	cps
Lead	206-1	7265	7242	7512	7340	2.04	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	6028	5825	6115	5989	2.49	cps
Lead	208-1	29250	28713	28953	28972	0.93	cps
Lithium	6-1	7754070	7888391	7766726	7803062	0.95	cps
Magnesium	24-2	2552492	2589922	2542143	2561519	0.98	cps
Manganese	55-2	1406040	1428248	1426844	1420377	0.88	cps
Molybdenum	94-1	2110	2050	2070	2077	1.47	cps
Molybdenum	95-1	893	707	877	826	12.51	cps
Molybdenum	96-1	1630	1563	1660	1618	3.06	cps
Molybdenum	97-1	523	437	483	481	9.02	cps
Molybdenum	98-1	1217	1243	1230	1230	1.08	cps
Neodymium	150-1	64450	64591	63040	64027	1.34	cps
Neodymium	150-2	13220	13403	13487	13370	1.02	cps
Nickel	60-2	13823	14000	13643	13822	1.29	cps
Phosphorus	31-2	913	967	863	914	5.65	cps
Potassium	39-2	75362	76230	76488	76026	0.78	cps
Rhodium	103-1	13250923	13598296	13202835	13350685	1.62	cps
Rhodium	103-2	4781154	4748739	4718406	4749433	0.66	cps
Scandium	45-1	10541528	10450414	10709467	10567136	1.24	cps
Scandium	45-2	177660	179792	177606	178353	0.70	cps
Selenium	82-1	20	67	67	51	52.72	cps
Selenium	77-2	97	77	90	88	11.60	cps
Selenium	78-2	43	57	40	47	18.90	cps
Silicon	28-1	102897925	101637102	101197582	101910870	0.87	cps
Silver	107-1	220	270	150	213	28.26	cps
Silver	109-1	90	80	93	88	7.90	cps
Sodium	23-2	3935874	3941644	3996902	3958140	0.85	cps
Strontium	86-1	466867	467075	472699	468880	0.71	cps
Strontium	88-1	4335381	4281330	4368106	4328273	1.01	cps
Sulfur	34-1	6150423	6057340	6061125	6089629	0.87	cps
Terbium	159-1	19174757	19409337	19181068	19255054	0.69	cps
Terbium	159-2	5471065	5570228	5518657	5519983	0.90	cps
Thallium	203-1	443	440	480	454	4.88	cps
Thallium	205-1	987	927	1150	1021	11.32	cps
Tin	118-1	1640	1740	1640	1673	3.45	cps
Titanium	47-1	2790	2777	2850	2806	1.39	cps
Uranium	238-1	41621	41083	40899	41201	0.91	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-17-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:05:04	DataFile Name :	043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	127001	126371	127344	126905	0.39	cps
Ytterbium	172-1	28220	28110	29085	28472	1.88	cps
Ytterbium	172-2	10394	10021	10051	10155	2.04	cps
Ytterbium	176-1	19364	19047	19074	19162	0.92	cps
Ytterbium	176-2	6458	6472	6575	6502	0.98	cps
Yttrium	89-1	26859080	27158729	26886990	26968266	0.61	cps
Yttrium	89-2	1730149	1730989	1747416	1736184	0.56	cps
Zinc	66-2	86830	88236	86860	87309	0.92	cps
Zirconium	90-1	4454	4377	4207	4346	2.91	cps
Zirconium	91-1	1107	880	1083	1023	12.18	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	778109	773445	780317	777290	0.45	cps
Antimony	121-1	200	170	203	191	9.61	cps
Arsenic	75-2	127	137	117	127	7.89	cps
Barium	135-1	75951	78016	76548	76838	1.38	cps
Barium	137-1	133680	140052	130290	134674	3.68	cps
Beryllium	9-1	992	1001	971	988	1.56	cps
Bismuth	209-1	11789563	11751510	11884198	11808424	0.58	cps
Bismuth	209-2	3953927	4021754	4002555	3992745	0.88	cps
Bromine	81-1	5094	4848	5181	5041	3.43	cps
Cadmium	108-1	80	80	73	78	4.95	cps
Cadmium	106-1	7472	7529	7325	7442	1.41	cps
Cadmium	111-1	5551	5637	5456	5548	1.63	cps
Calcium	43-1	2095517	2078615	2091703	2088612	0.42	cps
Calcium	44-1	33172880	32616221	33445850	33078317	1.28	cps
Carbon	12-1	4980480	5001426	4955694	4979200	0.46	cps
Carbon	12-2	31320	31484	31861	31555	0.88	cps
Chlorine	35-1	119737	120079	120762	120192	0.43	cps
Chlorine	35-2	460	510	407	459	11.26	cps
Chromium	52-2	8879	8623	8586	8696	1.84	cps
Cobalt	59-2	140986	139919	140256	140387	0.39	cps
Copper	63-2	207469	207398	207993	207620	0.16	cps
Dysprosium	156-1	42517	42400	42527	42482	0.17	cps
Dysprosium	156-2	13147	13063	13337	13182	1.06	cps
Erbium	164-1	47973	49247	48000	48407	1.50	cps
Erbium	164-2	14038	14331	14078	14149	1.13	cps
Gadolinium	160-1	43277	42390	42892	42853	1.04	cps
Gadolinium	160-2	15576	15563	15783	15640	0.79	cps
Holmium	165-1	18665820	18802813	18658290	18708974	0.43	cps
Holmium	165-2	5691158	5703072	5726513	5706914	0.32	cps
Indium	115-1	14772162	14350341	14936144	14686216	2.06	cps
Indium	115-2	1225603	1227812	1238532	1230649	0.56	cps
Iron	54-2	5536259	5549017	5454835	5513370	0.93	cps
Iron	56-2	101554942	100701955	101181485	101146127	0.42	cps
Iron	57-2	2562665	2530593	2581155	2558138	1.00	cps
Krypton	83-1	283	307	313	301	5.23	cps
Lead	206-1	11662	11779	11555	11665	0.96	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	9941	10017	9857	9938	0.81	cps
Lead	208-1	45665	46213	46243	46040	0.71	cps
Lithium	6-1	7833699	7532161	8023515	7796458	3.18	cps
Magnesium	24-2	3264281	3212538	3251663	3242827	0.83	cps
Manganese	55-2	820513	811035	820554	817367	0.67	cps
Molybdenum	94-1	1510	1390	1453	1451	4.14	cps
Molybdenum	95-1	810	740	743	764	5.17	cps
Molybdenum	96-1	1613	1583	1467	1555	4.98	cps
Molybdenum	97-1	450	470	483	468	3.59	cps
Molybdenum	98-1	1250	1240	1123	1205	5.85	cps
Neodymium	150-1	44724	44323	45427	44824	1.25	cps
Neodymium	150-2	9490	9100	9483	9358	2.39	cps
Nickel	60-2	25503	25172	25563	25413	0.83	cps
Phosphorus	31-2	857	820	683	787	11.61	cps
Potassium	39-2	81106	81089	79829	80675	0.91	cps
Rhodium	103-1	13613381	13307371	13519551	13480101	1.16	cps
Rhodium	103-2	4814251	4741440	4706469	4754054	1.16	cps
Scandium	45-1	10726547	10518580	10757550	10667559	1.22	cps
Scandium	45-2	180335	178133	178961	179143	0.62	cps
Selenium	82-1	173	47	163	128	55.11	cps
Selenium	77-2	47	77	50	58	28.46	cps
Selenium	78-2	33	63	57	51	30.82	cps
Silicon	28-1	113850912	113061325	112789828	113234022	0.49	cps
Silver	107-1	190	193	200	194	2.62	cps
Silver	109-1	87	77	93	86	9.80	cps
Sodium	23-2	6670443	6785823	6710492	6722253	0.87	cps
Strontium	86-1	503085	510667	500494	504749	1.05	cps
Strontium	88-1	4682634	4696135	4653448	4677406	0.47	cps
Sulfur	34-1	6117978	6005844	6075512	6066445	0.93	cps
Terbium	159-1	19631532	19304640	19403626	19446599	0.86	cps
Terbium	159-2	5461211	5509679	5404768	5458553	0.96	cps
Thallium	203-1	470	483	503	486	3.46	cps
Thallium	205-1	1117	1050	980	1049	6.52	cps
Tin	118-1	1530	1520	1633	1561	4.02	cps
Titanium	47-1	2827	2837	2650	2771	3.79	cps
Uranium	238-1	32274	32121	32872	32422	1.23	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:08:16	DataFile Name :	044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	102336	102419	103051	102602	0.38	cps
Ytterbium	172-1	15306	15853	15216	15458	2.23	cps
Ytterbium	172-2	5481	5555	5538	5525	0.70	cps
Ytterbium	176-1	11355	11515	11342	11404	0.85	cps
Ytterbium	176-2	3651	3641	3574	3622	1.15	cps
Yttrium	89-1	26988401	26715117	26930460	26877993	0.54	cps
Yttrium	89-2	1681782	1678634	1688561	1682992	0.30	cps
Zinc	66-2	81456	81982	82149	81862	0.44	cps
Zirconium	90-1	3000	3074	2994	3023	1.47	cps
Zirconium	91-1	723	613	623	653	9.31	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	779611	778681	776816	778369	0.18	cps
Antimony	121-1	150	150	173	158	8.54	cps
Arsenic	75-2	133	163	143	147	10.41	cps
Barium	135-1	75559	75941	76042	75847	0.34	cps
Barium	137-1	132784	132643	131660	132362	0.46	cps
Beryllium	9-1	931	965	951	949	1.79	cps
Bismuth	209-1	11630744	11708004	11340878	11559875	1.67	cps
Bismuth	209-2	4004487	3959643	3981483	3981871	0.56	cps
Bromine	81-1	4868	4921	5568	5119	7.62	cps
Cadmium	108-1	83	60	53	66	24.03	cps
Cadmium	106-1	7085	7132	7019	7079	0.81	cps
Cadmium	111-1	5298	5370	5292	5320	0.82	cps
Calcium	43-1	1987555	2075137	2030187	2030960	2.16	cps
Calcium	44-1	32376578	32887612	32359259	32541150	0.92	cps
Carbon	12-1	4940158	4949375	4957354	4948962	0.17	cps
Carbon	12-2	31905	32098	32008	32004	0.30	cps
Chlorine	35-1	114428	115039	113836	114435	0.53	cps
Chlorine	35-2	427	440	417	428	2.74	cps
Chromium	52-2	8773	8786	8583	8714	1.31	cps
Cobalt	59-2	140269	140418	141414	140700	0.44	cps
Copper	63-2	206813	206448	208325	207195	0.48	cps
Dysprosium	156-1	42033	42210	41076	41773	1.46	cps
Dysprosium	156-2	12873	12870	13016	12920	0.65	cps
Erbium	164-1	47668	48040	48495	48068	0.86	cps
Erbium	164-2	14395	13997	14108	14167	1.45	cps
Gadolinium	160-1	42297	43193	42715	42735	1.05	cps
Gadolinium	160-2	15282	15679	15105	15356	1.91	cps
Holmium	165-1	18710119	18635056	18520709	18621962	0.51	cps
Holmium	165-2	5612414	5661677	5630257	5634783	0.44	cps
Indium	115-1	14560366	14616450	14415684	14530833	0.71	cps
Indium	115-2	1229378	1226934	1232729	1229680	0.24	cps
Iron	54-2	5463012	5448210	5517242	5476155	0.66	cps
Iron	56-2	101503535	100459249	101110372	101024385	0.52	cps
Iron	57-2	2570084	2572578	2548455	2563706	0.52	cps
Krypton	83-1	303	290	330	308	6.62	cps
Lead	206-1	11789	11609	11572	11656	1.00	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	9807	9620	9660	9696	1.01	cps
Lead	208-1	46089	45716	45024	45610	1.18	cps
Lithium	6-1	7665845	7733778	7722426	7707350	0.47	cps
Magnesium	24-2	3216680	3231094	3213876	3220550	0.29	cps
Manganese	55-2	810325	808736	816236	811766	0.49	cps
Molybdenum	94-1	1447	1533	1497	1492	2.92	cps
Molybdenum	95-1	787	783	770	780	1.13	cps
Molybdenum	96-1	1567	1473	1577	1539	3.70	cps
Molybdenum	97-1	487	407	410	434	10.42	cps
Molybdenum	98-1	1207	1080	1030	1106	8.24	cps
Neodymium	150-1	44724	43641	43935	44100	1.27	cps
Neodymium	150-2	9807	9076	9393	9426	3.89	cps
Nickel	60-2	25162	25543	25433	25379	0.77	cps
Phosphorus	31-2	707	793	860	787	9.77	cps
Potassium	39-2	79745	79377	79591	79571	0.23	cps
Rhodium	103-1	13430971	13305859	13250645	13329158	0.69	cps
Rhodium	103-2	4707519	4725915	4769637	4734357	0.67	cps
Scandium	45-1	10447256	10519619	10476420	10481098	0.35	cps
Scandium	45-2	176782	177234	178865	177627	0.62	cps
Selenium	82-1	117	67	-13	57	115.73	cps
Selenium	77-2	53	43	70	56	24.25	cps
Selenium	78-2	50	63	37	50	26.66	cps
Silicon	28-1	112793278	111860132	110385805	111679738	1.09	cps
Silver	107-1	257	160	210	209	23.14	cps
Silver	109-1	83	77	93	84	9.93	cps
Sodium	23-2	6749262	6529487	6604624	6627791	1.69	cps
Strontium	86-1	503012	504160	497044	501405	0.76	cps
Strontium	88-1	4708250	4552171	4550619	4603680	1.97	cps
Sulfur	34-1	5973741	5958589	5999038	5977123	0.34	cps
Terbium	159-1	19071040	18970168	18996878	19012695	0.27	cps
Terbium	159-2	5417725	5453838	5513365	5461643	0.88	cps
Thallium	203-1	450	420	400	423	5.94	cps
Thallium	205-1	867	980	1033	960	8.87	cps
Tin	118-1	1603	1470	1517	1530	4.42	cps
Titanium	47-1	2850	2614	2630	2698	4.90	cps
Uranium	238-1	31659	31793	31112	31521	1.15	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725DUPI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:11:32	DataFile Name :	045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	101332	102198	102339	101956	0.53	cps
Ytterbium	172-1	15416	15179	15369	15321	0.82	cps
Ytterbium	172-2	5551	5445	5545	5513	1.08	cps
Ytterbium	176-1	11028	11175	11248	11150	1.01	cps
Ytterbium	176-2	3614	3644	3731	3663	1.65	cps
Yttrium	89-1	26646799	26599875	26195951	26480875	0.94	cps
Yttrium	89-2	1654336	1695282	1686142	1678586	1.28	cps
Zinc	66-2	81871	83393	82277	82514	0.96	cps
Zirconium	90-1	2980	3124	3157	3087	3.04	cps
Zirconium	91-1	713	620	623	652	8.12	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	157748	156262	158788	157599	0.81	cps
Antimony	121-1	100	120	103	108	9.94	cps
Arsenic	75-2	27	43	23	31	34.44	cps
Barium	135-1	15602	15689	15676	15656	0.30	cps
Barium	137-1	27525	27612	26436	27191	2.41	cps
Beryllium	9-1	525	487	506	506	3.70	cps
Bismuth	209-1	11984521	11763354	11796873	11848249	1.01	cps
Bismuth	209-2	4029027	4039395	4006872	4025098	0.41	cps
Bromine	81-1	4818	4774	4914	4835	1.48	cps
Cadmium	108-1	43	40	47	43	7.70	cps
Cadmium	106-1	7125	6808	6989	6974	2.28	cps
Cadmium	111-1	5041	4841	4929	4937	2.02	cps
Calcium	43-1	394708	398255	398181	397048	0.51	cps
Calcium	44-1	6642404	6655929	6633800	6644044	0.17	cps
Carbon	12-1	4663864	4622476	4560770	4615703	1.12	cps
Carbon	12-2	29082	28681	29089	28951	0.81	cps
Chlorine	35-1	108305	107703	106901	107636	0.65	cps
Chlorine	35-2	393	353	443	397	11.37	cps
Chromium	52-2	3184	3380	3200	3255	3.35	cps
Cobalt	59-2	28769	28378	28652	28600	0.70	cps
Copper	63-2	44061	44148	43510	43907	0.79	cps
Dysprosium	156-1	8726	8836	8676	8746	0.94	cps
Dysprosium	156-2	2520	2457	2600	2526	2.84	cps
Erbium	164-1	9924	9504	9937	9788	2.52	cps
Erbium	164-2	2874	2810	2990	2891	3.16	cps
Gadolinium	160-1	8613	8826	8243	8561	3.45	cps
Gadolinium	160-2	2954	3040	3097	3030	2.38	cps
Holmium	165-1	18891649	18486787	18526421	18634952	1.20	cps
Holmium	165-2	5712105	5658667	5578629	5649800	1.19	cps
Indium	115-1	14506370	14669760	14538625	14571585	0.59	cps
Indium	115-2	1235542	1233743	1236175	1235153	0.10	cps
Iron	54-2	1063943	1068453	1054514	1062303	0.67	cps
Iron	56-2	20607514	20495224	20237026	20446588	0.93	cps
Iron	57-2	483319	485619	482803	483914	0.31	cps
Krypton	83-1	280	257	250	262	6.01	cps
Lead	206-1	3567	3410	3377	3452	2.94	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2924	3067	2944	2978	2.61	cps
Lead	208-1	13936	14137	13773	13949	1.31	cps
Lithium	6-1	7626887	7798914	7768573	7731458	1.19	cps
Magnesium	24-2	617242	620785	622698	620242	0.45	cps
Manganese	55-2	166842	168133	165611	166862	0.76	cps
Molybdenum	94-1	737	760	620	706	10.63	cps
Molybdenum	95-1	620	650	563	611	7.20	cps
Molybdenum	96-1	967	917	850	911	6.42	cps
Molybdenum	97-1	453	420	437	437	3.82	cps
Molybdenum	98-1	1020	933	897	950	6.67	cps
Neodymium	150-1	8856	8956	8883	8899	0.58	cps
Neodymium	150-2	1920	1920	1990	1943	2.08	cps
Nickel	60-2	5468	5688	5801	5652	3.00	cps
Phosphorus	31-2	227	240	143	203	25.76	cps
Potassium	39-2	22491	22297	21713	22167	1.83	cps
Rhodium	103-1	13549617	13498540	13554605	13534254	0.23	cps
Rhodium	103-2	4817840	4810768	4756247	4794952	0.70	cps
Scandium	45-1	10420549	10577920	10411973	10470147	0.89	cps
Scandium	45-2	176725	179350	175747	177274	1.05	cps
Selenium	82-1	27	-27	30	10	317.93	cps
Selenium	77-2	7	7	13	9	43.25	cps
Selenium	78-2	17	13	13	14	13.35	cps
Silicon	28-1	22910817	22826474	22995680	22910990	0.37	cps
Silver	107-1	147	157	167	157	6.38	cps
Silver	109-1	33	57	57	49	27.56	cps
Sodium	23-2	1371429	1399113	1394163	1388235	1.06	cps
Strontium	86-1	102858	102169	103315	102781	0.56	cps
Strontium	88-1	883749	875431	878390	879190	0.48	cps
Sulfur	34-1	1710032	1693350	1710404	1704595	0.57	cps
Terbium	159-1	19007449	19162609	19039416	19069825	0.43	cps
Terbium	159-2	5444349	5382085	5501759	5442731	1.10	cps
Thallium	203-1	293	280	303	292	4.01	cps
Thallium	205-1	700	710	713	708	0.98	cps
Tin	118-1	1280	1300	1303	1295	0.98	cps
Titanium	47-1	710	710	743	721	2.67	cps
Uranium	238-1	6282	6255	6308	6282	0.42	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725LDL	Dilution Factor :	25
Date & Time Acquired :	2025-02-24 14:14:45	DataFile Name :	046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	19700	20965	20552	20406	3.16	cps
Ytterbium	172-1	3327	3290	3040	3219	4.85	cps
Ytterbium	172-2	1177	1133	1103	1138	3.24	cps
Ytterbium	176-1	3911	3794	3784	3829	1.84	cps
Ytterbium	176-2	923	1030	960	971	5.58	cps
Yttrium	89-1	25844068	25751273	25949658	25848333	0.38	cps
Yttrium	89-2	1681886	1668928	1636780	1662531	1.40	cps
Zinc	66-2	17257	17214	16697	17056	1.83	cps
Zirconium	90-1	1350	1230	1397	1326	6.49	cps
Zirconium	91-1	283	287	257	276	5.97	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	829960	835435	829286	831560	0.41	cps
Antimony	121-1	1596273	1611359	1612458	1606697	0.56	cps
Arsenic	75-2	140	73	110	108	30.98	cps
Barium	135-1	1775379	1805328	1828929	1803212	1.49	cps
Barium	137-1	3048162	3078714	3137899	3088258	1.48	cps
Beryllium	9-1	481303	482140	483572	482338	0.24	cps
Bismuth	209-1	11377445	11572891	11528213	11492850	0.89	cps
Bismuth	209-2	3955937	3951246	3980754	3962646	0.40	cps
Bromine	81-1	5444	5745	5985	5725	4.73	cps
Cadmium	108-1	26829	26799	27240	26956	0.91	cps
Cadmium	106-1	46261	47080	47906	47082	1.75	cps
Cadmium	111-1	359290	358803	367341	361811	1.33	cps
Calcium	43-1	2453023	2436261	2465259	2451514	0.59	cps
Calcium	44-1	38761952	38855078	38410338	38675789	0.61	cps
Carbon	12-1	4717335	4775878	4788994	4760736	0.80	cps
Carbon	12-2	31056	31160	31026	31081	0.23	cps
Chlorine	35-1	10270449	11410011	11799320	11159927	7.12	cps
Chlorine	35-2	46675	47518	47223	47139	0.91	cps
Chromium	52-2	287677	287429	287185	287430	0.09	cps
Cobalt	59-2	676030	677536	674226	675930	0.25	cps
Copper	63-2	4551201	4579349	4625412	4585321	0.82	cps
Dysprosium	156-1	39171	40070	39769	39670	1.15	cps
Dysprosium	156-2	11915	11982	12359	12086	1.98	cps
Erbium	164-1	45023	45347	45176	45182	0.36	cps
Erbium	164-2	13217	13087	13130	13144	0.50	cps
Gadolinium	160-1	39883	40270	39702	39952	0.73	cps
Gadolinium	160-2	14057	14555	14805	14472	2.63	cps
Holmium	165-1	18278846	18537183	18737135	18517722	1.24	cps
Holmium	165-2	5593332	5628946	5633877	5618718	0.39	cps
Indium	115-1	14138191	14410051	14544012	14364085	1.44	cps
Indium	115-2	1210837	1231108	1220790	1220912	0.83	cps
Iron	54-2	5616781	5608397	5552376	5592518	0.63	cps
Iron	56-2	103023122	104704815	102177375	103301771	1.25	cps
Iron	57-2	2587946	2669004	2647134	2634695	1.59	cps
Krypton	83-1	317	430	290	346	21.51	cps
Lead	206-1	6104749	6047285	6145511	6099182	0.81	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5327457	5277291	5305107	5303285	0.47	cps
Lead	208-1	24412130	24009312	24340542	24253995	0.89	cps
Lithium	6-1	7503647	7709394	7605540	7606194	1.35	cps
Magnesium	24-2	5093781	5172936	5064061	5110259	1.10	cps
Manganese	55-2	2086179	2110967	2072134	2089760	0.94	cps
Molybdenum	94-1	2523124	2446371	2489123	2486206	1.55	cps
Molybdenum	95-1	2760277	2710695	2734415	2735129	0.91	cps
Molybdenum	96-1	3114315	3085232	3105021	3101523	0.48	cps
Molybdenum	97-1	1697288	1669445	1693852	1686862	0.90	cps
Molybdenum	98-1	4405170	4417557	4391810	4404846	0.29	cps
Neodymium	150-1	41768	41541	41006	41438	0.94	cps
Neodymium	150-2	8906	8980	8766	8884	1.22	cps
Nickel	60-2	168737	172124	169054	169971	1.10	cps
Phosphorus	31-2	890	990	883	921	6.49	cps
Potassium	39-2	607629	608727	611151	609169	0.30	cps
Rhodium	103-1	13169206	13307562	13098491	13191753	0.81	cps
Rhodium	103-2	4647905	4660752	4644667	4651108	0.18	cps
Scandium	45-1	10332382	10487045	10294853	10371427	0.98	cps
Scandium	45-2	174926	178284	176212	176474	0.96	cps
Selenium	82-1	22729	22519	22121	22456	1.37	cps
Selenium	77-2	387	397	370	384	3.50	cps
Selenium	78-2	1317	1230	1263	1270	3.44	cps
Silicon	28-1	104275845	104031755	103740972	104016191	0.26	cps
Silver	107-1	296209	300898	304580	300562	1.40	cps
Silver	109-1	281266	288750	288471	286163	1.48	cps
Sodium	23-2	10474848	10461160	10402390	10446133	0.37	cps
Strontium	86-1	1032139	1038808	1048421	1039790	0.79	cps
Strontium	88-1	9404134	9448574	9367488	9406732	0.43	cps
Sulfur	34-1	5660205	5705578	5693126	5686303	0.41	cps
Terbium	159-1	19340107	18999071	19179291	19172823	0.89	cps
Terbium	159-2	5435700	5480591	5531121	5482470	0.87	cps
Thallium	203-1	1397078	1402110	1392779	1397322	0.33	cps
Thallium	205-1	3565488	3563329	3600019	3576278	0.58	cps
Tin	118-1	1032819	1051242	1056613	1046891	1.19	cps
Titanium	47-1	3100	3190	3434	3242	5.32	cps
Uranium	238-1	4826505	4786027	4817748	4810093	0.44	cps

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LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:18:05	DataFile Name :	047AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	325532	327018	325040	325863	0.32	cps
Ytterbium	172-1	14164	14331	14908	14468	2.70	cps
Ytterbium	172-2	4921	5194	5024	5047	2.74	cps
Ytterbium	176-1	17245	17288	17298	17277	0.16	cps
Ytterbium	176-2	5505	5381	5515	5467	1.36	cps
Yttrium	89-1	25830121	26394056	26207646	26143941	1.10	cps
Yttrium	89-2	1688186	1680557	1689171	1685971	0.28	cps
Zinc	66-2	519907	525151	529373	524810	0.90	cps
Zirconium	90-1	2629605	2670387	2680839	2660277	1.02	cps
Zirconium	91-1	545896	551931	548513	548780	0.55	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3153475	3207869	3218145	3193163	1.09	cps
Antimony	121-1	7157426	7282422	7191171	7210340	0.90	cps
Arsenic	75-2	129044	129317	129044	129135	0.12	cps
Barium	135-1	9114495	9105047	9056447	9091996	0.34	cps
Barium	137-1	15706581	15578299	15742195	15675692	0.55	cps
Beryllium	9-1	2537914	2599307	2559067	2565429	1.22	cps
Bismuth	209-1	10379732	10378755	10244855	10334447	0.75	cps
Bismuth	209-2	3541880	3590607	3587118	3573202	0.76	cps
Bromine	81-1	5218	5221	5458	5299	2.60	cps
Cadmium	108-1	134959	135380	136915	135751	0.76	cps
Cadmium	106-1	196874	197102	199250	197742	0.66	cps
Cadmium	111-1	1764063	1776275	1765331	1768557	0.38	cps
Calcium	43-1	12674274	12690924	12511710	12625636	0.78	cps
Calcium	44-1	203715910	203570464	202500270	203262215	0.33	cps
Carbon	12-1	5313963	5395211	5468389	5392521	1.43	cps
Carbon	12-2	39179	39012	39496	39229	0.63	cps
Chlorine	35-1	543713	517095	494874	518561	4.72	cps
Chlorine	35-2	1767	1640	1587	1665	5.56	cps
Chromium	52-2	1506444	1516194	1531483	1518040	0.83	cps
Cobalt	59-2	2808865	2773020	2809757	2797214	0.75	cps
Copper	63-2	20290480	20100931	20112902	20168104	0.53	cps
Dysprosium	156-1	690	670	687	682	1.57	cps
Dysprosium	156-2	87	73	87	82	9.37	cps
Erbium	164-1	450	370	393	404	10.17	cps
Erbium	164-2	110	113	137	120	12.11	cps
Gadolinium	160-1	353	340	357	350	2.52	cps
Gadolinium	160-2	120	97	110	109	10.75	cps
Holmium	165-1	17951820	17838501	17892626	17894316	0.32	cps
Holmium	165-2	5418942	5466876	5386063	5423960	0.75	cps
Indium	115-1	13354583	13179921	13133249	13222584	0.88	cps
Indium	115-2	1122110	1121716	1127047	1123624	0.26	cps
Iron	54-2	14847101	14862347	14966766	14892072	0.44	cps
Iron	56-2	270809763	273287163	271490763	271862563	0.47	cps
Iron	57-2	6849093	6864140	6851282	6854839	0.12	cps
Krypton	83-1	317	303	263	294	9.43	cps
Lead	206-1	28487871	28747650	28585095	28606872	0.46	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24647187	24856993	24709705	24737962	0.44	cps
Lead	208-1	113599424	115068800	113460505	114042910	0.78	cps
Lithium	6-1	7065765	7066694	7027464	7053308	0.32	cps
Magnesium	24-2	54875976	54495774	54448823	54606858	0.43	cps
Manganese	55-2	6167172	6174155	6204868	6182065	0.32	cps
Molybdenum	94-1	25765399	25790245	25605020	25720221	0.39	cps
Molybdenum	95-1	37028140	37521102	37505644	37351629	0.75	cps
Molybdenum	96-1	40468985	40579841	40803221	40617349	0.42	cps
Molybdenum	97-1	22953640	22762550	22963440	22893210	0.49	cps
Molybdenum	98-1	59967126	60190412	60612742	60256760	0.54	cps
Neodymium	150-1	813	800	833	816	2.06	cps
Neodymium	150-2	80	47	60	62	26.96	cps
Nickel	60-2	725089	723774	733144	727336	0.70	cps
Phosphorus	31-2	27947	28592	28772	28437	1.53	cps
Potassium	39-2	15051987	15288739	15268941	15203222	0.86	cps
Rhodium	103-1	11920052	11788736	11745254	11818014	0.77	cps
Rhodium	103-2	4224705	4284617	4226017	4245113	0.81	cps
Scandium	45-1	10012559	9872759	9951972	9945763	0.70	cps
Scandium	45-2	172468	172283	172994	172581	0.21	cps
Selenium	82-1	105653	106221	105089	105654	0.54	cps
Selenium	77-2	1613	1647	1587	1616	1.86	cps
Selenium	78-2	5491	5728	5354	5524	3.42	cps
Silicon	28-1	8885506	9232667	9143519	9087231	1.98	cps
Silver	107-1	8757702	8812481	8721109	8763764	0.52	cps
Silver	109-1	8295397	8307361	8384111	8328956	0.58	cps
Sodium	23-2	109065462	109356165	109462055	109294561	0.19	cps
Strontium	86-1	2514905	2498447	2442878	2485410	1.52	cps
Strontium	88-1	21241227	21250054	21193766	21228349	0.14	cps
Sulfur	34-1	1290277	1316611	1293712	1300200	1.10	cps
Terbium	159-1	18333882	18337019	18148568	18273157	0.59	cps
Terbium	159-2	5258780	5239692	5223250	5240574	0.34	cps
Thallium	203-1	7145347	7070584	7172418	7129450	0.74	cps
Thallium	205-1	16673299	16868850	16717440	16753196	0.61	cps
Tin	118-1	5890127	5936483	5965588	5930732	0.64	cps
Titanium	47-1	11576086	11676792	11644908	11632595	0.44	cps
Uranium	238-1	23916857	23891479	23641450	23816595	0.64	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:21:47	DataFile Name :	048CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1125784	1133698	1133485	1130989	0.40	cps
Ytterbium	172-1	443	507	443	464	7.87	cps
Ytterbium	172-2	177	173	200	183	7.92	cps
Ytterbium	176-1	35163	35367	34669	35066	1.02	cps
Ytterbium	176-2	10431	10031	10084	10182	2.13	cps
Yttrium	89-1	24620394	24030225	23953994	24201538	1.51	cps
Yttrium	89-2	1548924	1578296	1548136	1558452	1.10	cps
Zinc	66-2	2288912	2245795	2249716	2261474	1.05	cps
Zirconium	90-1	13193002	13287302	13120460	13200255	0.63	cps
Zirconium	91-1	2953458	2969955	2943634	2955682	0.45	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	83	67	87	79	13.58	cps
Antimony	121-1	777	863	857	832	5.79	cps
Arsenic	75-2	13	3	0	6	124.93	cps
Barium	135-1	907	867	977	917	6.07	cps
Barium	137-1	1553	1623	1537	1571	2.93	cps
Beryllium	9-1	816	716	769	767	6.52	cps
Bismuth	209-1	11718128	11703860	11648920	11690303	0.31	cps
Bismuth	209-2	4028594	4003797	3939478	3990623	1.15	cps
Bromine	81-1	4788	4928	4844	4853	1.45	cps
Cadmium	108-1	27	43	37	36	23.58	cps
Cadmium	106-1	6712	6482	6855	6683	2.82	cps
Cadmium	111-1	4780	4540	4830	4716	3.28	cps
Calcium	43-1	687	603	567	619	9.94	cps
Calcium	44-1	17955	17274	16987	17405	2.86	cps
Carbon	12-1	4528442	4285615	4247085	4353714	3.50	cps
Carbon	12-2	26798	26965	26564	26776	0.75	cps
Chlorine	35-1	223092	214698	209835	215875	3.11	cps
Chlorine	35-2	847	787	717	783	8.31	cps
Chromium	52-2	1773	1853	1823	1817	2.22	cps
Cobalt	59-2	250	377	253	293	24.61	cps
Copper	63-2	2040	1950	2144	2045	4.73	cps
Dysprosium	156-1	127	173	173	158	17.08	cps
Dysprosium	156-2	0	10	3	4	114.60	cps
Erbium	164-1	97	87	93	92	5.52	cps
Erbium	164-2	27	13	17	19	36.75	cps
Gadolinium	160-1	77	43	93	71	35.80	cps
Gadolinium	160-2	13	13	13	13	0.00	cps
Holmium	165-1	17962343	18313448	18235373	18170388	1.01	cps
Holmium	165-2	5528719	5544087	5553304	5542037	0.22	cps
Indium	115-1	14721518	14424412	14335241	14493724	1.40	cps
Indium	115-2	1211142	1201563	1219663	1210790	0.75	cps
Iron	54-2	883	783	977	881	10.97	cps
Iron	56-2	13366	13753	13743	13621	1.62	cps
Iron	57-2	360	343	373	359	4.19	cps
Krypton	83-1	300	227	253	260	14.28	cps
Lead	206-1	2530	2470	2484	2495	1.26	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2414	2114	2170	2232	7.14	cps
Lead	208-1	10325	10008	9762	10032	2.82	cps
Lithium	6-1	7542407	7521832	7603683	7555974	0.56	cps
Magnesium	24-2	1677	1673	1687	1679	0.41	cps
Manganese	55-2	710	763	793	756	5.59	cps
Molybdenum	94-1	1113	987	997	1032	6.82	cps
Molybdenum	95-1	1330	1070	1093	1165	12.35	cps
Molybdenum	96-1	1457	1247	1137	1280	12.70	cps
Molybdenum	97-1	740	680	610	677	9.62	cps
Molybdenum	98-1	1763	1830	1740	1778	2.63	cps
Neodymium	150-1	30	23	37	30	22.23	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	767	850	840	819	5.56	cps
Phosphorus	31-2	83	73	113	90	23.13	cps
Potassium	39-2	8162	8036	7832	8010	2.08	cps
Rhodium	103-1	13497393	13337193	13365834	13400140	0.64	cps
Rhodium	103-2	4815179	4753657	4670151	4746329	1.53	cps
Scandium	45-1	10165650	10173200	10257114	10198655	0.50	cps
Scandium	45-2	172073	169388	171948	171136	0.89	cps
Selenium	82-1	-37	17	-27	-16	-182.26	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	13	23	7	14	58.06	cps
Silicon	28-1	523252	518578	517124	519651	0.62	cps
Silver	107-1	537	503	483	508	5.31	cps
Silver	109-1	467	340	373	393	16.69	cps
Sodium	23-2	32236	31641	31811	31896	0.96	cps
Strontium	86-1	527	427	490	481	10.51	cps
Strontium	88-1	1470	1437	1423	1443	1.67	cps
Sulfur	34-1	583328	580016	582518	581954	0.30	cps
Terbium	159-1	18994502	18702388	18557256	18751382	1.19	cps
Terbium	159-2	5311153	5302357	5231462	5281657	0.83	cps
Thallium	203-1	720	643	663	676	5.89	cps
Thallium	205-1	1530	1457	1440	1476	3.25	cps
Tin	118-1	1717	1313	1483	1505	13.47	cps
Titanium	47-1	327	240	340	302	17.97	cps
Uranium	238-1	350	283	207	280	25.62	cps

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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:26:34	DataFile Name :	049CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	13	23	18	28.64	cps
Ytterbium	172-1	80	77	103	87	16.76	cps
Ytterbium	172-2	23	33	30	29	17.63	cps
Ytterbium	176-1	1793	2017	1967	1926	6.09	cps
Ytterbium	176-2	253	293	297	281	8.58	cps
Yttrium	89-1	24637137	24711708	24934531	24761125	0.62	cps
Yttrium	89-2	1603833	1602044	1596480	1600786	0.24	cps
Zinc	66-2	237	217	343	266	25.64	cps
Zirconium	90-1	1213	1260	1080	1185	7.89	cps
Zirconium	91-1	243	263	250	252	4.04	cps

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On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	808446	812703	813597	811582	0.34	cps
Antimony	121-1	1413546	1505591	1435604	1451580	3.31	cps
Arsenic	75-2	130	110	183	141	26.87	cps
Barium	135-1	1724625	1740082	1734624	1733110	0.45	cps
Barium	137-1	2971587	3016740	2974642	2987656	0.84	cps
Beryllium	9-1	468448	472169	472540	471052	0.48	cps
Bismuth	209-1	11534428	11549849	11436255	11506844	0.54	cps
Bismuth	209-2	3920812	3947876	3944032	3937573	0.37	cps
Bromine	81-1	5241	5241	5811	5431	6.06	cps
Cadmium	108-1	26071	26963	26272	26435	1.77	cps
Cadmium	106-1	45421	45886	45983	45763	0.66	cps
Cadmium	111-1	347237	353404	351481	350707	0.90	cps
Calcium	43-1	2366796	2348805	2350565	2355388	0.42	cps
Calcium	44-1	37167713	37699212	37389880	37418935	0.71	cps
Carbon	12-1	4699660	4760309	4781139	4747036	0.89	cps
Carbon	12-2	31009	32078	31126	31405	1.87	cps
Chlorine	35-1	10060979	11227462	11816616	11035019	8.10	cps
Chlorine	35-2	46989	47481	48110	47527	1.18	cps
Chromium	52-2	281296	278754	277847	279299	0.64	cps
Cobalt	59-2	652639	658416	653824	654959	0.47	cps
Copper	63-2	4488267	4426601	4524825	4479897	1.11	cps
Dysprosium	156-1	37319	39033	39013	38455	2.56	cps
Dysprosium	156-2	11872	11879	11782	11844	0.46	cps
Erbium	164-1	44069	43454	44394	43972	1.09	cps
Erbium	164-2	12870	12963	12993	12942	0.50	cps
Gadolinium	160-1	38840	38736	39472	39016	1.02	cps
Gadolinium	160-2	13964	13704	14198	13955	1.77	cps
Holmium	165-1	18666995	18411101	18364579	18480892	0.88	cps
Holmium	165-2	5586018	5572460	5544955	5567811	0.38	cps
Indium	115-1	14336228	14227624	14229945	14264599	0.43	cps
Indium	115-2	1202812	1202940	1208473	1204741	0.27	cps
Iron	54-2	5467338	5545356	5432426	5481707	1.05	cps
Iron	56-2	100411515	100321515	100022009	100251680	0.20	cps
Iron	57-2	2546058	2555761	2541954	2547924	0.28	cps
Krypton	83-1	300	333	287	307	7.84	cps
Lead	206-1	5735275	5876348	5872079	5827901	1.38	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5047742	5110085	5156438	5104755	1.07	cps
Lead	208-1	23345407	23422009	23569246	23445554	0.49	cps
Lithium	6-1	7604434	7656560	7457531	7572841	1.36	cps
Magnesium	24-2	5045059	4988920	5009782	5014587	0.57	cps
Manganese	55-2	2011909	2020772	2026143	2019608	0.36	cps
Molybdenum	94-1	2394998	2423774	2400579	2406450	0.63	cps
Molybdenum	95-1	2616061	2674461	2690836	2660453	1.48	cps
Molybdenum	96-1	2981502	3035588	3000270	3005787	0.91	cps
Molybdenum	97-1	1621559	1677354	1624191	1641035	1.92	cps
Molybdenum	98-1	4214615	4359119	4266885	4280206	1.71	cps
Neodymium	150-1	40033	40317	40361	40237	0.44	cps
Neodymium	150-2	8950	8473	8803	8742	2.79	cps
Nickel	60-2	165065	165634	166387	165695	0.40	cps
Phosphorus	31-2	717	830	677	741	10.73	cps
Potassium	39-2	587127	589504	591697	589443	0.39	cps
Rhodium	103-1	13113733	12983616	13045954	13047768	0.50	cps
Rhodium	103-2	4668611	4608384	4623593	4633529	0.68	cps
Scandium	45-1	10204582	10315555	10140935	10220357	0.86	cps
Scandium	45-2	172339	173359	175342	173680	0.88	cps
Selenium	82-1	21878	22535	22549	22321	1.72	cps
Selenium	77-2	337	413	467	406	16.11	cps
Selenium	78-2	1220	1190	1233	1215	1.83	cps
Silicon	28-1	100785842	100266382	100751539	100601254	0.29	cps
Silver	107-1	284947	294423	294595	291322	1.90	cps
Silver	109-1	273967	277440	281140	277516	1.29	cps
Sodium	23-2	10292563	10236195	10243063	10257273	0.30	cps
Strontium	86-1	996901	1007658	1020433	1008331	1.17	cps
Strontium	88-1	9105593	9119493	9356742	9193943	1.54	cps
Sulfur	34-1	5471577	5417589	5446166	5445111	0.50	cps
Terbium	159-1	19005454	19126706	18904039	19012067	0.59	cps
Terbium	159-2	5425718	5351884	5461594	5413065	1.03	cps
Thallium	203-1	1341961	1360032	1363170	1355054	0.84	cps
Thallium	205-1	3446994	3520355	3519071	3495473	1.20	cps
Tin	118-1	1002267	1014845	1020788	1012633	0.93	cps
Titanium	47-1	3090	3230	3307	3209	3.42	cps
Uranium	238-1	4698005	4713523	4682581	4698036	0.33	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725MSDI	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:30:17	DataFile Name :	050AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	315987	317558	315051	316199	0.40	cps
Ytterbium	172-1	14311	13917	14348	14192	1.68	cps
Ytterbium	172-2	5108	4748	4941	4932	3.65	cps
Ytterbium	176-1	16310	16881	16494	16562	1.76	cps
Ytterbium	176-2	5344	5501	5298	5381	1.98	cps
Yttrium	89-1	26032848	25548070	26010989	25863969	1.06	cps
Yttrium	89-2	1653452	1662731	1681030	1665737	0.84	cps
Zinc	66-2	512627	511913	510584	511708	0.20	cps
Zirconium	90-1	2581040	2614585	2621838	2605821	0.84	cps
Zirconium	91-1	524789	531981	529924	528898	0.70	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	826015	821273	820714	822667	0.35	cps
Antimony	121-1	1438613	1437349	1450958	1442307	0.52	cps
Arsenic	75-2	110	163	137	137	19.51	cps
Barium	135-1	1773938	1738751	1784248	1765646	1.35	cps
Barium	137-1	3022512	3002565	3019226	3014768	0.35	cps
Beryllium	9-1	475242	477213	474941	475799	0.26	cps
Bismuth	209-1	11363256	11667058	11459123	11496479	1.35	cps
Bismuth	209-2	3878905	3998002	3973244	3950050	1.59	cps
Bromine	81-1	5611	5718	6025	5785	3.71	cps
Cadmium	108-1	26830	26820	27057	26902	0.50	cps
Cadmium	106-1	46528	46498	46368	46465	0.18	cps
Cadmium	111-1	353463	355613	357407	355494	0.56	cps
Calcium	43-1	2411495	2421175	2422502	2418390	0.25	cps
Calcium	44-1	37859139	38633379	38249749	38247422	1.01	cps
Carbon	12-1	4831588	4850973	4857498	4846686	0.28	cps
Carbon	12-2	31504	31173	30712	31130	1.28	cps
Chlorine	35-1	11284886	12314444	12769423	12122918	6.27	cps
Chlorine	35-2	49447	49421	49702	49523	0.31	cps
Chromium	52-2	282376	281955	283598	282643	0.30	cps
Cobalt	59-2	656753	660025	663502	660093	0.51	cps
Copper	63-2	4518987	4510299	4492159	4507148	0.30	cps
Dysprosium	156-1	39294	38462	39555	39104	1.46	cps
Dysprosium	156-2	12072	11305	11869	11749	3.38	cps
Erbium	164-1	44722	44956	44701	44793	0.32	cps
Erbium	164-2	13377	13330	12953	13220	1.76	cps
Gadolinium	160-1	39301	39709	38776	39262	1.19	cps
Gadolinium	160-2	14134	14094	13811	14013	1.26	cps
Holmium	165-1	18258313	18802500	18487099	18515971	1.48	cps
Holmium	165-2	5571684	5719807	5589140	5626877	1.44	cps
Indium	115-1	14343418	14576898	14376379	14432232	0.88	cps
Indium	115-2	1198631	1238425	1207662	1214906	1.72	cps
Iron	54-2	5526212	5567542	5590521	5561425	0.59	cps
Iron	56-2	101544898	101089305	101979308	101537837	0.44	cps
Iron	57-2	2591149	2529402	2603266	2574606	1.54	cps
Krypton	83-1	250	307	310	289	11.67	cps
Lead	206-1	5988562	6003828	5995251	5995880	0.13	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5181881	5164511	5176026	5174139	0.17	cps
Lead	208-1	23706976	23607169	23743665	23685937	0.30	cps
Lithium	6-1	7608847	7730021	7672241	7670370	0.79	cps
Magnesium	24-2	5074205	5111419	5014549	5066724	0.96	cps
Manganese	55-2	2048129	2059289	2042037	2049818	0.43	cps
Molybdenum	94-1	2458794	2478382	2456335	2464504	0.49	cps
Molybdenum	95-1	2715210	2739028	2733613	2729284	0.46	cps
Molybdenum	96-1	3094839	3080988	3046707	3074178	0.81	cps
Molybdenum	97-1	1705867	1694491	1669991	1690117	1.08	cps
Molybdenum	98-1	4298240	4370038	4421582	4363287	1.42	cps
Neodymium	150-1	41300	41073	41029	41134	0.35	cps
Neodymium	150-2	9010	9026	8723	8920	1.91	cps
Nickel	60-2	167166	167378	167058	167200	0.10	cps
Phosphorus	31-2	687	820	690	732	10.38	cps
Potassium	39-2	592416	591243	587215	590292	0.46	cps
Rhodium	103-1	13188932	13200715	13077724	13155790	0.52	cps
Rhodium	103-2	4571855	4669468	4643774	4628366	1.09	cps
Scandium	45-1	10331582	10617890	10455340	10468271	1.37	cps
Scandium	45-2	175265	177572	173331	175389	1.21	cps
Selenium	82-1	22485	22802	22335	22541	1.06	cps
Selenium	77-2	373	393	453	407	10.24	cps
Selenium	78-2	1220	1257	1247	1241	1.53	cps
Silicon	28-1	102332162	103411322	102265278	102669587	0.63	cps
Silver	107-1	302853	301452	301793	302033	0.24	cps
Silver	109-1	280847	281522	280380	280916	0.20	cps
Sodium	23-2	10314977	10280372	10247999	10281116	0.33	cps
Strontium	86-1	1013658	1016590	1025682	1018643	0.62	cps
Strontium	88-1	9268848	9066143	9259536	9198176	1.24	cps
Sulfur	34-1	5615950	5649997	5565198	5610382	0.76	cps
Terbium	159-1	18908718	19500289	19095083	19168030	1.58	cps
Terbium	159-2	5397487	5551541	5453200	5467409	1.43	cps
Thallium	203-1	1366917	1375673	1367718	1370102	0.35	cps
Thallium	205-1	3480708	3438649	3500376	3473244	0.91	cps
Tin	118-1	1028776	1024845	1032967	1028862	0.39	cps
Titanium	47-1	3060	3164	3187	3137	2.15	cps
Uranium	238-1	4714321	4696143	4778448	4729637	0.91	cps

Reviewed By:kareem
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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	Q1383-22ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-CF-15-021725ADL	Dilution Factor :	5
Date & Time Acquired :	2025-02-24 14:33:16	DataFile Name :	051AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	321044	321821	319664	320843	0.34	cps
Ytterbium	172-1	14204	14088	14371	14221	1.00	cps
Ytterbium	172-2	5064	5051	5184	5100	1.44	cps
Ytterbium	176-1	16591	16674	17141	16802	1.77	cps
Ytterbium	176-2	5418	5201	5388	5336	2.20	cps
Yttrium	89-1	26078470	26100543	26306460	26161824	0.48	cps
Yttrium	89-2	1685532	1720878	1685203	1697205	1.21	cps
Zinc	66-2	518914	516379	517527	517607	0.25	cps
Zirconium	90-1	2657296	2578274	2642003	2625858	1.60	cps
Zirconium	91-1	537844	544042	540708	540865	0.57	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	237	207	233	226	7.29	cps
Antimony	121-1	180	163	210	184	12.82	cps
Arsenic	75-2	7	10	20	12	56.76	cps
Barium	135-1	840	897	983	907	7.96	cps
Barium	137-1	1627	1487	1527	1547	4.66	cps
Beryllium	9-1	515	552	532	533	3.52	cps
Bismuth	209-1	11579029	11563471	11582077	11574859	0.09	cps
Bismuth	209-2	3987515	3952803	4031590	3990636	0.99	cps
Bromine	81-1	4614	4664	4774	4684	1.75	cps
Cadmium	108-1	50	40	27	39	30.10	cps
Cadmium	106-1	6975	6958	6808	6914	1.33	cps
Cadmium	111-1	4908	4883	4777	4856	1.43	cps
Calcium	43-1	1220	1153	1183	1186	2.82	cps
Calcium	44-1	26187	26474	26134	26265	0.70	cps
Carbon	12-1	6734360	7469606	7978427	7394131	8.46	cps
Carbon	12-2	54076	55692	55474	55080	1.59	cps
Chlorine	35-1	316625	308071	303599	309431	2.14	cps
Chlorine	35-2	1067	1067	1060	1064	0.36	cps
Chromium	52-2	2394	2307	2327	2342	1.94	cps
Cobalt	59-2	283	300	260	281	7.15	cps
Copper	63-2	2147	2134	2097	2126	1.22	cps
Dysprosium	156-1	260	200	180	213	19.52	cps
Dysprosium	156-2	17	7	3	9	78.08	cps
Erbium	164-1	80	137	93	103	28.67	cps
Erbium	164-2	20	30	20	23	24.74	cps
Gadolinium	160-1	133	73	103	103	29.04	cps
Gadolinium	160-2	7	20	23	17	52.90	cps
Holmium	165-1	18220644	18100696	18137629	18152990	0.34	cps
Holmium	165-2	5441662	5464419	5459487	5455189	0.22	cps
Indium	115-1	14343090	14250838	14523505	14372477	0.96	cps
Indium	115-2	1191793	1197875	1196697	1195455	0.27	cps
Iron	54-2	1740	1947	1817	1835	5.70	cps
Iron	56-2	31438	31411	31475	31441	0.10	cps
Iron	57-2	763	807	753	774	3.66	cps
Krypton	83-1	217	190	187	198	8.31	cps
Lead	206-1	2740	2784	2607	2710	3.40	cps

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Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2294	2274	2334	2300	1.33	cps
Lead	208-1	10712	10545	10495	10584	1.07	cps
Lithium	6-1	7515374	7598570	7389317	7501087	1.40	cps
Magnesium	24-2	1727	1683	1697	1702	1.30	cps
Manganese	55-2	2867	2967	2800	2878	2.92	cps
Molybdenum	94-1	710	783	700	731	6.22	cps
Molybdenum	95-1	713	563	590	622	12.86	cps
Molybdenum	96-1	830	717	853	800	9.14	cps
Molybdenum	97-1	390	393	343	376	7.44	cps
Molybdenum	98-1	1037	933	987	986	5.24	cps
Neodymium	150-1	37	37	37	37	0.00	cps
Neodymium	150-2	7	0	10	6	91.64	cps
Nickel	60-2	1217	1083	1337	1212	10.45	cps
Phosphorus	31-2	67	77	73	72	7.05	cps
Potassium	39-2	8519	8709	8419	8549	1.72	cps
Rhodium	103-1	13120007	13375027	13367624	13287552	1.09	cps
Rhodium	103-2	4601260	4699626	4676294	4659060	1.10	cps
Scandium	45-1	9930175	10107532	10055534	10031080	0.91	cps
Scandium	45-2	169614	171961	170275	170617	0.71	cps
Selenium	82-1	17	13	23	18	28.61	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	13	0	6	124.93	cps
Silicon	28-1	560356	567885	582435	570225	1.97	cps
Silver	107-1	373	423	407	401	6.35	cps
Silver	109-1	283	250	287	273	7.42	cps
Sodium	23-2	43157	43043	43123	43108	0.14	cps
Strontium	86-1	917	767	870	851	9.02	cps
Strontium	88-1	4414	4264	4324	4334	1.74	cps
Sulfur	34-1	1286927	1284617	1276679	1282741	0.42	cps
Terbium	159-1	18695063	18631164	18612016	18646081	0.23	cps
Terbium	159-2	5269437	5382888	5284674	5312333	1.16	cps
Thallium	203-1	323	403	447	391	16.00	cps
Thallium	205-1	1013	980	1050	1014	3.45	cps
Tin	118-1	5458	5618	5591	5556	1.54	cps
Titanium	47-1	347	303	327	326	6.66	cps
Uranium	238-1	150	197	160	169	14.55	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	PB166779TB	Instrumnet Name :	P8
Client Sample ID :	PB166779TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:43:05	DataFile Name :	053CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13	20	30	21	39.75	cps
Ytterbium	172-1	117	120	87	108	17.03	cps
Ytterbium	172-2	33	27	23	28	18.33	cps
Ytterbium	176-1	1753	1920	1813	1829	4.62	cps
Ytterbium	176-2	243	200	233	226	10.06	cps
Yttrium	89-1	24592565	24696510	24695112	24661396	0.24	cps
Yttrium	89-2	1570054	1567044	1603893	1580330	1.29	cps
Zinc	66-2	747	740	693	727	4.00	cps
Zirconium	90-1	1130	1180	1070	1127	4.89	cps
Zirconium	91-1	170	217	197	194	12.04	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2998874	3011786	2987266	2999309	0.41	cps
Antimony	121-1	6769252	6851315	6777071	6799212	0.67	cps
Arsenic	75-2	119141	120375	121404	120307	0.94	cps
Barium	135-1	8569929	8570808	8562042	8567593	0.06	cps
Barium	137-1	14716899	14827880	14869320	14804700	0.53	cps
Beryllium	9-1	2420569	2380004	2384529	2395034	0.93	cps
Bismuth	209-1	9860354	9855194	9862582	9859376	0.04	cps
Bismuth	209-2	3375339	3380286	3391995	3382540	0.25	cps
Bromine	81-1	4584	4908	4858	4783	3.64	cps
Cadmium	108-1	126006	125972	127227	126402	0.57	cps
Cadmium	106-1	184834	182723	183736	183764	0.57	cps
Cadmium	111-1	1687513	1662176	1653205	1667631	1.07	cps
Calcium	43-1	11831256	11904590	11795427	11843758	0.47	cps
Calcium	44-1	190446704	190602077	190691524	190580102	0.07	cps
Carbon	12-1	5107494	5261069	5208052	5192205	1.50	cps
Carbon	12-2	37885	38681	37962	38176	1.15	cps
Chlorine	35-1	183693	184854	184696	184414	0.34	cps
Chlorine	35-2	697	810	753	753	7.52	cps
Chromium	52-2	1524825	1421269	1402264	1449453	4.55	cps
Cobalt	59-2	2592326	2559438	2566144	2572636	0.68	cps
Copper	63-2	18839133	18919635	18963421	18907396	0.33	cps
Dysprosium	156-1	583	527	583	564	5.80	cps
Dysprosium	156-2	87	90	87	88	2.19	cps
Erbium	164-1	330	460	370	387	17.22	cps
Erbium	164-2	113	120	90	108	14.62	cps
Gadolinium	160-1	297	257	367	307	18.16	cps
Gadolinium	160-2	127	103	97	109	14.47	cps
Holmium	165-1	17028373	16658315	16859074	16848587	1.10	cps
Holmium	165-2	5112091	5111039	5143438	5122189	0.36	cps
Indium	115-1	12584979	12382228	12633685	12533630	1.06	cps
Indium	115-2	1056034	1055907	1064079	1058673	0.44	cps
Iron	54-2	13912271	13895108	13950289	13919223	0.20	cps
Iron	56-2	253599710	256228676	256775830	255534738	0.66	cps
Iron	57-2	6399163	6382862	6412311	6398112	0.23	cps
Krypton	83-1	317	243	200	253	23.28	cps
Lead	206-1	27565299	27252875	27309848	27376007	0.61	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	23699289	23779915	23790109	23756438	0.21	cps
Lead	208-1	109076348	109222128	109679669	109326048	0.29	cps
Lithium	6-1	6789529	6796373	6618034	6734645	1.50	cps
Magnesium	24-2	51528476	50878256	51144536	51183756	0.64	cps
Manganese	55-2	5765093	5808414	5818604	5797370	0.49	cps
Molybdenum	94-1	24087117	24437461	23995273	24173284	0.97	cps
Molybdenum	95-1	35029548	35588696	34885819	35168021	1.06	cps
Molybdenum	96-1	38278489	38371544	37991515	38213849	0.52	cps
Molybdenum	97-1	21780636	21601361	21586459	21656152	0.50	cps
Molybdenum	98-1	56783711	56756349	56538789	56692950	0.24	cps
Neodymium	150-1	737	753	727	739	1.82	cps
Neodymium	150-2	60	57	53	57	5.89	cps
Nickel	60-2	680667	684885	680943	682165	0.35	cps
Phosphorus	31-2	26324	27219	27372	26972	2.10	cps
Potassium	39-2	14157154	14136938	14362436	14218842	0.88	cps
Rhodium	103-1	11211873	11037283	11191748	11146968	0.86	cps
Rhodium	103-2	4034029	3978825	4025488	4012781	0.74	cps
Scandium	45-1	9251639	9126492	9191192	9189774	0.68	cps
Scandium	45-2	161351	159400	161657	160802	0.76	cps
Selenium	82-1	97957	99404	99619	98993	0.91	cps
Selenium	77-2	1507	1567	1557	1543	2.08	cps
Selenium	78-2	4931	5208	5181	5107	2.99	cps
Silicon	28-1	8498344	8481137	8494917	8491466	0.11	cps
Silver	107-1	8190153	8295708	8191250	8225704	0.74	cps
Silver	109-1	7809767	7746837	7747201	7767935	0.47	cps
Sodium	23-2	102864662	101788035	101799352	102150683	0.61	cps
Strontium	86-1	2348330	2322192	2338631	2336384	0.57	cps
Strontium	88-1	20208963	19985298	20047576	20080612	0.57	cps
Sulfur	34-1	1223177	1210644	1201038	1211620	0.92	cps
Terbium	159-1	17527894	17213023	17165516	17302145	1.14	cps
Terbium	159-2	4957879	4930360	4907750	4931996	0.51	cps
Thallium	203-1	6877861	6813594	6837987	6843147	0.47	cps
Thallium	205-1	16169872	15988056	16060074	16072667	0.57	cps
Tin	118-1	5517207	5586225	5535327	5546253	0.65	cps
Titanium	47-1	10832940	10811121	10808371	10817477	0.12	cps
Uranium	238-1	22851338	22984664	23052494	22962832	0.45	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P8
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:51:25	DataFile Name :	054CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1059341	1050224	1060034	1056533	0.52	cps
Ytterbium	172-1	413	347	447	402	12.66	cps
Ytterbium	172-2	170	163	160	164	3.10	cps
Ytterbium	176-1	32894	33222	33389	33168	0.76	cps
Ytterbium	176-2	9777	10344	9850	9991	3.09	cps
Yttrium	89-1	22967140	22742720	22775154	22828338	0.53	cps
Yttrium	89-2	1494835	1483396	1485908	1488046	0.40	cps
Zinc	66-2	2122238	2097235	2121563	2113678	0.67	cps
Zirconium	90-1	12486751	12529655	12365917	12460774	0.68	cps
Zirconium	91-1	2777505	2806152	2775792	2786483	0.61	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	43	67	97	69	38.81	cps
Antimony	121-1	630	643	640	638	1.09	cps
Arsenic	75-2	17	3	13	11	62.48	cps
Barium	135-1	910	737	837	828	10.51	cps
Barium	137-1	1293	1470	1487	1417	7.56	cps
Beryllium	9-1	645	672	616	645	4.36	cps
Bismuth	209-1	11276732	11335483	11409362	11340526	0.59	cps
Bismuth	209-2	3880738	3955997	3883557	3906764	1.09	cps
Bromine	81-1	4201	4661	4344	4402	5.35	cps
Cadmium	108-1	30	40	43	38	18.36	cps
Cadmium	106-1	6278	6462	6311	6350	1.54	cps
Cadmium	111-1	4420	4542	4444	4469	1.44	cps
Calcium	43-1	500	500	497	499	0.39	cps
Calcium	44-1	15625	14517	15308	15150	3.77	cps
Carbon	12-1	4251157	4158635	4134980	4181591	1.47	cps
Carbon	12-2	26300	26187	26524	26337	0.65	cps
Chlorine	35-1	141490	141056	139794	140780	0.63	cps
Chlorine	35-2	510	520	520	517	1.12	cps
Chromium	52-2	1790	1780	1700	1757	2.81	cps
Cobalt	59-2	283	303	253	280	8.99	cps
Copper	63-2	1810	1757	1867	1811	3.04	cps
Dysprosium	156-1	170	120	187	159	21.84	cps
Dysprosium	156-2	7	3	3	4	43.40	cps
Erbium	164-1	70	103	80	84	20.25	cps
Erbium	164-2	40	27	13	27	50.01	cps
Gadolinium	160-1	53	70	70	64	14.93	cps
Gadolinium	160-2	27	7	17	17	59.99	cps
Holmium	165-1	17808785	17635721	17622093	17688866	0.59	cps
Holmium	165-2	5307189	5358725	5370085	5345333	0.63	cps
Indium	115-1	14059134	13811915	13880304	13917118	0.92	cps
Indium	115-2	1176209	1171070	1176199	1174493	0.25	cps
Iron	54-2	703	863	707	758	12.07	cps
Iron	56-2	12212	12045	11942	12066	1.13	cps
Iron	57-2	277	283	293	284	2.95	cps
Krypton	83-1	213	243	263	240	10.49	cps
Lead	206-1	2057	2004	1950	2004	2.66	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1757	1643	1787	1729	4.37	cps
Lead	208-1	8068	8031	7974	8024	0.59	cps
Lithium	6-1	7437676	7218083	7287100	7314287	1.54	cps
Magnesium	24-2	1593	1603	1590	1596	0.43	cps
Manganese	55-2	613	637	690	647	6.08	cps
Molybdenum	94-1	833	890	787	837	6.19	cps
Molybdenum	95-1	907	760	793	820	9.38	cps
Molybdenum	96-1	980	1010	963	984	2.40	cps
Molybdenum	97-1	610	480	473	521	14.79	cps
Molybdenum	98-1	1400	1313	1463	1392	5.41	cps
Neodymium	150-1	50	47	27	41	30.69	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	870	793	800	821	5.17	cps
Phosphorus	31-2	90	87	73	83	10.59	cps
Potassium	39-2	7756	7916	7675	7782	1.57	cps
Rhodium	103-1	12746809	12809408	12930332	12828850	0.73	cps
Rhodium	103-2	4554090	4586382	4550694	4563722	0.43	cps
Scandium	45-1	9631573	9727556	9778741	9712623	0.77	cps
Scandium	45-2	165676	166835	164759	165756	0.63	cps
Selenium	82-1	43	-47	-63	-22	-258.17	cps
Selenium	77-2	0	7	0	2	173.21	cps
Selenium	78-2	7	3	0	3	100.05	cps
Silicon	28-1	493054	490874	493269	492399	0.27	cps
Silver	107-1	340	390	350	360	7.35	cps
Silver	109-1	257	287	190	244	20.24	cps
Sodium	23-2	30358	30068	30452	30293	0.66	cps
Strontium	86-1	597	490	543	543	9.82	cps
Strontium	88-1	1373	1420	1447	1413	2.63	cps
Sulfur	34-1	557116	555726	555717	556187	0.14	cps
Terbium	159-1	18164344	18152267	18007697	18108103	0.48	cps
Terbium	159-2	5270185	5238779	5228159	5245708	0.42	cps
Thallium	203-1	543	437	530	503	11.55	cps
Thallium	205-1	1163	1090	1097	1117	3.63	cps
Tin	118-1	1460	1370	1330	1387	4.80	cps
Titanium	47-1	287	183	217	229	23.04	cps
Uranium	238-1	150	163	183	166	10.14	cps

Reviewed By:kareem
On:3/3/2025 8:20:34 PM
Inst Id :P8
LB :LB134802

LB Number :	LB134802	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P8
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-02-24 14:57:39	DataFile Name :	055CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	10	7	17	11	45.82	cps
Ytterbium	172-1	97	97	93	96	2.02	cps
Ytterbium	172-2	27	23	30	27	12.51	cps
Ytterbium	176-1	1747	1853	1750	1783	3.40	cps
Ytterbium	176-2	210	230	283	241	15.72	cps
Yttrium	89-1	24040685	23808470	23983680	23944279	0.51	cps
Yttrium	89-2	1529809	1553711	1537486	1540335	0.79	cps
Zinc	66-2	293	317	310	307	3.92	cps
Zirconium	90-1	873	890	927	897	3.04	cps
Zirconium	91-1	257	233	223	238	7.19	cps

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166842

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

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

Start Digest Date: 02/24/2025 **Time :** 07:20 **Temp :** 93 °C

End Digest Date: 02/24/2025 **Time :** 09:20 **Temp :** 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MS

Supervisor Signature: 12

Temp : 1. 93°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP84609
CCV	30mL	MP84611
CRA	30mL	MP84613
Blank Spike	0.48mL	MP84602
Matrix Spike	0.48mL	MP84602

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP84563
KMnO4 (5%)	4.5mL	MP84564
K2S2O8 (5%)	2.5mL	MP84565
Hydroxylamine HCL (12%)	2.0mL	MP84566
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP84603
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP84604
2.5 ppb	S2.5	30mL	MP84605
5.0 ppb	S5.0	30mL	MP84606
7.5 ppb	S7.5	30mL	MP84607
10.0 ppb	S10.0	30mL	MP84608
ICV	ICV	30mL	MP84609
ICB	ICB	30mL	MP84610
CCV	CCV	30mL	MP84611
CCB	CCB	30mL	MP84612
CRI	CRI	30mL	MP84613
CHK STD	CHK STD	30mL	MP84614

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
2/24/25 @ 9:50	MG- Hg Lab	MG- metal Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166842

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB166842BL	PBW842	30	30	<2	N/A	3-17
PB166842BS	LCS842	30	30	<2	MP84602	18
PB166842TB	LEB842	30	30	<2	N/A	19
Q1383-02	OU4-PCS-TC-11-021725	30	30	<2	N/A	20
Q1383-04	OU4-PCS-TC-12-021725	30	30	<2	N/A	21
Q1383-06	OU4-PCS-TC-13-021725	30	30	<2	N/A	22
Q1383-08	OU4-PCS-TC-14-021725	30	30	<2	N/A	23
Q1383-10	OU4-PCS-TC-15-021725	30	30	<2	N/A	24
Q1383-12	OU4-PCS-TC-16-021725	30	30	<2	N/A	25
Q1383-14	OU4-PCS-TC-17-021725	30	30	<2	N/A	26
Q1383-16	OU4-PCS-TC-18-021725	30	30	<2	N/A	27
Q1383-18	OU4-PCS-TC-19-021725	30	30	<2	N/A	28
Q1383-20	OU4-PCS-TC-20-021725	30	30	<2	N/A	29
Q1383-22	OU4-CF-15-021725	30	30	<2	N/A	30
Q1383-22DUP	OU4-CF-15-021725DUP	30	30	<2	N/A	31
Q1383-22MS	OU4-CF-15-021725MS	30	30	<2	MP84602	32
Q1383-22MSD	OU4-CF-15-021725MSD	30	30	<2	MP84602	33

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166762

SOP ID : M1312-SPLP-10

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2 /ZHE-1

TCLP Filter ID : 115525

Start Prep Date : 02/18/2025 **Time :** 15:00

End Prep Date : 02/19/2025 **Time :** 09:20

Combination Ratio : 20

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

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HCL-TCLP,1N	N/A	WP110804
pH Strips	W3172.	W1931,W1934,W3171,
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
N/A	N/A	N/A
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. Tumbler T-2 / ZHE-1 checked,30 rpm. Particle size reduction is not required. Q1383-22 IS USED FOR MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/19/25 11:30	JP TCLP room	SLD. MK 2/19
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166779

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

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

Start Digest Date: 02/19/2025 **Time :** 12:35 **Temp :** 96 °C

End Digest Date: 02/19/2025 **Time :** 14:40 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLD.

Supervisor Signature: JP

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
Spike Sol 1	0.50	MP84472
Spike Sol 2	1.00	MP84468
Spike Sol 3	1.00	MP84469
Spike Sol 4	1.00	MP84470
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6126
1:1 HCL	5.00	MP84297
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 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/19/25 15:40	SLD. met.dig.	JP Met Dig
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB166779BL	PBW779	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	25
PB166779BS	LCS779	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	26
PB166779TB	LEB779	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	41
Q1383-02	OU4-PCS-TC-11-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	27
Q1383-04	OU4-PCS-TC-12-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	28
Q1383-06	OU4-PCS-TC-13-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	29
Q1383-08	OU4-PCS-TC-14-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	30
Q1383-10	OU4-PCS-TC-15-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	31
Q1383-12	OU4-PCS-TC-16-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	32
Q1383-14	OU4-PCS-TC-17-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	33
Q1383-16	OU4-PCS-TC-18-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	34
Q1383-18	OU4-PCS-TC-19-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	35
Q1383-20	OU4-PCS-TC-20-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	36
Q1383-22	OU4-CF-15-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	37
Q1383-22MS	OU4-CF-15-021725MS	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	39
Q1383-22MSD	OU4-CF-15-021725MSD	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	40
Q1383-22DUP	OU4-CF-15-021725DUP	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	38

SPLP EXTRACTION LOGPAGE

PB16676

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	
PB166762TB	LEB762	12	N/A	2000	N/A	N/A	N/A	4.24	1.5	Z
Q1383-02	OU4-PCS-TC-11-021725	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	
Q1383-04	OU4-PCS-TC-12-021725	02	100.03	2000	N/A	N/A	N/A	5.6	1.5	
Q1383-06	OU4-PCS-TC-13-021725	03	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-
Q1383-08	OU4-PCS-TC-14-021725	04	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2
Q1383-10	OU4-PCS-TC-15-021725	05	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q1383-12	OU4-PCS-TC-16-021725	06	100.04	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1383-14	OU4-PCS-TC-17-021725	07	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q1383-16	OU4-PCS-TC-18-021725	08	100.01	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1383-18	OU4-PCS-TC-19-021725	09	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1383-20	OU4-PCS-TC-20-021725	10	100.03	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q1383-22	OU4-CF-15-021725	11	100.04	2000	N/A	N/A	N/A	5.6	1.0	ZHE-1

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 # LB134788

Review By	Mohan	Review On	3/4/2025 8:35:13 AM
Supervise By	jaswal	Supervise On	3/4/2025 8:56:01 AM

STD. NAME	STD REF.#
ICAL Standard	MP84603,MP84604,MP84605,MP84606,MP84607,MP84608
ICV Standard	MP84609
CCV Standard	MP84611
ICSA Standard	
CRI Standard	MP84613
LCS Standard	
Chk Standard	MP84610,MP84612,MP84614,MP84616

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	02/24/25 10:16		Mohan	OK
2	S0.2	S0.2	CAL2	02/24/25 10:19		Mohan	OK
3	S2.5	S2.5	CAL3	02/24/25 10:21		Mohan	OK
4	S5	S5	CAL4	02/24/25 10:23		Mohan	OK
5	S7.5	S7.5	CAL5	02/24/25 10:26		Mohan	OK
6	S10	S10	CAL6	02/24/25 10:31		Mohan	OK
7	ICV14	ICV14	ICV	02/24/25 10:34		Mohan	OK
8	ICB14	ICB14	ICB	02/24/25 10:36		Mohan	OK
9	CCV07	CCV07	CCV	02/24/25 10:38		Mohan	OK
10	CCB07	CCB07	CCB	02/24/25 10:40		Mohan	OK
11	CRA	CRA	CRDL	02/24/25 10:43		Mohan	OK
12	HighStd	HighStd	HIGH STD	02/24/25 10:45		Mohan	OK
13	ChkStd	ChkStd	SAM	02/24/25 10:47		Mohan	OK
14	PB166841BL	PB166841BL	MB	02/24/25 10:49		Mohan	OK
15	PB166841BS	PB166841BS	LCS	02/24/25 10:52		Mohan	OK
16	Q1382-04	OU4-PCS-TC-02-021	SAM	02/24/25 10:56		Mohan	OK
17	Q1382-06	OU4-PCS-TC-03-021	SAM	02/24/25 10:59		Mohan	OK
18	Q1382-08	OU4-PCS-TC-04-021	SAM	02/24/25 11:01		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134788

Review By	Mohan	Review On	3/4/2025 8:35:13 AM
Supervise By	jaswal	Supervise On	3/4/2025 8:56:01 AM

STD. NAME	STD REF.#
ICAL Standard	MP84603,MP84604,MP84605,MP84606,MP84607,MP84608
ICV Standard	MP84609
CCV Standard	MP84611
ICSA Standard	
CRI Standard	MP84613
LCS Standard	
Chk Standard	MP84610,MP84612,MP84614,MP84616

19	Q1382-10	OU4-PCS-TC-05-021	SAM	02/24/25 11:03		Mohan	OK
20	Q1382-02	OU4-PCS-TC-01-021	SAM	02/24/25 11:06		Mohan	OK
21	CCV08	CCV08	CCV	02/24/25 11:09		Mohan	OK
22	CCB08	CCB08	CCB	02/24/25 11:11		Mohan	OK
23	Q1382-12	OU4-PCS-TC-06-021	SAM	02/24/25 11:13		Mohan	OK
24	Q1382-14	OU4-PCS-TC-07-021	SAM	02/24/25 11:15		Mohan	OK
25	Q1382-16	OU4-PCS-TC-08-021	SAM	02/24/25 11:18		Mohan	OK
26	Q1382-18	OU4-PCS-TC-09-021	SAM	02/24/25 11:20		Mohan	OK
27	Q1382-20	OU4-PCS-TC-10-021	SAM	02/24/25 11:22		Mohan	OK
28	Q1382-20DUP	OU4-PCS-TC-10-021	DUP	02/24/25 11:24		Mohan	OK
29	Q1382-20MS	OU4-PCS-TC-10-021	MS	02/24/25 11:27		Mohan	OK
30	Q1382-20MSD	OU4-PCS-TC-10-021	MSD	02/24/25 11:29		Mohan	OK
31	PB166842BL	PB166842BL	MB	02/24/25 11:31		Mohan	OK
32	PB166842BS	PB166842BS	LCS	02/24/25 11:34		Mohan	OK
33	CCV09	CCV09	CCV	02/24/25 11:36		Mohan	OK
34	CCB09	CCB09	CCB	02/24/25 11:38		Mohan	OK
35	Q1383-02	OU4-PCS-TC-11-021	SAM	02/24/25 11:40		Mohan	OK
36	Q1383-04	OU4-PCS-TC-12-021	SAM	02/24/25 11:43		Mohan	OK
37	Q1383-06	OU4-PCS-TC-13-021	SAM	02/24/25 11:45		Mohan	OK
38	Q1383-08	OU4-PCS-TC-14-021	SAM	02/24/25 11:47		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134788

Review By	Mohan	Review On	3/4/2025 8:35:13 AM
Supervise By	jaswal	Supervise On	3/4/2025 8:56:01 AM

STD. NAME	STD REF.#
ICAL Standard	MP84603,MP84604,MP84605,MP84606,MP84607,MP84608
ICV Standard	MP84609
CCV Standard	MP84611
ICSA Standard	
CRI Standard	MP84613
LCS Standard	
Chk Standard	MP84610,MP84612,MP84614,MP84616

39	Q1383-10	OU4-PCS-TC-15-021	SAM	02/24/25 11:49		Mohan	OK
40	Q1383-12	OU4-PCS-TC-16-021	SAM	02/24/25 11:52		Mohan	OK
41	Q1383-14	OU4-PCS-TC-17-021	SAM	02/24/25 11:54		Mohan	OK
42	Q1383-16	OU4-PCS-TC-18-021	SAM	02/24/25 11:56		Mohan	OK
43	Q1383-18	OU4-PCS-TC-19-021	SAM	02/24/25 11:59		Mohan	OK
44	Q1383-20	OU4-PCS-TC-20-021	SAM	02/24/25 12:01		Mohan	OK
45	CCV10	CCV10	CCV	02/24/25 12:03		Mohan	OK
46	CCB10	CCB10	CCB	02/24/25 12:05		Mohan	OK
47	Q1383-22	OU4-CF-15-021725	SAM	02/24/25 12:08		Mohan	OK
48	Q1383-22DUP	OU4-CF-15-021725D	DUP	02/24/25 12:10		Mohan	OK
49	Q1383-22MS	OU4-CF-15-021725M	MS	02/24/25 12:12		Mohan	OK
50	Q1383-22MSD	OU4-CF-15-021725M	MSD	02/24/25 12:14		Mohan	OK
51	PB166841TB	PB166841TB	MB	02/24/25 12:17		Mohan	OK
52	PB166842TB	PB166842TB	MB	02/24/25 12:19		Mohan	OK
53	Q1382-20L	OU4-PCS-TC-10-021	SD	02/24/25 12:21		Mohan	OK
54	Q1382-20A	OU4-PCS-TC-10-021	PS	02/24/25 12:24		Mohan	OK
55	Q1383-22L	OU4-CF-15-021725L	SD	02/24/25 12:26		Mohan	OK
56	Q1383-22A	OU4-CF-15-021725A	PS	02/24/25 12:35		Mohan	OK
57	CCV11	CCV11	CCV	02/24/25 12:37		Mohan	OK
58	CCB11	CCB11	CCB	02/24/25 12:40		Mohan	OK

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Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134802

Review By	JANVI	Review On	2/27/2025 11:49:25 AM
Supervise By	kareem	Supervise On	3/3/2025 8:20:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP84414,MP84423,MP84422,MP84420,MP84419,MP84418,MP84417,MP84416,MP84415
ICV Standard	MP84439
CCV Standard	MP84438
ICSA Standard	MP84440,MP84441
CRI Standard	MP84422
LCS Standard	
Chk Standard	MP84443,MP84444

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE	TUNE	02/24/25 10:33		Jaswal	OK
2	S0	S0	CAL1	02/24/25 11:05		Jaswal	OK
3	S2	S2	CAL3	02/24/25 11:12		Jaswal	OK
4	S3	S3	CAL4	02/24/25 11:15		Jaswal	OK
5	S4	S4	CAL5	02/24/25 11:18		Jaswal	OK
6	S5	S5	CAL6	02/24/25 11:21		Jaswal	OK
7	S6	S6	CAL7	02/24/25 11:24		Jaswal	OK
8	S7	S7	CAL8	02/24/25 11:27		Jaswal	OK
9	S8	S8	CAL9	02/24/25 11:30		Jaswal	OK
10	ICV01	ICV01	ICV	02/24/25 12:02		Jaswal	OK
11	LLICV	LLICV	LLICV	02/24/25 12:31		Jaswal	OK
12	ICB01	ICB01	ICB	02/24/25 12:35		Jaswal	OK
13	ICSA01	ICSA01	ICSA	02/24/25 12:40		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	02/24/25 12:44		Jaswal	OK
15	CCV01	CCV01	CCV	02/24/25 12:51		Jaswal	OK
16	CCB01	CCB01	CCB	02/24/25 12:55		Jaswal	OK
17	CRI	CRI	CRDL	02/24/25 12:59		Jaswal	OK
18	PB166779BL	PB166779BL	MB	02/24/25 13:04		Jaswal	OK

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Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134802

Review By	JANVI	Review On	2/27/2025 11:49:25 AM
Supervise By	kareem	Supervise On	3/3/2025 8:20:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP84414,MP84423,MP84422,MP84420,MP84419,MP84418,MP84417,MP84416,MP84415
ICV Standard	MP84439
CCV Standard	MP84438
ICSA Standard	MP84440,MP84441
CRI Standard	MP84422
LCS Standard	
Chk Standard	MP84443,MP84444

19	PB166779BS	PB166779BS	LCS	02/24/25 13:08		Jaswal	OK
20	Q1383-02DL	OU4-PCS-TC-11-0217	SAM	02/24/25 13:15	Straight 5X	Jaswal	OK
21	Q1383-04DL	OU4-PCS-TC-12-0217	SAM	02/24/25 13:18	Straight 5X	Jaswal	OK
22	Q1383-06DL	OU4-PCS-TC-13-0217	SAM	02/24/25 13:21	Straight 5X	Jaswal	OK
23	Q1383-08DL	OU4-PCS-TC-14-0217	SAM	02/24/25 13:24	Straight 5X	Jaswal	OK
24	Q1383-10DL	OU4-PCS-TC-15-0217	SAM	02/24/25 13:28	Straight 5X	Jaswal	OK
25	Q1383-12DL	OU4-PCS-TC-16-0217	SAM	02/24/25 13:31	Straight 5X	Jaswal	OK
26	CCV02	CCV02	CCV	02/24/25 13:34		Jaswal	OK
27	CCB02	CCB02	CCB	02/24/25 13:41		Jaswal	OK
28	Q1383-16DL	OU4-PCS-TC-18-0217	SAM	02/24/25 13:55	Straight 5X	Jaswal	OK
29	Q1383-18DL	OU4-PCS-TC-19-0217	SAM	02/24/25 13:58	Straight 5X	Jaswal	OK
30	Q1383-20DL	OU4-PCS-TC-20-0217	SAM	02/24/25 14:01	Straight 5X	Jaswal	OK
31	Q1383-14DL	OU4-PCS-TC-17-0217	SAM	02/24/25 14:05	Straight 5X	Jaswal	OK
32	Q1383-22DL	OU4-CF-15-021725DL	SAM	02/24/25 14:08	Straight 5X	Jaswal	OK
33	Q1383-22DUPDL	OU4-CF-15-021725DL	DUP	02/24/25 14:11	Straight 5X	Jaswal	OK
34	Q1383-22LDL	OU4-CF-15-021725LL	SD	02/24/25 14:14	Straight 25X	Jaswal	OK
35	Q1383-22MSDL	OU4-CF-15-021725M	MS	02/24/25 14:18	Straight 5X	Jaswal	OK
36	CCV03	CCV03	CCV	02/24/25 14:21		Jaswal	OK
37	CCB03	CCB03	CCB	02/24/25 14:26		Jaswal	OK
38	Q1383-22MSDDL	OU4-CF-15-021725M	MSD	02/24/25 14:30	Straight 5X	Jaswal	OK

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Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134802

Review By	JANVI	Review On	2/27/2025 11:49:25 AM
Supervise By	kareem	Supervise On	3/3/2025 8:20:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP84414,MP84423,MP84422,MP84420,MP84419,MP84418,MP84417,MP84416,MP84415
ICV Standard	MP84439
CCV Standard	MP84438
ICSA Standard	MP84440,MP84441
CRI Standard	MP84422
LCS Standard	
Chk Standard	MP84443,MP84444

39	Q1383-22ADL	OU4-CF-15-021725AI	PS	02/24/25 14:33	Straight 5X	Jaswal	OK
40	PB166779TB	PB166779TB	MB	02/24/25 14:43		Jaswal	OK
41	CCV04	CCV04	CCV	02/24/25 14:51		Jaswal	OK
42	CCB04	CCB04	CCB	02/24/25 14:57		Jaswal	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166762

SOP ID : M1312-SPLP-10

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2 /ZHE-1

TCLP Filter ID : 115525

Start Prep Date : 02/18/2025 **Time :** 15:00

End Prep Date : 02/19/2025 **Time :** 09:20

Combination Ratio : 20

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

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HCL-TCLP,1N	N/A	WP110804
pH Strips	W3172.	W1931,W1934,W3171,
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
N/A	N/A	N/A
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. Tumbler T-2 / ZHE-1 checked,30 rpm. Particle size reduction is not required. Q1383-22 IS USED FOR MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/19/25 11:30	JP TCLP room	SLD. MS MSD
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166762

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB166762TB	LEB762	12	N/A	2000	N/A	N/A	N/A	4.24	1.5	ZHE-1
Q1383-02	OU4-PCS-TC-11-021725	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-2
Q1383-04	OU4-PCS-TC-12-021725	02	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2
Q1383-06	OU4-PCS-TC-13-021725	03	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1383-08	OU4-PCS-TC-14-021725	04	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2
Q1383-10	OU4-PCS-TC-15-021725	05	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q1383-12	OU4-PCS-TC-16-021725	06	100.04	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1383-14	OU4-PCS-TC-17-021725	07	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-2
Q1383-16	OU4-PCS-TC-18-021725	08	100.01	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1383-18	OU4-PCS-TC-19-021725	09	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1383-20	OU4-PCS-TC-20-021725	10	100.03	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q1383-22	OU4-CF-15-021725	11	100.04	2000	N/A	N/A	N/A	5.6	1.0	ZHE-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB166762TB	LEB762	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-02	OU4-PCS-TC-11-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-04	OU4-PCS-TC-12-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-06	OU4-PCS-TC-13-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-08	OU4-PCS-TC-14-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-10	OU4-PCS-TC-15-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-12	OU4-PCS-TC-16-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-14	OU4-PCS-TC-17-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-16	OU4-PCS-TC-18-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-18	OU4-PCS-TC-19-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-20	OU4-PCS-TC-20-021725	N/A	N/A	N/A	N/A	100	N/A
Q1383-22	OU4-CF-15-021725	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB166762

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB166762TB	LEB762	N/A	N/A	N/A	N/A	#1	4.24
Q1383-02	OU4-PCS-TC-11-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-04	OU4-PCS-TC-12-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-06	OU4-PCS-TC-13-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-08	OU4-PCS-TC-14-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-10	OU4-PCS-TC-15-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-12	OU4-PCS-TC-16-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-14	OU4-PCS-TC-17-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-16	OU4-PCS-TC-18-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-18	OU4-PCS-TC-19-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-20	OU4-PCS-TC-20-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1383-22	OU4-CF-15-021725	N/A	N/A	N/A	N/A	#1	4.24

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Prep Standard - Chemical Standard Summary

Order ID : Q1383

Test : SPLP Mercury,SPLP MetalGroup3

Prepbatch ID : PB166779,PB166842,

Sequence ID/Qc Batch ID: LB134788,LB134802,

Standard ID :
MP84297,MP84414,MP84415,MP84416,MP84417,MP84418,MP84419,MP84420,MP84421,MP84422,MP84423,MP84438,MP84439,MP84440,MP84441,MP84442,MP84443,MP84444,MP84468,MP84469,MP84470,MP84472,MP84602,MP84603,MP84604,MP84605,MP84606,MP84607,MP84608,MP84609,MP84610,MP84611,MP84612,MP84613,MP84614,MP84616,

Chemical ID :
M4884,M4888,M5062,M5192,M5288,M5304,M5472,M5476,M5496,M5498,M5513,M5519,M5532,M5658,M5739,M5751,M5798,M5799,M5800,M5801,M5811,M5815,M5817,M5873,M5874,M5882,M5960,M5962,M5977,M5978,M5981,M6021,M6023,M6025,M6028,M6030,M6032,M6055,M6079,M6121,M6126,M6127,M6128,M6144,M6145,M6146,M6150,M6151,W3112,

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP84297	01/31/2025	02/28/2025	Eman Mughal	None	None	Sarabjit Jaswal 01/31/2025

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
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP84414	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 10.00000ml of M6126 + 175.00000ml of W3112 + 5.00000ml of M6121 = 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
2902	S8 ICPMS	MP84415	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 1.00000ml of M5496 + 2.50000ml of M5288 + 2.50000ml of M5811 + 5.00000ml of M5498 + 5.00000ml of M6127 + 5.00000ml of M6144 + 79.00000ml of MP84414 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3947	S7(SFAM,6020,200.8)	MP84416	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.00000ml of M4884 + 0.00000ml of M4888 + 0.00000ml of M5192 + 0.00000ml of M5288 + 0.00000ml of M5513 + 1.00000ml of M5476 + 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M6079 + 1.90000ml of M5496 + 10.00000ml of M5977 + 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 M5519 + 4.90000ml of M5811 + 5.00000ml of M6121 + 50.00000ml of M5304 + 830.60000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M5498 + 9.90000ml of M6127 + 9.90000ml of M6144 = Final Quantity: 1000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3948	S6(SFAM,6020,200.8)	MP84417	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 48.50000ml of W3112 + 50.00000ml of MP84416 = 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)	MP84418	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 73.50000ml of W3112 + 25.00000ml of MP84416 = 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)	MP84419	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 86.00000ml of W3112 + 12.50000ml of MP84416 = 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)	MP84420	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84417 = 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)	MP84421	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.05000ml of M5476 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5960 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5496 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M6146 + 0.25000ml of M5799 + 0.25000ml of M5811 + 0.25000ml of M5962 + 0.25000ml of M5977 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.50000ml of M6032 + 2.00000ml of M5815 + 2.00000ml of M5817 + 2.50000ml of M5498 + 2.50000ml of M5519 + 2.50000ml of M6121 + 2.50000ml of M6127 + 2.50000ml of M6144 + 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)	MP84422	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 98.00000ml of W3112 + 0.50000ml of MP84421 = 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)	MP84423	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84422 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3961	CCV	MP84438	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.00000ml of M4884 + 0.00000ml of M5978 + 0.20000ml of M5513 + 0.50000ml of M5476 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M6079 + 1.00000ml of M5815 + 1.00000ml of M5817 + 10.00000ml of M6126 + 12.45000ml of M5519 + 12.45000ml of M5811 + 2.00000ml of M6032 + 24.95000ml of M5498 + 24.95000ml of M6127 + 24.95000ml of M6144 + 25.00000ml of M5304 + 4.50000ml of M5751 + 4.50000ml of M6128 + 4.50000ml of M6145 + 4.95000ml of M5496 + 5.00000ml of M5977 + 5.00000ml of M6121 + 830.60000ml of W3112 = Final Quantity: 1000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3958	ICV(SFAM)	MP84439	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 2.00000ml of M6150 + 98.00000ml of MP84414 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1142	ICSA ICPMS	MP84440	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP84414 = 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	MP84441	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP84414 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3962	MG 10PPM FOR TUNE	MP84442	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP84414 = 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	MP84443	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP84442 + 96.00000ml of MP84414 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3903	ISS 3PPM	MP84444	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/11/2025

FROM 5.00000ml of M6126 + 75.00000ml of M5739 + 170.00000ml of MP84414 = 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
3881	M&B SPIKE-2	MP84468	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/13/2025

FROM 0.00000ml of M4888 + 10.00000ml of M5977 + 12.50000ml of M5519 + 12.50000ml of M5811 + 12.50000ml of M6032 + 2.50000ml of M4884 + 2.50000ml of M5799 + 5.00000ml of M5496 + 42.50000ml of MP84414 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3882	M&B SPIKE-3	MP84469	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/13/2025

FROM 0.62500ml of M5513 + 12.50000ml of M5751 + 12.50000ml of M6128 + 12.50000ml of M6145 + 11.87500ml of MP84414 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3900	M&B SPIKE-4	MP84470	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/13/2025

FROM 6.25000ml of M5498 + 6.25000ml of M6127 + 6.25000ml of M6144 + 6.25000ml of MP84414 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3880	M&B SPIKE-1	MP84472	02/07/2025	02/28/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sohil Jodhani 02/13/2025

FROM 5.00000ml of M5472 + 5.00000ml of M5658 + 5.00000ml of M5798 + 5.00000ml of M5800 + 5.00000ml of M5960 + 5.00000ml of M5962 + 5.00000ml of M5981 + 5.00000ml of M6021 + 5.00000ml of M6023 + 5.00000ml of M6028 + 5.00000ml of M6030 + 5.00000ml of M6079 + 5.00000ml of M6146 + 11.87500ml of MP84414 = 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
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP84602	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

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	MP84603	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

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	MP84604	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP84602 = 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	MP84605	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 245.00000ml of W3112 + 2.50000ml of MP84602 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP84606	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 242.50000ml of W3112 + 5.00000ml of MP84602 = 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	MP84607	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 240.00000ml of W3112 + 7.50000ml of MP84602 = 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	MP84608	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 237.50000ml of W3112 + 10.00000ml of MP84602 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP84609	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6126 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP84610	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

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)	MP84611	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6126 + 10.00000ml of MP84602 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP84612	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

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
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP84613	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP84602 = 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
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP84614	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 02/28/2025

FROM 2.50000ml of M6126 + 240.50000ml of W3112 + 7.00000ml of MP84602 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP84616	02/24/2025	02/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 02/28/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	030921	03/09/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57022 / Ti, 1000 PPM, 125 ml	070721	09/27/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4888

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 #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

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 #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	08/07/2024 / jaswal	04/01/2022 / jaswal	M5304

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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.	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

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.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	03/15/2025	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 #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB709511	09/03/2026	08/07/2024 / jaswal	04/11/2022 / jaswal	M5739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

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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.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	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 #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

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	01/16/2025 / JANVI	02/22/2024 / Jaswal	M5977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	01/15/2025 / Jaswal	09/30/2024 / Jaswal	M6079

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

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M6032

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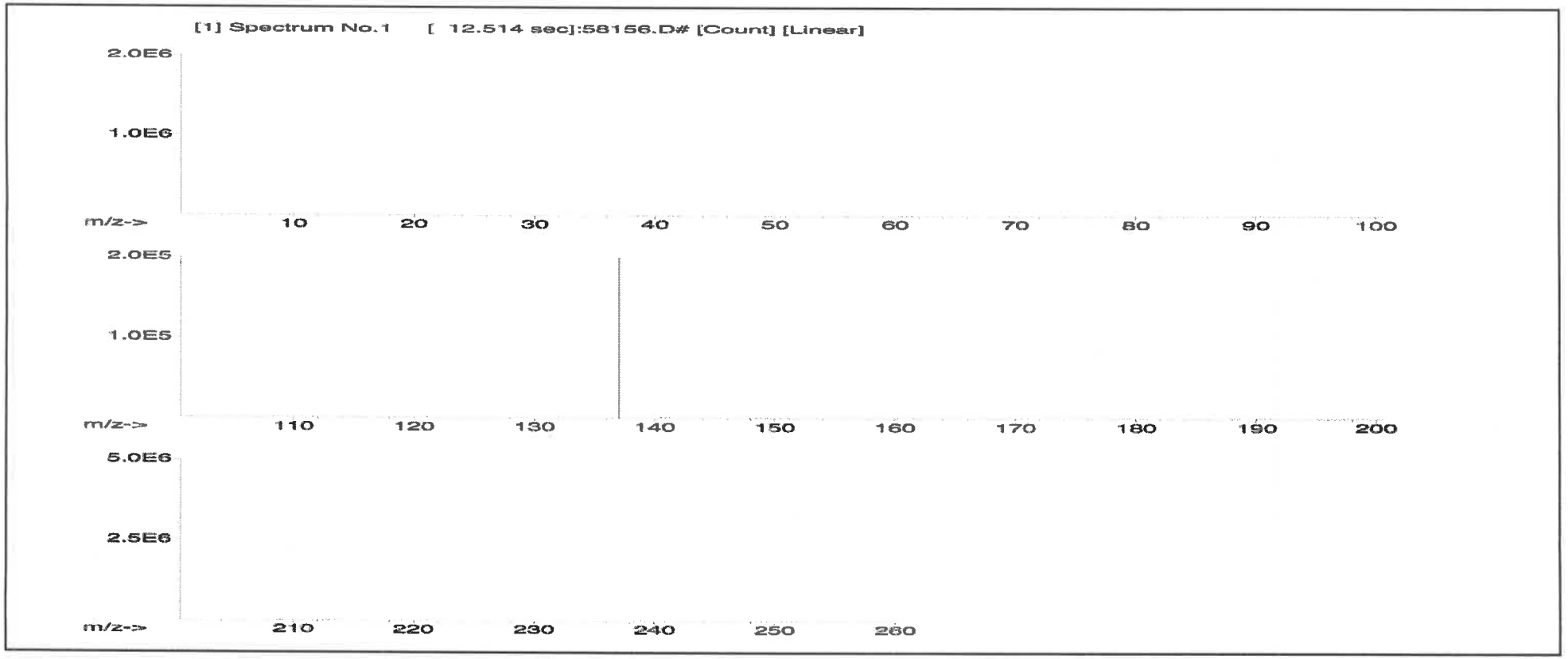
R 8/5/24

CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**010924**				
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).

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M6028

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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

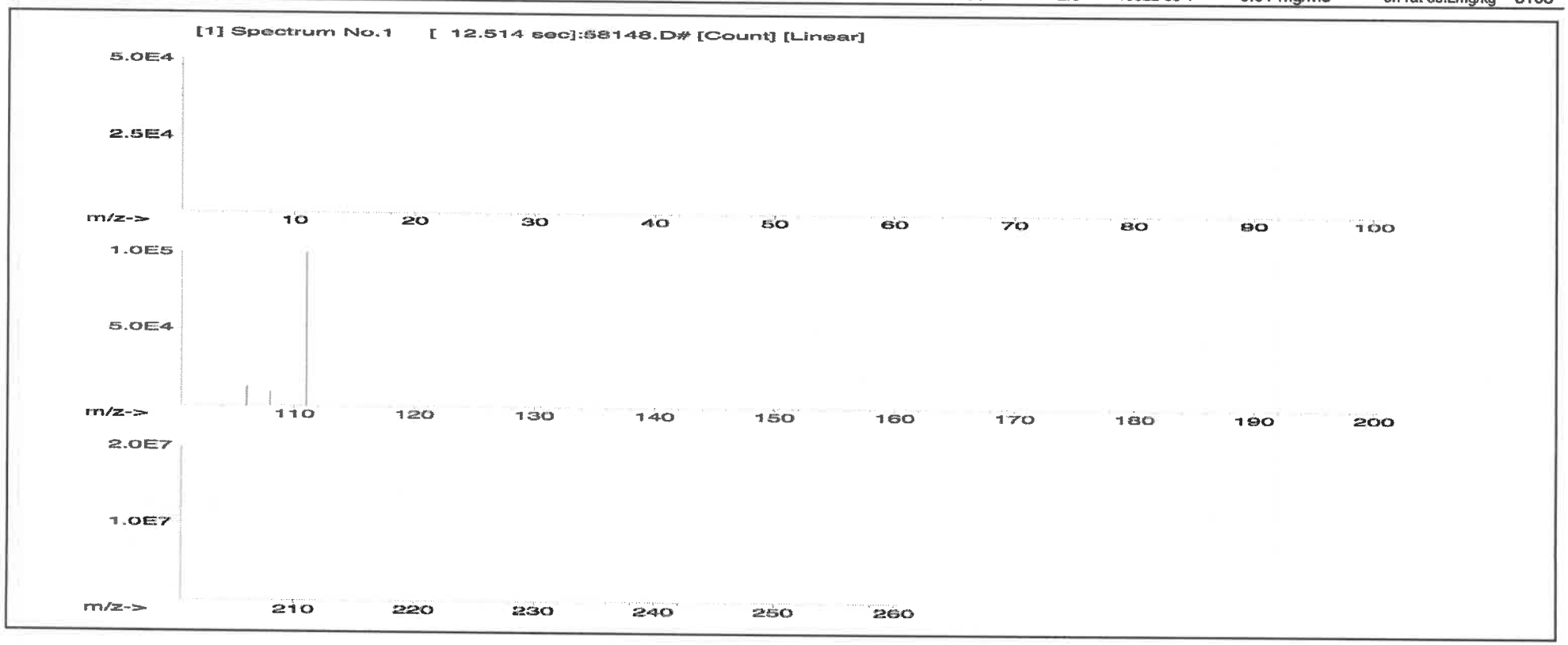
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

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).

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R : 01/03/24. M5810, M5811

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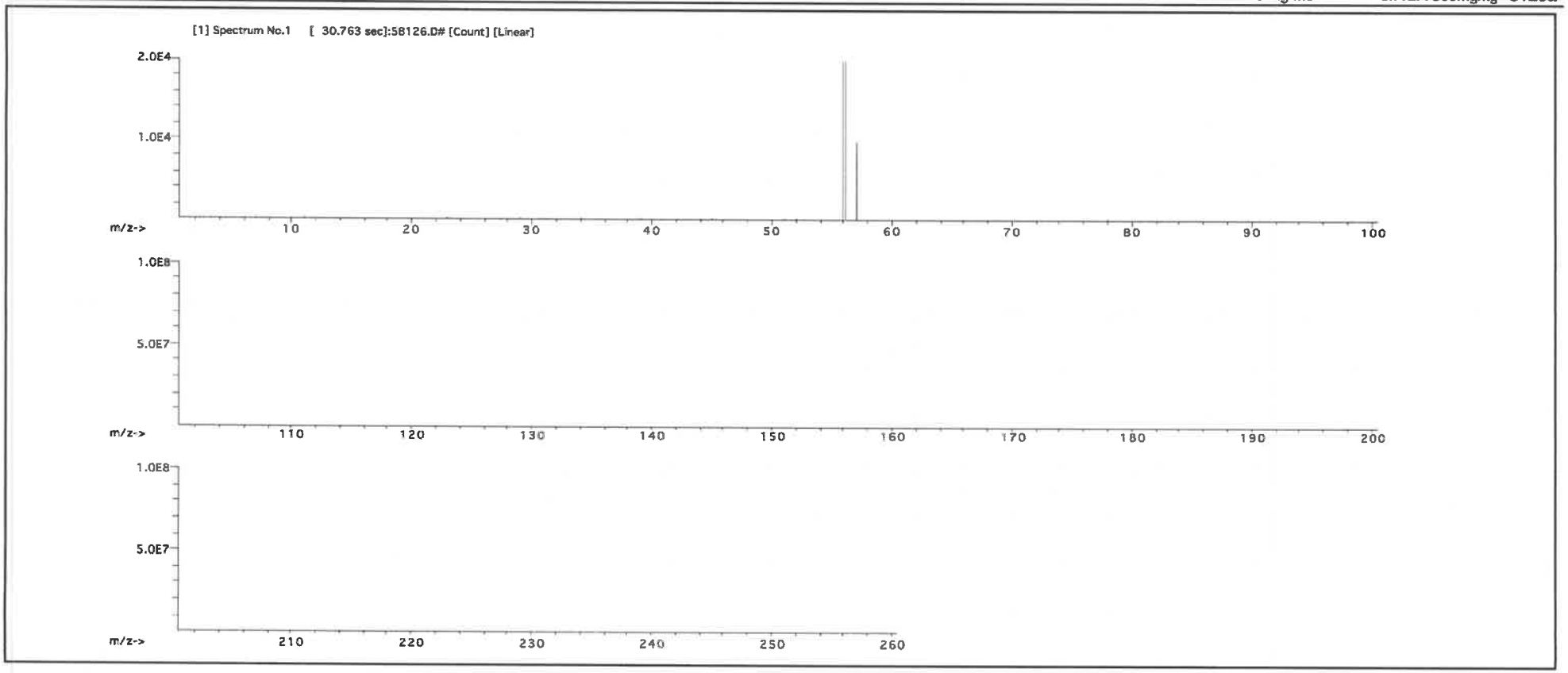
CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**	
Lot Number:	**051523**	**Solvent:**	21110221	Nitric Acid
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* 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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Certified Reference Material CRM

R: 8/5/24 M6025

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CERTIFIED WEIGHT REPORT:

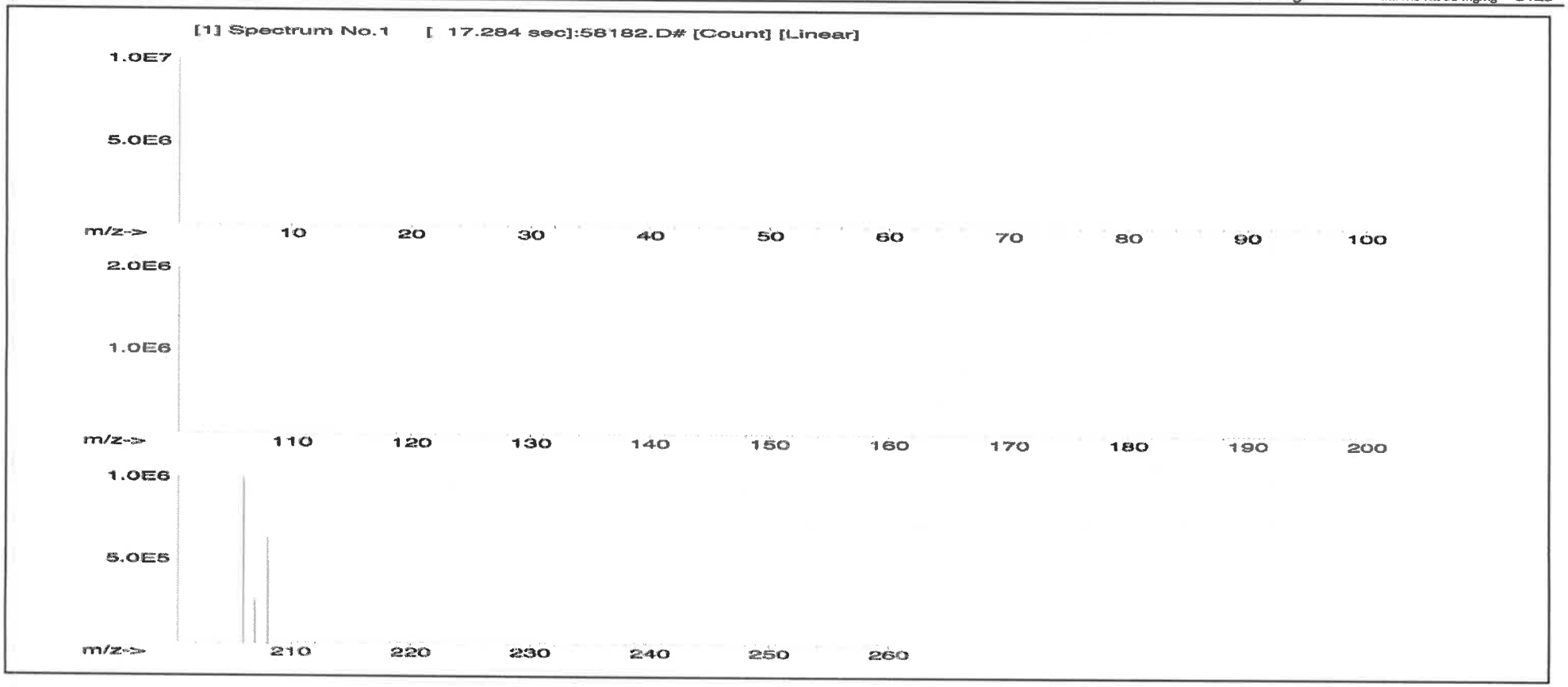
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

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.
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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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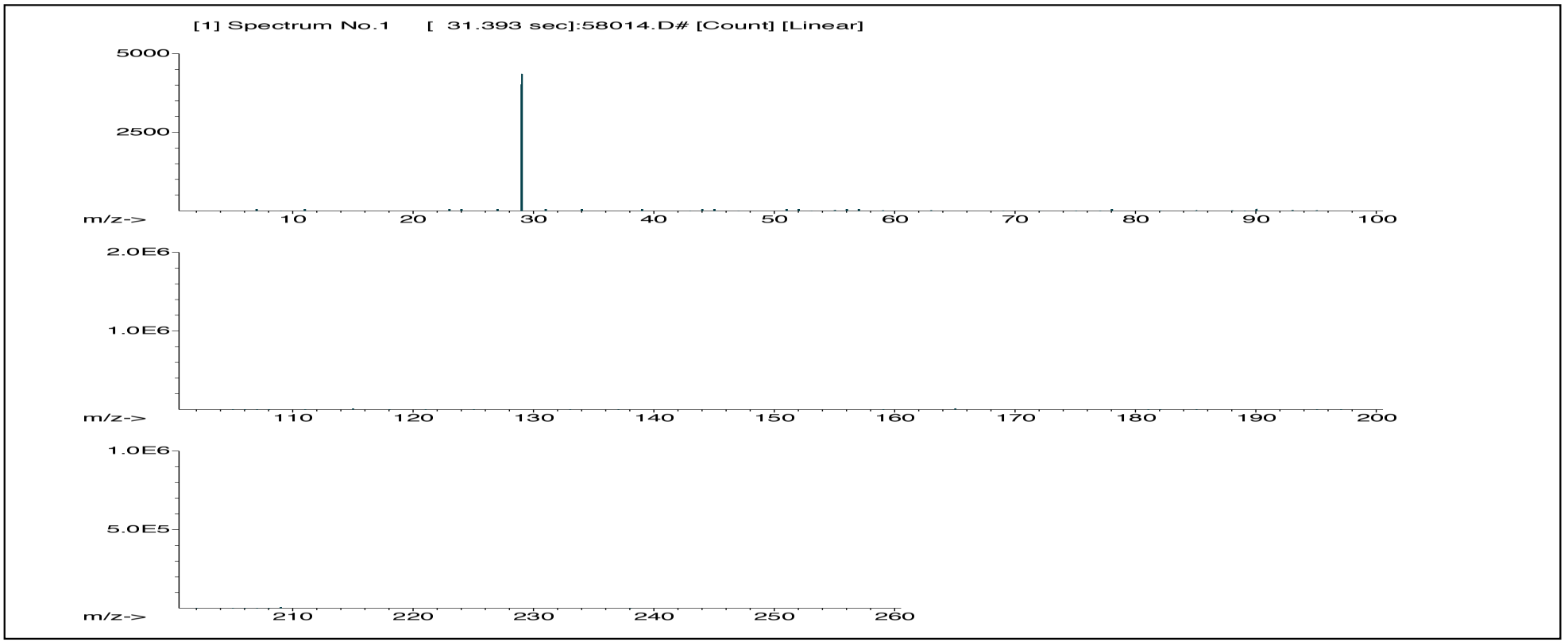
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57014**	19410105	Nitric Acid	
Lot Number:	**030921**			
Description:	**Silicon (Si)**			
		2.0%	60.0	Nitric Acid
Expiration Date:	030924		(mL)	
Recommended Storage:	Ambient (20 ºC)			
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 030921
Reviewed By:	Pedro L. Rentas 030921

	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 hexafluorosilicate (Si)	58114	070120	0.1000	300.0	0.084	1000	10000.0	**1000.0**	**2.1**	16919-19-0	2.50 mg/m3	orl-rat 70 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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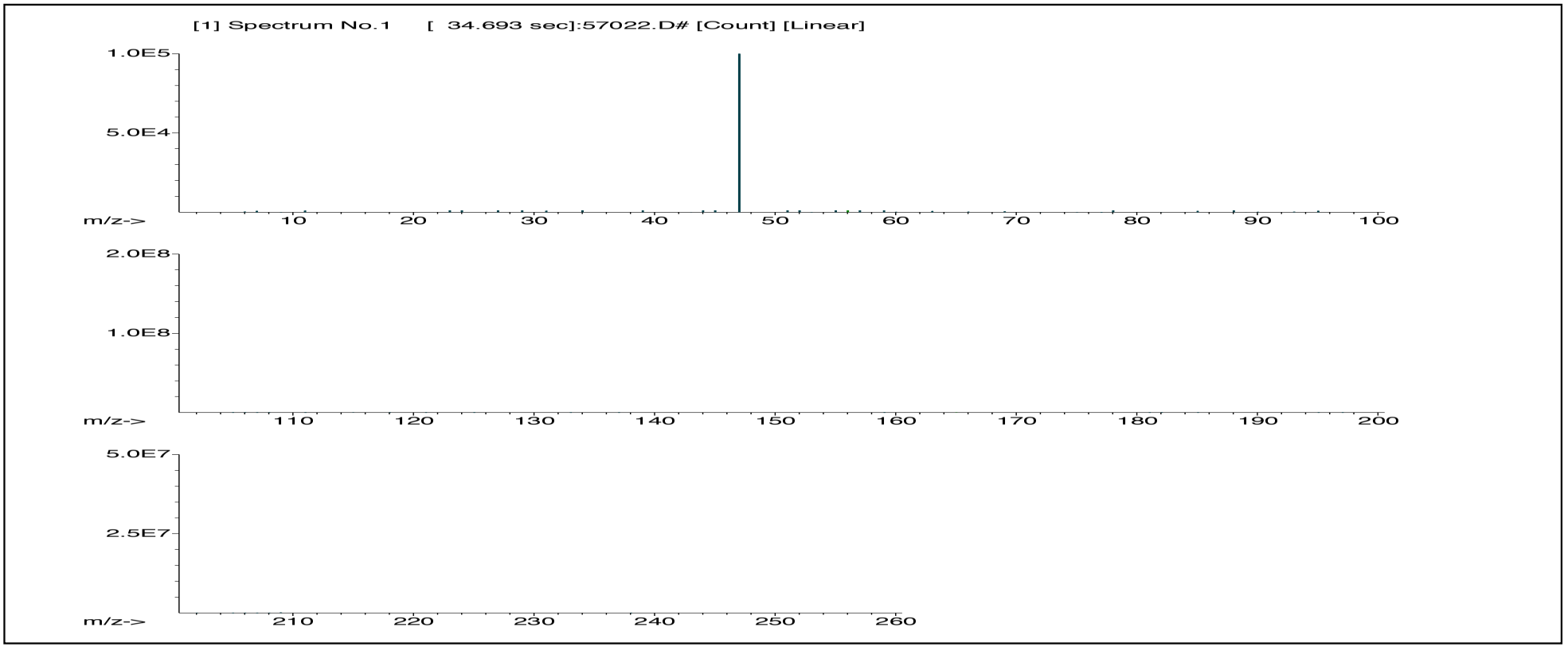
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57022**	20370011	Nitric Acid	
Lot Number:	**070721**			
Description:	**Titanium (Ti)**			
		2.0%	40.0	Nitric Acid
Expiration Date:	070724		(mL)	
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 070721
Reviewed By:	Pedro L. Rentas 070721

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette	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 hexafluorotitanate (Ti)	58122	070120	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	16962-40-6	2.5 (F) mg/m3	NA	3162a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<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	T	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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Certificate of Analysis

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info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\,(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5192 R: 06/17/22

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

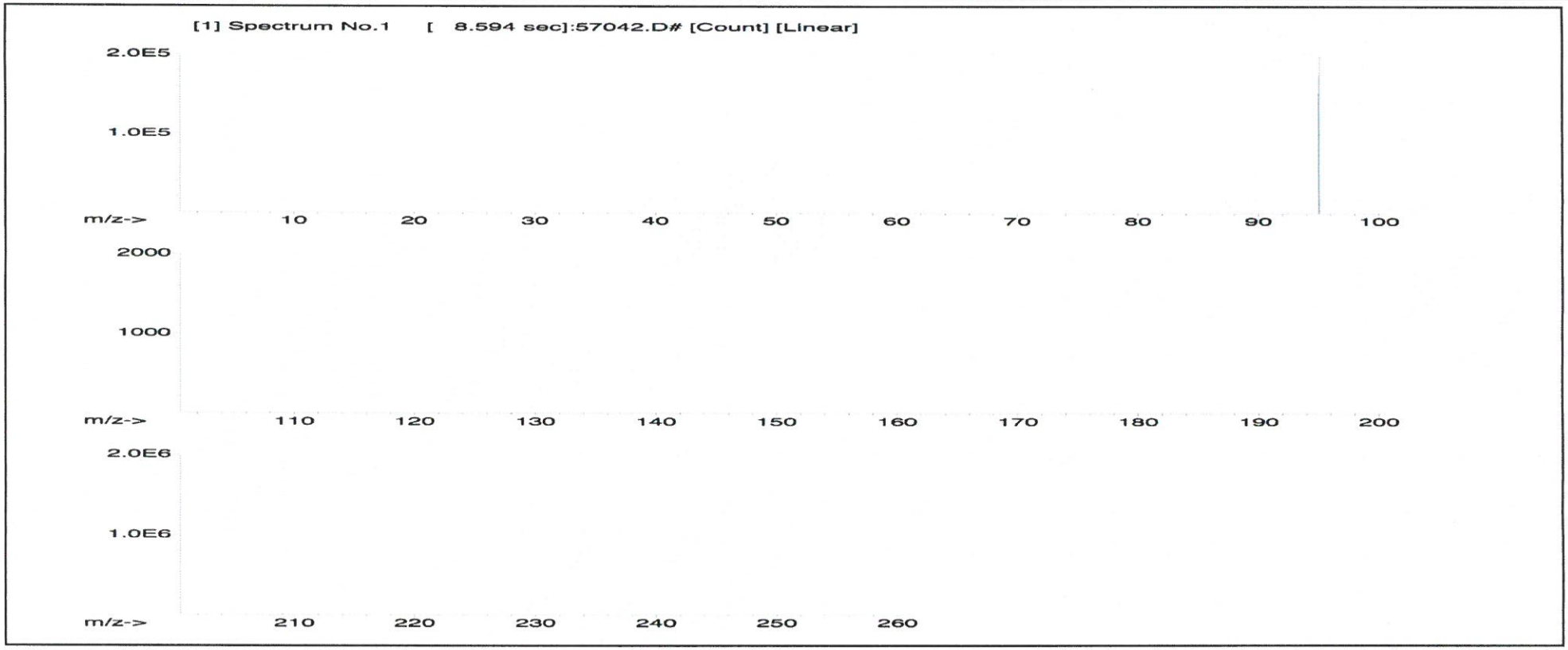
Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)
Expiration Date: 051725
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 3000.41

Lot #	Solvent:		
MKBQ8597V	Ammonium hydroxide		
0.5%	15.0 (mL)	Ammonium hydroxide	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By: Lawrence Barry 051722

Reviewed By: Pedro L. Rentas 051722

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	022222	0.1000	300.0	0.084	1000	10001.0	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

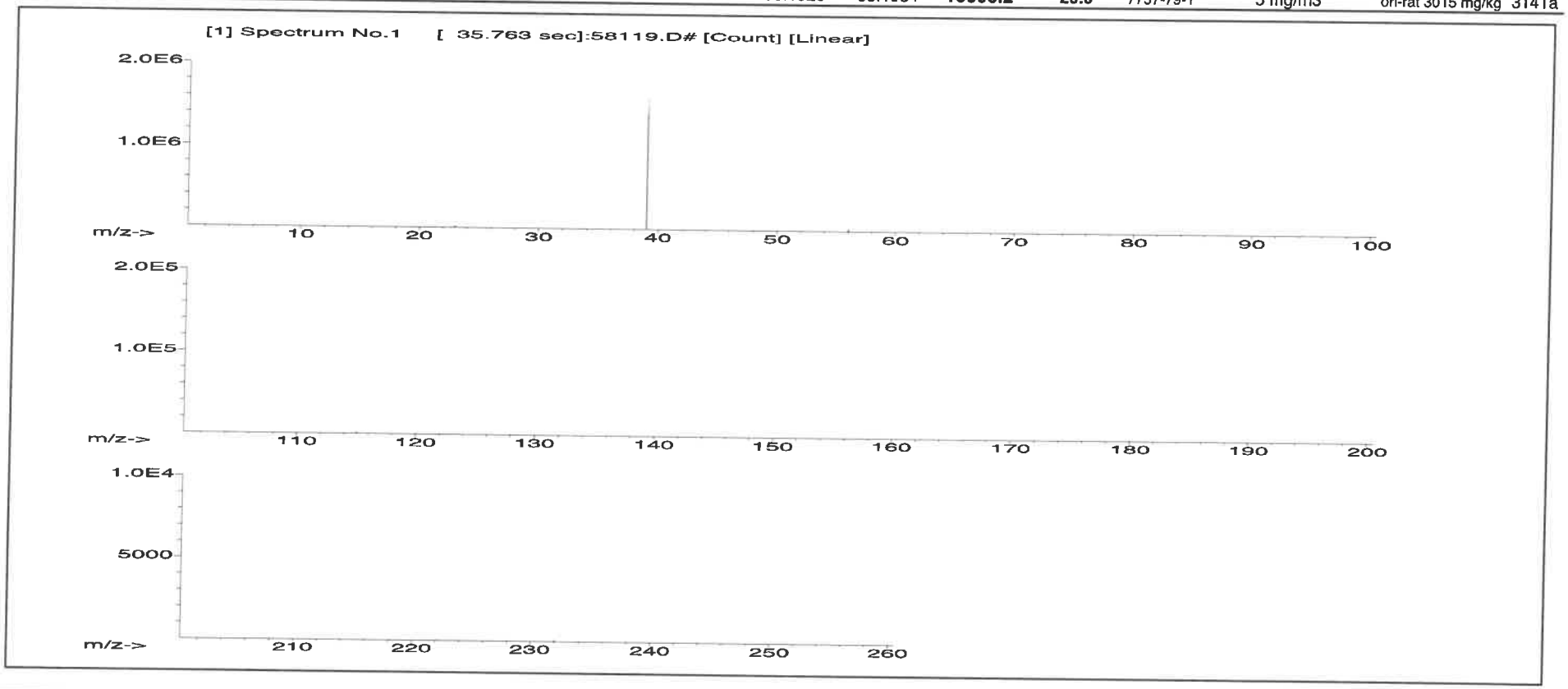
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<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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Refine your results. Redefine your industry.

Certificate of Analysis

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Christiansburg, VA 24073 USA
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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:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver, Aluminum,
Arsenic, Barium,
Beryllium, Calcium,
Cadmium, Cobalt,
Chromium, Copper,
Iron, Potassium,
Magnesium, Manganese,
Sodium, Nickel,
Lead, Antimony,
Selenium, Thallium,
Vanadium, Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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www.absolutestandards.com

Certified Reference Material CRM

M5496 R 7/20/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58113
Lot Number: 011623
Description: Aluminum (Al)

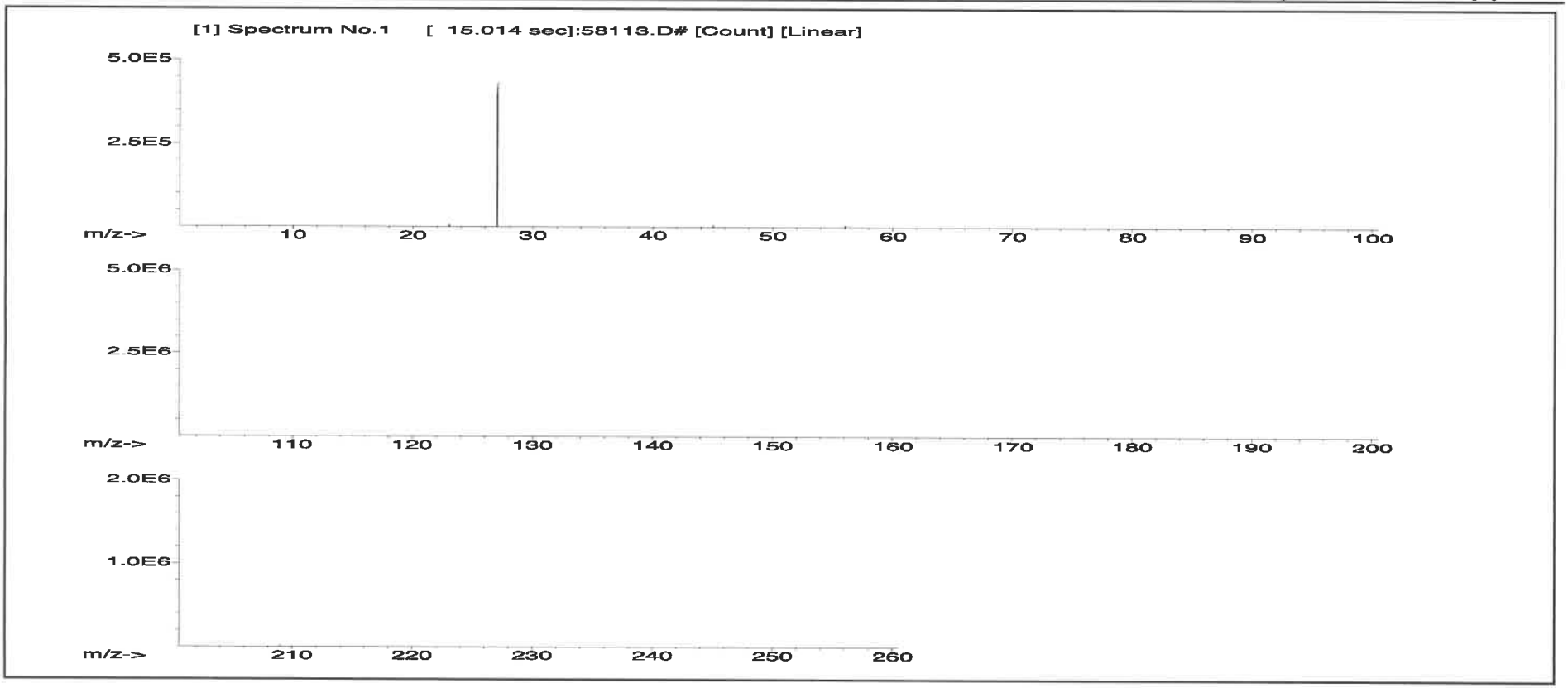
Expiration Date: 011626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	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

Pedro Rentas
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 (BA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

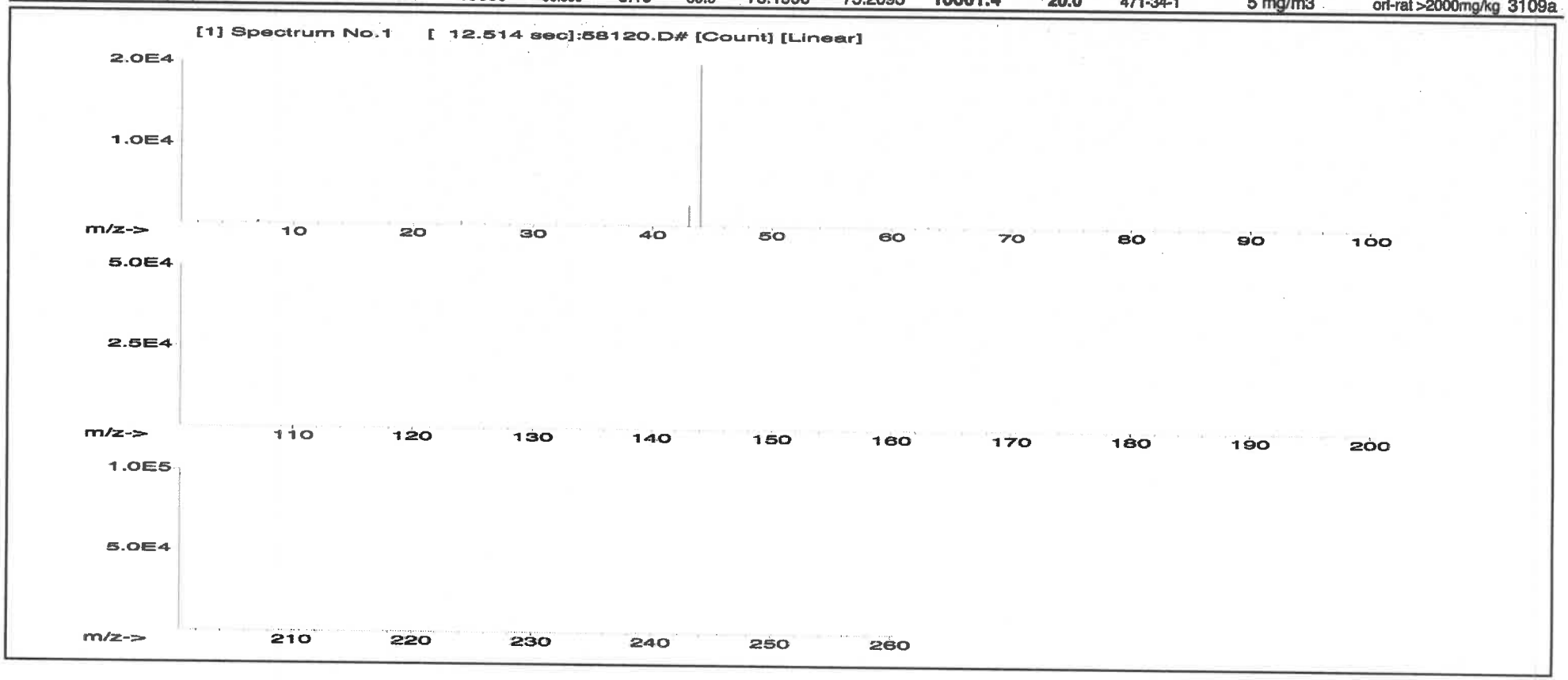
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	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
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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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MS513 R:03/17/23 BE

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

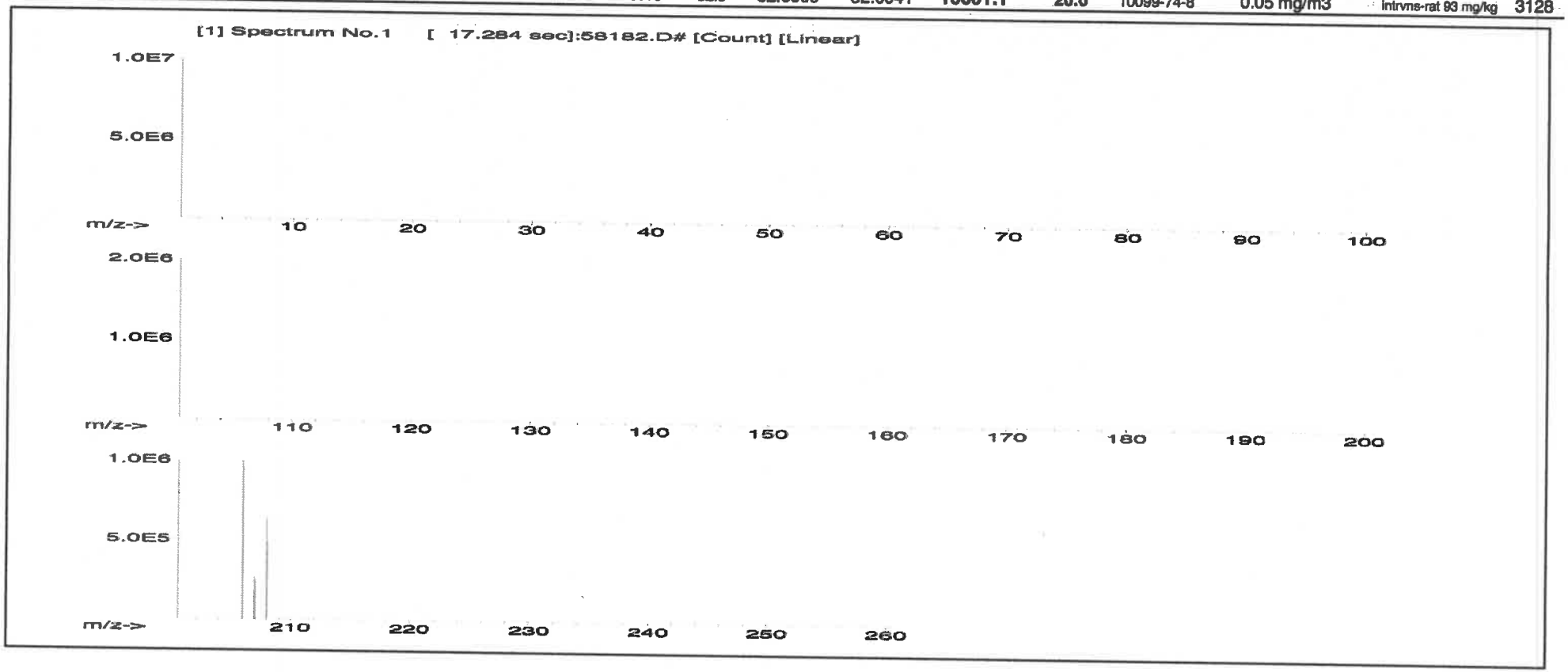
Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	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



(1688-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5519. M5520 BH R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

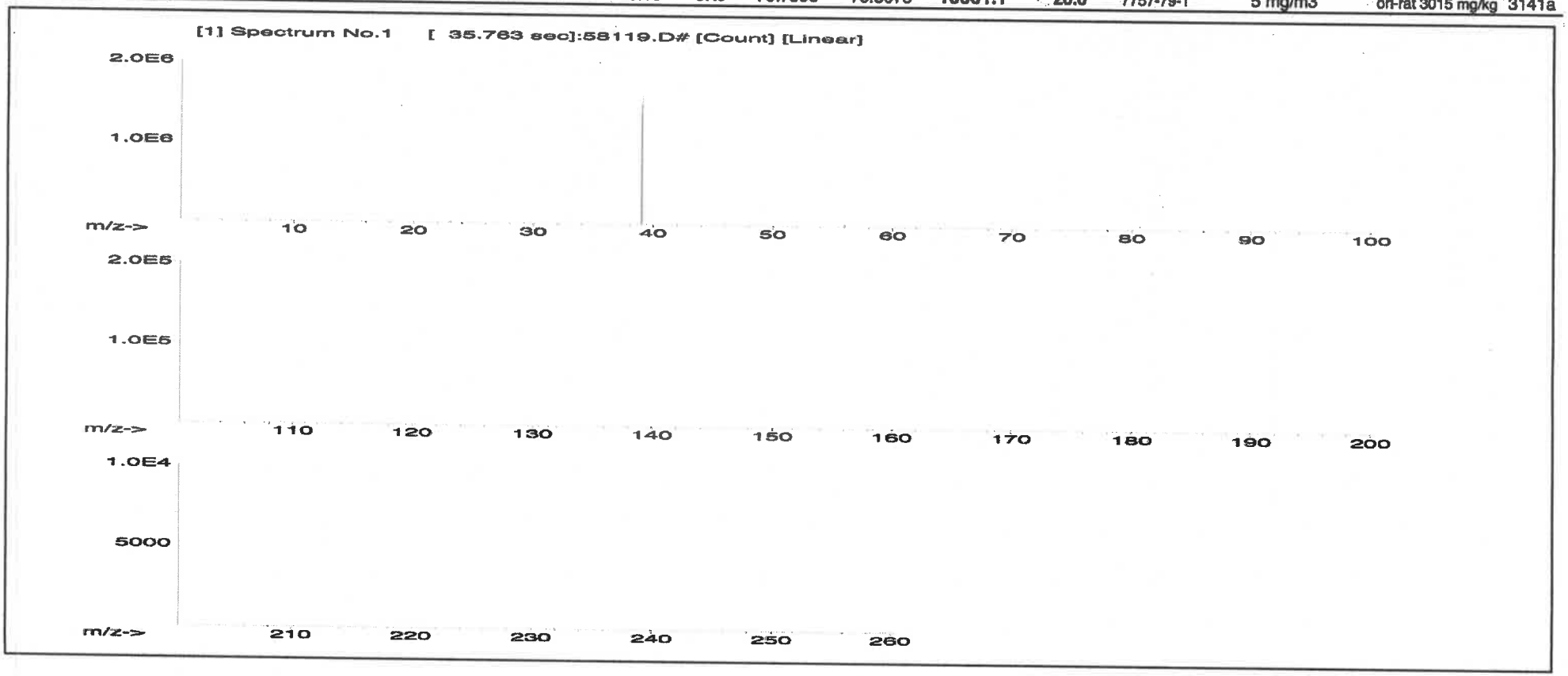
Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

	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.
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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).

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

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M5658 R ! 8/25/23

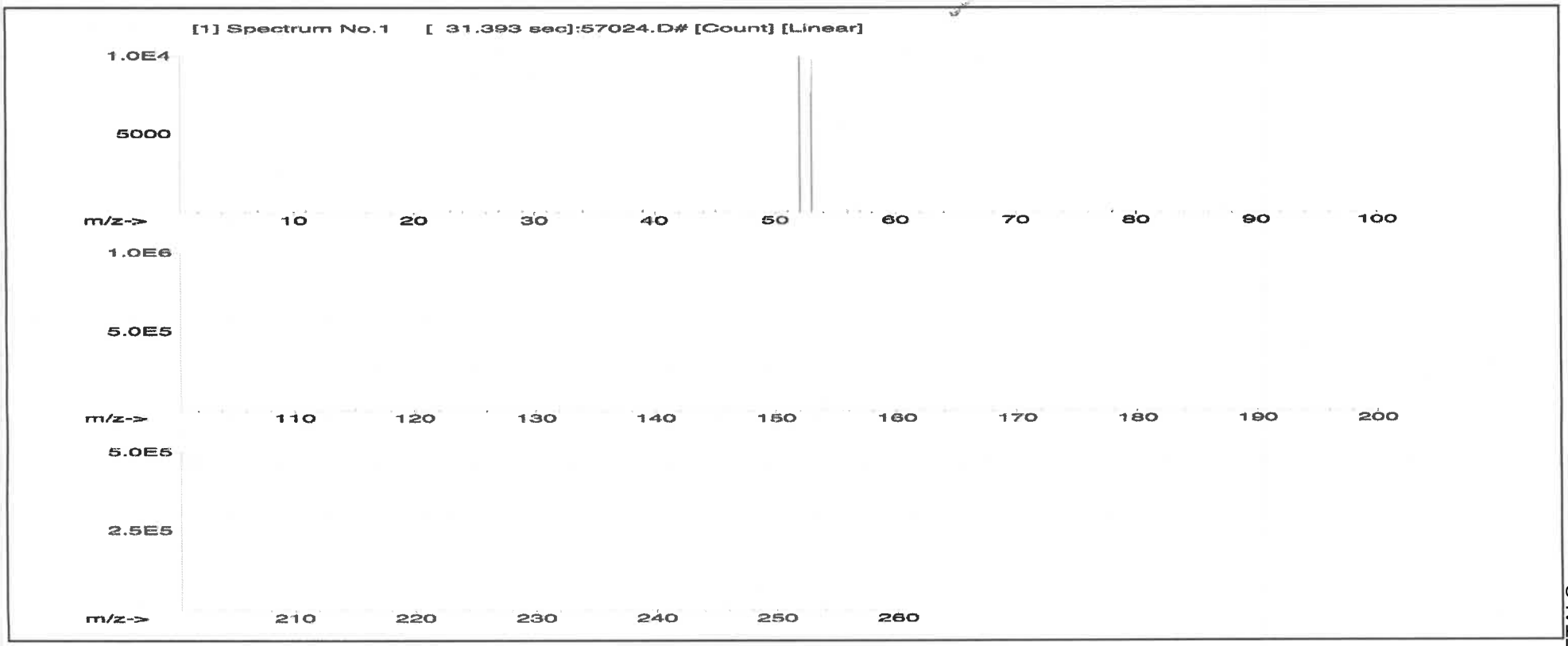
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CERTIFIED WEIGHT REPORT:

		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.

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Certified Reference Material CRM

R: 8/25/23 M5751

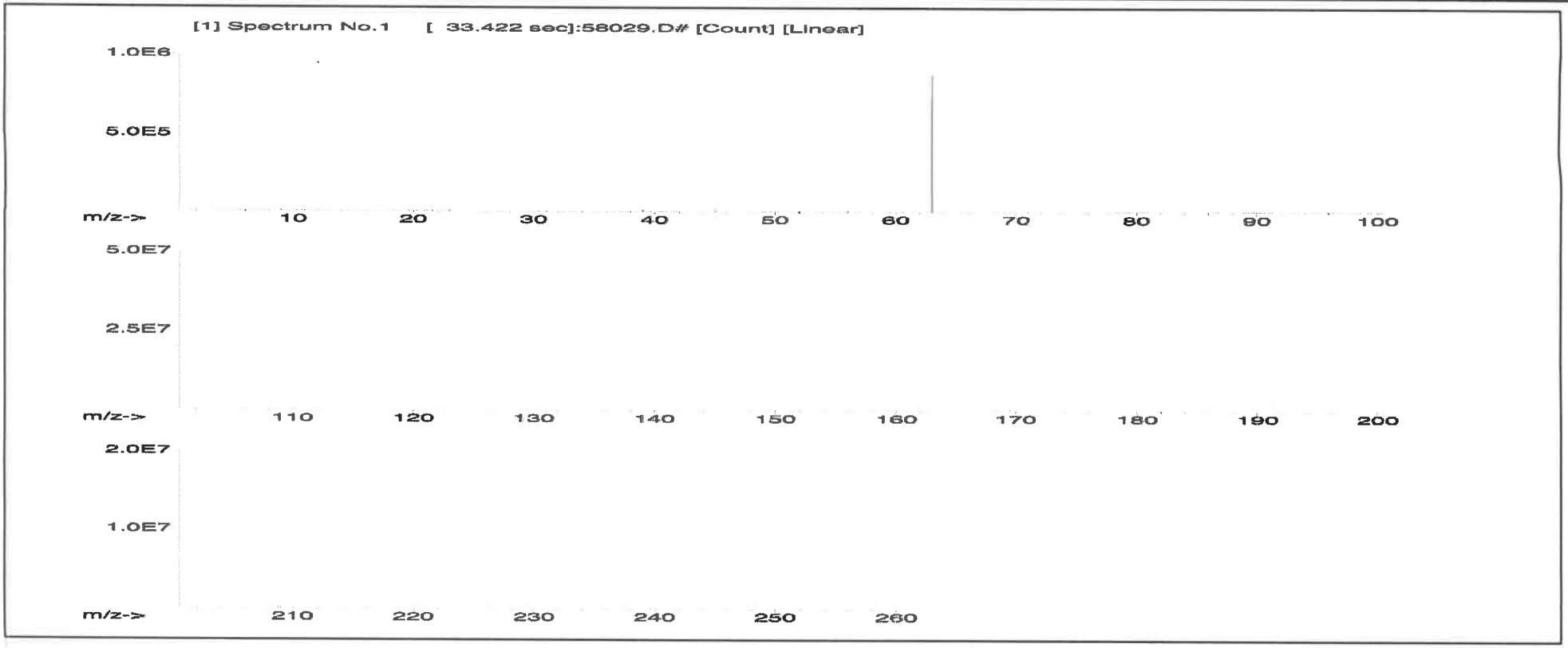
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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AR-1539 Certificate Number
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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.
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R: 02/09/24 M5798

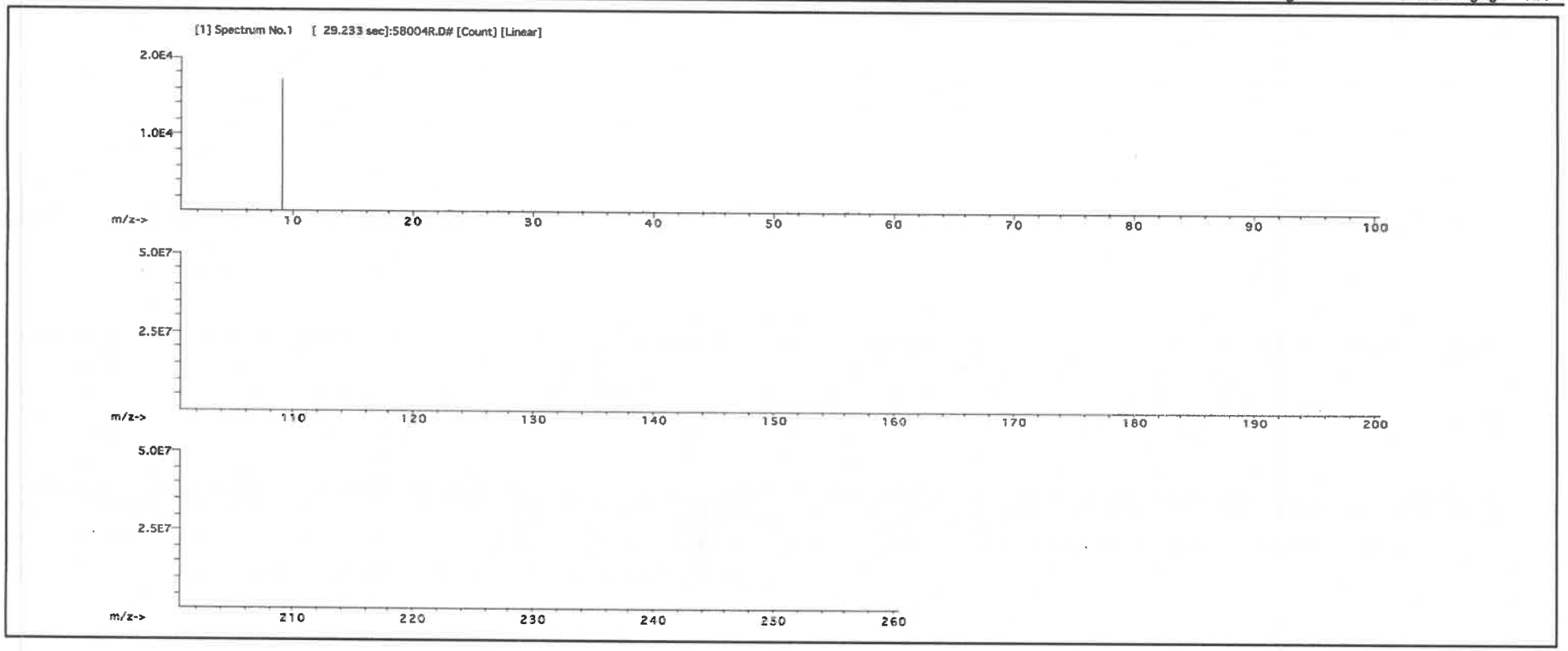
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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**			
Lot Number:	**102523**	24002546	Nitric Acid	
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



Q1888-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

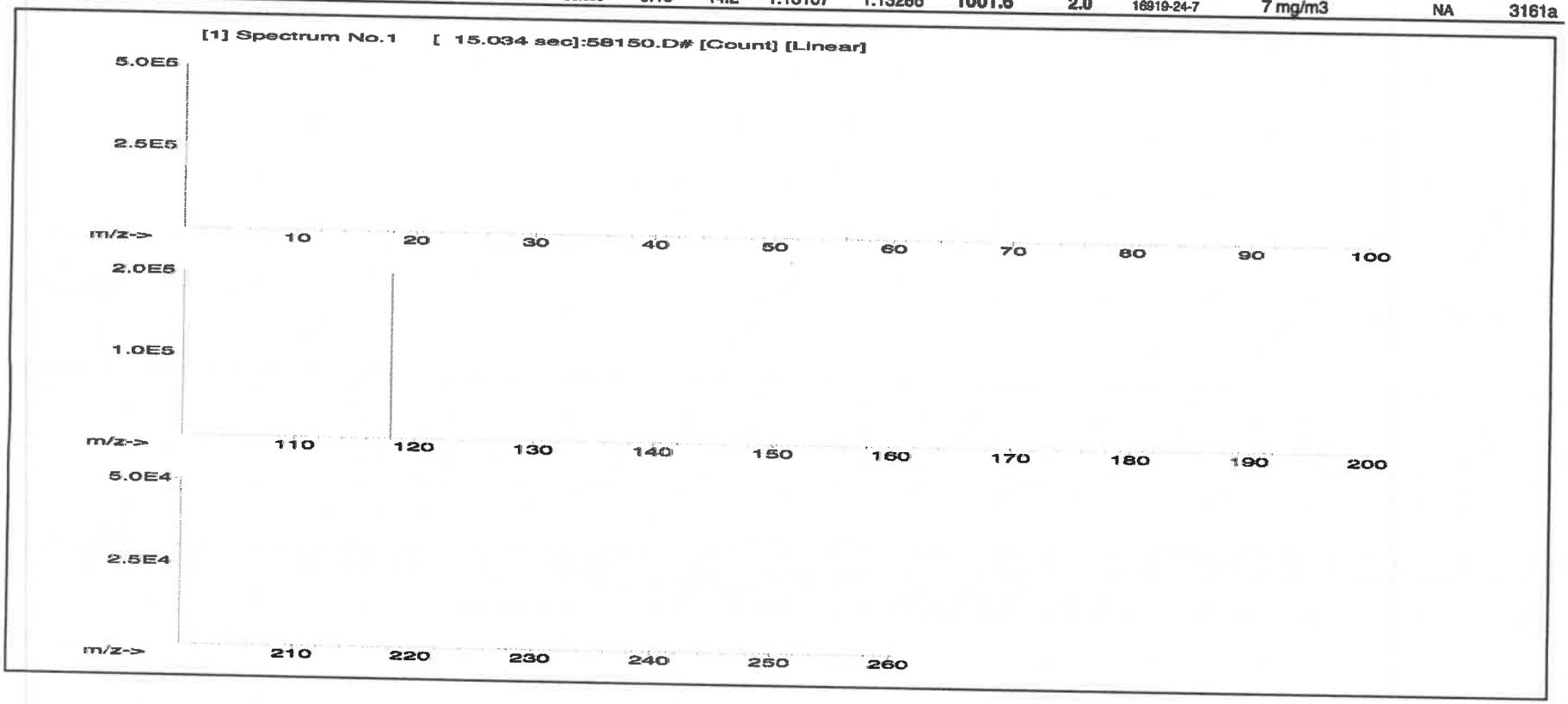
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* 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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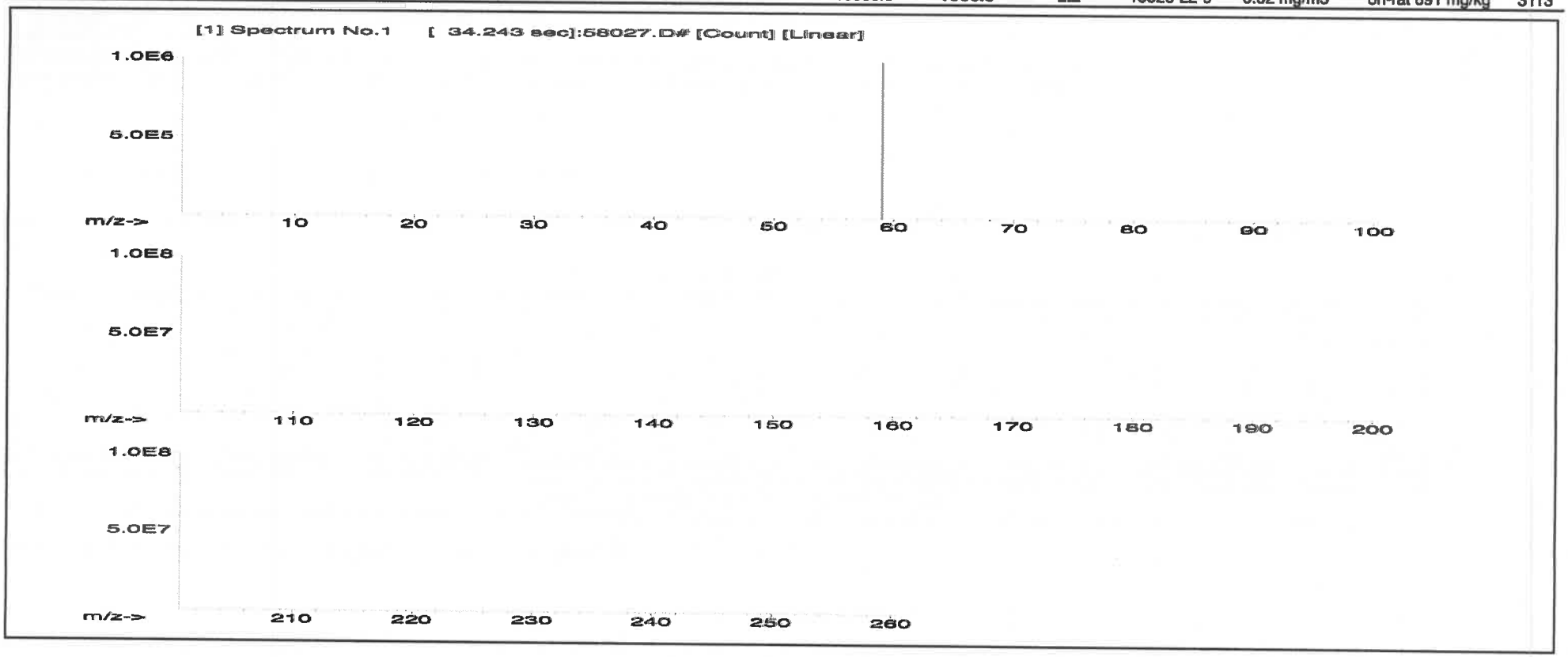
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By: Lawrence Barry 091923

Reviewed By: Pedro L. Rentas 091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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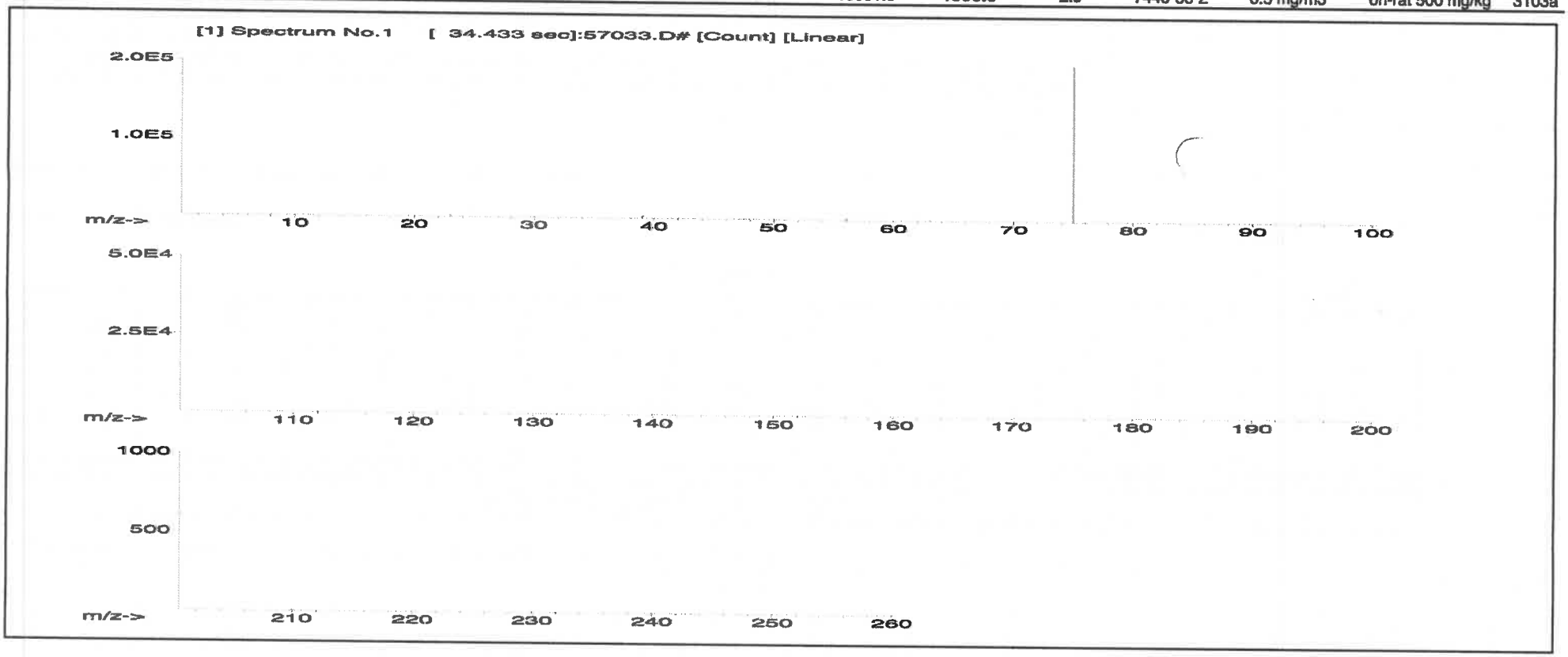
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	2.0	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

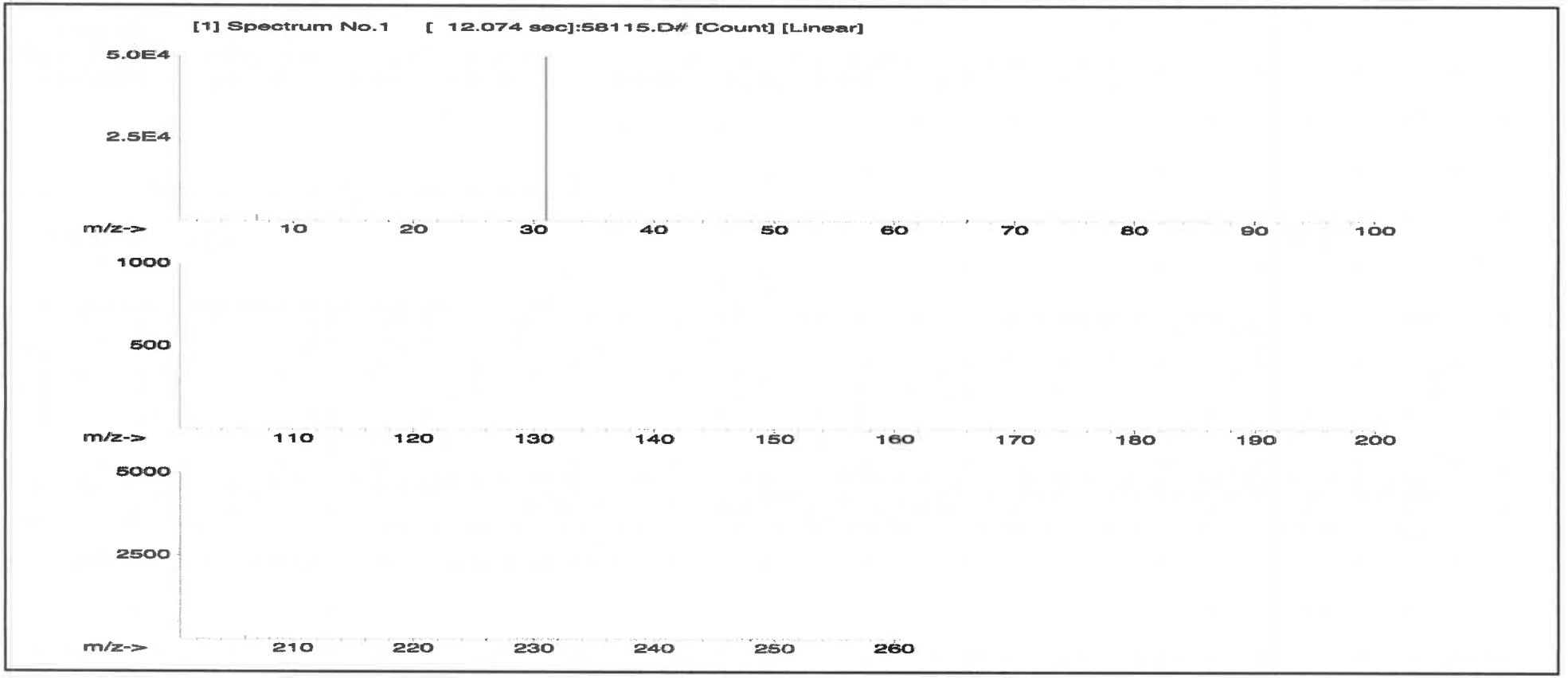
Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

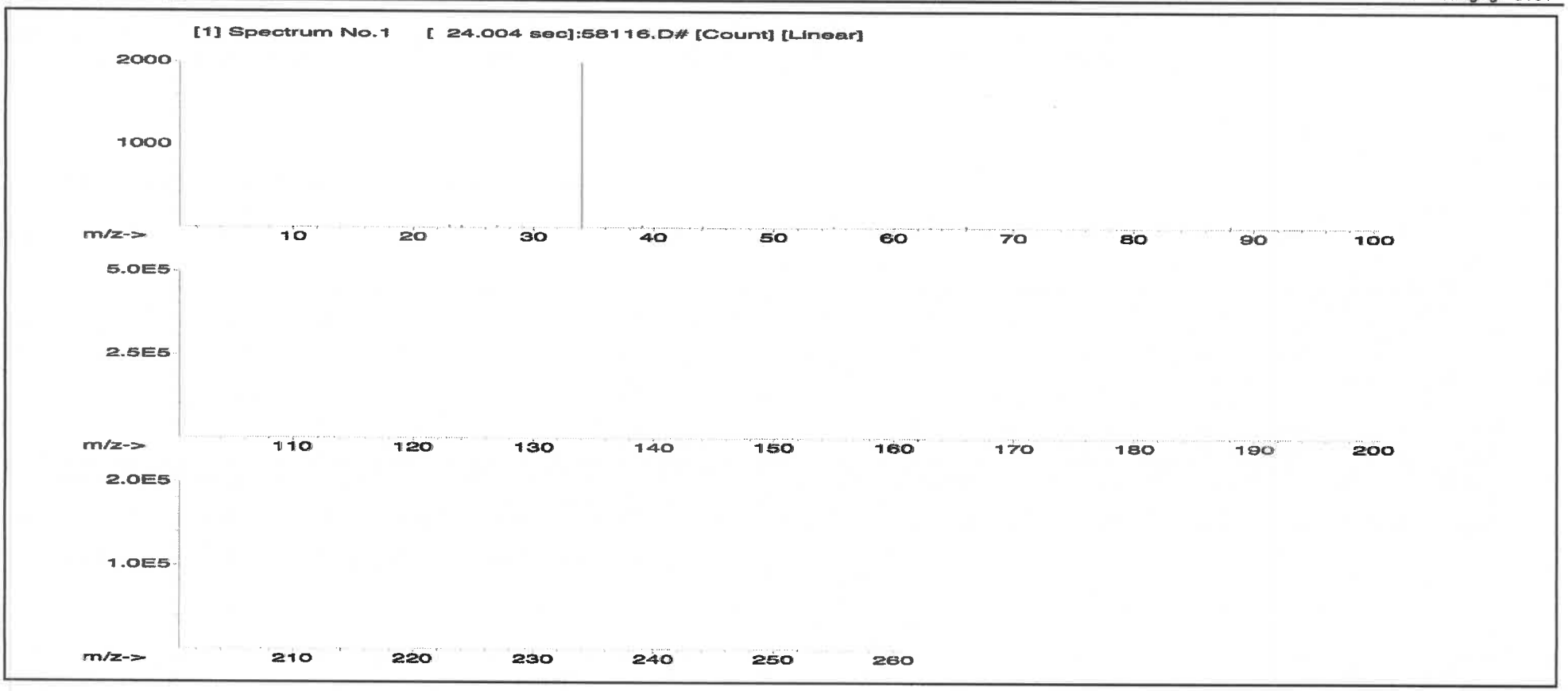
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry 071123
Reviewed By:	Pedro L. Rentas 071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	ori-rat 4250mg/kg	3181



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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	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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CERTIFIED WEIGHT REPORT:

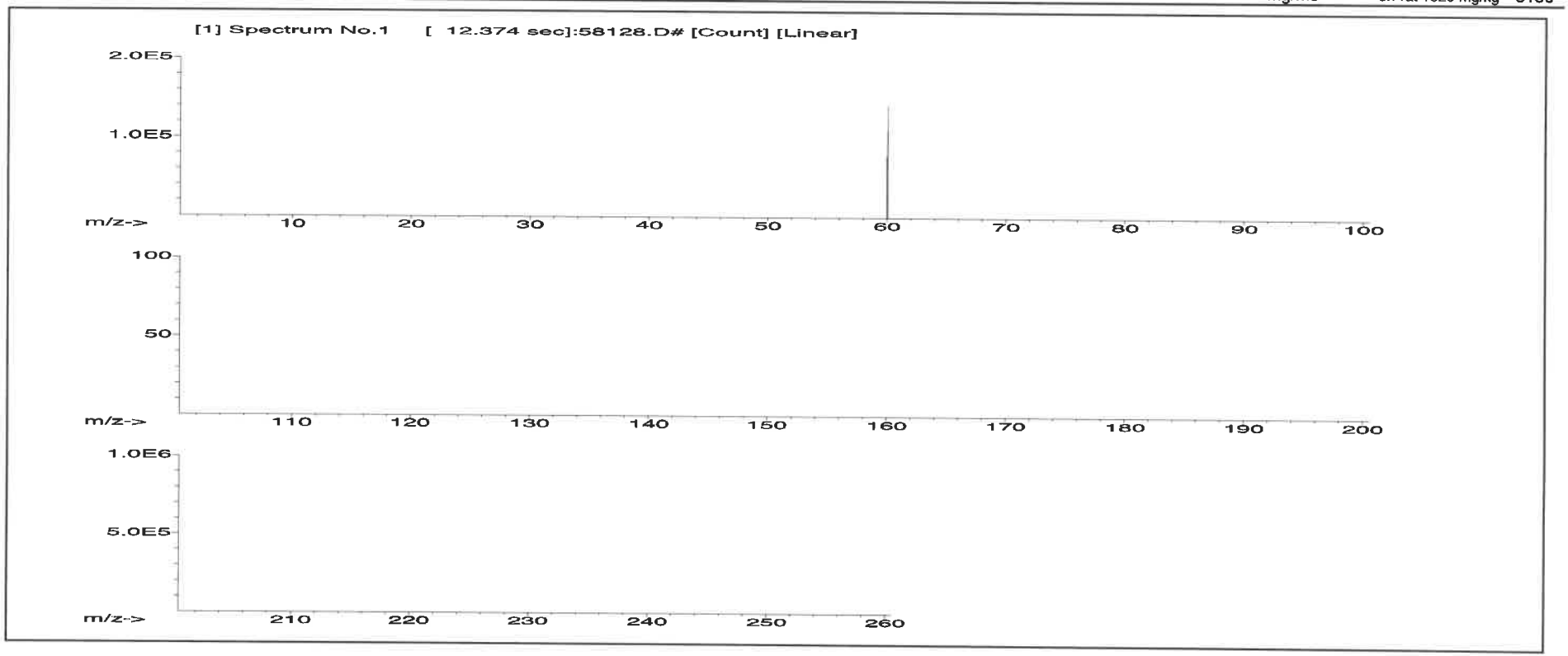
Part Number: 57028
Lot Number: 041124
Description: Nickel (Ni)

Expiration Date: 041127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 249.85

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	5.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.002	Flask Uncertainty		

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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Certified Reference Material CRM

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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	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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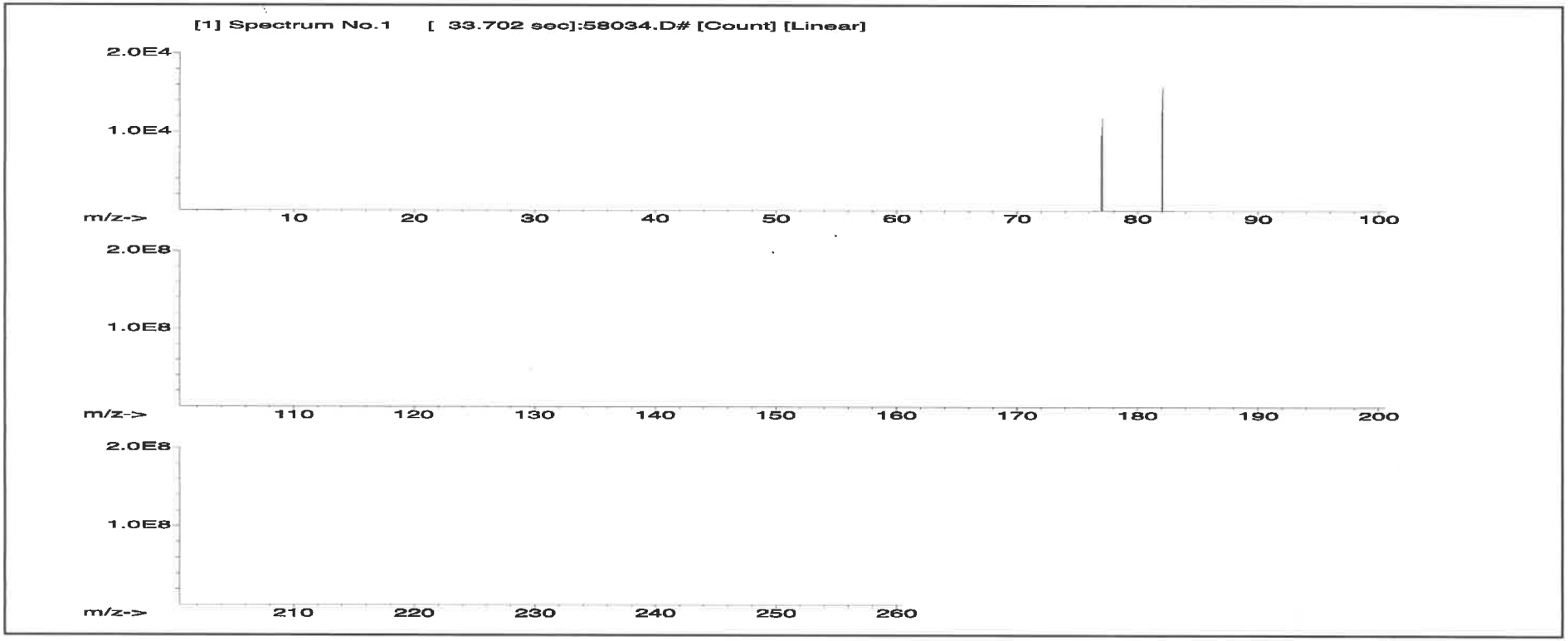
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https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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Certified Reference Material CRM

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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



MS978, MS979

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 865.01

ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGT11
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 ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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:

$$X_{CRM/RM} = (\Sigma x_a)\,(u_{char\ a})$$

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)

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 for months in 1% 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=Z (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: 800.669.5798; 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 property 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 Kozlkowski
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		

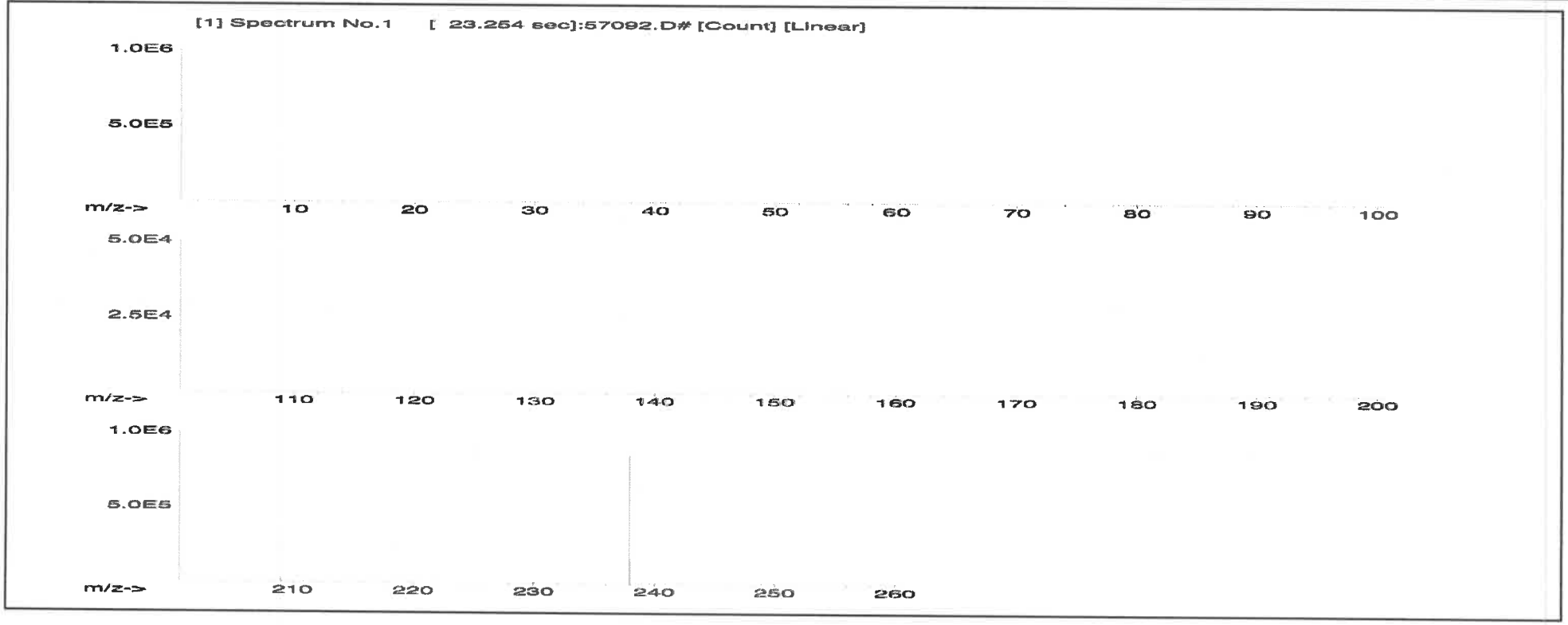
Giovanni Esposito

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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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	T
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Part # **57092** Lot # **060724**

Printed: 6/7/2024, 3:58:45 PM

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R 18/19/24, M60055

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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 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-STOCK-12
Lot Number:	U2-MEB734294
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6079 R: 9/30/24

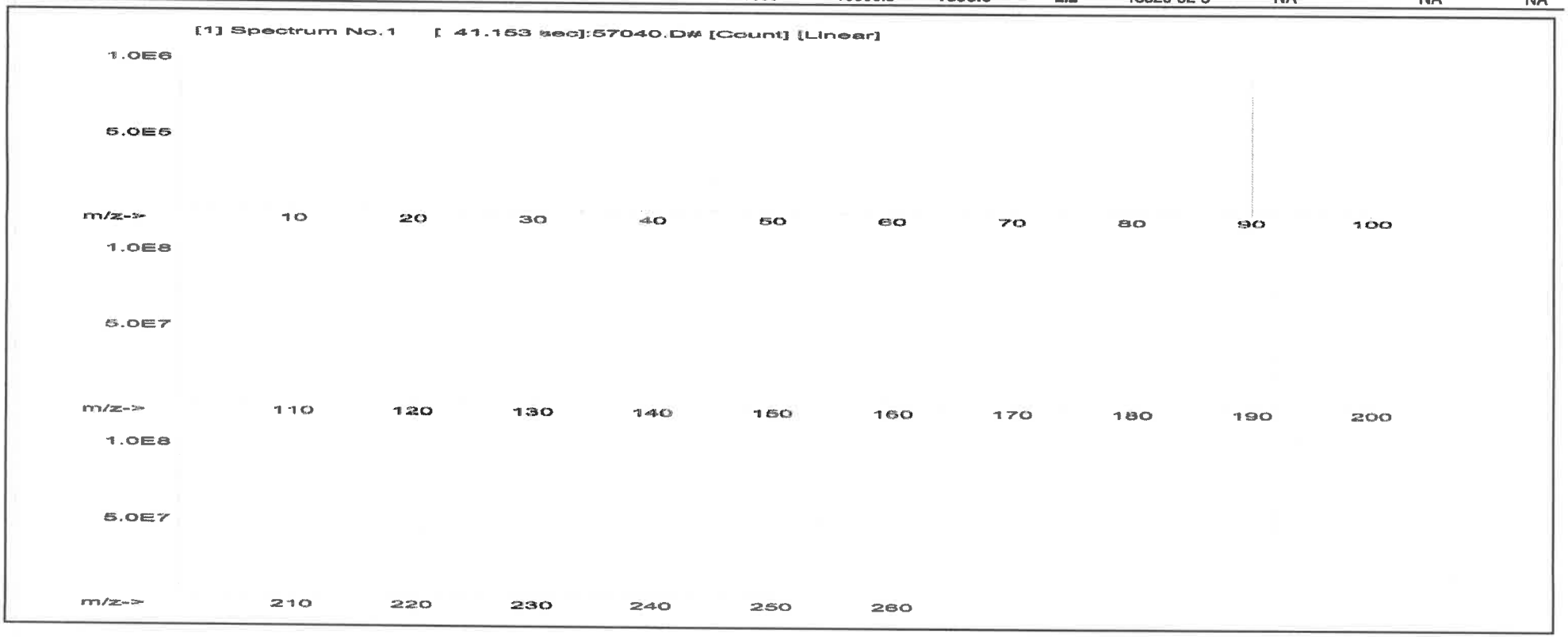
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57040**	21110221	Nitric Acid		
Lot Number:	**071423**				
Description:	**Zirconium (Zr)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	071426				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Rentas	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 16/13/24
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

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

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

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

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www.absolutestandards.com

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CERTIFIED WEIGHT REPORT:

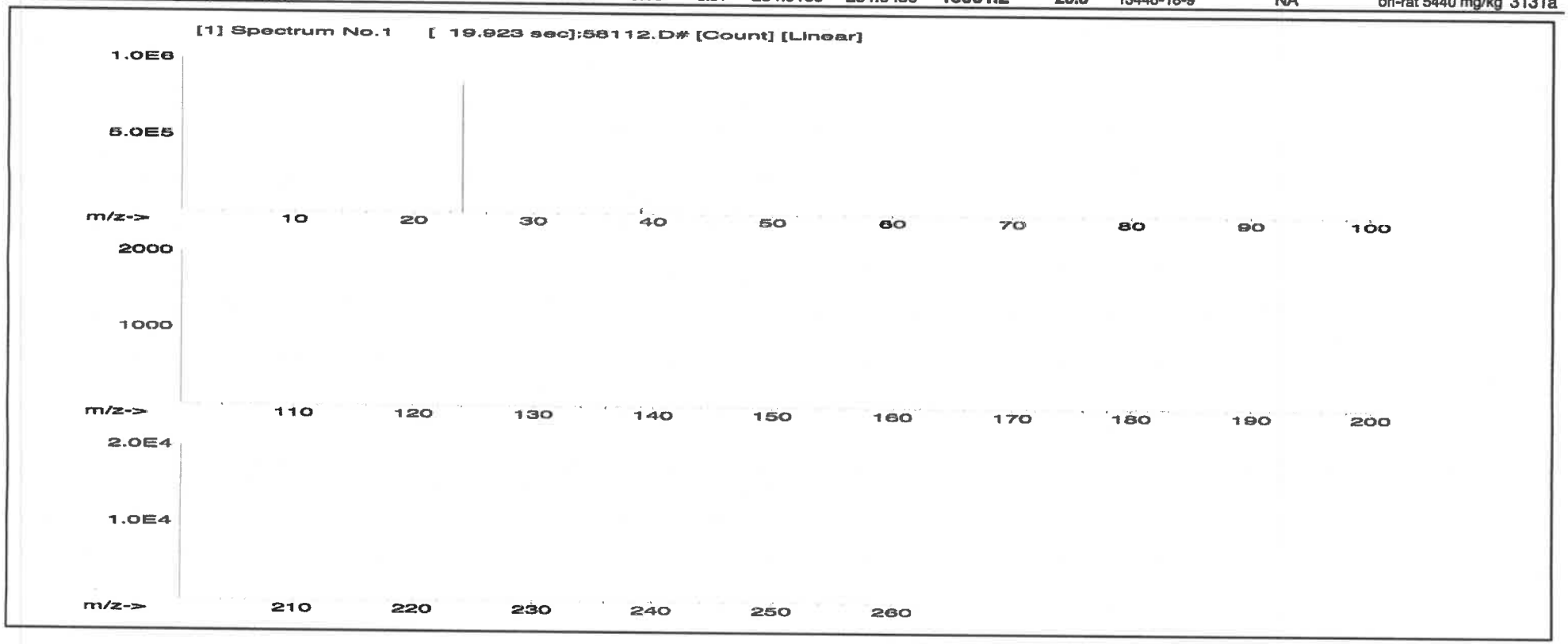
R -> 1/13/25
M 6127

Part Number:	**58112**		**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**112124**				
Description:	**Magnesium (Mg)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* 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.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R->1/13/25
M6128

Part Number:	**58025**		**Lot #**		
Lot Number:	**101124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	101127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

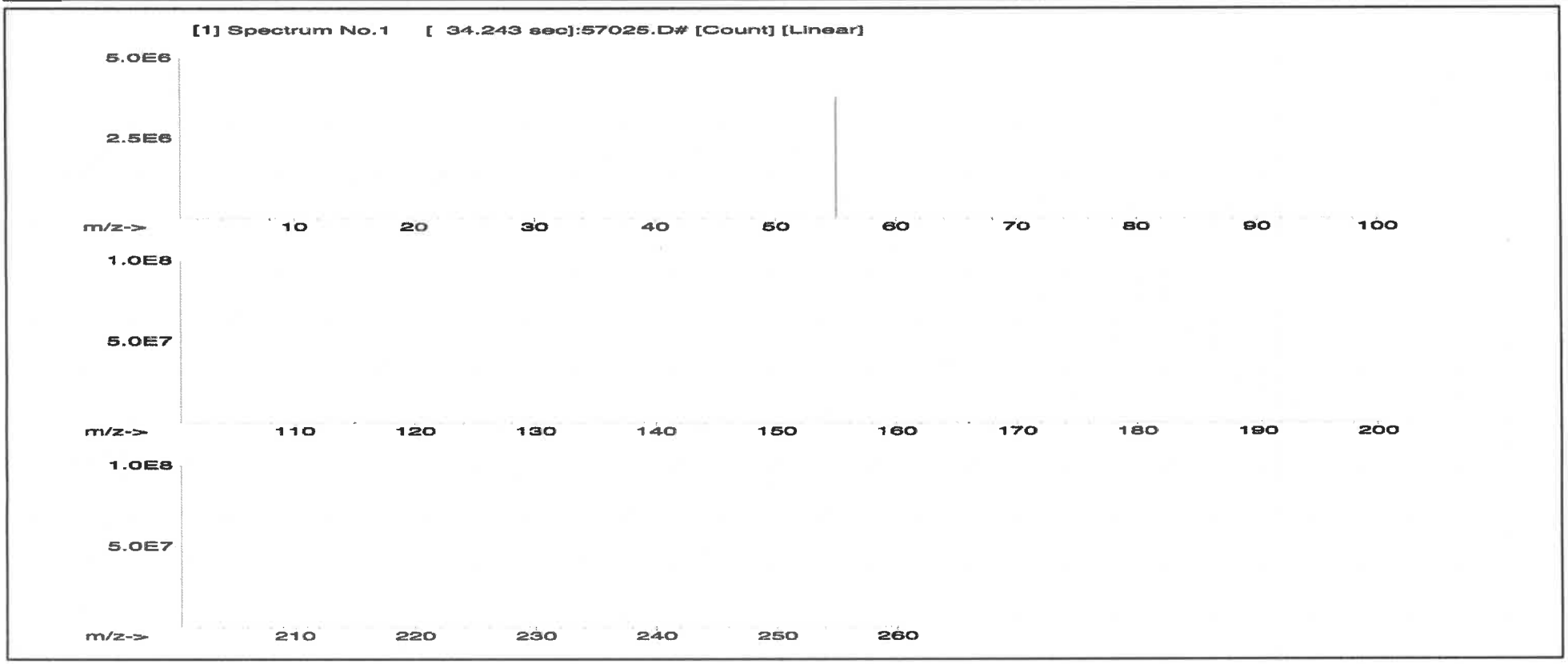
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

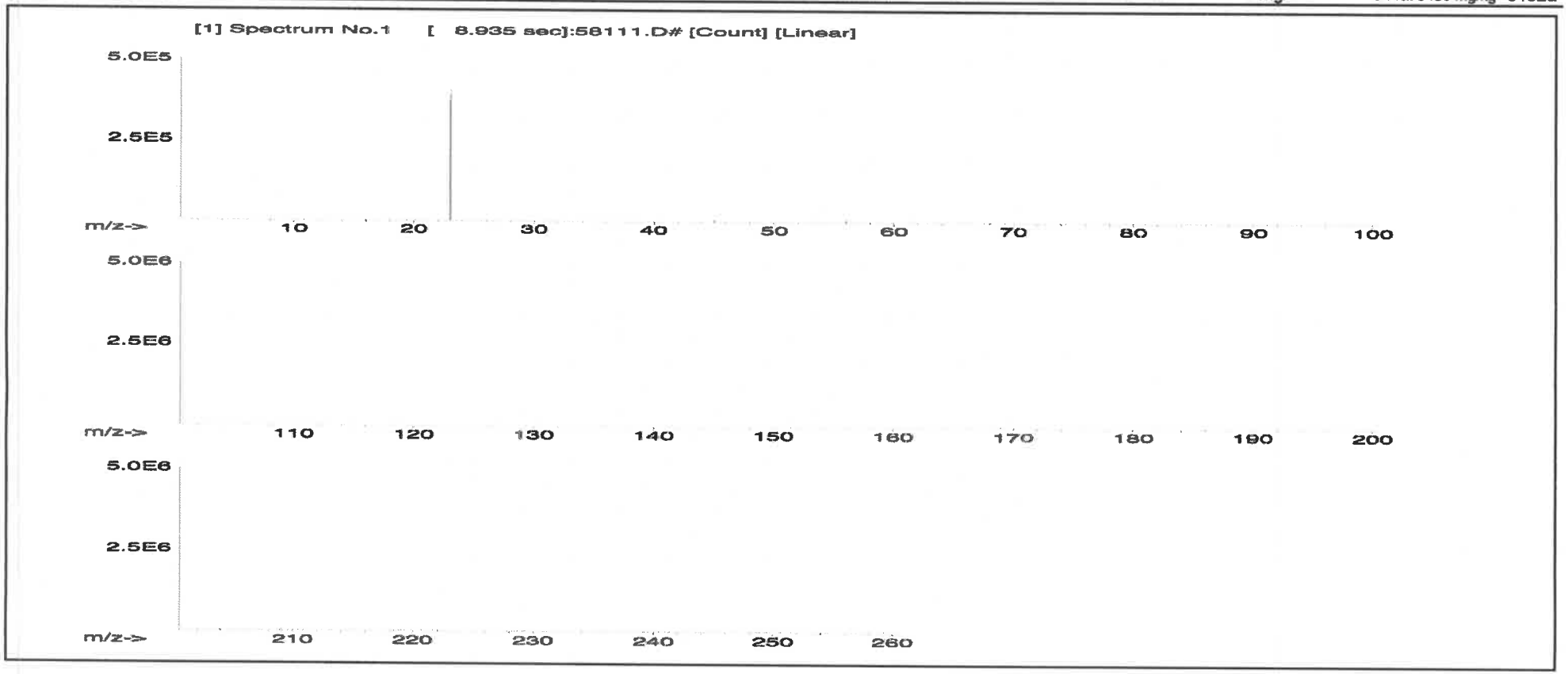
R->1/13/25

M6144

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Rentas	072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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Certified Reference Material CRM

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

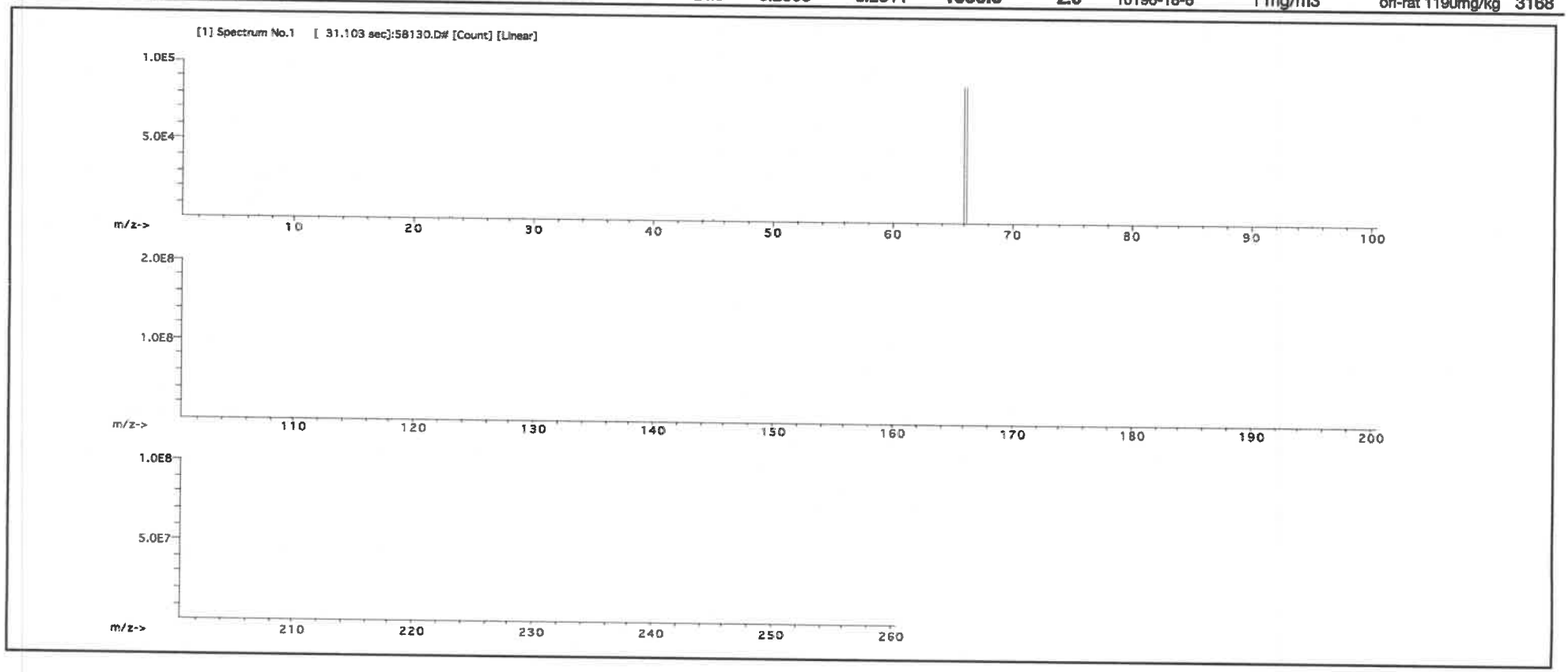
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

				Lot #	
Solvent:	24012496	Nitric Acid			
	2%	40.0 (mL)	Nitric Acid		
	5E-05	Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



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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	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	CN^-	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES™
Refine your results. Redefine your industry.

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.

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.

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Certified Reference Material CRM

M6030

R: 8/5/24

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

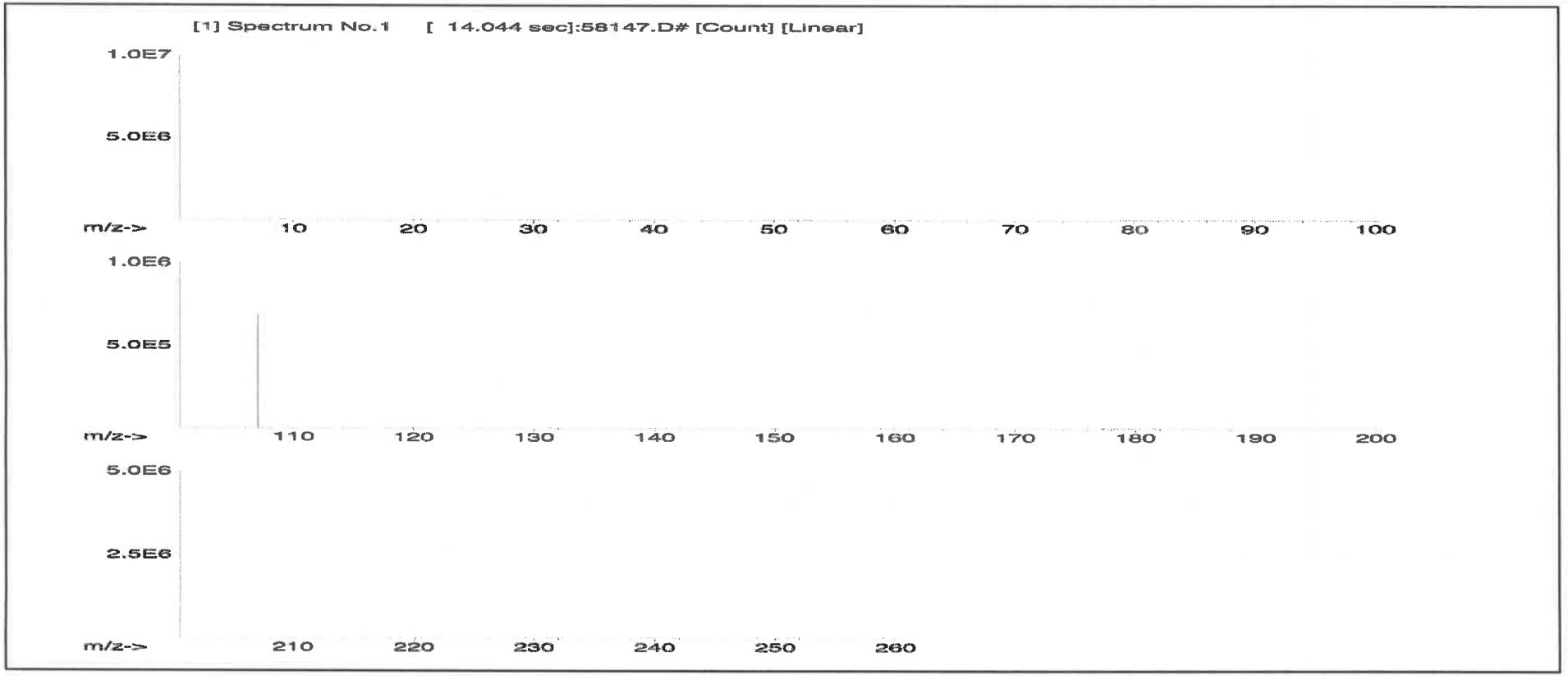
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

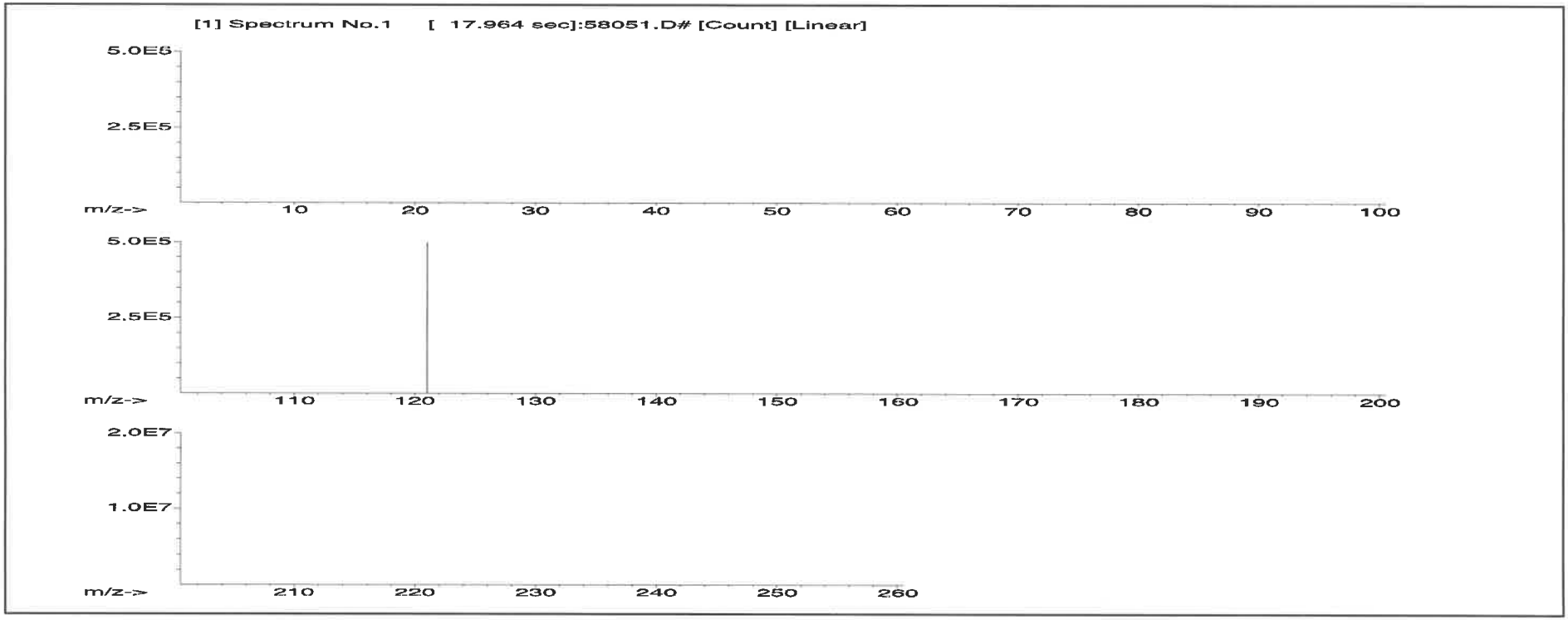
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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R: 03/16/23 M5473, M5474, M5475, M5476

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 0.058 Flask Uncertainty

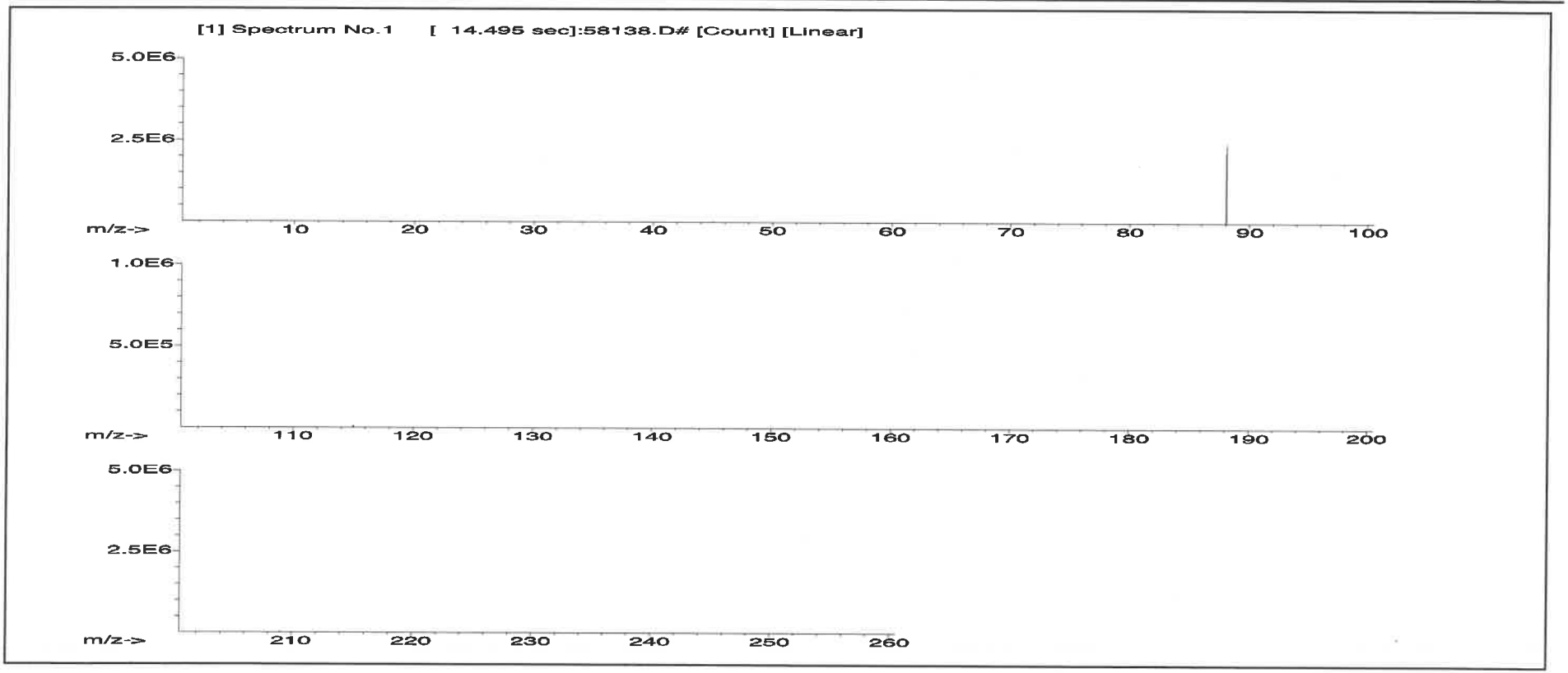
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance 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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	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.

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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6023

R ! 8/5/24

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AR-1539 Certificate Number
https://Absolutestandards.com

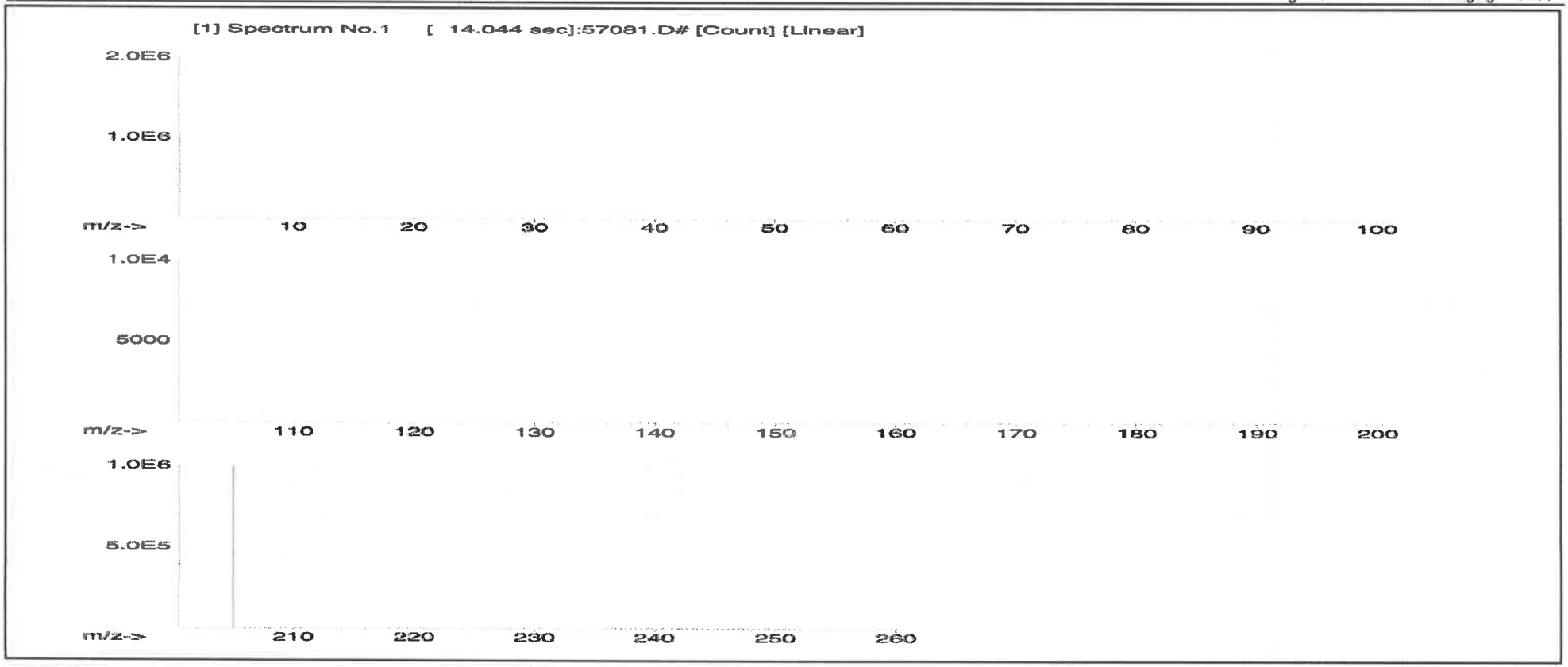
CERTIFIED WEIGHT REPORT:

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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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Certified Reference Material CRM

M6021

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AR-1539 Certificate Number
https://Absolutestandards.com

Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

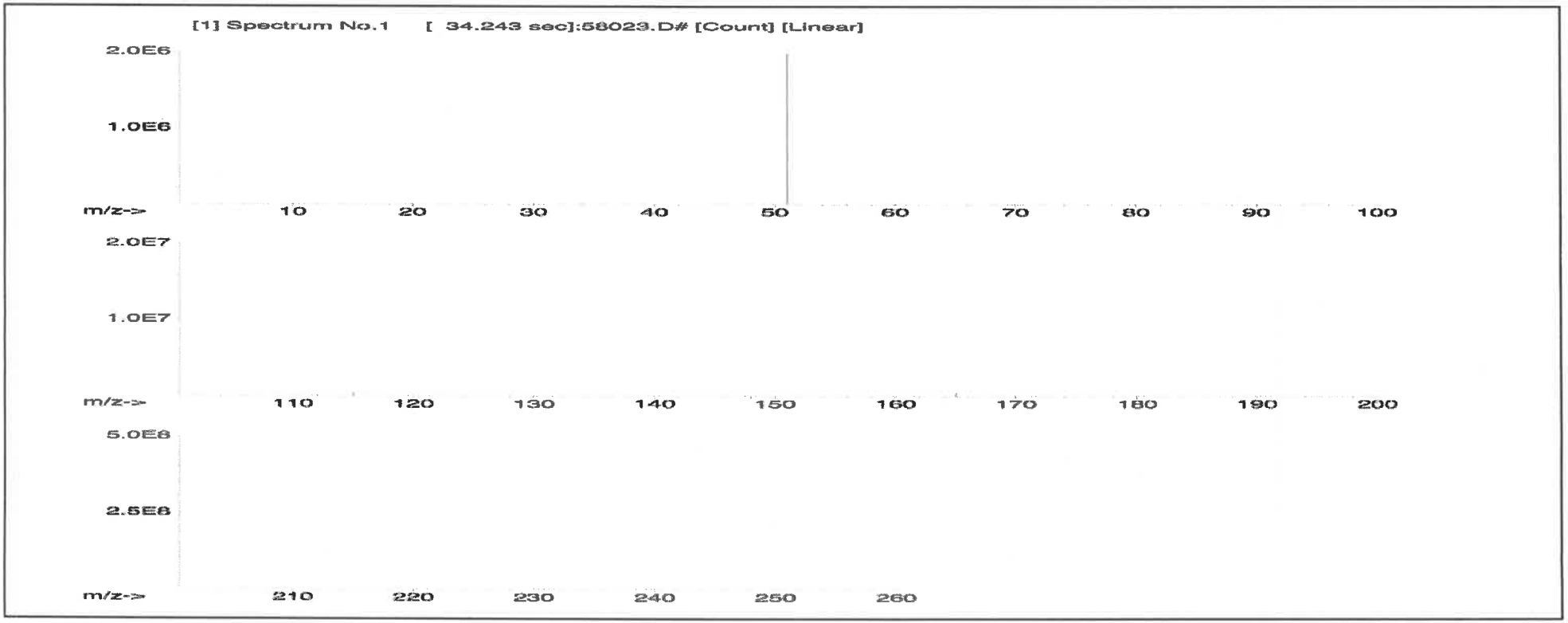
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



512 of 518
Q1383-METALS

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AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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SHIPPING DOCUMENTS

Q1383

Chemtech

Phone: (908) 789-8900
Fax: (908) 789-8922
284 Sheffield Street, Mountainside, NJ 07092

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 4_01/08/2020

Company Name:	Nobis Group
Address:	55 Technology Dr Suite 101, Lowell, MA 01851
Phone:	978-703-6014
Project Name:	Raymark
Project Location:	Stratford, CT
Project Number:	95700
Project Manager:	Adam Roy
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	A. Brittingham

Requested Turnaround Time
5-Day ☐ 10-Day ☑
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐ No
Email To: aroy@nobis-group.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☑
NON SOXHLET ☐

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	M/O	RCP VOCs	% Solids	PAHs	Herbicides	Pesticides	PCBs	Metals ICP + Hg - 6010	Cyanide	SPLP RCP Metals - 6020	
	OU4-PCS-TC-11-021725	2/17/25	9:20	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-12-021725	2/17/25	9:25	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-13-021725	2/17/25	9:30	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-14-021725	2/17/25	9:35	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-15-021725	2/17/25	9:40	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-16-021725	2/17/25	9:45	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-17-021725	2/17/25	9:50	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-18-021725	2/17/25	9:55	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-19-021725	2/17/25	10:00	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-20-021725	2/17/25	10:05	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-CF-15-021725	2/17/25	8:15	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	

Relinquished by: (signature) Date/Time: 2/17/25 1200
Received by: (signature) Date/Time: 2-18-25 10:25
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☑ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

IR Gun # 1
3.1 C

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

[2] Preservation Code

Container Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Contest is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Q1383-METALS

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	Q1383 NOBI03	**Order Date :**	2/18/2025 11:19:00 AM	**Project Mgr :**	
Client Name :	Nobis Group	**Project Name :**	Raymark Superfund Site	**Report Type :**	Level 4
Client Contact :	Adam Roy	**Receive DateTime :**	2/18/2025 10:25:00 AM	**EDD Type :**	EQUIS
Invoice Name :	Nobis Group	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Adam Roy			**Date Signoff :**	

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1383-01	OU4-PCS-TC-11-021725	Solid	02/17/2025	09:20					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-03	OU4-PCS-TC-12-021725	Solid	02/17/2025	09:25					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-05	OU4-PCS-TC-13-021725	Solid	02/17/2025	09:30					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-07	OU4-PCS-TC-14-021725	Solid	02/17/2025	09:35					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-09	OU4-PCS-TC-15-021725	Solid	02/17/2025	09:40					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-11	OU4-PCS-TC-16-021725	Solid	02/17/2025	09:45					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-13	OU4-PCS-TC-17-021725	Solid	02/17/2025	09:50					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-15	OU4-PCS-TC-18-021725	Solid	02/17/2025	09:55					

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

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Client Name : Nobis Group **Project Name :** Raymark Superfund Site **Report Type :** Level 4
Client Contact : Adam Roy **Receive DateTime :** 2/18/2025 10:25:00 AM **EDD Type :** EQUIS
Invoice Name : Nobis Group **Purchase Order :** **Hard Copy Date :**
Invoice Contact : Adam Roy **Date Signoff :**

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-17	OU4-PCS-TC-19-021725	Solid	02/17/2025	10:00					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-19	OU4-PCS-TC-20-021725	Solid	02/17/2025	10:05					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-21	~~OU4-PCS-TC-1~~-021725 OU4-EFIS	Solid	02/17/2025	08:15					
					VOCMS Group3		8260D	10 Bus. Days	

Relinguished By : _____
Date / Time : 2-18-25 1245

Received By : _____
Date / Time : 02/18/25

Storage Area : **VOA Refridgerator Room**