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 : Q1382

ATTENTION : Adam Roy

Laboratory Certification ID # 20012

Table Of Contents for Q1382

1) METALS DATA 2

2) Signature Page 4

3) Case Narrative 5

4) Qualifier Page 7

5) Conformance/Non Conformance 8

6) QA Checklist 9

7) Chronicle 10

8) Hit Summary 13

9) Sample Data 16

- 9.1) OU4-PCS-TC-01-021725 17
- 9.2) OU4-PCS-TC-02-021725 18
- 9.3) OU4-PCS-TC-03-021725 19
- 9.4) OU4-PCS-TC-04-021725 20
- 9.5) OU4-PCS-TC-05-021725 21
- 9.6) OU4-PCS-TC-06-021725 22
- 9.7) OU4-PCS-TC-07-021725 23
- 9.8) OU4-PCS-TC-08-021725 24
- 9.9) OU4-PCS-TC-09-021725 25
- 9.10) OU4-PCS-TC-10-021725 26

10) METALS CALIBRATION DATA 27

- 10.1) Initial and Continuing Calibration Verification 28
- 10.2) CRDL Standard For AA & ICP 34
- 10.3) Initial and Continuing Calibration Blank Summary 35
- 10.4) Preparation Blank Summary 40
- 10.5) Interference Check Sample 42

11) METALS QC DATA 43

- 11.1) Matrix Spike Summary 44
- 11.2) Post Digest Spike Summary 46
- 11.3) Duplicate Sample Summary 47
- 11.4) Laboratory Control Sample Summary 49
- 11.5) Internal Standard Relative Intensity Summary8A 51
- 11.6) Internal Standard Relative Intensity Summary8B 55
- 11.7) ICP Serial Dilutions 59

12) METALS PREPARATION & INSTRUMENT DATA 60

13) PREPARATION & ANALYTICAL SUMMARY 61

13.1) Sample Preparation Summary 62
13.2) Analysis Run Log 64
14) METALS RAW DATA 66
14.1) METALS RAW DATA - ANALYTICAL 67
14.2) LB134788 67
14.3) LB134821 69
14.4) METALS RAW DATA - PREP 349
14.4.1) PB166841 349
14.4.2) PB166778 352
15) Analytical Runlogs 355
16) Extraction Logs 361
16.1) PB166761.pdf 361
17) Standard Prep Logs 365
18) Shipping Document 502
18.1) Chain Of Custody 503
18.2) Lab Certificate 504
18.3) Internal COC 505

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

Cover Page

Order ID : Q1382

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number	Client Sample Number
Q1382-01	OU4-PCS-TC-01-021725
Q1382-02	OU4-PCS-TC-01-021725
Q1382-03	OU4-PCS-TC-02-021725
Q1382-04	OU4-PCS-TC-02-021725
Q1382-05	OU4-PCS-TC-03-021725
Q1382-06	OU4-PCS-TC-03-021725
Q1382-07	OU4-PCS-TC-04-021725
Q1382-08	OU4-PCS-TC-04-021725
Q1382-09	OU4-PCS-TC-05-021725
Q1382-10	OU4-PCS-TC-05-021725
Q1382-11	OU4-PCS-TC-06-021725
Q1382-12	OU4-PCS-TC-06-021725
Q1382-13	OU4-PCS-TC-07-021725
Q1382-14	OU4-PCS-TC-07-021725
Q1382-15	OU4-PCS-TC-08-021725
Q1382-16	OU4-PCS-TC-08-021725
Q1382-17	OU4-PCS-TC-09-021725
Q1382-18	OU4-PCS-TC-09-021725
Q1382-19	OU4-PCS-TC-10-021725
Q1382-20	OU4-PCS-TC-10-021725

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 : _____

Date: 3/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Nobis Group
Project Name: Raymark Superfund Site
Project # N/A
Chemtech Project # Q1382
Test Name: SPLP MetalGroup3,SPLP Mercury

A. Number of Samples and Date of Receipt:
20 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-PCS-TC-10-021725MS) analysis met criteria for all samples except for Arsenic and Silver due to matrix interference.
The Matrix Spike Duplicate(OU4-PCS-TC-10-021725MSD) 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_____

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: Q1382 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 Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1382

	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

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

LAB CHRONICLE

OrderID:	Q1382	**OrderDate:**	2/18/2025 10:57:00 AM
Client:	Nobis Group	**Project:**	Raymark Superfund Site
Contact:	Adam Roy	**Location:**	H31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1382-01	**OU4-PCS-TC-01-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-02	**OU4-PCS-TC-01-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-03	**OU4-PCS-TC-02-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-04	**OU4-PCS-TC-02-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-05	**OU4-PCS-TC-03-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-06	**OU4-PCS-TC-03-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-07	**OU4-PCS-TC-04-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	

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

LAB CHRONICLE

Q1382-08	**OU4-PCS-TC-04-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-09	**OU4-PCS-TC-05-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-10	**OU4-PCS-TC-05-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-11	**OU4-PCS-TC-06-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-12	**OU4-PCS-TC-06-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-13	**OU4-PCS-TC-07-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-14	**OU4-PCS-TC-07-021725**	**Water**			**02/17/25**			**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25	
			SPLP MetalGroup3	6020B		02/19/25	02/25/25	
Q1382-15	**OU4-PCS-TC-08-021725**	**SOIL**			**02/17/25**			**02/18/25**
			Mercury	7471B		02/21/25	02/21/25	
			Metals ICP-TAL	6010D		02/18/25	02/19/25	
Q1382-16	**OU4-PCS-TC-08-021725**	**Water**			**02/17/25**			**02/18/25**

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

LAB CHRONICLE

			SPLP Mercury	7470A		02/24/25	02/24/25
			SPLP MetalGroup3	6020B		02/19/25	02/25/25
Q1382-17	**OU4-PCS-TC-09-0217-25**	**SOIL**			**02/17/25**		**02/18/25**
			Mercury	7471B		02/21/25	02/21/25
			Metals ICP-TAL	6010D		02/18/25	02/19/25
Q1382-18	**OU4-PCS-TC-09-0217-25**	**Water**			**02/17/25**		**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25
			SPLP MetalGroup3	6020B		02/19/25	02/25/25
Q1382-19	**OU4-PCS-TC-10-0217-25**	**SOIL**			**02/17/25**		**02/18/25**
			Mercury	7471B		02/21/25	02/21/25
			Metals ICP-TAL	6010D		02/18/25	02/19/25
Q1382-20	**OU4-PCS-TC-10-0217-25**	**Water**			**02/17/25**		**02/18/25**
			SPLP Mercury	7470A		02/24/25	02/24/25
			SPLP MetalGroup3	6020B		02/19/25	02/25/25

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

Hit Summary Sheet
SW-846

SDG No.: Q1382 **Order ID:** Q1382

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-01-021725									
Q1382-02	OU4-PCS-TC-01-021725	Water	Arsenic	2.10	JD	0.45	1.25	5.00	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Barium	125	D	1.50	6.25	50.0	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Beryllium	1.00	JD	0.80	1.25	5.00	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Chromium	5.30	JD	2.00	3.75	10.0	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Copper	95.8	D	2.00	7.50	10.0	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Lead	1.45	JD	0.55	3.75	5.00	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Nickel	27.2	D	0.90	1.25	5.00	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Vanadium	92.4	D	0.36	1.25	25.0	ug/L
Q1382-02	OU4-PCS-TC-01-021725	Water	Zinc	698	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-02-021725									
Q1382-04	OU4-PCS-TC-02-021725	Water	Arsenic	2.10	JD	0.45	1.25	5.00	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Barium	111	D	1.50	6.25	50.0	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Beryllium	1.05	JD	0.80	1.25	5.00	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Chromium	8.05	JD	2.00	3.75	10.0	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Copper	104	D	2.00	7.50	10.0	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Lead	1.55	JD	0.55	3.75	5.00	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Nickel	31.7	D	0.90	1.25	5.00	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Vanadium	169	D	0.36	1.25	25.0	ug/L
Q1382-04	OU4-PCS-TC-02-021725	Water	Zinc	817	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-03-021725									
Q1382-06	OU4-PCS-TC-03-021725	Water	Antimony	1.45	JD	0.55	1.25	10.0	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Arsenic	2.60	JD	0.45	1.25	5.00	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Barium	121	D	1.50	6.25	50.0	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Beryllium	1.05	JD	0.80	1.25	5.00	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Chromium	10.1	D	2.00	3.75	10.0	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Copper	101	D	2.00	7.50	10.0	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Lead	2.00	JD	0.55	3.75	5.00	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Nickel	32.3	D	0.90	1.25	5.00	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Vanadium	190	D	0.36	1.25	25.0	ug/L
Q1382-06	OU4-PCS-TC-03-021725	Water	Zinc	770	D	2.80	7.50	25.0	ug/L
Client ID : OU4-PCS-TC-04-021725									
Q1382-08	OU4-PCS-TC-04-021725	Water	Arsenic	2.00	JD	0.45	1.25	5.00	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Barium	117	D	1.50	6.25	50.0	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Beryllium	0.95	JD	0.80	1.25	5.00	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Chromium	8.10	JD	2.00	3.75	10.0	ug/L

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

Hit Summary Sheet
SW-846

SDG No.: Q1382 **Order ID:** Q1382

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Q1382-08	OU4-PCS-TC-04-021725	Water	Copper	150	D	2.00	7.50	10.0	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Lead	1.35	JD	0.55	3.75	5.00	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Nickel	33.1	D	0.90	1.25	5.00	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Vanadium	103	D	0.36	1.25	25.0	ug/L
Q1382-08	OU4-PCS-TC-04-021725	Water	Zinc	732	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-05-021725**								
Q1382-10	OU4-PCS-TC-05-021725	Water	Arsenic	2.50	JD	0.45	1.25	5.00	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Barium	122	D	1.50	6.25	50.0	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Beryllium	0.95	JD	0.80	1.25	5.00	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Chromium	7.80	JD	2.00	3.75	10.0	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Copper	100	D	2.00	7.50	10.0	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Lead	1.55	JD	0.55	3.75	5.00	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Nickel	31.2	D	0.90	1.25	5.00	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Vanadium	156	D	0.36	1.25	25.0	ug/L
Q1382-10	OU4-PCS-TC-05-021725	Water	Zinc	788	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-06-021725**								
Q1382-12	OU4-PCS-TC-06-021725	Water	Arsenic	2.90	JD	0.45	1.25	5.00	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Barium	113	D	1.50	6.25	50.0	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Beryllium	1.00	JD	0.80	1.25	5.00	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Chromium	16.8	D	2.00	3.75	10.0	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Copper	109	D	2.00	7.50	10.0	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Lead	2.10	JD	0.55	3.75	5.00	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Nickel	40.2	D	0.90	1.25	5.00	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Mercury	0.096	J	0.081	0.16	0.20	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Vanadium	237	D	0.36	1.25	25.0	ug/L
Q1382-12	OU4-PCS-TC-06-021725	Water	Zinc	819	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-07-021725**								
Q1382-14	OU4-PCS-TC-07-021725	Water	Arsenic	2.55	JD	0.45	1.25	5.00	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Barium	122	D	1.50	6.25	50.0	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Beryllium	1.15	JD	0.80	1.25	5.00	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Chromium	10.8	D	2.00	3.75	10.0	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Copper	118	D	2.00	7.50	10.0	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Lead	2.20	JD	0.55	3.75	5.00	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Nickel	36.7	D	0.90	1.25	5.00	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Vanadium	224	D	0.36	1.25	25.0	ug/L
Q1382-14	OU4-PCS-TC-07-021725	Water	Zinc	865	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-08-021725**								
Q1382-16	OU4-PCS-TC-08-021725	Water	Arsenic	2.85	JD	0.45	1.25	5.00	ug/L

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

Hit Summary Sheet
SW-846

SDG No.: Q1382 **Order ID:** Q1382

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

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Q1382-16	OU4-PCS-TC-08-021725	Water	Barium	118	D	1.50	6.25	50.0	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Beryllium	1.10	JD	0.80	1.25	5.00	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Chromium	10.3	D	2.00	3.75	10.0	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Copper	102	D	2.00	7.50	10.0	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Lead	1.80	JD	0.55	3.75	5.00	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Nickel	33.9	D	0.90	1.25	5.00	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Vanadium	188	D	0.36	1.25	25.0	ug/L
Q1382-16	OU4-PCS-TC-08-021725	Water	Zinc	726	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-09-021725**								
Q1382-18	OU4-PCS-TC-09-021725	Water	Arsenic	2.80	JD	0.45	1.25	5.00	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Barium	105	D	1.50	6.25	50.0	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Beryllium	1.10	JD	0.80	1.25	5.00	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Chromium	12.9	D	2.00	3.75	10.0	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Copper	115	D	2.00	7.50	10.0	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Lead	2.00	JD	0.55	3.75	5.00	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Nickel	38.9	D	0.90	1.25	5.00	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Vanadium	233	D	0.36	1.25	25.0	ug/L
Q1382-18	OU4-PCS-TC-09-021725	Water	Zinc	767	D	2.80	7.50	25.0	ug/L
Client ID :	**OU4-PCS-TC-10-021725**								
Q1382-20	OU4-PCS-TC-10-021725	Water	Arsenic	2.80	JD	0.45	1.25	5.00	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Barium	116	D	1.50	6.25	50.0	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Beryllium	1.30	JD	0.80	1.25	5.00	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Chromium	11.2	D	2.00	3.75	10.0	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Copper	117	D	2.00	7.50	10.0	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Lead	2.15	JD	0.55	3.75	5.00	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Nickel	37.5	D	0.90	1.25	5.00	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Vanadium	231	D	0.36	1.25	25.0	ug/L
Q1382-20	OU4-PCS-TC-10-021725	Water	Zinc	769	D	2.80	7.50	25.0	ug/L

SAMPLE DATA

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-01-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-02	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 12:30	02/25/25 12:15	SW6020	3010A
7440-38-2	Arsenic	2.10	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-39-3	Barium	125	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-41-7	Beryllium	1.00	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-47-3	Chromium	5.30	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-50-8	Copper	95.8	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7439-92-1	Lead	1.45	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	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 11:06	SW7470A	
7440-02-0	Nickel	27.2	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-62-2	Vanadium	92.4	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:15	SW6020	3010A
7440-66-6	Zinc	698	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:15	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

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-02-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-04	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 12:30	02/25/25 12:18	SW6020	3010A
7440-38-2	Arsenic	2.10	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-39-3	Barium	111	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-41-7	Beryllium	1.05	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-47-3	Chromium	8.05	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-50-8	Copper	104	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7439-92-1	Lead	1.55	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	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 10:56	SW7470A	
7440-02-0	Nickel	31.7	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-62-2	Vanadium	169	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:18	SW6020	3010A
7440-66-6	Zinc	817	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:18	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

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-03-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-06	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	1.45	JD	5	0.55	1.25	10.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-38-2	Arsenic	2.60	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-39-3	Barium	121	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-41-7	Beryllium	1.05	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-47-3	Chromium	10.1	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-50-8	Copper	101	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7439-92-1	Lead	2.00	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	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 10:59	SW7470A	
7440-02-0	Nickel	32.3	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-62-2	Vanadium	190	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:22	SW6020	3010A
7440-66-6	Zinc	770	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:22	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

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-04-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-08	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 12:30	02/25/25 12:25	SW6020	3010A
7440-38-2	Arsenic	2.00	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-39-3	Barium	117	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-41-7	Beryllium	0.95	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-47-3	Chromium	8.10	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-50-8	Copper	150	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7439-92-1	Lead	1.35	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	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 11:01	SW7470A	
7440-02-0	Nickel	33.1	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-62-2	Vanadium	103	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:25	SW6020	3010A
7440-66-6	Zinc	732	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:25	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

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-05-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-10	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 12:30	02/25/25 12:28	SW6020	3010A
7440-38-2	Arsenic	2.50	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-39-3	Barium	122	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-41-7	Beryllium	0.95	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-47-3	Chromium	7.80	JD	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-50-8	Copper	100	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7439-92-1	Lead	1.55	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	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 11:03	SW7470A	
7440-02-0	Nickel	31.2	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-62-2	Vanadium	156	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:28	SW6020	3010A
7440-66-6	Zinc	788	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:28	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

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-06-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-12	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 12:30	02/25/25 12:31	SW6020	3010A
7440-38-2	Arsenic	2.90	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-39-3	Barium	113	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-41-7	Beryllium	1.00	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-47-3	Chromium	16.8	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-50-8	Copper	109	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7439-92-1	Lead	2.10	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7439-97-6	Mercury	0.096	J	1	0.081	0.16	0.20	ug/L	02/24/25 07:20	02/24/25 11:13	SW7470A	
7440-02-0	Nickel	40.2	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-62-2	Vanadium	237	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:31	SW6020	3010A
7440-66-6	Zinc	819	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:31	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

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-07-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-14	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 12:30	02/25/25 12:44	SW6020	3010A
7440-38-2	Arsenic	2.55	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-39-3	Barium	122	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-41-7	Beryllium	1.15	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-47-3	Chromium	10.8	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-50-8	Copper	118	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7439-92-1	Lead	2.20	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	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 11:15	SW7470A	
7440-02-0	Nickel	36.7	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-62-2	Vanadium	224	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:44	SW6020	3010A
7440-66-6	Zinc	865	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:44	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

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-08-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-16	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 12:30	02/25/25 12:48	SW6020	3010A
7440-38-2	Arsenic	2.85	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-39-3	Barium	118	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-41-7	Beryllium	1.10	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-47-3	Chromium	10.3	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-50-8	Copper	102	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7439-92-1	Lead	1.80	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	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 11:18	SW7470A	
7440-02-0	Nickel	33.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-62-2	Vanadium	188	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:48	SW6020	3010A
7440-66-6	Zinc	726	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:48	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

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-09-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-18	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 12:30	02/25/25 12:51	SW6020	3010A
7440-38-2	Arsenic	2.80	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-39-3	Barium	105	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-41-7	Beryllium	1.10	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-47-3	Chromium	12.9	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-50-8	Copper	115	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7439-92-1	Lead	2.00	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	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 11:20	SW7470A	
7440-02-0	Nickel	38.9	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-62-2	Vanadium	233	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:51	SW6020	3010A
7440-66-6	Zinc	767	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:51	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-10-021725	SDG No.:	Q1382
Lab Sample ID:	Q1382-20	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 12:30	02/25/25 12:54	SW6020	3010A
7440-38-2	Arsenic	2.80	JDN	5	0.45	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-39-3	Barium	116	D	5	1.50	6.25	50.0	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-41-7	Beryllium	1.30	JD	5	0.80	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-43-9	Cadmium	2.50	UD	5	1.50	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-47-3	Chromium	11.2	D	5	2.00	3.75	10.0	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-50-8	Copper	117	D	5	2.00	7.50	10.0	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7439-92-1	Lead	2.15	JD	5	0.55	3.75	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	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 11:22	SW7470A	
7440-02-0	Nickel	37.5	D	5	0.90	1.25	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7782-49-2	Selenium	22.5	UD	5	6.90	22.5	25.0	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-22-4	Silver	2.50	UDN	5	0.39	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-28-0	Thallium	2.50	UD	5	0.43	2.50	5.00	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-62-2	Vanadium	231	D	5	0.36	1.25	25.0	ug/L	02/19/25 12:30	02/25/25 12:54	SW6020	3010A
7440-66-6	Zinc	769	D	5	2.80	7.50	25.0	ug/L	02/19/25 12:30	02/25/25 12:54	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

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	204	200	102	90 - 110	P	02/25/2025	11:33	LB134821
	Arsenic	201	200	100	90 - 110	P	02/25/2025	11:33	LB134821
	Barium	101	100	101	90 - 110	P	02/25/2025	11:33	LB134821
	Beryllium	97.7	100	98	90 - 110	P	02/25/2025	11:33	LB134821
	Cadmium	100.0	100	100	90 - 110	P	02/25/2025	11:33	LB134821
	Chromium	98.8	100	99	90 - 110	P	02/25/2025	11:33	LB134821
	Copper	107	100	106	90 - 110	P	02/25/2025	11:33	LB134821
	Lead	200	200	100	90 - 110	P	02/25/2025	11:33	LB134821
	Nickel	103	110	94	90 - 110	P	02/25/2025	11:33	LB134821
	Selenium	205	200	102	90 - 110	P	02/25/2025	11:33	LB134821
	Silver	47.1	50.0	94	90 - 110	P	02/25/2025	11:33	LB134821
	Thallium	197	210	94	90 - 110	P	02/25/2025	11:33	LB134821
	Vanadium	96.2	100	96	90 - 110	P	02/25/2025	11:33	LB134821
	Zinc	203	200	101	90 - 110	P	02/25/2025	11:33	LB134821

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	2.12	2.0	106	80 - 120	P	02/25/2025	11:36	LB134821
	Arsenic	1.01	1.0	101	80 - 120	P	02/25/2025	11:36	LB134821
	Barium	10.6	10.0	106	80 - 120	P	02/25/2025	11:36	LB134821
	Beryllium	1.10	1.0	110	80 - 120	P	02/25/2025	11:36	LB134821
	Cadmium	0.93	1.0	93	80 - 120	P	02/25/2025	11:36	LB134821
	Chromium	2.00	2.0	100	80 - 120	P	02/25/2025	11:36	LB134821
	Copper	1.83	2.0	92	80 - 120	P	02/25/2025	11:36	LB134821
	Lead	1.09	1.0	109	80 - 120	P	02/25/2025	11:36	LB134821
	Nickel	0.94	1.0	94	80 - 120	P	02/25/2025	11:36	LB134821
	Selenium	5.23	5.0	105	80 - 120	P	02/25/2025	11:36	LB134821
	Silver	1.03	1.0	103	80 - 120	P	02/25/2025	11:36	LB134821
	Thallium	0.98	1.0	98	80 - 120	P	02/25/2025	11:36	LB134821
	Vanadium	5.09	5.0	102	80 - 120	P	02/25/2025	11:36	LB134821
	Zinc	5.56	5.0	111	80 - 120	P	02/25/2025	11:36	LB134821

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	473	500	95	90 - 110	P	02/25/2025	11:51	LB134821
	Arsenic	473	500	95	90 - 110	P	02/25/2025	11:51	LB134821
	Barium	2460	2500	98	90 - 110	P	02/25/2025	11:51	LB134821
	Beryllium	499	500	100	90 - 110	P	02/25/2025	11:51	LB134821
	Cadmium	470	500	94	90 - 110	P	02/25/2025	11:51	LB134821
	Chromium	482	500	96	90 - 110	P	02/25/2025	11:51	LB134821
	Copper	4650	5000	93	90 - 110	P	02/25/2025	11:51	LB134821
	Lead	2500	2500	100	90 - 110	P	02/25/2025	11:51	LB134821
	Nickel	478	500	96	90 - 110	P	02/25/2025	11:51	LB134821
	Selenium	469	500	94	90 - 110	P	02/25/2025	11:51	LB134821
	Silver	461	500	92	90 - 110	P	02/25/2025	11:51	LB134821
	Thallium	491	500	98	90 - 110	P	02/25/2025	11:51	LB134821
	Vanadium	463	500	93	90 - 110	P	02/25/2025	11:51	LB134821
	Zinc	4850	5000	97	90 - 110	P	02/25/2025	11:51	LB134821
CCV02	Antimony	479	500	96	90 - 110	P	02/25/2025	12:36	LB134821
	Arsenic	489	500	98	90 - 110	P	02/25/2025	12:36	LB134821
	Barium	2440	2500	98	90 - 110	P	02/25/2025	12:36	LB134821
	Beryllium	504	500	101	90 - 110	P	02/25/2025	12:36	LB134821
	Cadmium	474	500	95	90 - 110	P	02/25/2025	12:36	LB134821
	Chromium	494	500	99	90 - 110	P	02/25/2025	12:36	LB134821
	Copper	4740	5000	95	90 - 110	P	02/25/2025	12:36	LB134821
	Lead	2510	2500	100	90 - 110	P	02/25/2025	12:36	LB134821
	Nickel	456	500	91	90 - 110	P	02/25/2025	12:36	LB134821
	Selenium	482	500	96	90 - 110	P	02/25/2025	12:36	LB134821
	Silver	469	500	94	90 - 110	P	02/25/2025	12:36	LB134821
	Thallium	499	500	100	90 - 110	P	02/25/2025	12:36	LB134821
	Vanadium	478	500	96	90 - 110	P	02/25/2025	12:36	LB134821
	Zinc	4840	5000	97	90 - 110	P	02/25/2025	12:36	LB134821
CCV03	Antimony	482	500	96	90 - 110	P	02/25/2025	13:20	LB134821
	Arsenic	483	500	97	90 - 110	P	02/25/2025	13:20	LB134821
	Barium	2440	2500	97	90 - 110	P	02/25/2025	13:20	LB134821
	Beryllium	498	500	100	90 - 110	P	02/25/2025	13:20	LB134821
	Cadmium	471	500	94	90 - 110	P	02/25/2025	13:20	LB134821
	Chromium	500	500	100	90 - 110	P	02/25/2025	13:20	LB134821

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.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	4730	5000	95	90 - 110	P	02/25/2025	13:20	LB134821
	Lead	2490	2500	100	90 - 110	P	02/25/2025	13:20	LB134821
	Nickel	458	500	92	90 - 110	P	02/25/2025	13:20	LB134821
	Selenium	473	500	94	90 - 110	P	02/25/2025	13:20	LB134821
	Silver	465	500	93	90 - 110	P	02/25/2025	13:20	LB134821
	Thallium	495	500	99	90 - 110	P	02/25/2025	13:20	LB134821
	Vanadium	475	500	95	90 - 110	P	02/25/2025	13:20	LB134821
	Zinc	4830	5000	97	90 - 110	P	02/25/2025	13:20	LB134821

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

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	2.01	2.0	100	70 - 130	P	02/25/2025	11:58	LB134821
	Arsenic	1.16	1.0	116	70 - 130	P	02/25/2025	11:58	LB134821
	Barium	10.3	10.0	103	70 - 130	P	02/25/2025	11:58	LB134821
	Beryllium	1.07	1.0	107	70 - 130	P	02/25/2025	11:58	LB134821
	Cadmium	0.93	1.0	93	70 - 130	P	02/25/2025	11:58	LB134821
	Chromium	2.04	2.0	102	70 - 130	P	02/25/2025	11:58	LB134821
	Copper	1.87	2.0	94	70 - 130	P	02/25/2025	11:58	LB134821
	Lead	1.06	1.0	106	70 - 130	P	02/25/2025	11:58	LB134821
	Nickel	1.05	1.0	105	70 - 130	P	02/25/2025	11:58	LB134821
	Selenium	5.26	5.0	105	70 - 130	P	02/25/2025	11:58	LB134821
	Silver	0.99	1.0	99	70 - 130	P	02/25/2025	11:58	LB134821
	Thallium	0.98	1.0	98	70 - 130	P	02/25/2025	11:58	LB134821
	Vanadium	5.05	5.0	101	70 - 130	P	02/25/2025	11:58	LB134821
	Zinc	5.41	5.0	108	50 - 150	P	02/25/2025	11:58	LB134821

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	02/25/2025	11:41	LB134821
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:41	LB134821
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/25/2025	11:41	LB134821
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:41	LB134821
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:41	LB134821
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/25/2025	11:41	LB134821
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/25/2025	11:41	LB134821
	Lead	1.00	+/-1.00	U	0.75	1.00	P	02/25/2025	11:41	LB134821
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:41	LB134821
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/25/2025	11:41	LB134821
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:41	LB134821
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:41	LB134821
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/25/2025	11:41	LB134821
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/25/2025	11:41	LB134821

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	02/25/2025	11:55	LB134821
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:55	LB134821
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/25/2025	11:55	LB134821
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:55	LB134821
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:55	LB134821
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/25/2025	11:55	LB134821
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/25/2025	11:55	LB134821
	Lead	0.18	+/-1.00	J	0.75	1.00	P	02/25/2025	11:55	LB134821
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	11:55	LB134821
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/25/2025	11:55	LB134821
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:55	LB134821
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	11:55	LB134821
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/25/2025	11:55	LB134821
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/25/2025	11:55	LB134821
CCB02	Antimony	2.00	+/-2.00	U	0.25	2.00	P	02/25/2025	12:40	LB134821
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	12:40	LB134821
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/25/2025	12:40	LB134821
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	12:40	LB134821
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	12:40	LB134821
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/25/2025	12:40	LB134821
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/25/2025	12:40	LB134821
	Lead	0.14	+/-1.00	J	0.75	1.00	P	02/25/2025	12:40	LB134821
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	12:40	LB134821
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/25/2025	12:40	LB134821
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	12:40	LB134821
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	12:40	LB134821
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/25/2025	12:40	LB134821
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/25/2025	12:40	LB134821
CCB03	Antimony	0.11	+/-2.00	J	0.25	2.00	P	02/25/2025	13:23	LB134821
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	13:23	LB134821
	Barium	10.0	+/-10.0	U	1.25	10.0	P	02/25/2025	13:23	LB134821
	Beryllium	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	13:23	LB134821
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	13:23	LB134821
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	02/25/2025	13:23	LB134821
	Copper	2.00	+/-2.00	U	1.50	2.00	P	02/25/2025	13:23	LB134821
	Lead	0.16	+/-1.00	J	0.75	1.00	P	02/25/2025	13:23	LB134821
	Nickel	1.00	+/-1.00	U	0.25	1.00	P	02/25/2025	13:23	LB134821
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	02/25/2025	13:23	LB134821
	Silver	1.00	+/-1.00	U	0.50	1.00	P	02/25/2025	13:23	LB134821

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	02/25/2025	13:23	LB134821
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	02/25/2025	13:23	LB134821
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	02/25/2025	13:23	LB134821

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166841BL		**WATER**		**Batch Number:**		**PB166841**		**Prep Date:**	**02/24/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	02/24/2025	10:49	LB134788

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166841TB		**WATER**		**Batch Number:**		**PB166841**		**Prep Date:**	**02/24/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	02/24/2025	12:17	LB134788

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Instrument: P8

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166778BL		**WATER**		**Batch Number:**		**PB166778**		**Prep Date:**	**02/19/2025**	
	Antimony	2.00	<2.00	U	0.25	2.00	P	02/25/2025	12:02	LB134821
	Arsenic	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:02	LB134821
	Barium	10.0	<10.0	U	1.25	10.0	P	02/25/2025	12:02	LB134821
	Beryllium	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:02	LB134821
	Cadmium	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:02	LB134821
	Chromium	2.00	<2.00	U	0.75	2.00	P	02/25/2025	12:02	LB134821
	Copper	2.00	<2.00	U	1.50	2.00	P	02/25/2025	12:02	LB134821
	Lead	1.00	<1.00	U	0.75	1.00	P	02/25/2025	12:02	LB134821
	Nickel	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:02	LB134821
	Selenium	5.00	<5.00	U	4.50	5.00	P	02/25/2025	12:02	LB134821
	Silver	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:02	LB134821
	Thallium	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:02	LB134821
	Vanadium	5.00	<5.00	U	0.25	5.00	P	02/25/2025	12:02	LB134821
	Zinc	5.00	<5.00	U	1.50	5.00	P	02/25/2025	12:02	LB134821

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166778TB		**WATER**		**Batch Number:**		**PB166778**		**Prep Date:**	**02/19/2025**	
	Antimony	2.00	<2.00	U	0.25	2.00	P	02/25/2025	12:12	LB134821
	Arsenic	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:12	LB134821
	Barium	0.31	<10.0	J	1.25	10.0	P	02/25/2025	12:12	LB134821
	Beryllium	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:12	LB134821
	Cadmium	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:12	LB134821
	Chromium	2.00	<2.00	U	0.75	2.00	P	02/25/2025	12:12	LB134821
	Copper	2.00	<2.00	U	1.50	2.00	P	02/25/2025	12:12	LB134821
	Lead	0.12	<1.00	J	0.75	1.00	P	02/25/2025	12:12	LB134821
	Nickel	1.00	<1.00	U	0.25	1.00	P	02/25/2025	12:12	LB134821
	Selenium	5.00	<5.00	U	4.50	5.00	P	02/25/2025	12:12	LB134821
	Silver	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:12	LB134821
	Thallium	1.00	<1.00	U	0.50	1.00	P	02/25/2025	12:12	LB134821
	Vanadium	5.00	<5.00	U	0.25	5.00	P	02/25/2025	12:12	LB134821
	Zinc	5.00	<5.00	U	1.50	5.00	P	02/25/2025	12:12	LB134821

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

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	1.08	1.5	72	-2.5	5.5	02/25/2025	11:45	LB134821
	Arsenic	0.31	0.1	310	-1.9	2.1	02/25/2025	11:45	LB134821
	Barium	1.52	1.2	127	-18.8	21.2	02/25/2025	11:45	LB134821
	Beryllium	0.31			-2	2	02/25/2025	11:45	LB134821
	Cadmium	0.40	0.7	57	-1.3	2.7	02/25/2025	11:45	LB134821
	Chromium	19.0	21.0	90	17	25	02/25/2025	11:45	LB134821
	Copper	8.03	8.0	100	4	12	02/25/2025	11:45	LB134821
	Lead	4.40	4.0	110	2	6	02/25/2025	11:45	LB134821
	Nickel	5.08	6.0	85	4	8	02/25/2025	11:45	LB134821
	Selenium	0.11	0.3	37	-9.7	10	02/25/2025	11:45	LB134821
	Silver	0.060			-2	2	02/25/2025	11:45	LB134821
	Thallium	0.13			-2	2	02/25/2025	11:45	LB134821
	Vanadium	0.15	0.5	30	-9.5	10.5	02/25/2025	11:45	LB134821
	Zinc	11.2	11.0	102	7	15	02/25/2025	11:45	LB134821
ICSAB01	Antimony	20.5	22.0	93	18	26	02/25/2025	11:48	LB134821
	Arsenic	20.8	19.0	110	16.2	21.9	02/25/2025	11:48	LB134821
	Barium	21.5	22.0	98	2	42	02/25/2025	11:48	LB134821
	Beryllium	20.4	19.0	107	16.2	21.9	02/25/2025	11:48	LB134821
	Cadmium	19.0	20.0	95	17	23	02/25/2025	11:48	LB134821
	Chromium	37.6	40.0	94	34	46	02/25/2025	11:48	LB134821
	Copper	27.6	25.0	110	21	29	02/25/2025	11:48	LB134821
	Lead	23.7	25.0	95	21.3	28.8	02/25/2025	11:48	LB134821
	Nickel	24.0	24.0	100	20.4	27.6	02/25/2025	11:48	LB134821
	Selenium	19.9	19.0	105	9	29	02/25/2025	11:48	LB134821
	Silver	18.1	18.0	101	15.3	20.7	02/25/2025	11:48	LB134821
	Thallium	19.9	21.0	95	17.9	24.2	02/25/2025	11:48	LB134821
	Vanadium	19.3	19.0	102	9	29	02/25/2025	11:48	LB134821
	Zinc	30.6	29.0	106	25	33	02/25/2025	11:48	LB134821

METAL QC DATA

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q1382

contract: NOBI03 **lab code:** CHEM **case no.:** Q1382 **sas no.:** Q1382

matrix: Water **sample id:** Q1382-20 **client id:** OU4-PCS-TC-10-021725MS

Percent Solids for Sample: NA **Spiked ID:** Q1382-20MS **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	472	D	10.0	UD	500	94		P
Arsenic	ug/L	84 - 116	3.00	JD	2.80	JD	500	0	N	P
Barium	ug/L	86 - 114	2320	D	116	D	2500	88		P
Beryllium	ug/L	83 - 121	436	D	1.30	JD	500	87		P
Cadmium	ug/L	87 - 115	455	D	5.00	UD	500	91		P
Chromium	ug/L	85 - 116	453	D	11.2	D	500	88		P
Copper	ug/L	85 - 118	5130	D	117	D	5000	100		P
Lead	ug/L	88 - 115	2350	D	2.15	JD	2500	94		P
Nickel	ug/L	85 - 117	494	D	37.5	D	500	91		P
Mercury	ug/L	82 - 119	4.05		0.20	U	4.0	101		CV
Selenium	ug/L	80 - 120	447	D	25.0	UD	500	89		P
Silver	ug/L	85 - 116	76.6	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	688	D	231	D	500	92		P
Zinc	ug/L	83 - 119	5520	D	769	D	5000	95		P

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Nobis Group **level:** low **sdg no.:** Q1382

contract: NOBI03 **lab code:** CHEM **case no.:** Q1382 **sas no.:** Q1382

matrix: Water **sample id:** Q1382-20 **client id:** OU4-PCS-TC-10-021725MSD

Percent Solids for Sample: NA **Spiked ID:** Q1382-20MSD **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	457	D	10.0	UD	500	91		P
Arsenic	ug/L	84 - 116	3.15	JD	2.80	JD	500	0	N	P
Barium	ug/L	86 - 114	2290	D	116	D	2500	87		P
Beryllium	ug/L	83 - 121	430	D	1.30	JD	500	86		P
Cadmium	ug/L	87 - 115	451	D	5.00	UD	500	90		P
Chromium	ug/L	85 - 116	447	D	11.2	D	500	87		P
Copper	ug/L	85 - 118	5060	D	117	D	5000	99		P
Lead	ug/L	88 - 115	2330	D	2.15	JD	2500	93		P
Nickel	ug/L	85 - 117	486	D	37.5	D	500	90		P
Mercury	ug/L	82 - 119	3.63		0.20	U	4.0	91		CV
Selenium	ug/L	80 - 120	450	D	25.0	UD	500	90		P
Silver	ug/L	85 - 116	76.6	D	5.00	UD	500	15	N	P
Thallium	ug/L	82 - 116	457	D	5.00	UD	500	91		P
Vanadium	ug/L	86 - 115	677	D	231	D	500	89		P
Zinc	ug/L	83 - 119	5470	D	769	D	5000	94		P

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

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

Matrix: Water **Level:** LOW **Client ID:** OU4-PCS-TC-10-021725A

Sample ID: Q1382-20 **Spiked ID:** Q1382-20A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	84 - 116	2.80	JD	2.80	JD	500	0		P
Silver	ug/L	85 - 116	75.7	D	5.00	UD	500	15		P

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

Matrix: Water **Sample ID:** Q1382-20 **Client ID:** OU4-PCS-TC-10-021725DUP

Percent Solids for Sample: NA **Duplicate ID** Q1382-20DUP **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	2.80	JD	3.25	JD	15		P
Barium	ug/L	20	116	D	115	D	1		P
Beryllium	ug/L	20	1.30	JD	1.35	JD	4		P
Cadmium	ug/L	20	5.00	UD	5.00	UD			P
Chromium	ug/L	20	11.2	D	10.9	D	2		P
Copper	ug/L	20	117	D	116	D	1		P
Lead	ug/L	20	2.15	JD	2.10	JD	2		P
Nickel	ug/L	20	37.5	D	37.8	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	231	D	234	D	1		P
Zinc	ug/L	20	769	D	765	D	1		P

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

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

Matrix: Water **Sample ID:** Q1382-20MS **Client ID:** OU4-PCS-TC-10-021725MSD

Percent Solids for Sample: NA **Duplicate ID** Q1382-20MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	20	472	D	457	D	3		P
Arsenic	ug/L	20	3.00	JD	3.15	JD	5		P
Barium	ug/L	20	2320	D	2290	D	1		P
Beryllium	ug/L	20	436	D	430	D	1		P
Cadmium	ug/L	20	455	D	451	D	1		P
Chromium	ug/L	20	453	D	447	D	1		P
Copper	ug/L	20	5130	D	5060	D	1		P
Lead	ug/L	20	2350	D	2330	D	1		P
Nickel	ug/L	20	494	D	486	D	2		P
Mercury	ug/L	20	4.05		3.63		11		CV
Selenium	ug/L	20	447	D	450	D	1		P
Silver	ug/L	20	76.6	D	76.6	D	0		P
Thallium	ug/L	20	463	D	457	D	1		P
Vanadium	ug/L	20	688	D	677	D	2		P
Zinc	ug/L	20	5520	D	5470	D	1		P

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

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166778BS							
Antimony	ug/L	500	499		100	85 - 117	P
Arsenic	ug/L	500	505		101	84 - 116	P
Barium	ug/L	2500	2480		99	86 - 114	P
Beryllium	ug/L	500	501		100	83 - 121	P
Cadmium	ug/L	500	506		101	87 - 115	P
Chromium	ug/L	500	512		102	85 - 116	P
Copper	ug/L	5000	5130		103	85 - 118	P
Lead	ug/L	2500	2510		100	88 - 115	P
Nickel	ug/L	500	485		97	85 - 117	P
Selenium	ug/L	500	506		101	80 - 120	P
Silver	ug/L	500	505		101	85 - 116	P
Thallium	ug/L	500	501		100	82 - 116	P
Vanadium	ug/L	500	487		97	86 - 115	P
Zinc	ug/L	5000	5200		104	83 - 119	P

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** Q1382

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** Q1382 **SAS No.:** Q1382

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166841BS							
Mercury	ug/L	4.0	4.37		109	82 - 119	CV

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

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

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	1100	100		100		100		100		100	
S2	S2	1103	101		100		101		99		100	
S3	S3	1107	98		96		98		97		99	
S4	S4	1110	97		97		98		94		98	
S5	S5	1113	96		96		97		93		98	
S6	S6	1116	96		97		97		94		99	
S7	S7	1118	97		99		99		93		100	
S8	S8	1121	88		92		92		81		92	
ICV01	ICV01	1133	99		99		99		98		98	
LLICV	LLICV	1136	99		99		99		98		98	
ICB01	ICB01	1141	99		99		98		98		99	
ICSA01	ICSA01	1145	94		95		96		88		97	
ICSAB01	ICSAB01	1148	93		94		96		88		95	
CCV01	CCV01	1151	89		93		92		83		92	
CCB01	CCB01	1155	98		97		98		97		97	
CRI	CRI	1158	97		98		97		98		98	
PB166778BL	PB166778BL	1202	96		96		96		97		96	
PB166778BS	PB166778BS	1207	94		94		94		90		96	
PB166778TB	PB166778TB	1212	96		95		97		96		95	
Q1382-02	OU4-PCS-TC-	1215	97		97		100		94		98	
Q1382-04	OU4-PCS-TC-	1218	98		99		104		96		98	
Q1382-06	OU4-PCS-TC-	1222	99		100		104		96		98	
Q1382-08	OU4-PCS-TC-	1225	99		99		102		95		98	
Q1382-10	OU4-PCS-TC-	1228	97		98		103		95		98	
Q1382-12	OU4-PCS-TC-	1231	98		100		105		96		98	
CCV02	CCV02	1236	90		94		93		86		95	
CCB02	CCB02	1240	97		98		97		96		96	
Q1382-14	OU4-PCS-TC-	1244	98		98		104		96		98	
Q1382-16	OU4-PCS-TC-	1248	98		101		105		97		99	
Q1382-18	OU4-PCS-TC-	1251	100		101		106		97		100	
Q1382-20	OU4-PCS-TC-	1254	99		101		106		98		99	
Q1382-20DUP	OU4-PCS-TC-	1257	98		101		106		97		100	
Q1382-20L	OU4-PCS-TC-	1301	98		100		101		98		98	
Q1382-20MS	OU4-PCS-TC-	1304	96		98		104		95		98	
Q1382-20MSD	OU4-PCS-TC-	1307	97		100		104		96		99	
Q1382-20A	OU4-PCS-TC-	1310	98		99		105		96		100	

Internal Standard %RI Limit: 30 - 120

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

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

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
ZZZZZZ	ZZZZZZ	1316										
CCV03	CCV03	1320	89		92		92		83		93	
CCB03	CCB03	1323	96		97		97		96		96	

Internal Standard %RI Limit: 30 - 120

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

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

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	1100	100		100		100		100		100	
S2	S2	1103	100		98		99		98		98	
S3	S3	1107	97		96		97		97		98	
S4	S4	1110	96		95		95		98		98	
S5	S5	1113	97		97		94		97		98	
S6	S6	1116	98		97		95		98		98	
S7	S7	1118	102		100		94		99		101	
S8	S8	1121	96		96		83		93		94	
ICV01	ICV01	1133	99		99		98		98		99	
LLICV	LLICV	1136	99		99		99		99		100	
ICB01	ICB01	1141	98		97		99		98		98	
ICSA01	ICSA01	1145	96		95		89		96		96	
ICSAB01	ICSAB01	1148	97		96		90		96		96	
CCV01	CCV01	1151	96		94		86		94		94	
CCB01	CCB01	1155	98		100		99		99		99	
CRI	CRI	1158	97		98		98		98		99	
PB166778BL	PB166778BL	1202	95		95		96		95		97	
PB166778BS	PB166778BS	1207	97		96		92		95		97	
PB166778TB	PB166778TB	1212	95		96		97		97		98	
Q1382-02	OU4-PCS-TC-	1215	98		102		96		98		99	
Q1382-04	OU4-PCS-TC-	1218	99		104		97		98		98	
Q1382-06	OU4-PCS-TC-	1222	98		103		96		98		98	
Q1382-08	OU4-PCS-TC-	1225	98		103		96		98		99	
Q1382-10	OU4-PCS-TC-	1228	100		104		96		99		98	
Q1382-12	OU4-PCS-TC-	1231	100		105		98		99		99	
CCV02	CCV02	1236	98		96		87		94		95	
CCB02	CCB02	1240	97		97		99		97		97	
Q1382-14	OU4-PCS-TC-	1244	99		104		97		99		99	
Q1382-16	OU4-PCS-TC-	1248	100		105		98		100		100	
Q1382-18	OU4-PCS-TC-	1251	101		107		99		100		100	
Q1382-20	OU4-PCS-TC-	1254	102		108		99		100		100	
Q1382-20DUP	OU4-PCS-TC-	1257	101		105		98		99		99	
Q1382-20L	OU4-PCS-TC-	1301	100		100		99		99		99	
Q1382-20MS	OU4-PCS-TC-	1304	98		103		96		98		99	
Q1382-20MSD	OU4-PCS-TC-	1307	101		106		97		100		100	
Q1382-20A	OU4-PCS-TC-	1310	100		106		97		99		100	

Internal Standard %RI Limit: 30 - 120

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

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

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
ZZZZZZ	ZZZZZZ	1316										
CCV03	CCV03	1320	94		94		85		93		95	
CCB03	CCB03	1323	97		98		97		97		98	

Internal Standard %RI Limit: 30 - 120

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

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

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	1100	100		100							
S2	S2	1103	99		100							
S3	S3	1107	97		97							
S4	S4	1110	97		96							
S5	S5	1113	97		95							
S6	S6	1116	97		94							
S7	S7	1118	100		93							
S8	S8	1121	92		80							
ICV01	ICV01	1133	97		96							
LLICV	LLICV	1136	98		97							
ICB01	ICB01	1141	98		98							
ICSA01	ICSA01	1145	96		88							
ICSAB01	ICSAB01	1148	94		87							
CCV01	CCV01	1151	91		83							
CCB01	CCB01	1155	97		97							
CRI	CRI	1158	97		97							
PB166778BL	PB166778BL	1202	96		96							
PB166778BS	PB166778BS	1207	94		91							
PB166778TB	PB166778TB	1212	95		95							
Q1382-02	OU4-PCS-TC-(	1215	97		94							
Q1382-04	OU4-PCS-TC-(	1218	97		95							
Q1382-06	OU4-PCS-TC-(	1222	97		95							
Q1382-08	OU4-PCS-TC-(	1225	97		93							
Q1382-10	OU4-PCS-TC-(	1228	97		94							
Q1382-12	OU4-PCS-TC-(	1231	97		96							
CCV02	CCV02	1236	95		84							
CCB02	CCB02	1240	96		96							
Q1382-14	OU4-PCS-TC-(	1244	97		94							
Q1382-16	OU4-PCS-TC-(	1248	98		95							
Q1382-18	OU4-PCS-TC-(	1251	99		95							
Q1382-20	OU4-PCS-TC-1	1254	98		95							
Q1382-20DUP	OU4-PCS-TC-1	1257	98		95							
Q1382-20L	OU4-PCS-TC-1	1301	98		96							
Q1382-20MS	OU4-PCS-TC-1	1304	97		93							

Internal Standard %RI Limit: 30 -120

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

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group Contract: NOBI03

Lab Code: CHEM Case no.: Q1382 Sas No.: Q1382 SDG No.: Q1382

Instrument ID: P8 Start Date : 02/25/2025

Run Number: LB134821 End Date : 02/25/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
Q1382-20MSD	OU4-PCS-TC-1	1307	98		94							
Q1382-20A	OU4-PCS-TC-1	1310	98		94							
ZZZZZZ	ZZZZZZ	1316										
CCV03	CCV03	1320	93		84							
CCB03	CCB03	1323	96		96							

Internal Standard %RI Limit: 30 -120

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

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group | Contract: NOBI03

Lab Code: CHEM | Case no.: Q1382 | Sas No.: Q1382 | SDG No.: Q1382

Instrument ID: P8 | Start Date : 02/25/2025

Run Number: LB134821 | End Date : 02/25/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1100	100									
S2	S2	1103	100									
S3	S3	1107	97									
S4	S4	1110	96									
S5	S5	1113	95									
S6	S6	1116	94									
S7	S7	1118	94									
S8	S8	1121	83									
ICV01	ICV01	1133	98									
LLICV	LLICV	1136	99									
ICB01	ICB01	1141	99									
ICSA01	ICSA01	1145	89									
ICSAB01	ICSAB01	1148	89									
CCV01	CCV01	1151	86									
CCB01	CCB01	1155	99									
CRI	CRI	1158	98									
PB166778BL	PB166778BL	1202	97									
PB166778BS	PB166778BS	1207	92									
PB166778TB	PB166778TB	1212	96									
Q1382-02	OU4-PCS-TC-(	1215	96									
Q1382-04	OU4-PCS-TC-(	1218	96									
Q1382-06	OU4-PCS-TC-(	1222	96									
Q1382-08	OU4-PCS-TC-(	1225	95									
Q1382-10	OU4-PCS-TC-(	1228	95									
Q1382-12	OU4-PCS-TC-(	1231	96									
CCV02	CCV02	1236	86									
CCB02	CCB02	1240	97									
Q1382-14	OU4-PCS-TC-(	1244	96									
Q1382-16	OU4-PCS-TC-(	1248	97									
Q1382-18	OU4-PCS-TC-(	1251	97									
Q1382-20	OU4-PCS-TC-1	1254	97									
Q1382-20DUP	OU4-PCS-TC-1	1257	96									
Q1382-20L	OU4-PCS-TC-1	1301	97									
Q1382-20MS	OU4-PCS-TC-1	1304	95									

Internal Standard %RI Limit: 30 -120

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

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Nobis Group Contract: NOBI03

Lab Code: CHEM Case no.: Q1382 Sas No.: Q1382 SDG No.: Q1382

Instrument ID: P8 Start Date : 02/25/2025

Run Number: LB134821 End Date : 02/25/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
Q1382-20MSD	OU4-PCS-TC-1	1307	95									
Q1382-20A	OU4-PCS-TC-1	1310	95									
ZZZZZZ	ZZZZZZ	1316										
CCV03	CCV03	1320	85									
CCB03	CCB03	1323	97									

Internal Standard %RI Limit: 30 -120

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

OU4-PCS-TC-10-021725L

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

Lab Code: CHEM **Lb No.:** lb134821 **Lab Sample ID :** Q1382-20L **SDG No.:** Q1382

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	2.80	JD	3.50	JD	25		P
Barium	116	D	117	JD	1		P
Beryllium	1.30	JD	25.0	UD	100		P
Cadmium	5.00	UD	25.0	UD			P
Chromium	11.2	D	10.8	JD	4		P
Copper	117	D	117	D	0		P
Lead	2.15	JD	3.00	JD	40		P
Nickel	37.5	D	35.5	D	5		P
Mercury	0.20	U	1.00	U			CV
Selenium	25.0	UD	125	UD			P
Silver	5.00	UD	25.0	UD			P
Thallium	5.00	UD	25.0	UD			P
Vanadium	231	D	235	D	2		P
Zinc	769	D	791	D	3		P

METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q1382

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

Case No.: Q1382 **SAS No.:** Q1382

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166778**						
PB166778BL	PB166778BL	MB	WATER	02/19/2025	50.0	50.0	
PB166778BS	PB166778BS	LCS	WATER	02/19/2025	50.0	50.0	
PB166778TB	PB166778TB	MB	WATER	02/19/2025	50.0	50.0	
Q1382-02	OU4-PCS-TC-01-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-04	OU4-PCS-TC-02-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-06	OU4-PCS-TC-03-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-08	OU4-PCS-TC-04-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-10	OU4-PCS-TC-05-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-12	OU4-PCS-TC-06-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-14	OU4-PCS-TC-07-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-16	OU4-PCS-TC-08-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-18	OU4-PCS-TC-09-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-20	OU4-PCS-TC-10-021725	SAM	WATER	02/19/2025	50.0	50.0	
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	DUP	WATER	02/19/2025	50.0	50.0	
Q1382-20MS	OU4-PCS-TC-10-021725MS	MS	WATER	02/19/2025	50.0	50.0	
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	MSD	WATER	02/19/2025	50.0	50.0	

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** Q1382

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

Case No.: Q1382 **SAS No.:** Q1382

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166841**						
PB166841BL	PB166841BL	MB	WATER	02/24/2025	30.0	30.0	
PB166841BS	PB166841BS	LCS	WATER	02/24/2025	30.0	30.0	
PB166841TB	PB166841TB	MB	WATER	02/24/2025	30.0	30.0	
Q1382-02	OU4-PCS-TC-01-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-04	OU4-PCS-TC-02-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-06	OU4-PCS-TC-03-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-08	OU4-PCS-TC-04-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-10	OU4-PCS-TC-05-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-12	OU4-PCS-TC-06-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-14	OU4-PCS-TC-07-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-16	OU4-PCS-TC-08-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-18	OU4-PCS-TC-09-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-20	OU4-PCS-TC-10-021725	SAM	WATER	02/24/2025	30.0	30.0	
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	DUP	WATER	02/24/2025	30.0	30.0	
Q1382-20MS	OU4-PCS-TC-10-021725MS	MS	WATER	02/24/2025	30.0	30.0	
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	MSD	WATER	02/24/2025	30.0	30.0	

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q1382 **Sas no.:** Q1382 **Sdg no.:** Q1382

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
PB166841BL	PB166841BL	1	1049	HG
PB166841BS	PB166841BS	1	1052	HG
Q1382-04	OU4-PCS-TC-02-021725	1	1056	HG
Q1382-06	OU4-PCS-TC-03-021725	1	1059	HG
Q1382-08	OU4-PCS-TC-04-021725	1	1101	HG
Q1382-10	OU4-PCS-TC-05-021725	1	1103	HG
Q1382-02	OU4-PCS-TC-01-021725	1	1106	HG
CCV08	CCV08	1	1109	HG
CCB08	CCB08	1	1111	HG
Q1382-12	OU4-PCS-TC-06-021725	1	1113	HG
Q1382-14	OU4-PCS-TC-07-021725	1	1115	HG
Q1382-16	OU4-PCS-TC-08-021725	1	1118	HG
Q1382-18	OU4-PCS-TC-09-021725	1	1120	HG
Q1382-20	OU4-PCS-TC-10-021725	1	1122	HG
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	1	1124	HG
Q1382-20MS	OU4-PCS-TC-10-021725MS	1	1127	HG
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	1	1129	HG
CCV09	CCV09	1	1136	HG
CCB09	CCB09	1	1138	HG
CCV10	CCV10	1	1203	HG
CCB10	CCB10	1	1205	HG
PB166841TB	PB166841TB	1	1217	HG
Q1382-20L	OU4-PCS-TC-10-021725L	5	1221	HG
CCV11	CCV11	1	1237	HG
CCB11	CCB11	1	1240	HG

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** Q1382 **Sas no.:** Q1382 **Sdg no.:** Q1382

Instrument id number: **Method:** **Run number:** LB134821

Start date: 02/25/2025 **End date:** 02/25/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1100	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1103	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1107	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1110	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1113	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S6	S6	1	1116	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S7	S7	1	1118	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
S8	S8	1	1121	,
ICV01	ICV01	1	1133	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV	LLICV	1	1136	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1141	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1145	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1148	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1151	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1155	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CRI	CRI	1	1158	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB166778BL	PB166778BL	1	1202	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB166778BS	PB166778BS	1	1207	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
PB166778TB	PB166778TB	1	1212	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-02	OU4-PCS-TC-01-021725	5	1215	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-04	OU4-PCS-TC-02-021725	5	1218	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-06	OU4-PCS-TC-03-021725	5	1222	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-08	OU4-PCS-TC-04-021725	5	1225	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-10	OU4-PCS-TC-05-021725	5	1228	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-12	OU4-PCS-TC-06-021725	5	1231	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1236	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1240	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-14	OU4-PCS-TC-07-021725	5	1244	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-16	OU4-PCS-TC-08-021725	5	1248	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-18	OU4-PCS-TC-09-021725	5	1251	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20	OU4-PCS-TC-10-021725	5	1254	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	5	1257	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20L	OU4-PCS-TC-10-021725L	25	1301	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20MS	OU4-PCS-TC-10-021725MS	5	1304	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	5	1307	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
Q1382-20A	OU4-PCS-TC-10-021725A	5	1310	Ag,As
CCV03	CCV03	1	1320	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1323	Ag,As,Ba,Be,Cd,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn

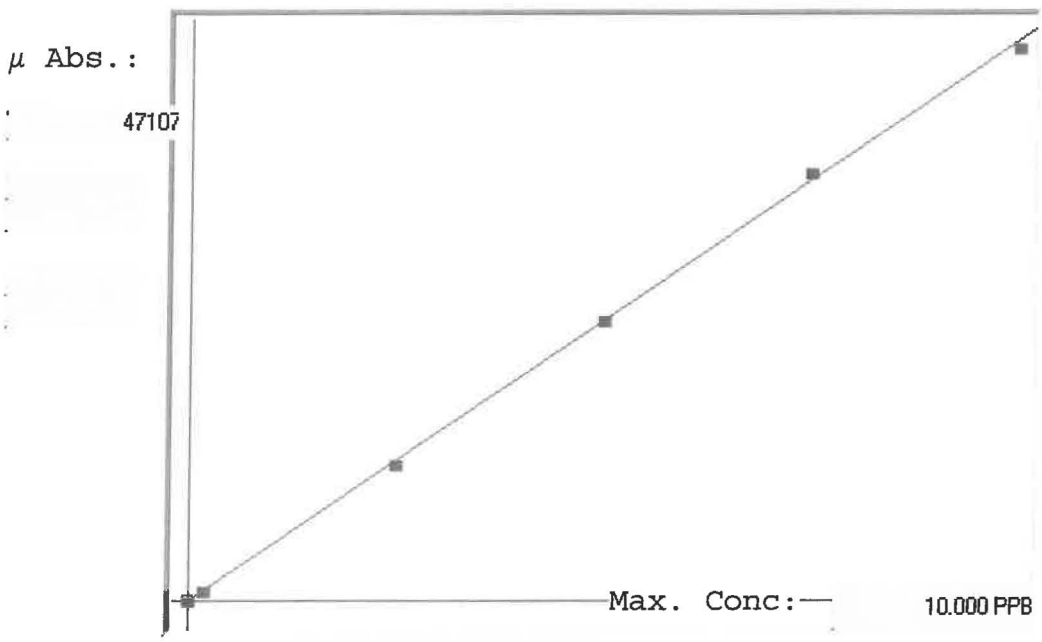
METAL
RAW DATA

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

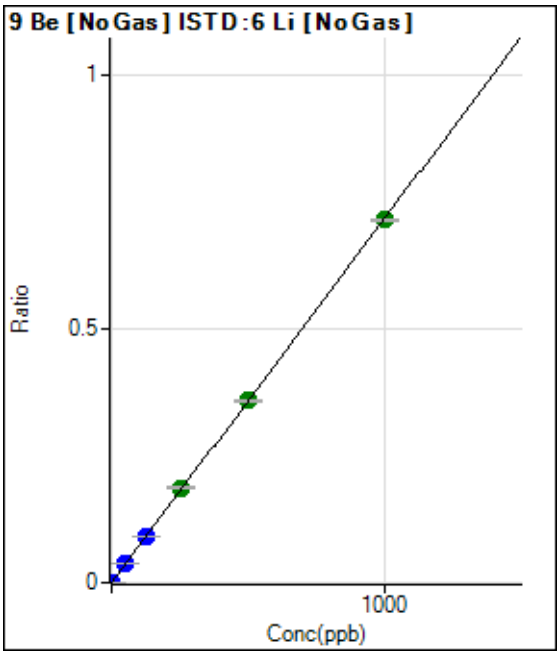
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

Calibration for 007CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8022525 MS.b\
Analysis File: P8022525 MS.batch.bin
DA Date-Time: 2025-02-25 13:29:21
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-02-25 11:00:21
2	005CALS.d	S02	2025-02-25 11:03:43
3	006CALB.d	S03	2025-02-25 11:07:06
4	007CALS.d	S04	2025-02-25 11:10:10
5	008CALS.d	S05	2025-02-25 11:13:10
6	009CALS.d	S06	2025-02-25 11:16:00
7	010CALS.d	S07	2025-02-25 11:18:47
8	011CALS.d	S08	2025-02-25 11:21:33

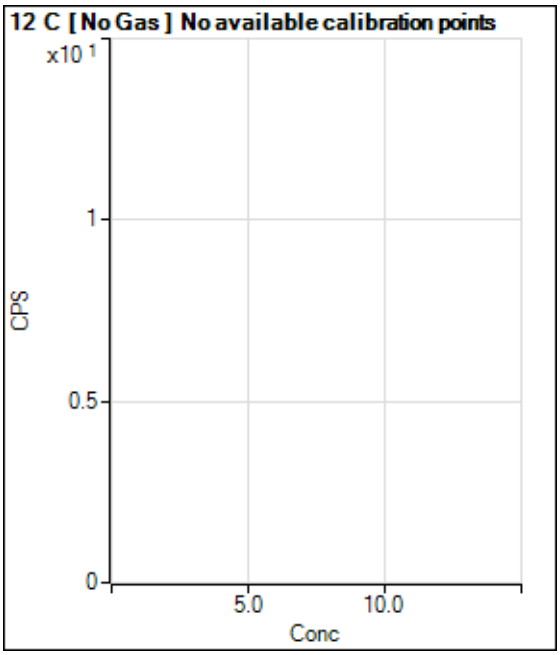
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	377.88	0.0000	P	6.5
2	☐	1.000	1.016	6653.60	0.0008	P	0.2
3	☐	50.000	50.634	305233.02	0.0363	P	0.3
4	☐	125.000	125.579	751357.36	0.0901	P	1.2
5	☐	250.000	261.340	1546440.69	0.1874	A	2.0
6	☐	500.000	500.898	2956874.98	0.3591	A	0.8
7	☐	1000.000	996.612	5946873.53	0.7144	A	0.6
8	☐			1983.64	0.0003	P	7.9

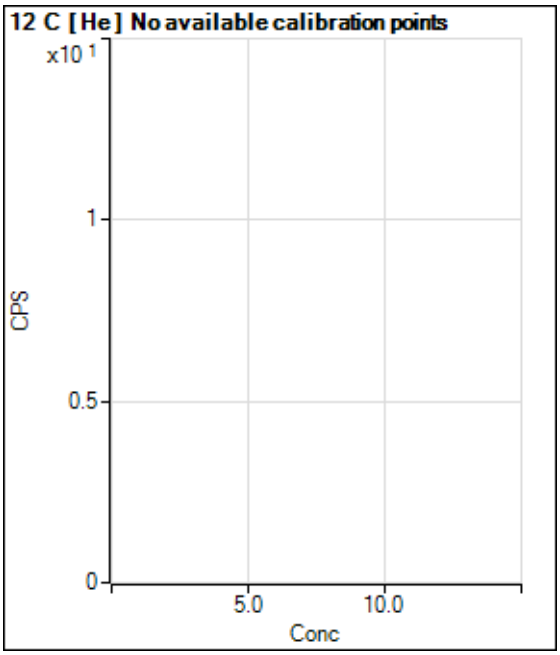
y = 7.1683E-004 * x + 4.4133E-005
R = 0.9999
DL = 0.01207
BEC = 0.06157

Weight: <None>
Min Conc: 0

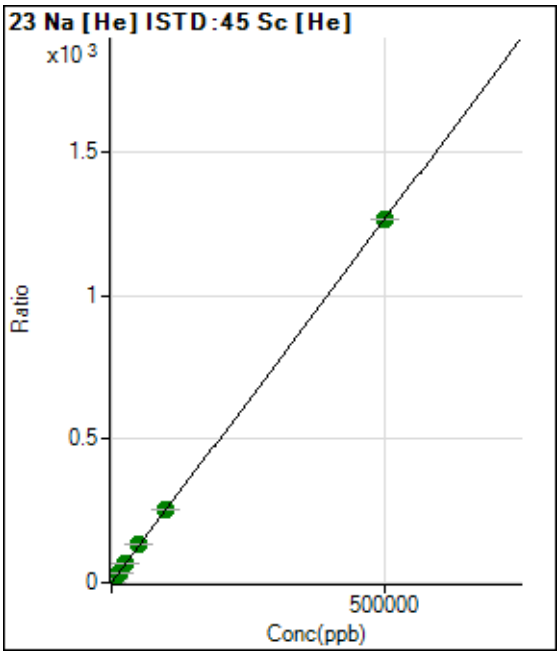


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			3850286.02		A	2.7
2	☐			4001700.50		A	2.2
3	☐			4728328.61		A	0.9
4	☐			4746130.42		A	0.8
5	☐			4811616.56		A	0.8
6	☐			4980651.11		A	0.5
7	☐			5476714.64		A	2.0
8	☐			5602654.43		A	3.5

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			23170.54		P	0.8
2	☐			24277.90		P	1.1
3	☐			28421.92		P	1.0
4	☐			29184.52		P	1.3
5	☐			30209.88		P	0.6
6	☐			32302.12		P	0.2
7	☐			36988.68		P	0.4
8	☐			45900.24		P	1.2

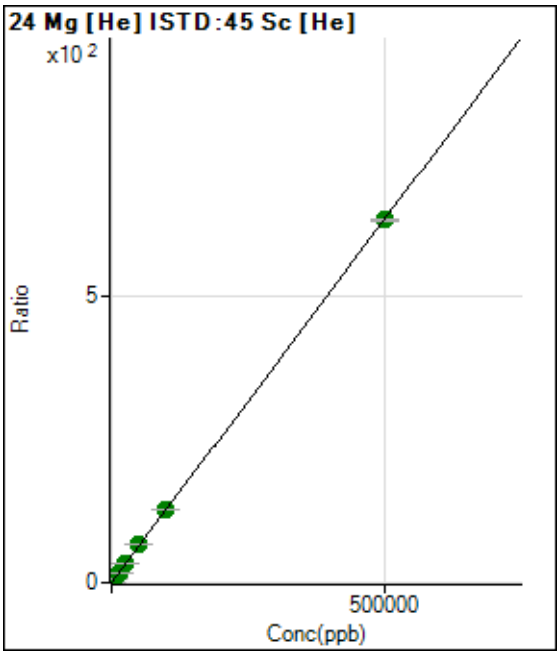


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30094.36	0.1719	P	1.0
2	☐	500.000	525.399	261674.71	1.5011	P	0.4
3	☐	5000.000	5414.927	2348738.25	13.8714	A	1.3
4	☐	12500.000	13425.279	5759157.62	34.1372	A	1.2
5	☐	25000.000	26569.031	11442944.13	67.3903	A	0.6
6	☐	50000.000	51828.246	22533319.66	131.2950	A	0.9
7	☐	100000.00	100563.26	45341700.99	254.5924	A	0.9
8	☐	500000.00	499598.76	212250687.9	1,264.134	A	0.1

y = 0.0025 * x + 0.1719
R = 1.0000
DL = 2.011
BEC = 67.93

Weight: <None>
Min Conc: 0

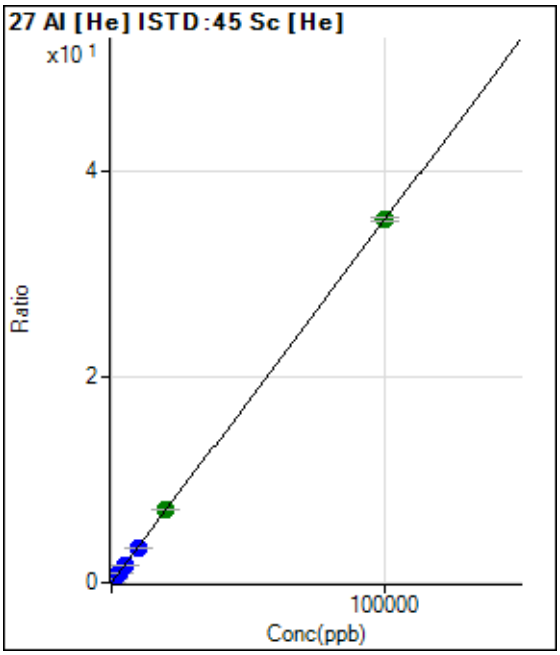
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1430.09	0.0082	P	6.4
2	☐	500.000	545.382	121665.36	0.6979	P	0.8
3	☐	5000.000	5471.733	1173147.08	6.9286	A	1.6
4	☐	12500.000	13698.901	2924178.57	17.3341	A	0.8
5	☐	25000.000	26662.395	5727378.53	33.7299	A	1.4
6	☐	50000.000	52316.216	11357381.08	66.1761	A	1.3
7	☐	100000.00	101433.18	22849054.94	128.2977	A	0.8
8	☐	500000.00	499363.88	106043949.5	631.5881	A	0.8

y = 0.0013 * x + 0.0082
R = 1.0000
DL = 1.242
BEC = 6.458

Weight: <None>
Min Conc: 0

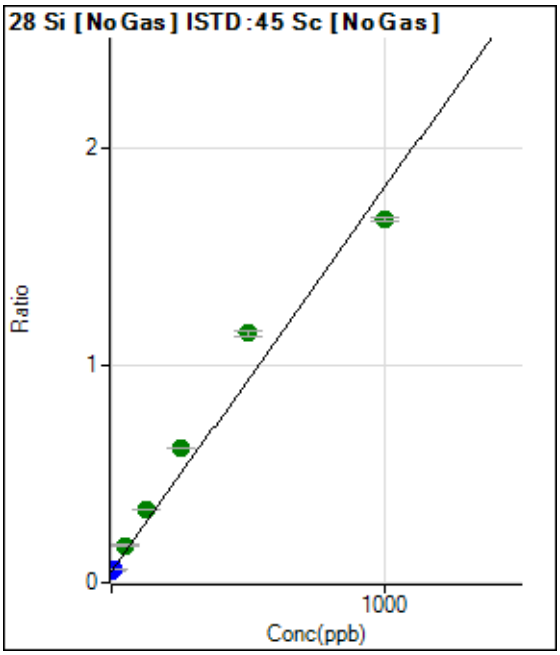


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64.45	0.0004	P	25.8
2	☐	20.000	20.462	1321.18	0.0076	P	4.2
3	☐	1000.000	1011.214	60390.15	0.3567	P	1.1
4	☐	2500.000	2532.020	150562.73	0.8925	P	0.7
5	☐	5000.000	4965.773	297157.86	1.7500	P	1.2
6	☐	10000.000	9673.066	585005.87	3.4087	P	0.5
7	☐	20000.000	19987.228	1254300.28	7.0428	A	0.7
8	☐	100000.00	100036.04	5918043.80	35.2479	A	1.0

y = 3.5235E-004 * x + 3.6793E-004
R = 1.0000
DL = 0.8093
BEC = 1.044

Weight: <None>
Min Conc: 0

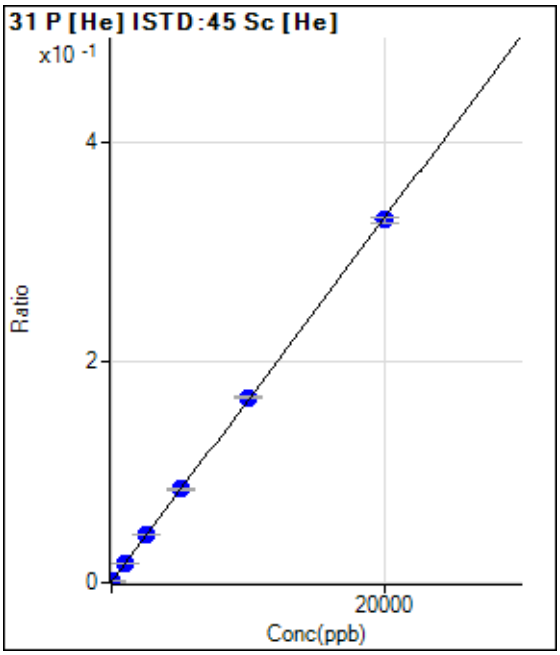
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559966.68	0.0514	P	0.2
2	☐	10.000	4.485	647050.52	0.0593	P	0.9
3	☐	50.000	67.744	1785333.25	0.1709	A	1.8
4	☐	125.000	161.936	3554767.58	0.3371	A	1.2
5	☐	250.000	321.462	6464931.29	0.6185	A	0.8
6	☐	500.000	620.104	12052165.65	1.1453	A	2.4
7	☐	1000.000	916.633	17940871.40	1.6684	A	1.2
8	☐			742262.76	0.0742	P	0.6

y = 0.0018 * x + 0.0514
R = 0.9847
DL = 0.142
BEC = 29.15

Weight: <None>
Min Conc: 0

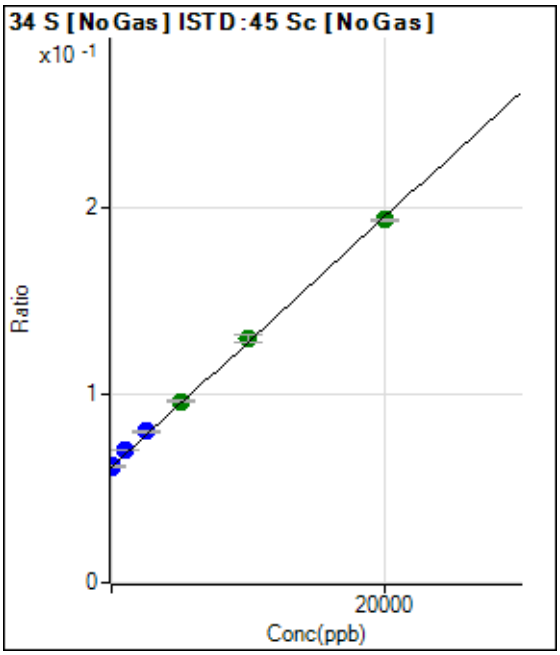


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-16.865	81.11	0.0005	P	15.4
2	☐	0.000	16.865	177.78	0.0010	P	5.9
3	☐	1000.000	1027.643	2997.00	0.0177	P	0.6
4	☐	2500.000	2588.427	7330.79	0.0435	P	1.1
5	☐	5000.000	5088.264	14383.90	0.0847	P	1.4
6	☐	10000.000	10145.758	28862.10	0.1682	P	0.7
7	☐	20000.000	19892.619	58597.62	0.3290	P	1.3
8	☐			111.11	0.0007	P	28.8

y = 1.6502E-005 * x + 7.4146E-004
R = 0.9999
DL = 11.91
BEC = 44.93

Weight: <None>
Min Conc: 0

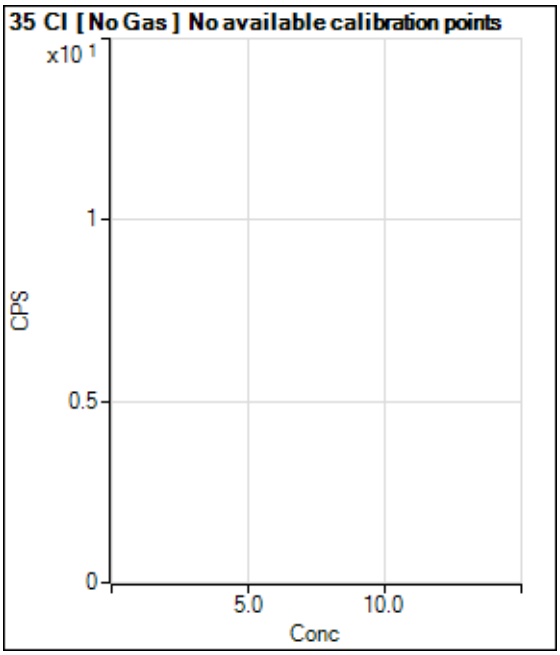
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-72.757	667629.96	0.0613	P	0.5
2	☐	0.000	72.757	679162.28	0.0623	P	0.8
3	☐	1000.000	1348.266	739400.25	0.0708	P	0.2
4	☐	2500.000	2813.415	849447.34	0.0806	P	1.1
5	☐	5000.000	5225.663	1010121.29	0.0966	A	1.5
6	☐	10000.000	10275.797	1371171.18	0.1303	A	3.1
7	☐	20000.000	19749.096	2080620.58	0.1935	A	0.9
8	☐			585300.35	0.0585	P	2.0

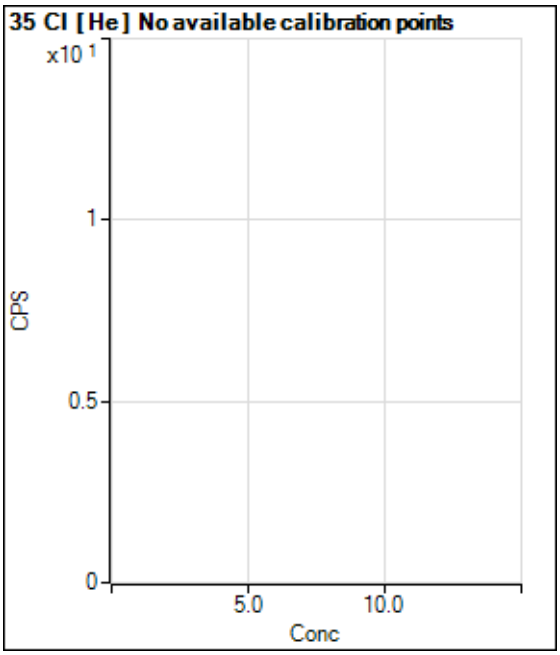
y = 6.6684E-006 * x + 0.0618
R = 0.9996
DL = 189.4
BEC = 9266

Weight: <None>
Min Conc: 0

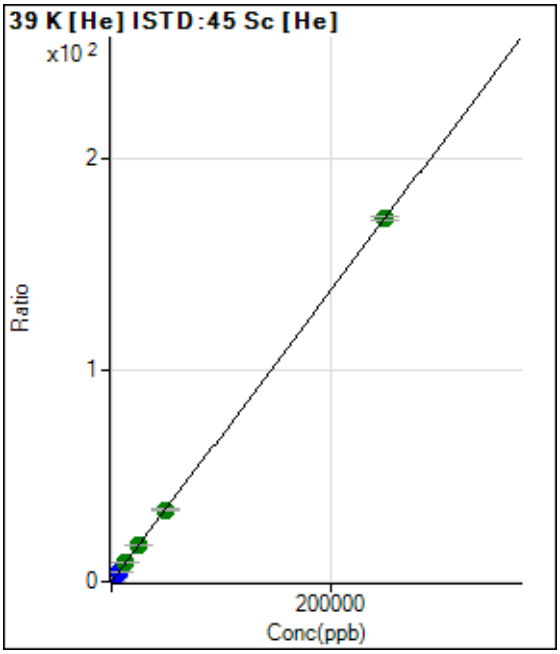


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			94780.85		P	0.7
2	☐			98437.14		P	0.5
3	☐			108185.92		P	0.9
4	☐			107659.52		P	0.6
5	☐			110041.72		P	1.0
6	☐			120573.74		P	1.2
7	☐			145098.74		P	3.0
8	☐			98857.64		P	0.7

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			321.12		P	4.2
2	☐			328.90		P	4.2
3	☐			365.56		P	8.0
4	☐			380.01		P	8.4
5	☐			388.90		P	3.9
6	☐			443.35		P	0.8
7	☐			592.24		P	9.3
8	☐			416.68		P	6.2

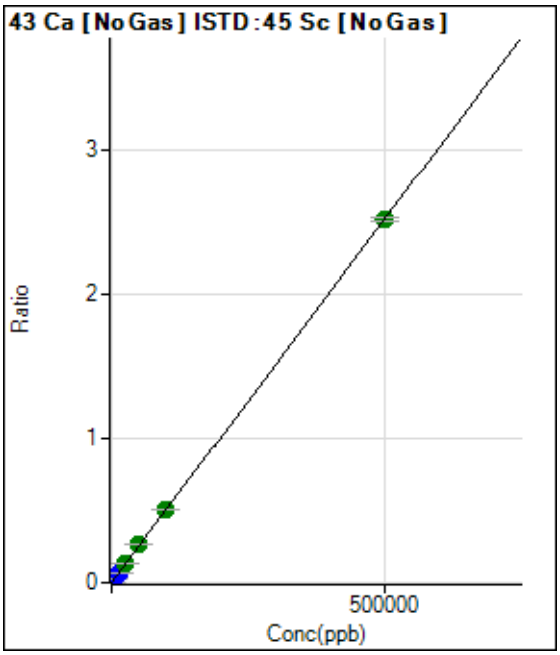


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7318.59	0.0418	P	1.9
2	☐	500.000	512.659	68507.01	0.3930	P	0.4
3	☐	2500.000	2504.137	297534.85	1.7572	P	0.3
4	☐	6250.000	6279.718	732749.62	4.3435	P	0.6
5	☐	12500.000	12937.964	1512015.59	8.9046	A	0.8
6	☐	25000.000	25169.303	2966232.25	17.2833	A	0.8
7	☐	50000.000	49626.210	6061639.91	34.0369	A	1.4
8	☐	250000.00	250035.12	28765362.63	171.3215	A	0.9

y = 6.8502E-004 * x + 0.0418
R = 1.0000
DL = 3.567
BEC = 61.02

Weight: <None>
Min Conc: 0

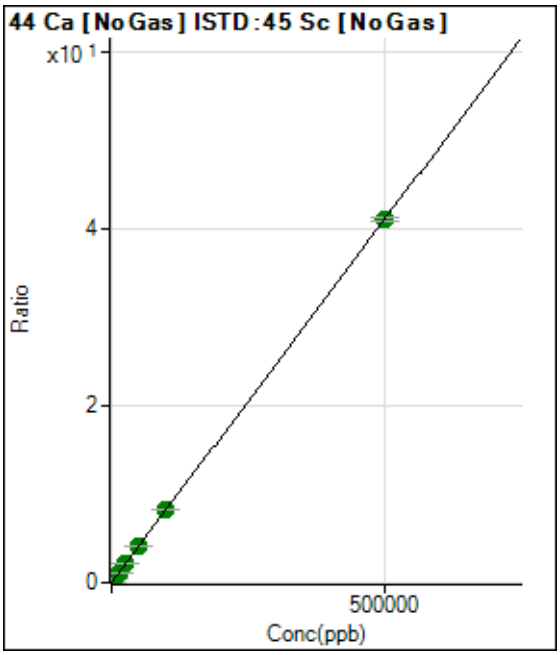
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	448.90	0.0000	P	5.9
2	☐	500.000	528.589	29508.07	0.0027	P	0.4
3	☐	5000.000	5160.729	272163.84	0.0261	P	0.7
4	☐	12500.000	12839.188	682931.72	0.0648	P	0.8
5	☐	25000.000	26156.424	1378558.59	0.1319	A	1.2
6	☐	50000.000	52184.106	2768711.69	0.2631	A	1.8
7	☐	100000.00	101833.18	5520302.83	0.5133	A	0.1
8	☐	500000.00	499347.01	25173508.24	2.5171	A	1.0

y = 5.0407E-006 * x + 4.1219E-005
R = 1.0000
DL = 1.445
BEC = 8.177

Weight: <None>
Min Conc: 0

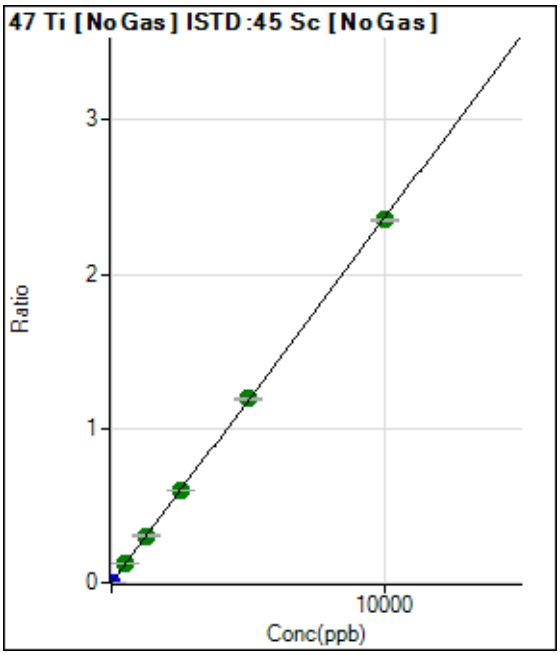


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22063.67	0.0020	P	2.2
2	☐	500.000	531.315	497001.15	0.0456	P	0.5
3	☐	5000.000	5317.916	4574043.99	0.4379	A	0.9
4	☐	12500.000	13170.937	11405066.22	1.0815	A	0.2
5	☐	25000.000	26084.690	22367114.39	2.1399	A	0.8
6	☐	50000.000	51188.204	44182218.23	4.1973	A	0.3
7	☐	100000.00	100922.59	88970313.12	8.2733	A	0.9
8	☐	500000.00	499622.44	409532642.7	40.9496	A	1.2

y = 8.1957E-005 * x + 0.0020
R = 1.0000
DL = 1.647
BEC = 24.72

Weight: <None>
Min Conc: 0

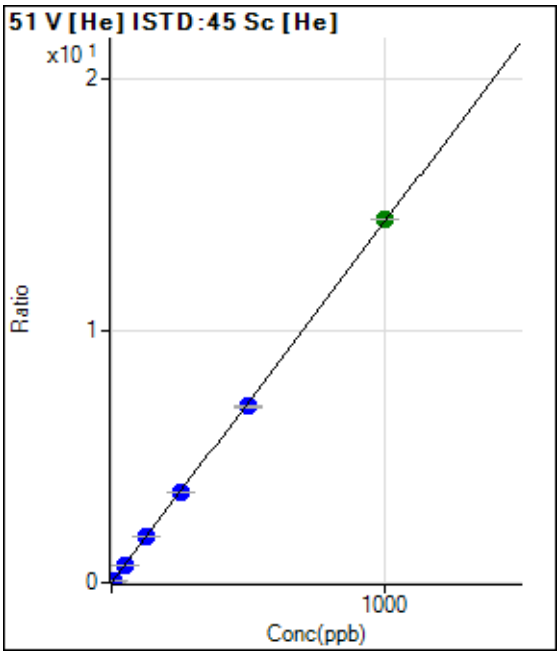
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.01	0.0000	P	9.5
2	☐	5.000	5.176	13622.12	0.0012	P	0.2
3	☐	500.000	527.753	1303152.60	0.1248	A	1.8
4	☐	1250.000	1289.278	3213683.77	0.3047	A	0.9
5	☐	2500.000	2551.927	6304701.29	0.6032	A	0.5
6	☐	5000.000	5054.090	12572864.68	1.1946	A	1.2
7	☐	10000.000	9953.676	25298842.68	2.3526	A	0.6
8	☐			5869.03	0.0006	P	2.8

y = 2.3635E-004 * x + 2.5707E-005
R = 1.0000
DL = 0.031
BEC = 0.1088

Weight: <None>
Min Conc: 0

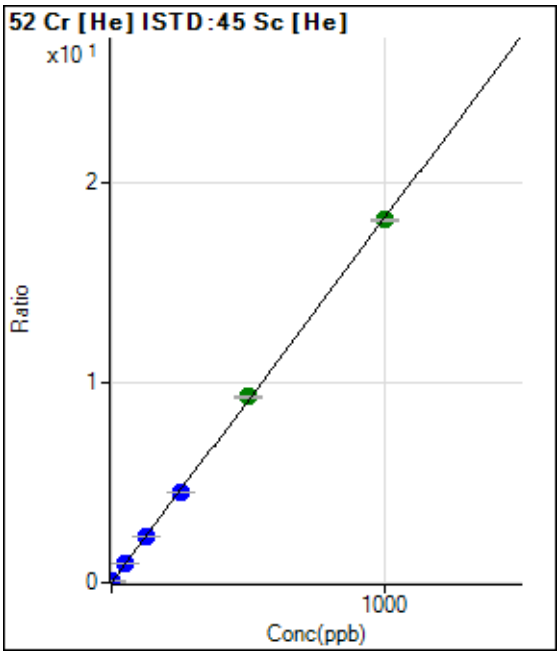


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.22	0.0001	P	63.0
2	☐	5.000	5.140	12868.09	0.0738	P	2.3
3	☐	50.000	50.334	122314.49	0.7224	P	0.5
4	☐	125.000	126.825	307038.63	1.8200	P	0.3
5	☐	250.000	249.110	607003.43	3.5748	P	0.3
6	☐	500.000	489.130	1204634.92	7.0190	P	1.2
7	☐	1000.000	1005.412	2569549.87	14.4276	A	0.1
8	☐			626.69	0.0037	P	11.8

y = 0.0143 * x + 6.9779E-005
R = 0.9999
DL = 0.009187
BEC = 0.004863

Weight: <None>
Min Conc: 0

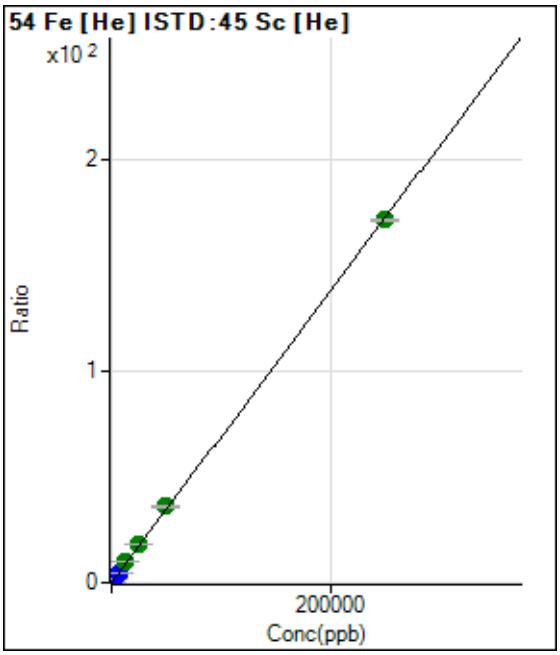
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1832.36	0.0105	P	6.2
2	☐	2.000	2.086	8453.70	0.0485	P	0.3
3	☐	50.000	50.481	157634.07	0.9310	P	0.8
4	☐	125.000	126.579	391119.37	2.3186	P	1.2
5	☐	250.000	247.176	767102.85	4.5176	P	0.3
6	☐	500.000	509.843	1597343.45	9.3072	A	0.7
7	☐	1000.000	995.563	3234965.51	18.1641	A	0.7
8	☐			10687.42	0.0637	P	1.1

y = 0.0182 * x + 0.0105
R = 0.9999
DL = 0.1067
BEC = 0.5739

Weight: <None>
Min Conc: 0

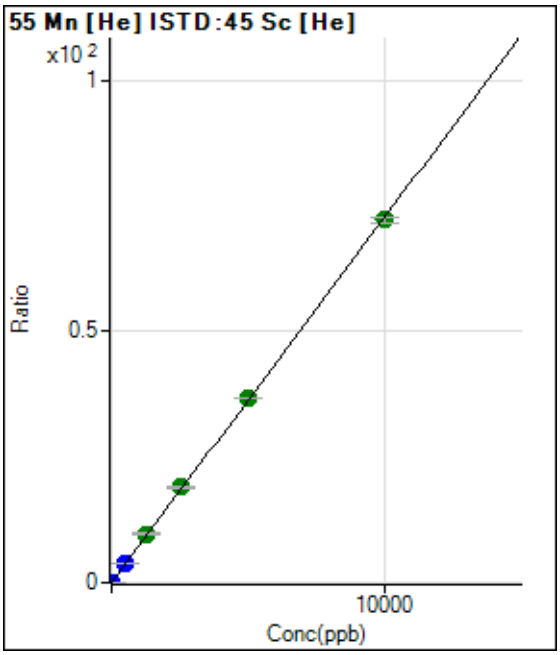


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	695.58	0.0040	P	1.5
2	☐	50.000	57.581	7607.65	0.0436	P	1.2
3	☐	2500.000	2696.197	315166.33	1.8613	P	0.5
4	☐	6250.000	6751.168	785193.06	4.6546	P	1.0
5	☐	12500.000	13954.132	1632922.91	9.6165	A	1.2
6	☐	25000.000	27008.462	3193781.30	18.6092	A	0.3
7	☐	50000.000	52250.230	6410900.74	35.9974	A	1.3
8	☐	250000.00	249261.90	28830976.79	171.7123	A	0.6

y = 6.8887E-004 * x + 0.0040
R = 0.9999
DL = 0.267
BEC = 5.766

Weight: <None>
Min Conc: 0

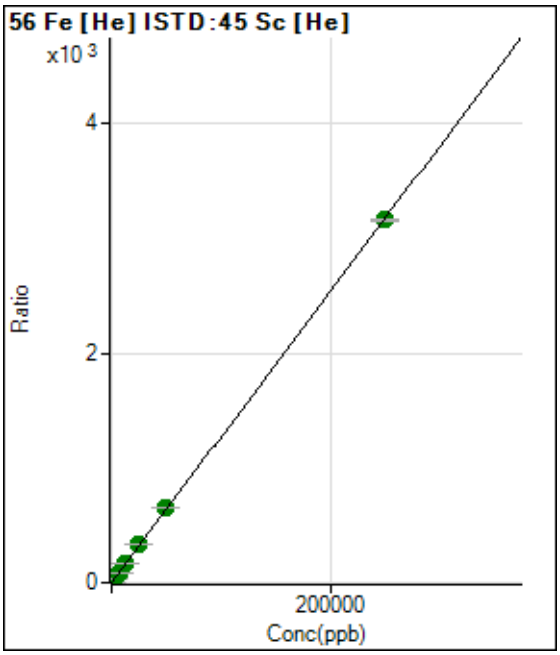
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	338.90	0.0019	P	11.4
2	☐	1.000	1.000	1604.55	0.0092	P	1.2
3	☐	500.000	505.119	622081.28	3.6739	P	0.2
4	☐	1250.000	1328.918	1629826.00	9.6625	A	2.5
5	☐	2500.000	2611.759	3224194.92	18.9881	A	0.7
6	☐	5000.000	5054.710	6306680.25	36.7471	A	0.3
7	☐	10000.000	9934.584	12861927.72	72.2213	A	1.4
8	☐			6258.09	0.0373	P	2.8

y = 0.0073 * x + 0.0019
R = 0.9999
DL = 0.09116
BEC = 0.2662

Weight: <None>
Min Conc: 0

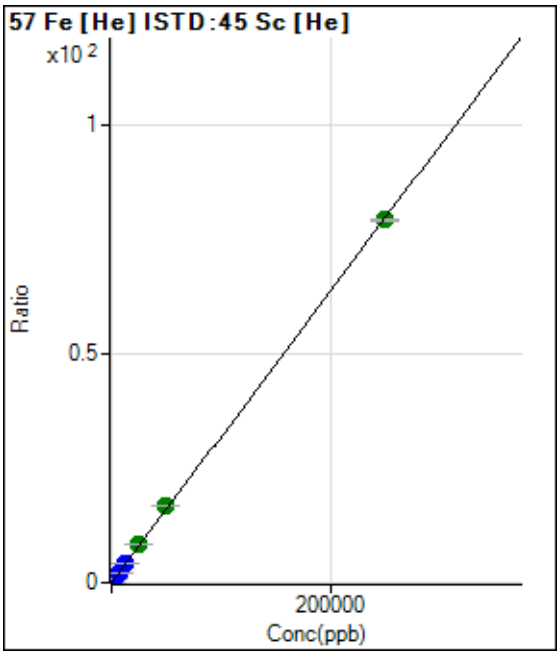


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10888.70	0.0622	P	3.6
2	☐	50.000	55.848	134072.74	0.7691	P	0.6
3	☐	2500.000	2757.710	5921092.07	34.9697	A	0.7
4	☐	6250.000	6889.930	14723693.12	87.2760	A	0.5
5	☐	12500.000	13426.344	28868850.13	170.0149	A	0.3
6	☐	25000.000	26257.222	57052902.48	332.4302	A	0.3
7	☐	50000.000	51502.767	116117379.3	651.9922	A	0.8
8	☐	250000.00	249508.83	530303249.8	3,158.383	A	0.4

y = 0.0127 * x + 0.0622
R = 1.0000
DL = 0.5362
BEC = 4.913

Weight: <None>
Min Conc: 0

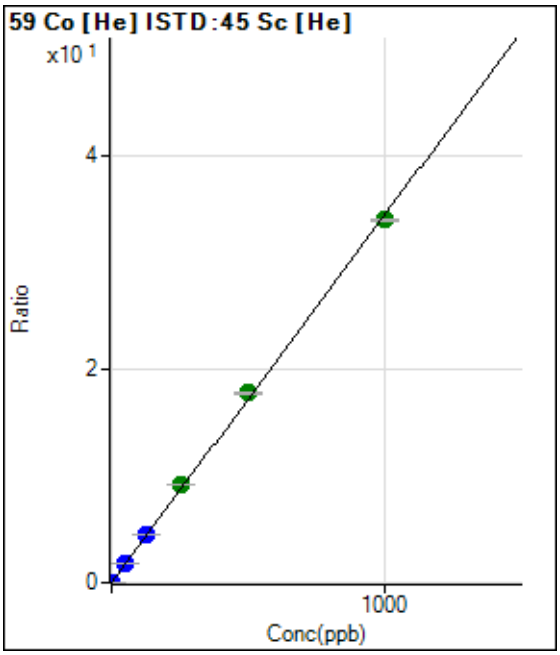
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	291.12	0.0017	P	8.2
2	☐	50.000	55.592	3373.76	0.0194	P	4.9
3	☐	2500.000	2653.894	143318.69	0.8464	P	1.2
4	☐	6250.000	6662.325	358032.20	2.1224	P	0.6
5	☐	12500.000	12968.097	701211.34	4.1296	P	0.2
6	☐	25000.000	26569.508	1451780.10	8.4591	A	0.5
7	☐	50000.000	52466.639	2974697.18	16.7025	A	0.8
8	☐	250000.00	249314.46	13325345.50	79.3617	A	0.9

y = 3.1831E-004 * x + 0.0017
R = 0.9999
DL = 1.287
BEC = 5.223

Weight: <None>
Min Conc: 0

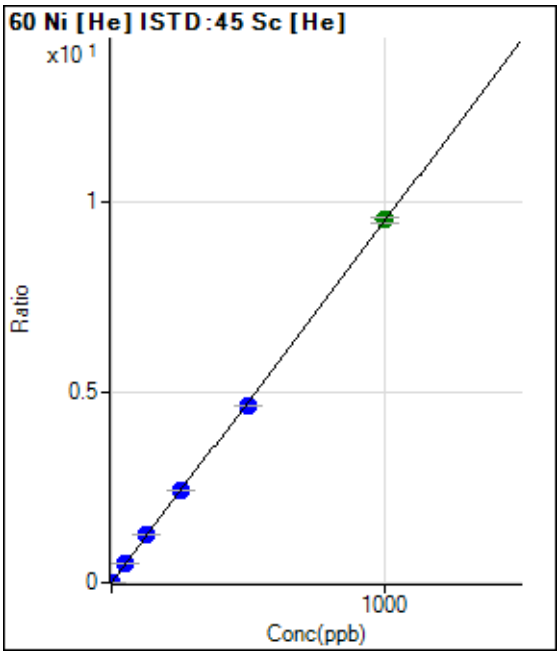


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	211.11	0.0012	P	8.6
2	☐	1.000	1.105	6842.80	0.0393	P	2.5
3	☐	50.000	51.884	302657.92	1.7874	P	0.5
4	☐	125.000	129.390	751658.49	4.4558	P	0.9
5	☐	250.000	265.535	1552497.91	9.1430	A	0.6
6	☐	500.000	515.850	3048166.69	17.7608	A	0.7
7	☐	1000.000	987.548	6055268.73	34.0003	A	0.8
8	☐			11662.65	0.0695	P	1.2

y = 0.0344 * x + 0.0012
R = 0.9997
DL = 0.008996
BEC = 0.03502

Weight: <None>
Min Conc: 0

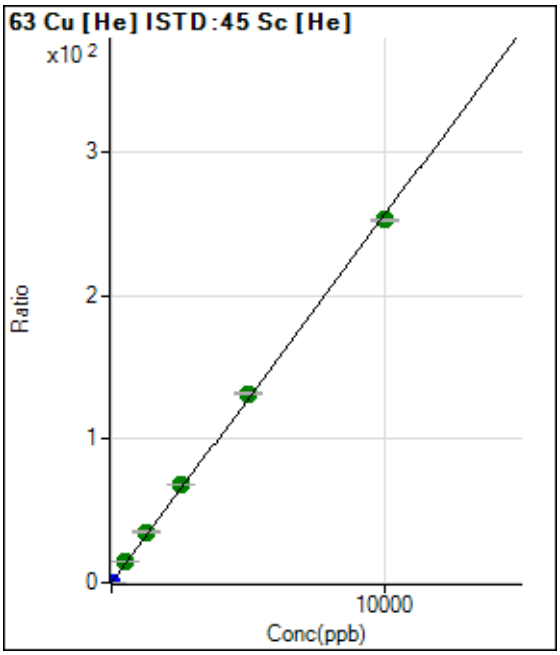
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1115.61	0.0064	P	6.3
2	☐	1.000	0.981	2729.18	0.0157	P	3.1
3	☐	50.000	52.466	85196.10	0.5031	P	0.6
4	☐	125.000	130.295	209189.76	1.2401	P	0.8
5	☐	250.000	254.601	410422.75	2.4170	P	0.8
6	☐	500.000	489.139	795950.23	4.6378	P	0.6
7	☐	1000.000	1003.495	1693258.93	9.5079	A	1.8
8	☐			5727.88	0.0341	P	4.1

y = 0.0095 * x + 0.0064
R = 0.9999
DL = 0.127
BEC = 0.673

Weight: <None>
Min Conc: 0

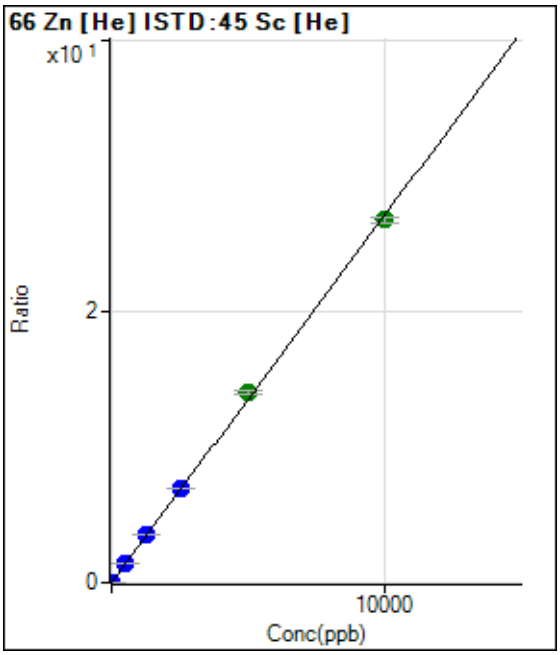


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4974.25	0.0284	P	1.8
2	☐	2.000	1.941	13616.62	0.0781	P	1.0
3	☐	500.000	557.109	2420550.34	14.2951	A	0.2
4	☐	1250.000	1384.441	5985276.23	35.4816	A	1.4
5	☐	2500.000	2658.711	11565748.16	68.1136	A	0.7
6	☐	5000.000	5149.784	22638157.16	131.9058	A	1.5
7	☐	10000.000	9865.770	45000663.77	252.6744	A	0.6
8	☐			10372.75	0.0618	P	1.2

y = 0.0256 * x + 0.0284
R = 0.9996
DL = 0.05886
BEC = 1.109

Weight: <None>
Min Conc: 0

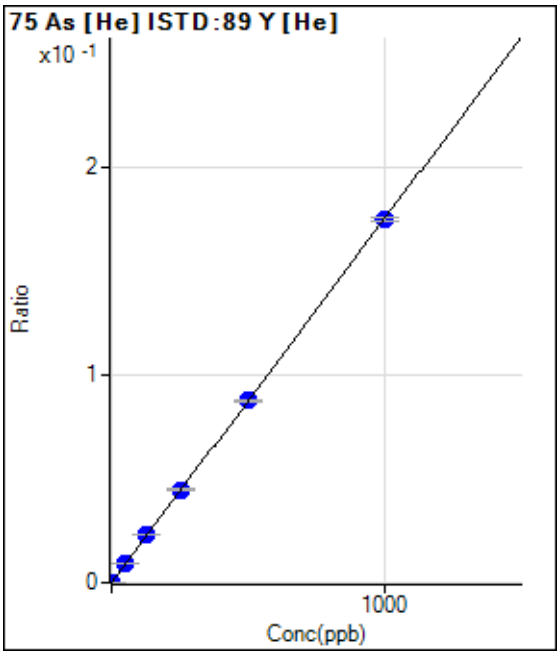
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133.34	0.0008	P	6.3
2	☐	2.000	5.441	2698.06	0.0155	P	2.9
3	☐	500.000	525.293	240709.39	1.4216	P	0.6
4	☐	1250.000	1315.691	600444.24	3.5595	P	1.2
5	☐	2500.000	2559.726	1175781.82	6.9244	P	0.1
6	☐	5000.000	5188.368	2408645.90	14.0345	A	1.2
7	☐	10000.000	9881.408	4760066.56	26.7284	A	1.5
8	☐			2888.10	0.0172	P	4.5

y = 0.0027 * x + 7.6140E-004
R = 0.9997
DL = 0.05353
BEC = 0.2815

Weight: <None>
Min Conc: 0

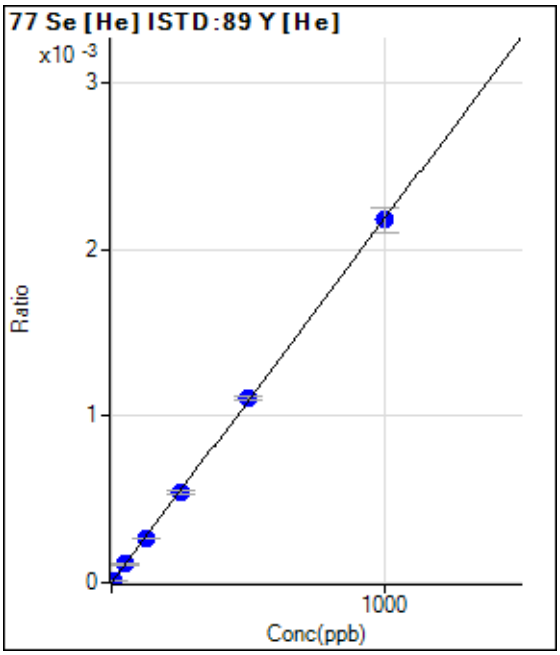


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.89	0.0000	P	142.
2	☐	1.000	1.038	300.01	0.0002	P	8.0
3	☐	50.000	52.256	14403.02	0.0092	P	0.6
4	☐	125.000	132.535	36053.84	0.0233	P	1.1
5	☐	250.000	255.951	70934.06	0.0449	P	2.0
6	☐	500.000	500.763	140044.55	0.0879	P	1.2
7	☐	1000.000	997.076	285892.01	0.1749	P	0.9
8	☐			135.56	0.0001	P	14.1

y = 1.7544E-004 * x + 5.4513E-006
R = 1.0000
DL = 0.1326
BEC = 0.03107

Weight: <None>
Min Conc: 0

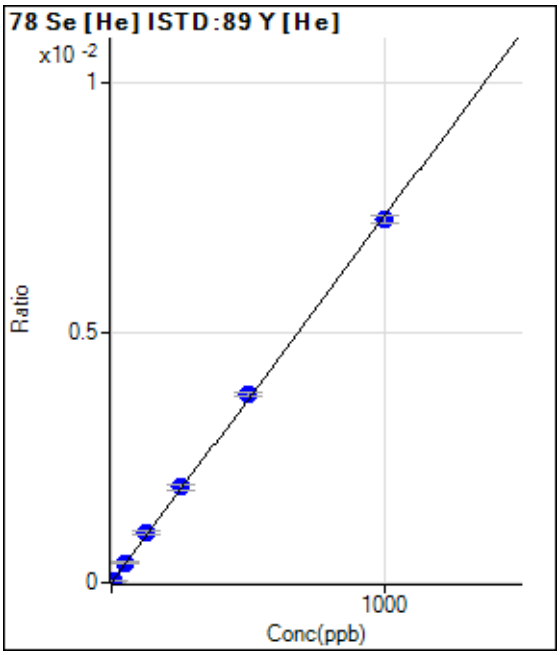
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	4.775	16.66	0.0000	P	35.1
3	☐	50.000	50.556	173.34	0.0001	P	7.4
4	☐	125.000	121.785	412.23	0.0003	P	1.0
5	☐	250.000	250.009	862.26	0.0005	P	3.9
6	☐	500.000	506.665	1763.46	0.0011	P	2.3
7	☐	1000.000	997.041	3557.15	0.0022	P	7.0
8	☐			0.00	0.0000	P	

y = 2.1835E-006 * x + 0.0000E+000
R = 1.0000
DL = 0
BEC = 0

Weight: <None>
Min Conc: 0

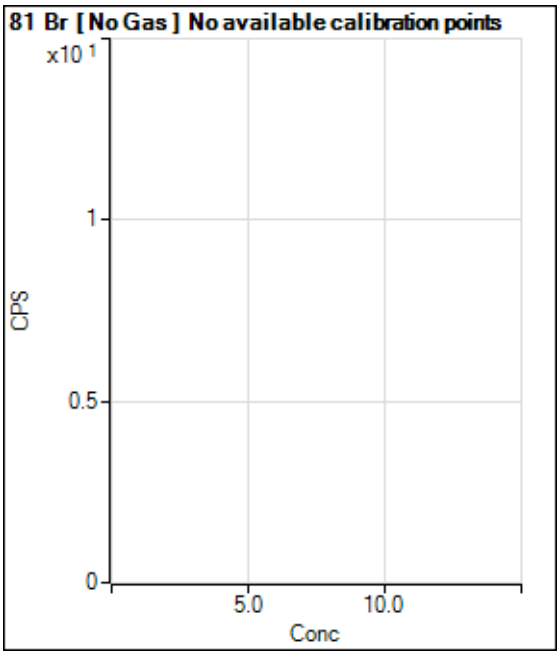


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.44	0.0000	P	43.9
2	☐	5.000	5.605	70.00	0.0000	P	42.6
3	☐	50.000	53.981	624.47	0.0004	P	11.3
4	☐	125.000	135.911	1547.87	0.0010	P	4.8
5	☐	250.000	259.578	3007.02	0.0019	P	6.9
6	☐	500.000	512.511	5987.99	0.0038	P	2.2
7	☐	1000.000	989.784	11852.85	0.0073	P	2.3
8	☐			10.00	0.0000	P	33.0

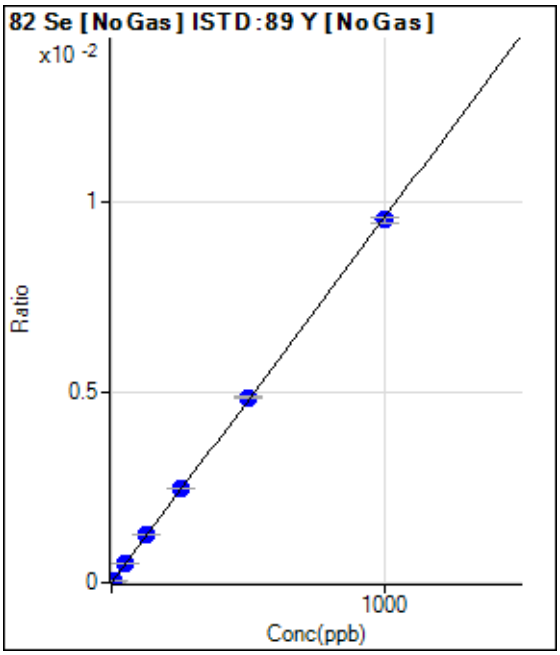
y = 7.3249E-006 * x + 2.7183E-006
R = 0.9998
DL = 0.4887
BEC = 0.3711

Weight: <None>
Min Conc: 0

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4788.64		P	2.6
2	☐			4805.31		P	0.8
3	☐			4555.24		P	3.5
4	☐			4464.08		P	1.1
5	☐			4527.44		P	2.3
6	☐			4550.78		P	1.4
7	☐			5009.83		P	1.7
8	☐			5086.53		P	2.4

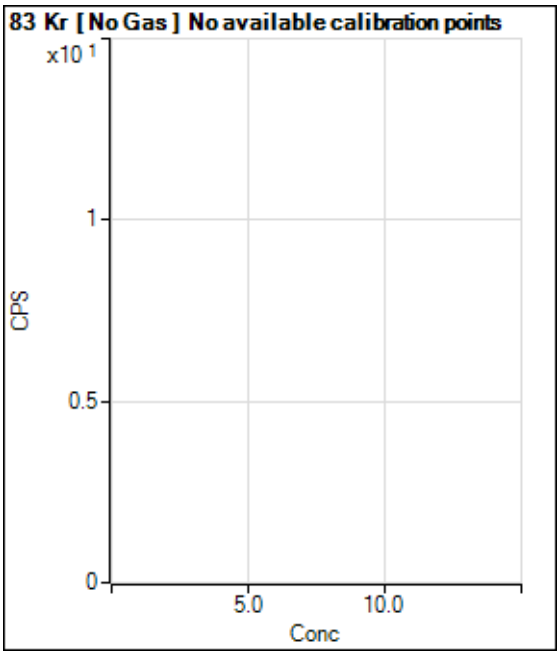


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.
2	☐	5.000	5.039	1278.98	0.0000	P	5.6
3	☐	50.000	52.279	12904.03	0.0005	P	1.6
4	☐	125.000	132.512	32483.67	0.0013	P	1.9
5	☐	250.000	257.398	62546.22	0.0025	P	1.4
6	☐	500.000	506.775	123424.00	0.0049	P	1.2
7	☐	1000.000	993.710	248103.46	0.0095	P	1.4
8	☐			12.22	0.0000	P	227.

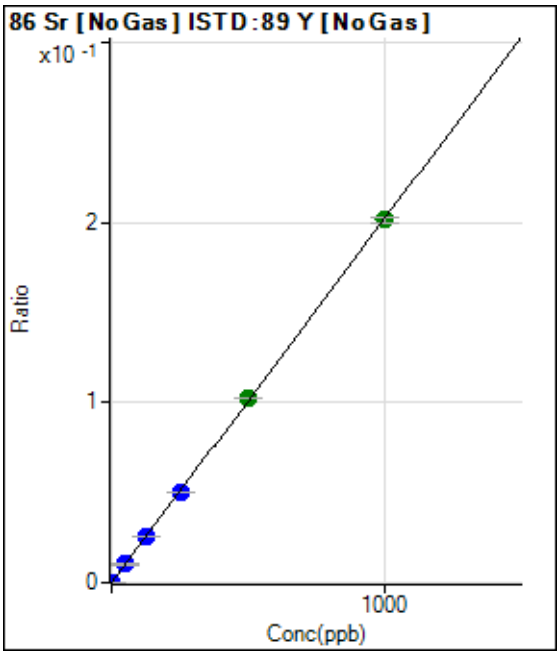
y = 9.5725E-006 * x + 1.2583E-007
R = 0.9999
DL = 0.0683
BEC = 0.01315

Weight: <None>
Min Conc: 0

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			241.12		P	4.4
2	☐			256.67		P	4.5
3	☐			247.78		P	6.8
4	☐			235.56		P	2.9
5	☐			230.00		P	5.2
6	☐			267.78		P	6.4
7	☐			295.56		P	10.2
8	☐			328.90		P	5.6

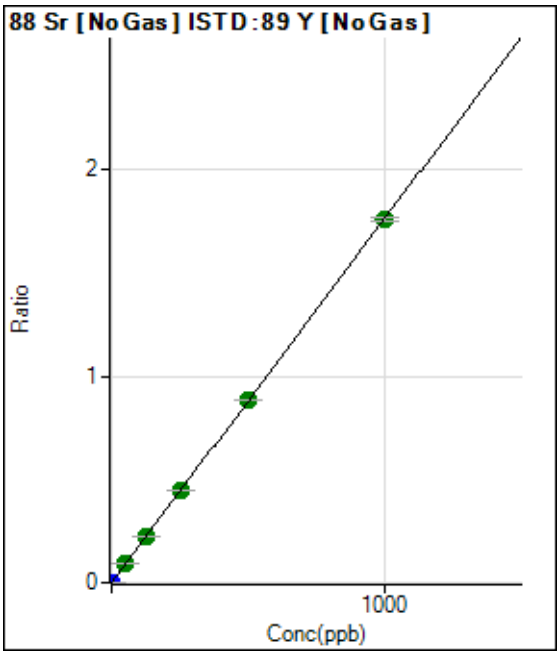


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	785.59	0.0000	P	5.2
2	☐	1.000	1.049	6403.75	0.0002	P	3.3
3	☐	50.000	50.153	262241.70	0.0102	P	0.8
4	☐	125.000	125.372	650020.48	0.0254	P	1.1
5	☐	250.000	247.463	1271209.39	0.0501	P	0.4
6	☐	500.000	506.414	2606867.71	0.1024	A	0.6
7	☐	1000.000	997.373	5261737.14	0.2017	A	1.5
8	☐			15770.10	0.0007	P	2.5

y = 2.0224E-004 * x + 2.9960E-005
R = 1.0000
DL = 0.02302
BEC = 0.1481

Weight: <None>
Min Conc: 0

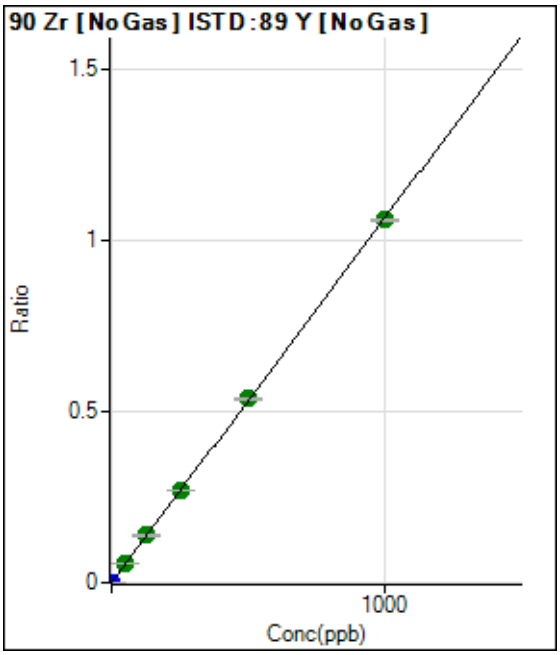
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3429.35	0.0001	P	2.8
2	☐	1.000	1.033	51561.45	0.0019	P	1.5
3	☐	50.000	52.015	2363876.15	0.0917	A	1.7
4	☐	125.000	128.926	5814979.71	0.2271	A	0.7
5	☐	250.000	255.302	11412536.08	0.4496	A	0.5
6	☐	500.000	501.711	22475727.72	0.8833	A	0.5
7	☐	1000.000	997.228	45790669.32	1.7556	A	1.2
8	☐			132248.08	0.0055	P	0.6

y = 0.0018 * x + 1.3081E-004
R = 1.0000
DL = 0.006236
BEC = 0.07431

Weight: <None>
Min Conc: 0

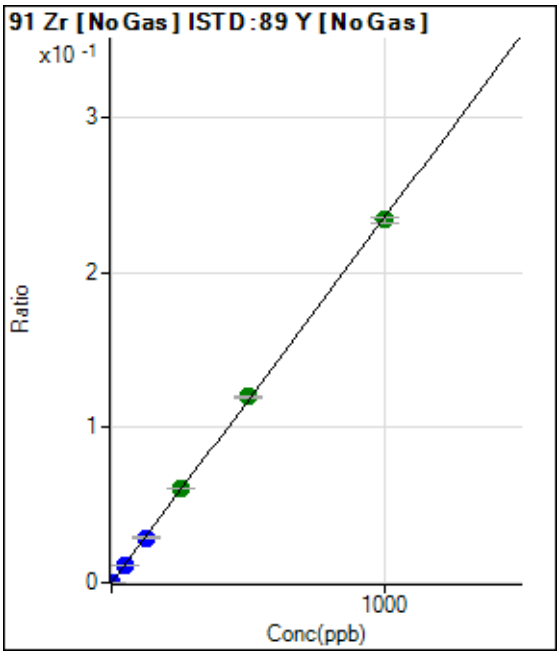


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	831.14	0.0000	P	6.9
2	☐	1.000	1.013	29313.06	0.0011	P	2.3
3	☐	50.000	51.494	1411371.78	0.0548	A	1.7
4	☐	125.000	129.789	3532330.36	0.1379	A	1.1
5	☐	250.000	253.972	6851462.33	0.2699	A	1.2
6	☐	500.000	504.464	13640535.35	0.5361	A	0.9
7	☐	1000.000	996.102	27608573.20	1.0585	A	0.7
8	☐			42841.59	0.0018	P	1.2

y = 0.0011 * x + 3.1702E-005
R = 1.0000
DL = 0.006207
BEC = 0.02983

Weight: <None>
Min Conc: 0

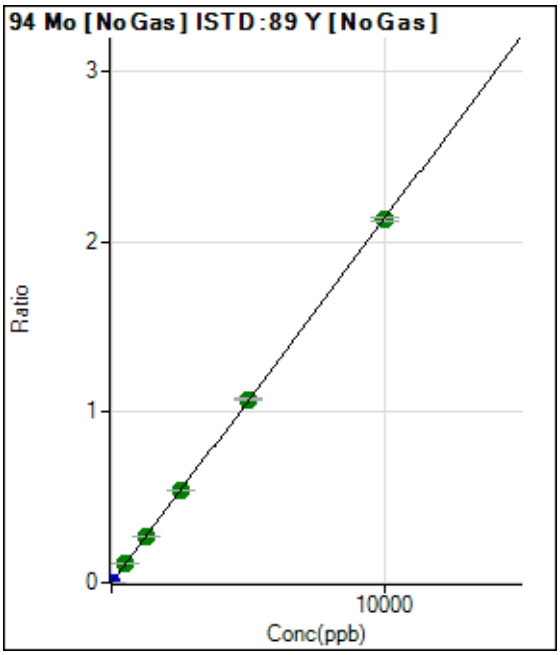
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.67	0.0000	P	11.9
2	☐	1.000	0.993	6367.08	0.0002	P	1.8
3	☐	50.000	48.747	295674.39	0.0115	P	0.5
4	☐	125.000	123.500	743810.65	0.0290	P	1.6
5	☐	250.000	257.616	1537992.98	0.0606	A	1.5
6	☐	500.000	508.717	3043857.94	0.1196	A	0.7
7	☐	1000.000	993.987	6096510.81	0.2337	A	1.7
8	☐			9602.29	0.0004	P	2.4

y = 2.3515E-004 * x + 7.1158E-006
R = 0.9999
DL = 0.01085
BEC = 0.03026

Weight: <None>
Min Conc: 0

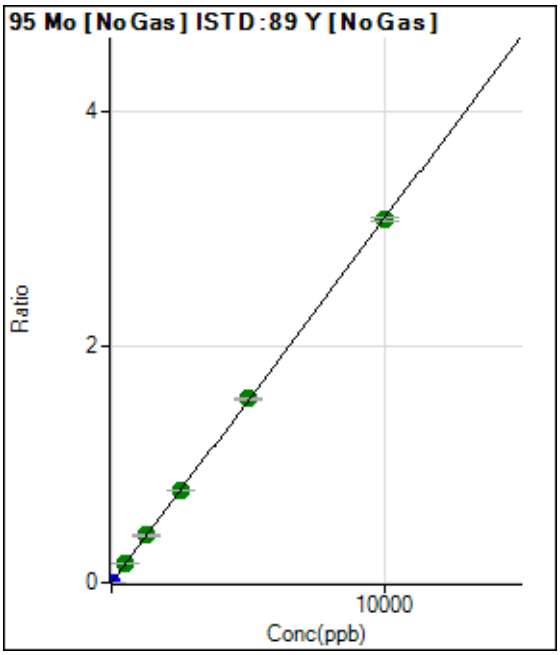


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	654.47	0.0000	P	4.8
2	☐	5.000	5.949	34261.00	0.0013	P	0.8
3	☐	500.000	519.462	2858995.58	0.1109	A	1.0
4	☐	1250.000	1286.579	7032842.95	0.2746	A	0.6
5	☐	2500.000	2544.211	13785500.77	0.5431	A	1.3
6	☐	5000.000	5037.564	27362187.92	1.0753	A	1.1
7	☐	10000.000	9964.619	55476858.06	2.1270	A	1.2
8	☐			38558.82	0.0016	P	1.3

y = 2.1345E-004 * x + 2.4964E-005
R = 1.0000
DL = 0.01687
BEC = 0.117

Weight: <None>
Min Conc: 0

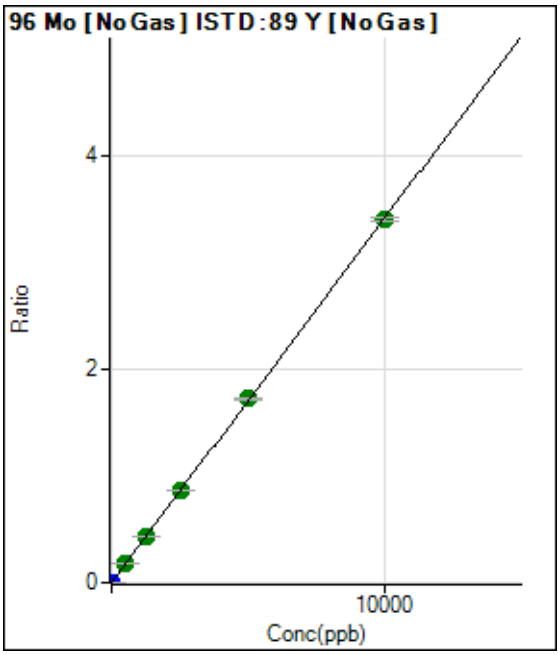
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	584.46	0.0000	P	6.7
2	☐	5.000	5.025	41663.31	0.0016	P	2.4
3	☐	500.000	515.682	4107925.32	0.1594	A	0.4
4	☐	1250.000	1293.861	10237363.53	0.3998	A	0.9
5	☐	2500.000	2544.269	19955373.46	0.7861	A	1.1
6	☐	5000.000	5045.116	39664106.63	1.5588	A	0.8
7	☐	10000.000	9960.108	80268036.58	3.0775	A	0.9
8	☐			39911.55	0.0017	P	0.9

y = 3.0898E-004 * x + 2.2291E-005
R = 1.0000
DL = 0.01449
BEC = 0.07215

Weight: <None>
Min Conc: 0

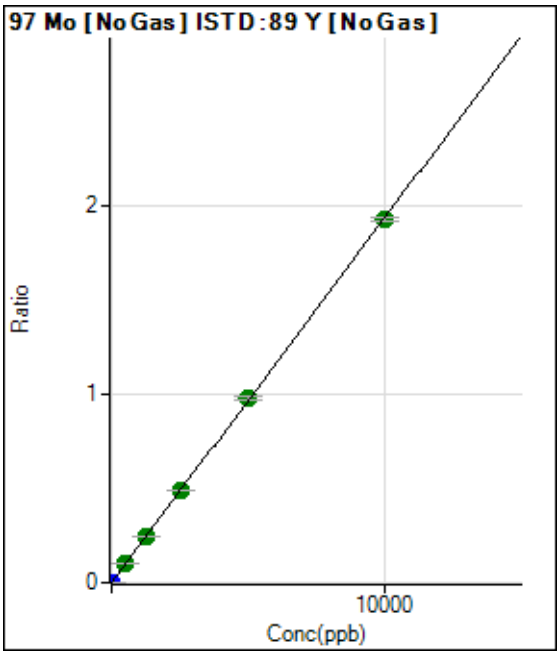


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	664.47	0.0000	P	4.4
2	☐	5.000	5.054	46321.28	0.0018	P	1.0
3	☐	500.000	511.496	4502398.89	0.1747	A	1.1
4	☐	1250.000	1284.013	11226541.91	0.4384	A	0.4
5	☐	2500.000	2541.957	22030798.00	0.8679	A	1.2
6	☐	5000.000	5049.247	43859782.12	1.7239	A	1.4
7	☐	10000.000	9960.061	88696538.68	3.4006	A	1.2
8	☐			46746.10	0.0019	P	1.0

y = 3.4142E-004 * x + 2.5341E-005
R = 1.0000
DL = 0.009906
BEC = 0.07422

Weight: <None>
Min Conc: 0

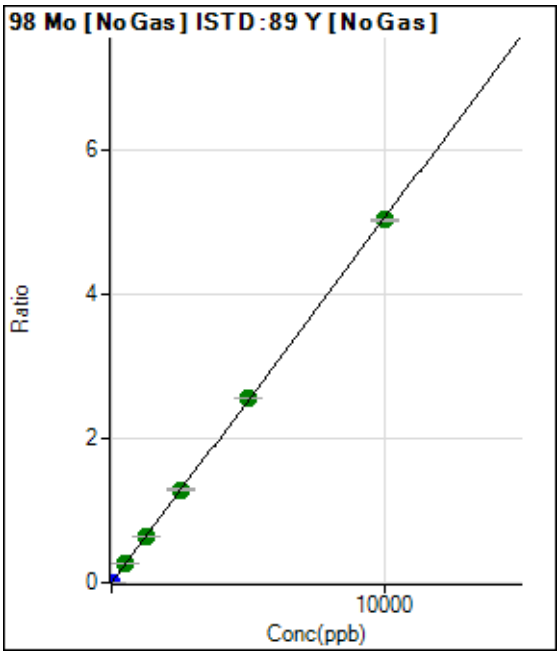
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	368.90	0.0000	P	13.2
2	☐	5.000	4.991	25858.54	0.0010	P	1.5
3	☐	500.000	510.408	2539503.05	0.0985	A	0.1
4	☐	1250.000	1268.866	6270650.53	0.2449	A	0.7
5	☐	2500.000	2537.282	12429969.54	0.4897	A	0.6
6	☐	5000.000	5073.808	24911349.63	0.9792	A	1.5
7	☐	10000.000	9950.897	50088394.81	1.9203	A	1.1
8	☐			24329.14	0.0010	P	1.9

y = 1.9298E-004 * x + 1.4070E-005
R = 1.0000
DL = 0.02884
BEC = 0.07291

Weight: <None>
Min Conc: 0

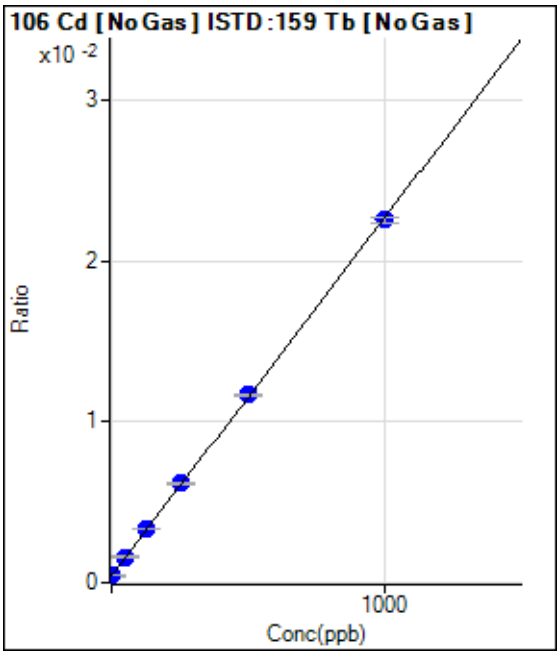


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	867.81	0.0000	P	7.7
2	☐	5.000	4.927	66649.06	0.0025	P	0.5
3	☐	500.000	510.658	6642802.61	0.2577	A	0.8
4	☐	1250.000	1276.918	16497873.51	0.6443	A	1.3
5	☐	2500.000	2547.030	32621894.79	1.2851	A	1.1
6	☐	5000.000	5066.425	65038984.59	2.5563	A	0.8
7	☐	10000.000	9951.133	130960085.8	5.0209	A	0.5
8	☐			62604.74	0.0026	P	1.1

y = 5.0455E-004 * x + 3.3092E-005
R = 1.0000
DL = 0.01523
BEC = 0.06559

Weight: <None>
Min Conc: 0

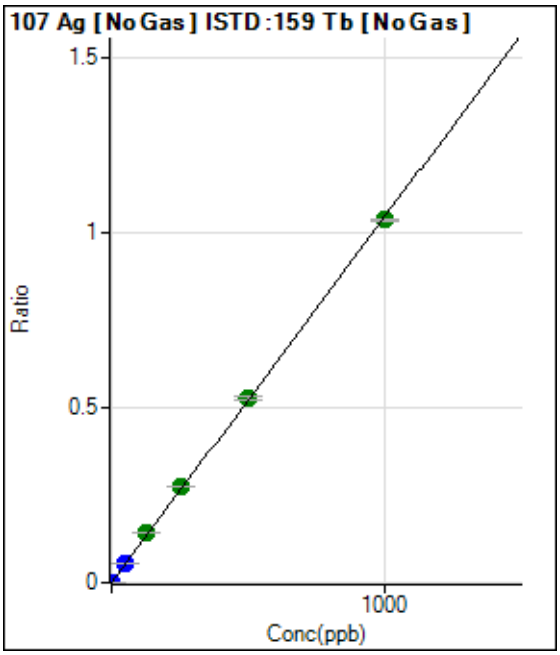
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8169.15	0.0004	P	2.5
2	☐	1.000	1.505	8800.67	0.0005	P	1.3
3	☐	50.000	53.614	31117.38	0.0016	P	0.6
4	☐	125.000	130.690	63818.88	0.0033	P	1.1
5	☐	250.000	258.086	118151.66	0.0062	P	0.7
6	☐	500.000	504.975	225006.72	0.0117	P	0.7
7	☐	1000.000	994.599	438556.97	0.0226	P	1.4
8	☐			7442.08	0.0004	P	1.7

y = 2.2265E-005 * x + 4.1887E-004
R = 0.9999
DL = 1.395
BEC = 18.81

Weight: <None>
Min Conc: 0

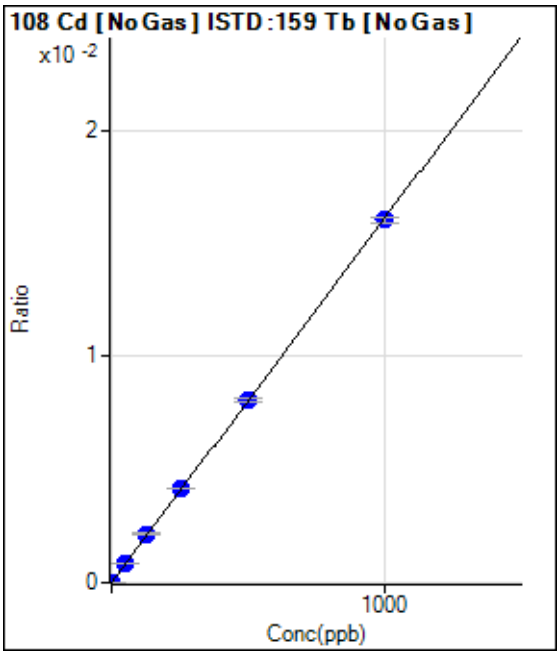


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0000	P	7.1
2	☐	1.000	1.019	20868.09	0.0011	P	2.2
3	☐	50.000	51.340	1033102.91	0.0535	P	0.3
4	☐	125.000	136.654	2731756.96	0.1425	A	1.0
5	☐	250.000	262.836	5252050.17	0.2740	A	0.2
6	☐	500.000	505.429	10165897.00	0.5270	A	1.8
7	☐	1000.000	992.553	20114755.67	1.0348	A	0.7
8	☐			3289.32	0.0002	P	3.6

y = 0.0010 * x + 1.0597E-005
R = 0.9998
DL = 0.002156
BEC = 0.01016

Weight: <None>
Min Conc: 0

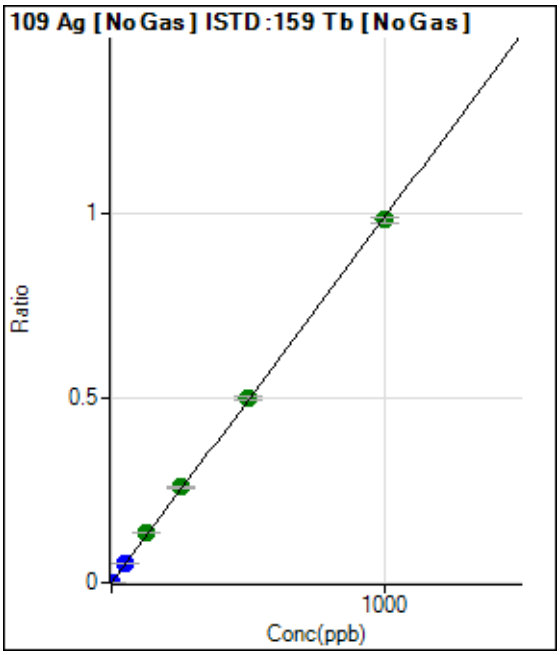
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35.55	0.0000	P	37.6
2	☐	1.000	0.988	344.45	0.0000	P	5.4
3	☐	50.000	52.950	16471.07	0.0009	P	1.6
4	☐	125.000	134.244	41434.32	0.0022	P	1.3
5	☐	250.000	259.063	79896.29	0.0042	P	1.1
6	☐	500.000	500.315	155290.24	0.0080	P	1.8
7	☐	1000.000	996.274	311519.79	0.0160	P	1.6
8	☐			246.67	0.0000	P	6.5

y = 1.6086E-005 * x + 1.8211E-006
R = 0.9999
DL = 0.1277
BEC = 0.1132

Weight: <None>
Min Conc: 0

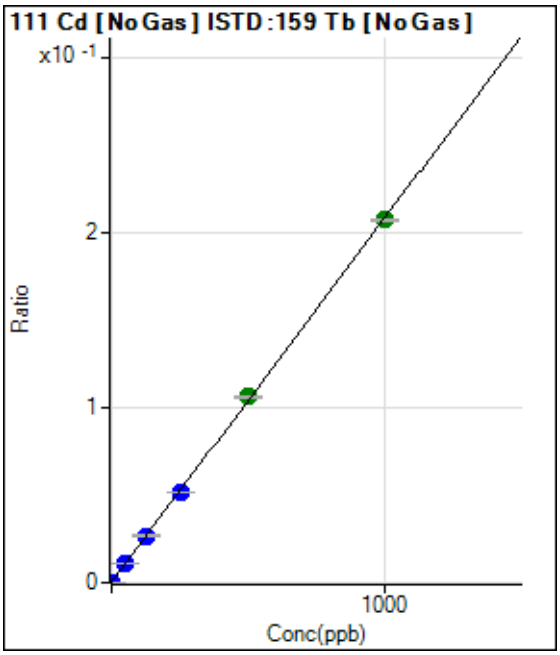


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.55	0.0000	P	24.7
2	☐	1.000	1.011	19489.47	0.0010	P	3.1
3	☐	50.000	51.884	989713.07	0.0513	P	1.2
4	☐	125.000	135.186	2562042.86	0.1336	A	0.6
5	☐	250.000	261.531	4954196.98	0.2585	A	1.4
6	☐	500.000	505.477	9637573.40	0.4997	A	2.9
7	☐	1000.000	993.011	19078211.66	0.9816	A	1.2
8	☐			3089.27	0.0002	P	3.9

y = 9.8848E-004 * x + 2.8507E-006
R = 0.9999
DL = 0.002141
BEC = 0.002884

Weight: <None>
Min Conc: 0

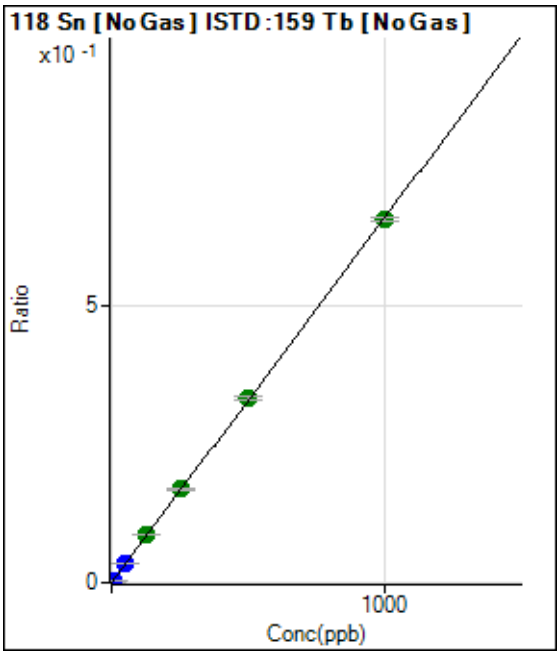
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5713.52	0.0003	P	2.4
2	☐	1.000	1.101	10154.49	0.0005	P	1.7
3	☐	50.000	51.211	211219.49	0.0109	P	0.7
4	☐	125.000	127.536	514209.27	0.0268	P	1.8
5	☐	250.000	246.997	990288.92	0.0517	P	0.8
6	☐	500.000	509.164	2048998.24	0.1062	A	1.3
7	☐	1000.000	995.791	4032091.03	0.2074	A	0.6
8	☐			6153.51	0.0003	P	0.7

y = 2.0802E-004 * x + 2.9296E-004
R = 0.9999
DL = 0.1022
BEC = 1.408

Weight: <None>
Min Conc: 0

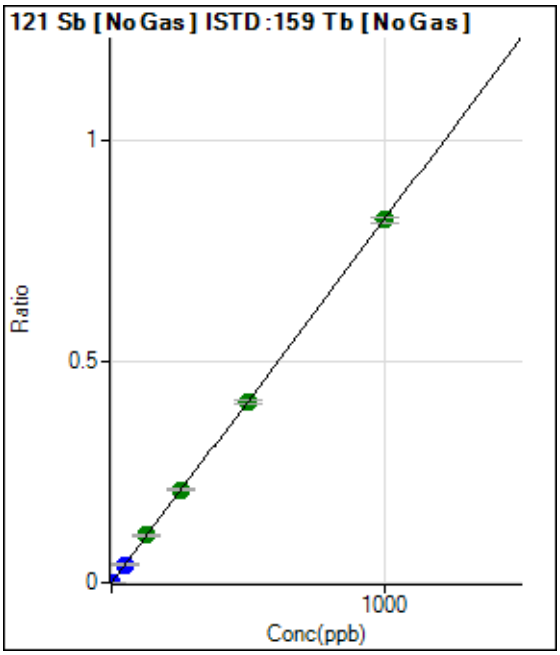


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1254.52	0.0001	P	5.5
2	☐	5.000	5.277	68704.49	0.0035	P	1.0
3	☐	50.000	50.770	645000.31	0.0334	P	0.7
4	☐	125.000	131.931	1663267.43	0.0868	A	1.4
5	☐	250.000	256.914	3236625.09	0.1689	A	1.1
6	☐	500.000	504.879	6400717.75	0.3318	A	2.5
7	☐	1000.000	994.926	12708340.09	0.6538	A	1.0
8	☐			4848.69	0.0003	P	4.6

y = 6.5711E-004 * x + 6.4333E-005
R = 0.9999
DL = 0.01601
BEC = 0.0979

Weight: <None>
Min Conc: 0

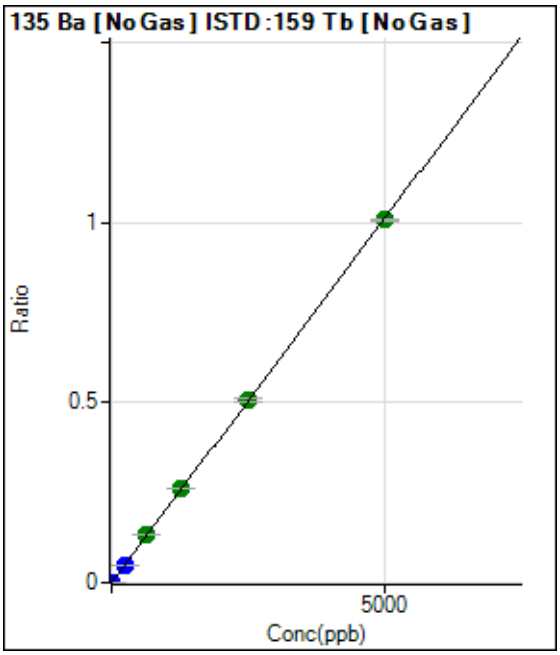
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.11	0.0000	P	46.9
2	☐	2.000	2.071	33198.06	0.0017	P	0.7
3	☐	50.000	50.151	796558.90	0.0413	P	0.6
4	☐	125.000	130.176	2054200.16	0.1071	A	1.1
5	☐	250.000	256.389	4044397.86	0.2110	A	1.0
6	☐	500.000	499.189	7925978.49	0.4109	A	2.0
7	☐	1000.000	998.154	15967422.40	0.8216	A	1.6
8	☐			7228.65	0.0004	P	2.6

y = 8.2308E-004 * x + 2.1084E-006
R = 1.0000
DL = 0.003604
BEC = 0.002562

Weight: <None>
Min Conc: 0

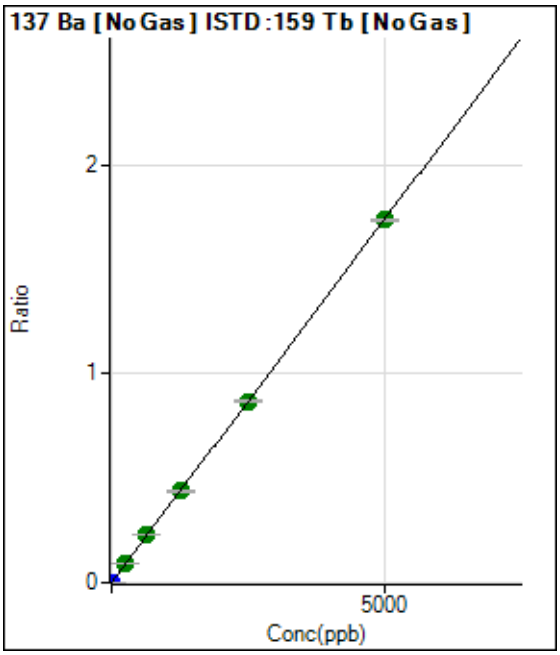


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.34	0.0000	P	13.5
2	☐	10.000	10.342	40860.36	0.0021	P	1.1
3	☐	250.000	245.984	959507.99	0.0497	P	0.4
4	☐	625.000	652.148	2527200.76	0.1318	A	0.6
5	☐	1250.000	1287.240	4985950.72	0.2602	A	0.5
6	☐	2500.000	2506.315	9771628.40	0.5065	A	1.9
7	☐	5000.000	4984.339	19580048.60	1.0074	A	0.6
8	☐			8878.55	0.0005	P	5.1

y = 2.0210E-004 * x + 1.0431E-005
R = 1.0000
DL = 0.02089
BEC = 0.05161

Weight: <None>
Min Conc: 0

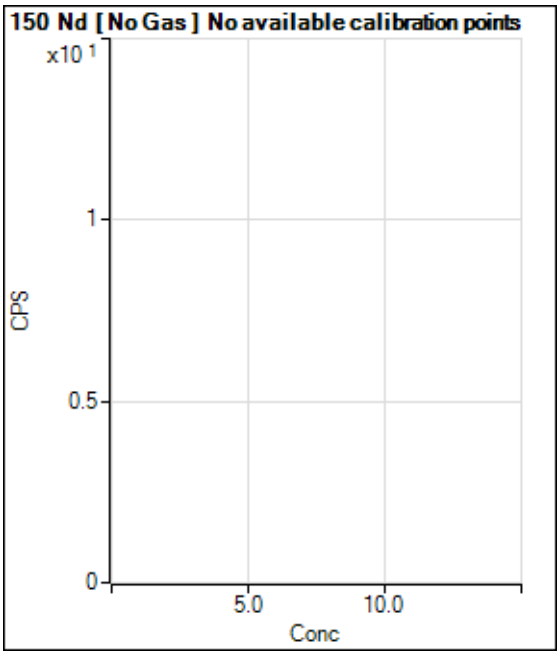
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	258.89	0.0000	P	15.1
2	☐	10.000	10.429	70722.44	0.0036	P	2.3
3	☐	250.000	258.715	1734409.89	0.0899	A	1.0
4	☐	625.000	652.773	4347494.48	0.2268	A	0.6
5	☐	1250.000	1260.588	8391324.39	0.4379	A	1.7
6	☐	2500.000	2497.590	16737425.03	0.8676	A	1.2
7	☐	5000.000	4994.650	33722295.33	1.7349	A	0.5
8	☐			15853.83	0.0009	P	3.3

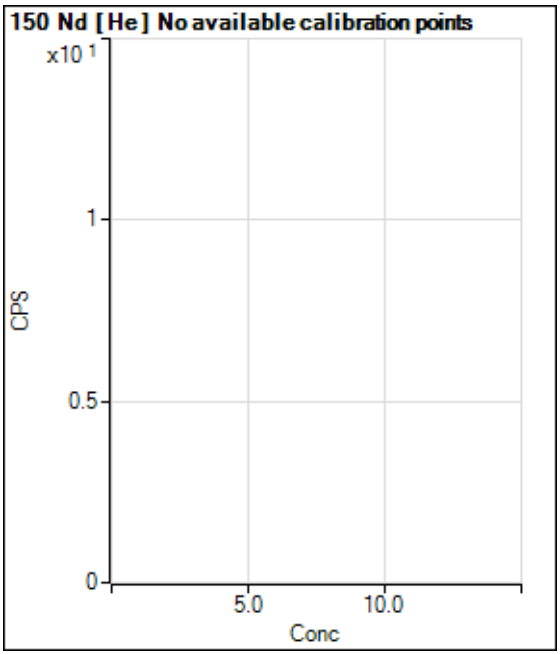
y = 3.4736E-004 * x + 1.3279E-005
R = 1.0000
DL = 0.01733
BEC = 0.03823

Weight: <None>
Min Conc: 0

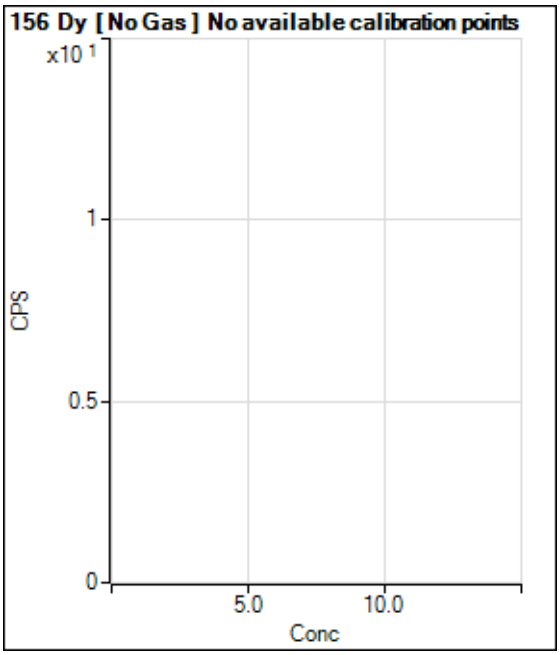


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			12.22		P	68.7
2	☐			30.00		P	22.2
3	☐			90.00		P	9.8
4	☐			190.00		P	13.7
5	☐			385.57		P	5.2
6	☐			728.92		P	16.1
7	☐			1490.10		P	1.2
8	☐			357.79		P	14.7

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

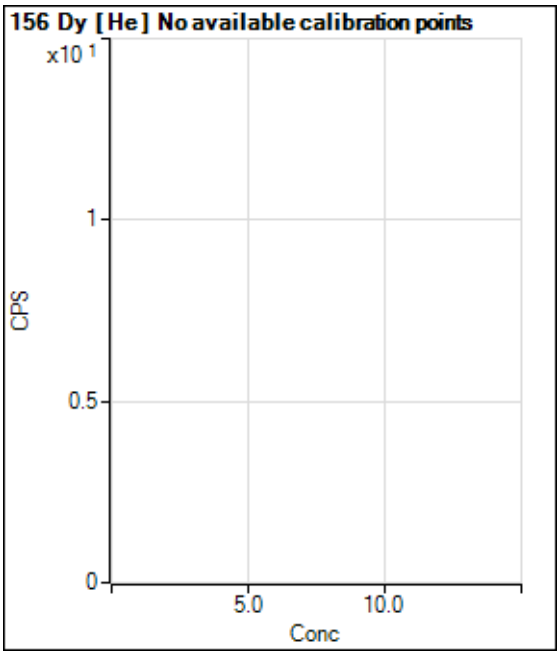


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			3.33		P	173.
2	☐			4.45		P	86.6
3	☐			4.44		P	114.
4	☐			10.00		P	57.7
5	☐			11.11		P	69.3
6	☐			28.89		P	48.0
7	☐			36.67		P	24.0
8	☐			80.00		P	12.5

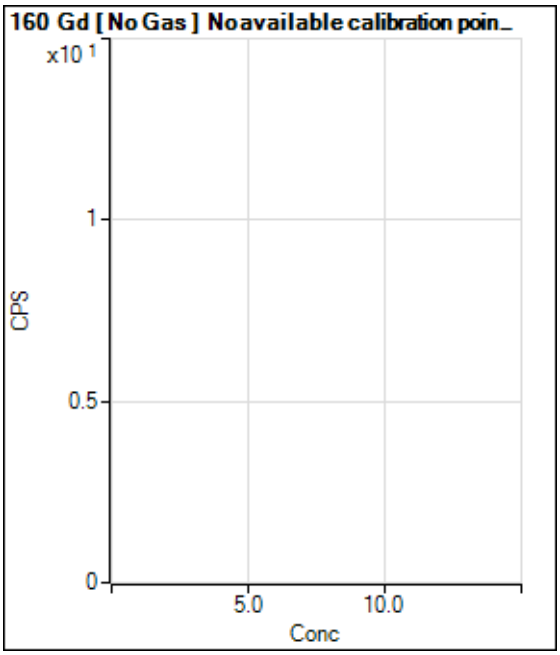


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			421.12		P	5.2
2	☐			455.57		P	0.4
3	☐			502.24		P	9.4
4	☐			428.90		P	4.5
5	☐			411.12		P	19.0
6	☐			464.46		P	9.0
7	☐			657.80		P	2.1
8	☐			822.26		P	7.0

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

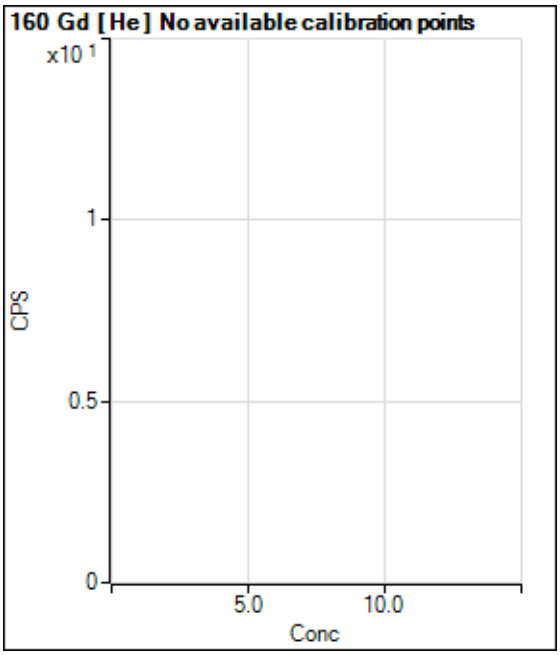


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.67		P	132.
2	☐			16.67		P	87.2
3	☐			13.33		P	NaN
4	☐			25.56		P	7.5
5	☐			22.22		P	37.8
6	☐			28.89		P	17.6
7	☐			47.78		P	31.5
8	☐			156.67		P	7.7

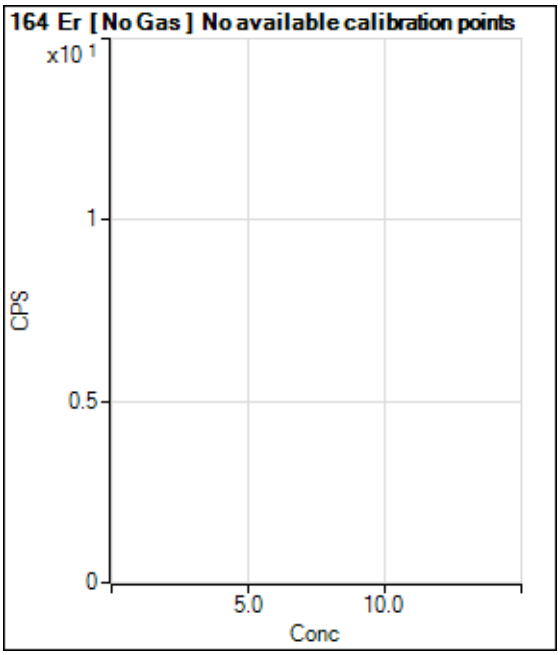


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			124.45		P	17.8
2	☐			102.22		P	6.8
3	☐			106.67		P	14.3
4	☐			104.45		P	14.7
5	☐			128.89		P	30.3
6	☐			173.34		P	22.2
7	☐			227.78		P	8.3
8	☐			565.57		P	9.8

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

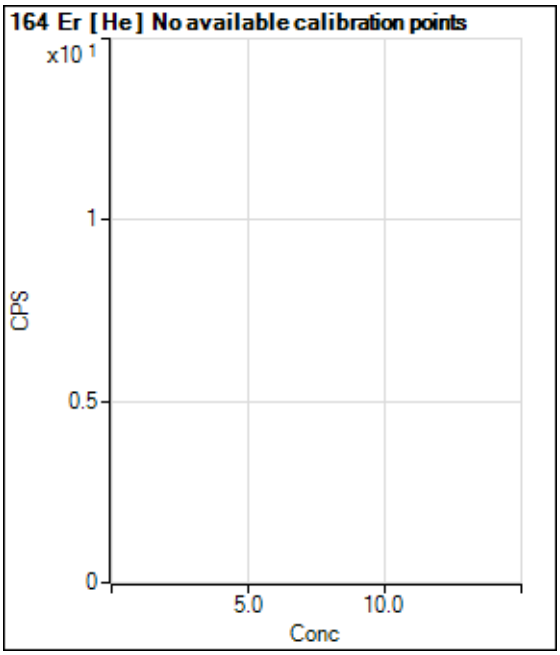


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			13.33		P	25.0
2	☐			21.11		P	32.9
3	☐			17.78		P	10.8
4	☐			20.00		P	60.1
5	☐			30.00		P	61.9
6	☐			41.11		P	32.8
7	☐			77.78		P	6.5
8	☐			221.12		P	18.0

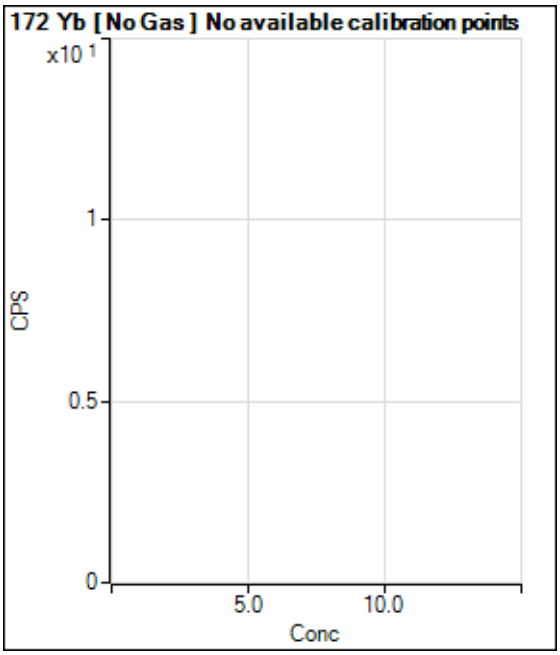


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			83.33		P	26.2
2	☐			103.34		P	16.1
3	☐			84.44		P	21.7
4	☐			131.12		P	17.3
5	☐			121.11		P	12.4
6	☐			192.23		P	14.0
7	☐			297.78		P	15.0
8	☐			672.25		P	4.2

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

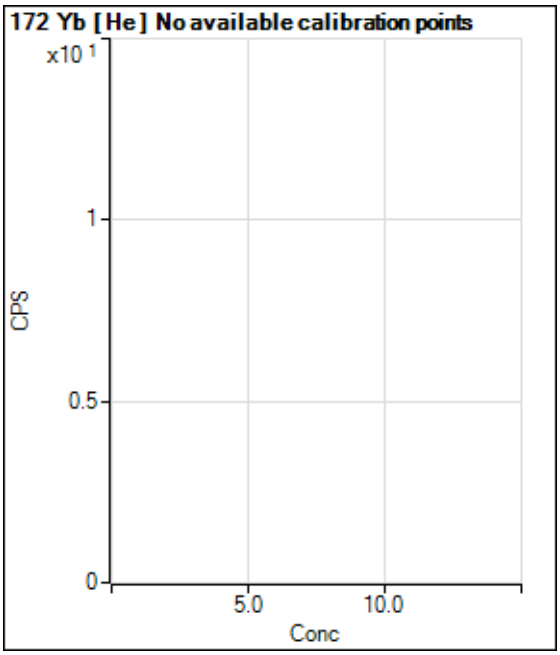


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			25.56		P	19.9
2	☐			30.00		P	48.4
3	☐			28.89		P	17.6
4	☐			34.45		P	39.1
5	☐			48.89		P	19.7
6	☐			47.78		P	24.5
7	☐			86.67		P	31.5
8	☐			207.78		P	13.6

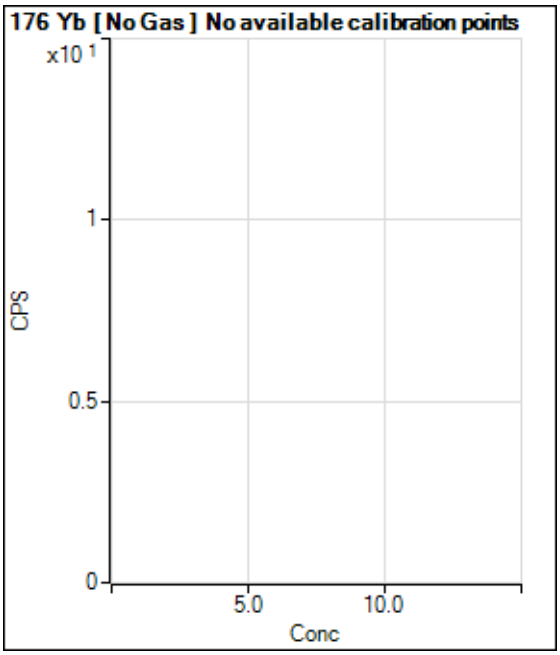


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			84.45		P	16.0
2	☐			108.89		P	41.1
3	☐			112.23		P	10.4
4	☐			133.34		P	21.8
5	☐			148.89		P	18.8
6	☐			230.00		P	5.8
7	☐			357.79		P	16.7
8	☐			744.47		P	2.5

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

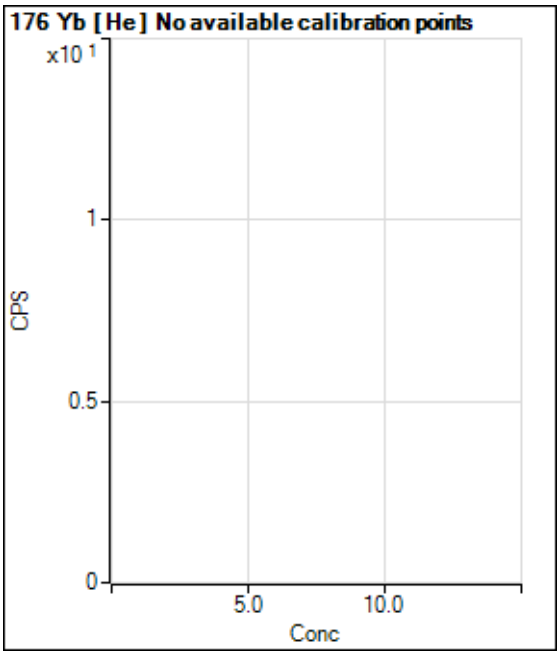


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			37.78		P	33.4
2	☐			34.44		P	34.0
3	☐			43.33		P	13.3
4	☐			45.56		P	37.5
5	☐			54.45		P	7.1
6	☐			74.45		P	26.2
7	☐			94.44		P	20.4
8	☐			306.67		P	9.5

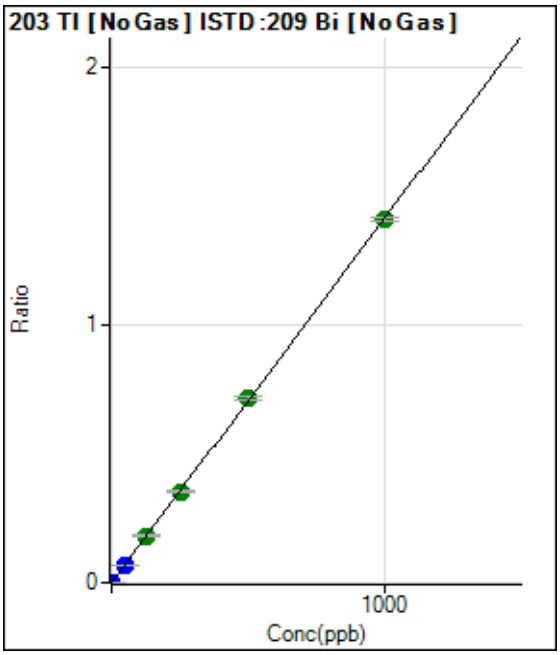


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2363.57		P	1.6
2	☐			2360.24		P	7.6
3	☐			5942.50		P	4.5
4	☐			11234.87		P	0.1
5	☐			20127.66		P	0.7
6	☐			37031.72		P	0.2
7	☐			73679.51		P	0.4
8	☐			2556.95		P	5.3

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			347.79		P	12.8
2	☐			365.57		P	2.1
3	☐			1425.65		P	4.1
4	☐			3109.29		P	1.1
5	☐			5676.84		P	1.5
6	☐			11081.39		P	1.4
7	☐			22325.61		P	1.2
8	☐			458.90		P	13.4

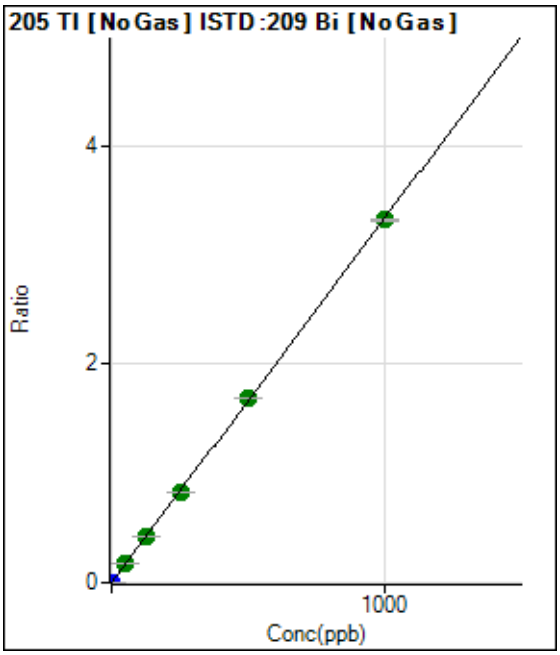


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	256.67	0.0000	P	7.6
2	☐	1.000	0.962	16934.44	0.0014	P	1.7
3	☐	50.000	47.973	813051.46	0.0677	P	1.0
4	☐	125.000	129.021	2145271.84	0.1821	A	1.4
5	☐	250.000	250.419	4115486.78	0.3534	A	2.3
6	☐	500.000	506.281	8232934.53	0.7144	A	1.5
7	☐	1000.000	996.353	16102556.01	1.4059	A	1.0
8	☐			1515.66	0.0002	P	7.5

y = 0.0014 * x + 2.0838E-005
R = 1.0000
DL = 0.003357
BEC = 0.01477

Weight: <None>
Min Conc: 0

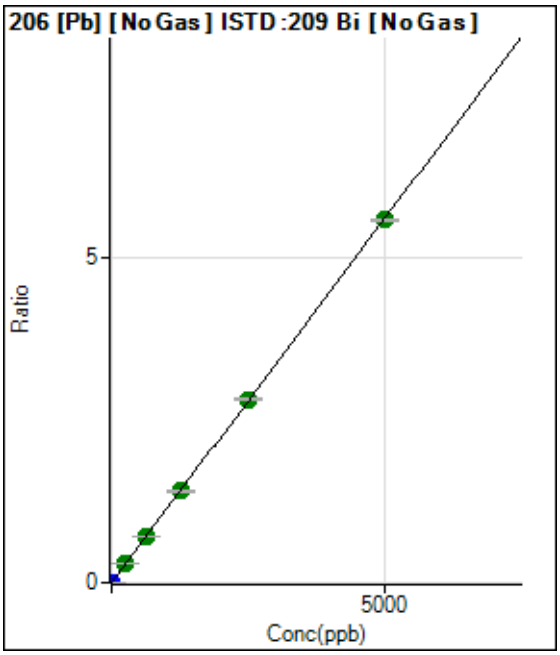
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575.58	0.0000	P	2.3
2	☐	1.000	0.965	40103.97	0.0033	P	2.5
3	☐	50.000	50.979	2042103.03	0.1701	A	0.2
4	☐	125.000	128.443	5047899.68	0.4284	A	0.9
5	☐	250.000	249.652	9699355.20	0.8327	A	0.6
6	☐	500.000	506.731	19476318.32	1.6901	A	0.7
7	☐	1000.000	996.242	38055241.10	3.3227	A	0.4
8	☐			3570.54	0.0004	P	11.6

y = 0.0033 * x + 4.6712E-005
R = 1.0000
DL = 0.0009846
BEC = 0.01401

Weight: <None>
Min Conc: 0

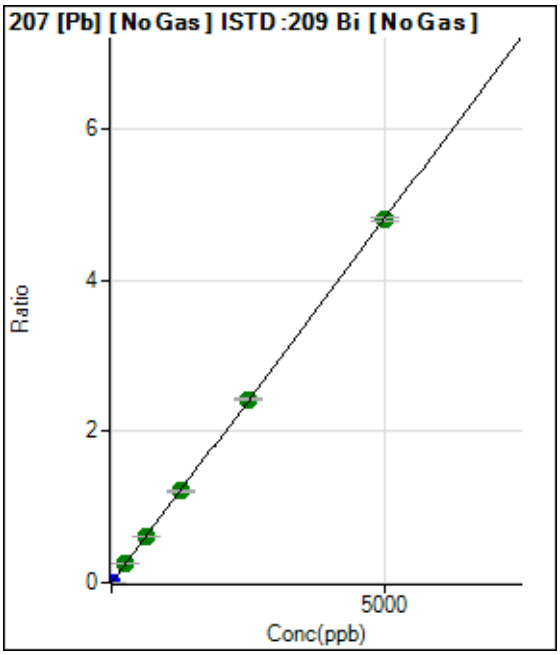


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1080.06	0.0001	P	8.1
2	☐	1.000	0.966	14340.27	0.0012	P	3.6
3	☐	250.000	257.231	3452547.73	0.2875	A	0.6
4	☐	625.000	640.207	8429877.79	0.7155	A	1.5
5	☐	1250.000	1263.154	16440909.48	1.4116	A	1.8
6	☐	2500.000	2515.934	32401016.46	2.8116	A	1.0
7	☐	5000.000	4986.482	63821314.05	5.5724	A	0.3
8	☐			11736.51	0.0012	P	2.3

y = 0.0011 * x + 8.7693E-005
R = 1.0000
DL = 0.01899
BEC = 0.07847

Weight: <None>
Min Conc: 0

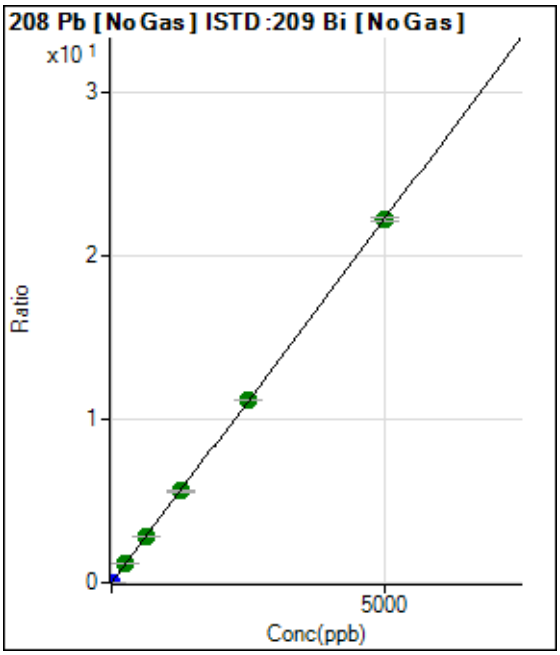
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	938.93	0.0001	P	4.5
2	☐	1.000	0.983	12567.32	0.0010	P	1.7
3	☐	250.000	255.665	2958978.67	0.2464	A	1.9
4	☐	625.000	637.178	7234542.39	0.6141	A	1.8
5	☐	1250.000	1262.373	14168705.76	1.2165	A	1.8
6	☐	2500.000	2516.088	27942361.53	2.4246	A	1.0
7	☐	5000.000	4987.057	55042167.51	4.8057	A	0.9
8	☐			10281.95	0.0010	P	2.4

y = 9.6362E-004 * x + 7.6217E-005
R = 1.0000
DL = 0.01057
BEC = 0.07909

Weight: <None>
Min Conc: 0

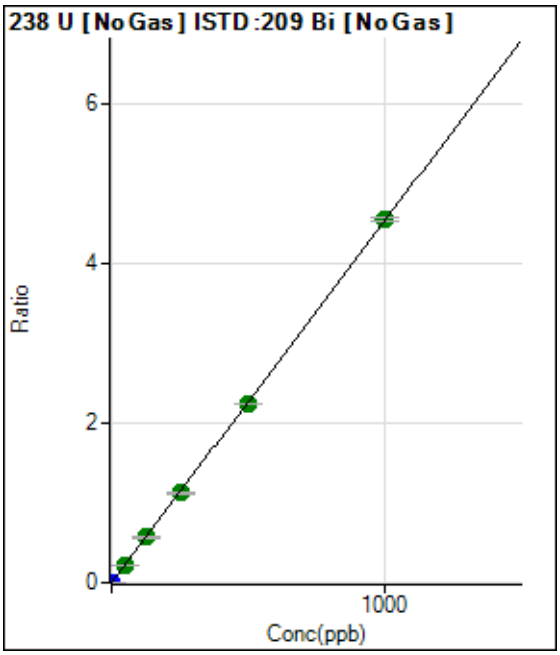


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4374.78	0.0004	P	0.8
2	☐	1.000	0.975	57590.62	0.0047	P	2.1
3	☐	250.000	255.024	13614965.25	1.1339	A	1.1
4	☐	625.000	638.345	33434286.73	2.8377	A	1.5
5	☐	1250.000	1264.092	65448373.89	5.6191	A	1.3
6	☐	2500.000	2509.551	128557333.0	11.1551	A	0.6
7	☐	5000.000	4989.782	254033228.4	22.1794	A	1.1
8	☐			47248.68	0.0048	P	2.2

y = 0.0044 * x + 3.5510E-004
R = 1.0000
DL = 0.001851
BEC = 0.07989

Weight: <None>
Min Conc: 0

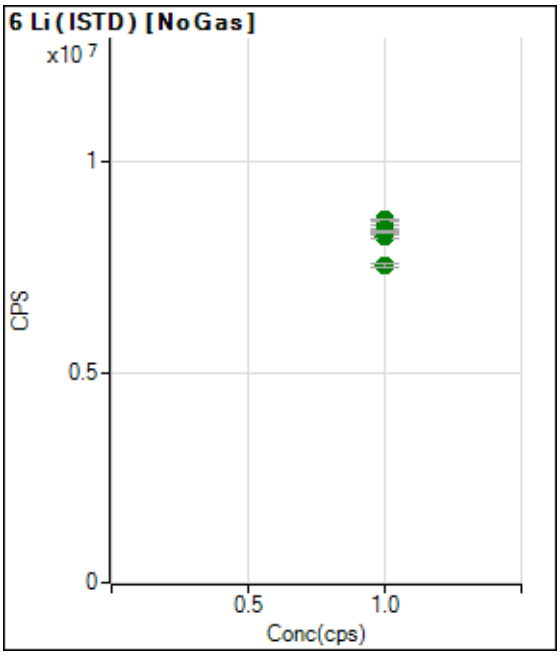
Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.45	0.0000	P	12.1
2	☐	1.000	0.950	52927.32	0.0043	P	0.6
3	☐	50.000	49.810	2706967.13	0.2254	A	0.8
4	☐	125.000	125.392	6686078.58	0.5675	A	1.7
5	☐	250.000	248.099	13079313.00	1.1228	A	1.0
6	☐	500.000	493.907	25759682.95	2.2353	A	0.5
7	☐	1000.000	1003.482	52015993.11	4.5415	A	1.1
8	☐			2276.90	0.0002	P	9.8

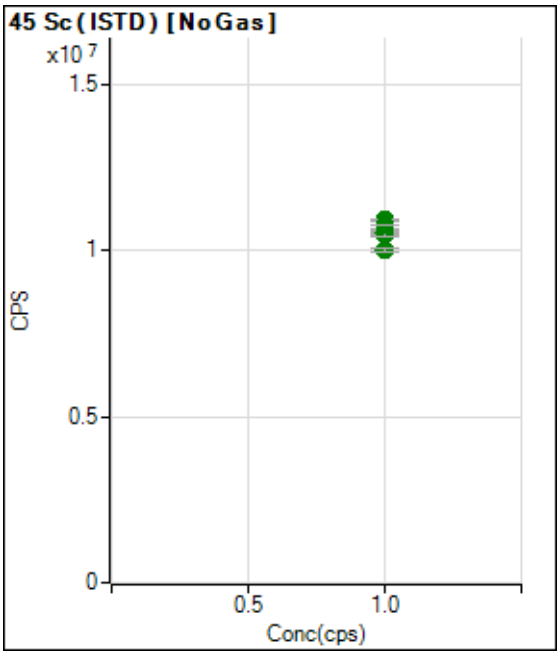
y = 0.0045 * x + 1.0917E-005
R = 1.0000
DL = 0.0008787
BEC = 0.002412

Weight: <None>
Min Conc: 0

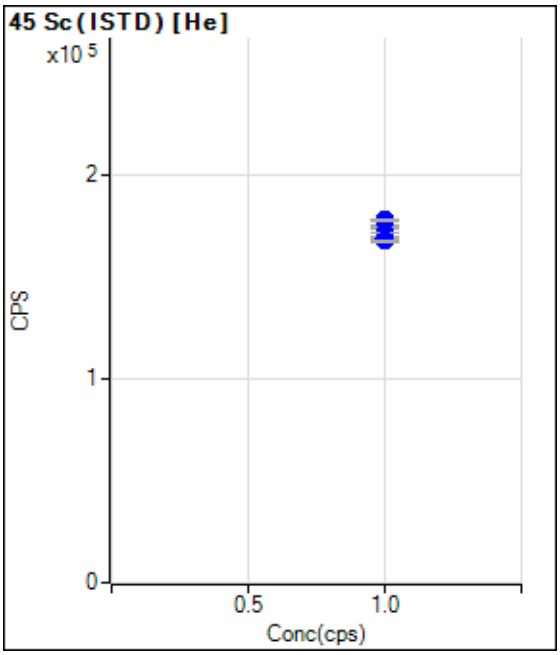


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8567139.22		A	1.3
2	☐	1.000		8615769.50		A	0.8
3	☐	1.000		8399230.01		A	0.2
4	☐	1.000		8343153.89		A	0.9
5	☐	1.000		8253687.16		A	1.4
6	☐	1.000		8234531.06		A	1.2
7	☐	1.000		8323959.83		A	0.7
8	☐	1.000		7548973.21		A	1.1

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

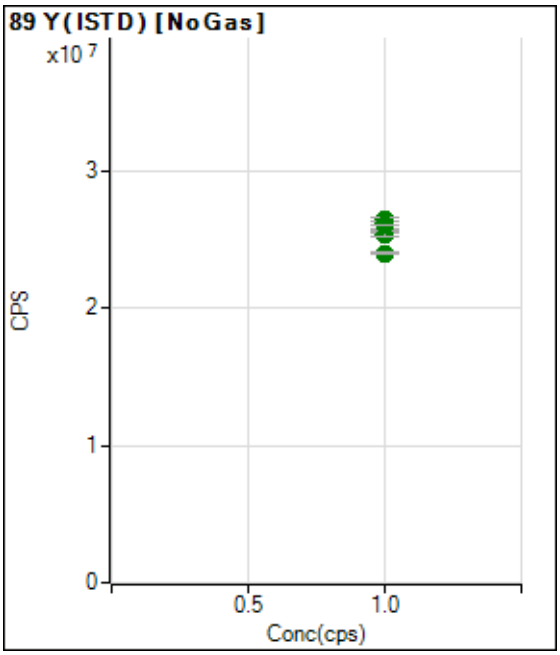


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10890430.46		A	0.3
2	☐	1.000		10906294.28		A	0.8
3	☐	1.000		10446250.54		A	0.8
4	☐	1.000		10545892.14		A	0.6
5	☐	1.000		10452650.33		A	0.2
6	☐	1.000		10526603.87		A	2.1
7	☐	1.000		10753559.00		A	0.5
8	☐	1.000		10001630.89		A	1.0

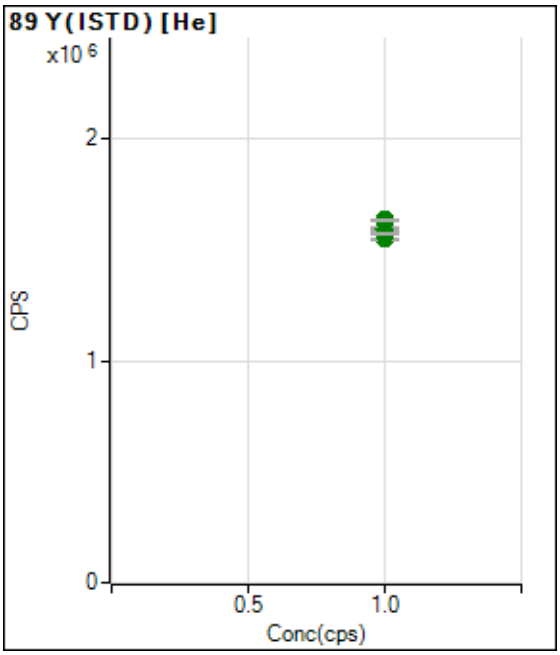


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		175101.28		P	0.3
2	☐	1.000		174325.30		P	0.8
3	☐	1.000		169326.60		P	0.7
4	☐	1.000		168700.13		P	0.9
5	☐	1.000		169802.23		P	0.2
6	☐	1.000		171623.74		P	0.0
7	☐	1.000		178098.90		P	0.5
8	☐	1.000		167902.45		P	0.5

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

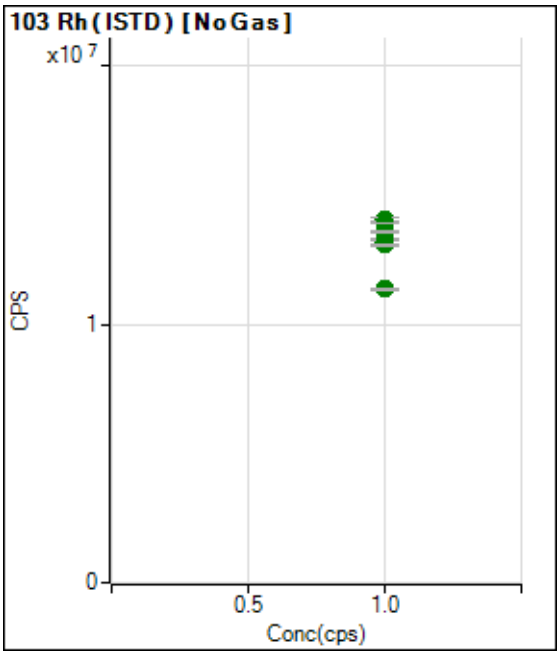


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26214652.11		A	0.9
2	☐	1.000		26457738.77		A	1.2
3	☐	1.000		25778449.89		A	0.3
4	☐	1.000		25607520.73		A	0.7
5	☐	1.000		25385936.57		A	1.1
6	☐	1.000		25444652.12		A	1.5
7	☐	1.000		26083103.23		A	0.5
8	☐	1.000		24014677.70		A	0.6

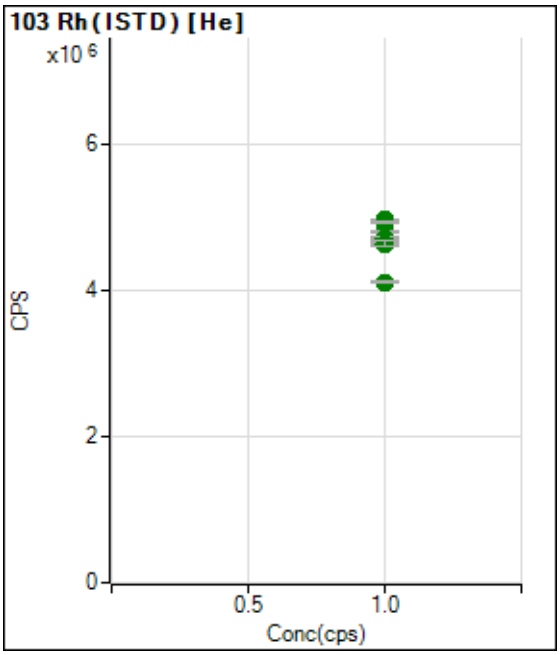


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1636749.54		A	0.5
2	☐	1.000		1599744.66		A	0.7
3	☐	1.000		1570077.15		A	1.6
4	☐	1.000		1550261.07		A	0.8
5	☐	1.000		1579568.43		A	0.9
6	☐	1.000		1594101.89		A	1.4
7	☐	1.000		1634336.83		A	0.8
8	☐	1.000		1572535.26		A	0.4

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

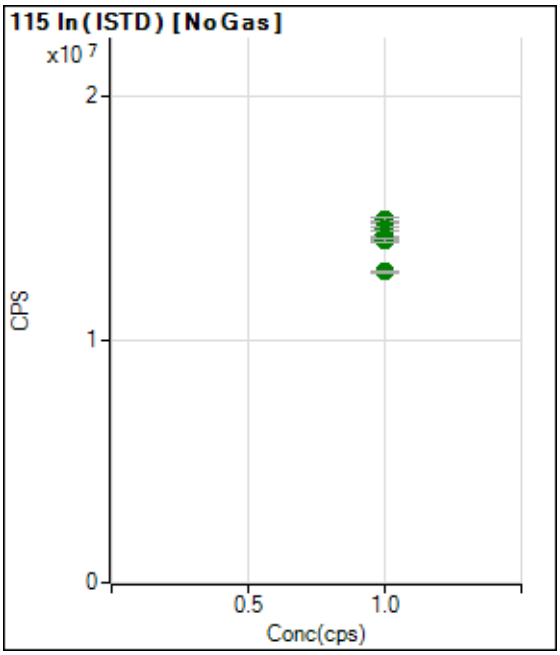


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14033507.99		A	0.9
2	☐	1.000		13905267.85		A	0.4
3	☐	1.000		13567343.68		A	0.6
4	☐	1.000		13193253.69		A	1.4
5	☐	1.000		13056799.11		A	0.4
6	☐	1.000		13187675.08		A	1.3
7	☐	1.000		13059544.94		A	0.7
8	☐	1.000		11355476.36		A	0.8

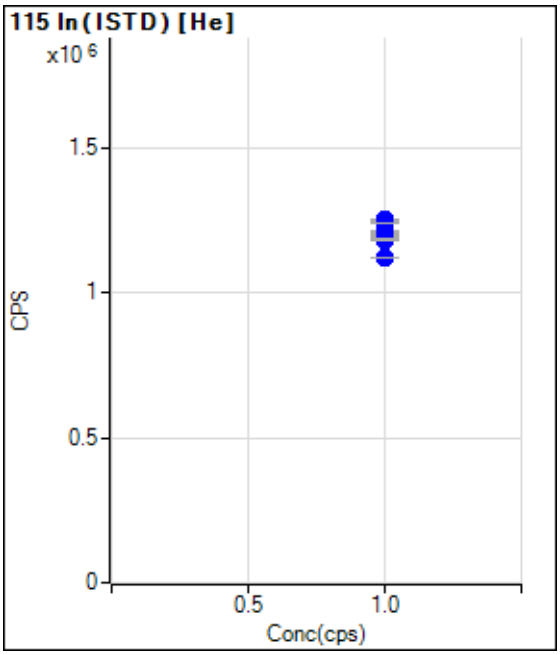


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4972156.00		A	0.2
2	☐	1.000		4930044.23		A	0.5
3	☐	1.000		4805575.97		A	0.5
4	☐	1.000		4721031.56		A	0.7
5	☐	1.000		4650291.08		A	0.3
6	☐	1.000		4709392.19		A	1.0
7	☐	1.000		4651160.42		A	1.6
8	☐	1.000		4121799.70		A	0.8

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

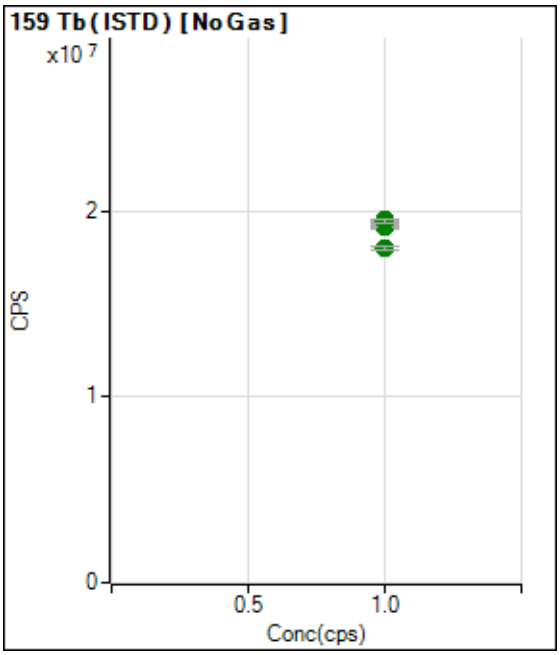


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14905846.98		A	1.4
2	☐	1.000		14925940.91		A	1.0
3	☐	1.000		14575444.35		A	1.0
4	☐	1.000		14352197.86		A	1.2
5	☐	1.000		14169924.11		A	1.1
6	☐	1.000		14151821.91		A	0.9
7	☐	1.000		14070203.31		A	1.2
8	☐	1.000		12777360.51		A	1.1

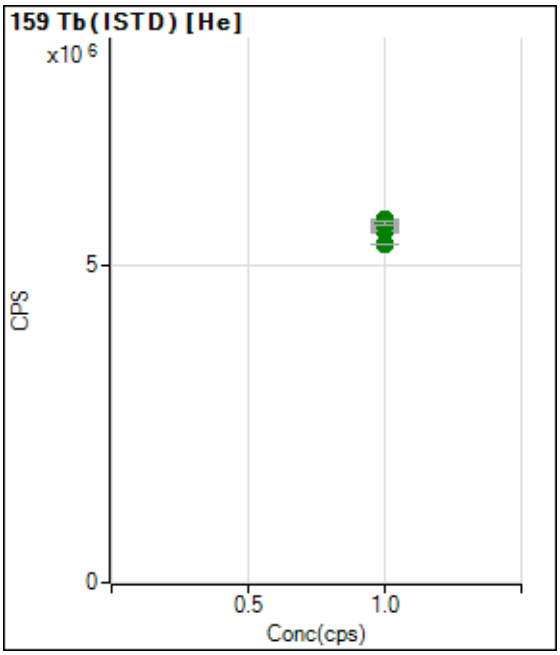


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1250616.13		P	0.2
2	☐	1.000		1238949.36		P	0.1
3	☐	1.000		1206831.34		P	0.5
4	☐	1.000		1198867.64		P	0.3
5	☐	1.000		1187953.84		P	0.5
6	☐	1.000		1186476.35		P	0.3
7	☐	1.000		1181751.43		P	0.6
8	☐	1.000		1118707.15		P	0.2

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

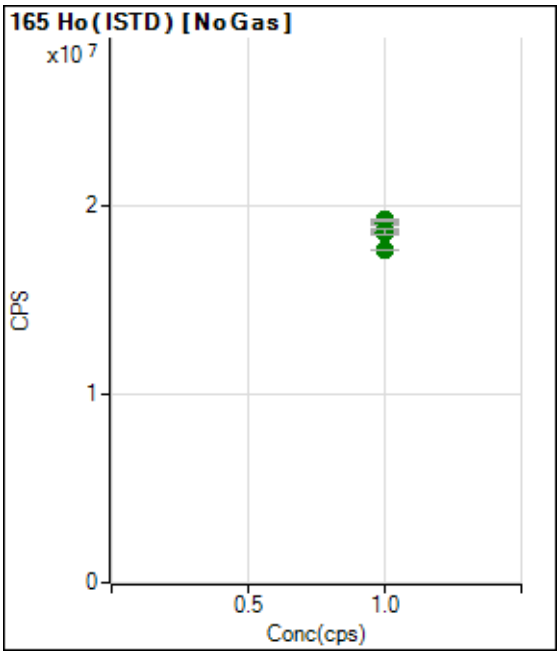


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19503402.07		A	0.5
2	☐	1.000		19453755.40		A	1.0
3	☐	1.000		19296722.08		A	0.4
4	☐	1.000		19173457.63		A	1.4
5	☐	1.000		19164856.94		A	0.7
6	☐	1.000		19295295.68		A	1.9
7	☐	1.000		19438016.52		A	1.2
8	☐	1.000		17975113.07		A	0.9

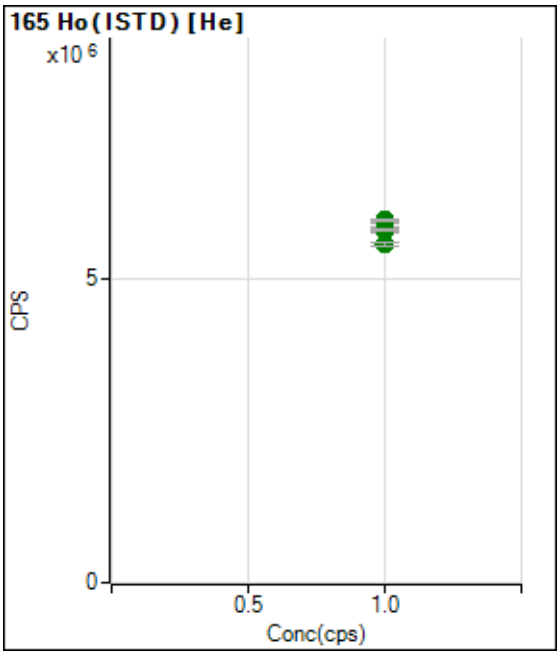


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5720747.97		A	0.8
2	☐	1.000		5630174.36		A	0.8
3	☐	1.000		5552526.72		A	0.9
4	☐	1.000		5599510.68		A	0.7
5	☐	1.000		5556620.61		A	0.5
6	☐	1.000		5625837.35		A	1.1
7	☐	1.000		5669506.03		A	1.1
8	☐	1.000		5329395.54		A	0.2

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

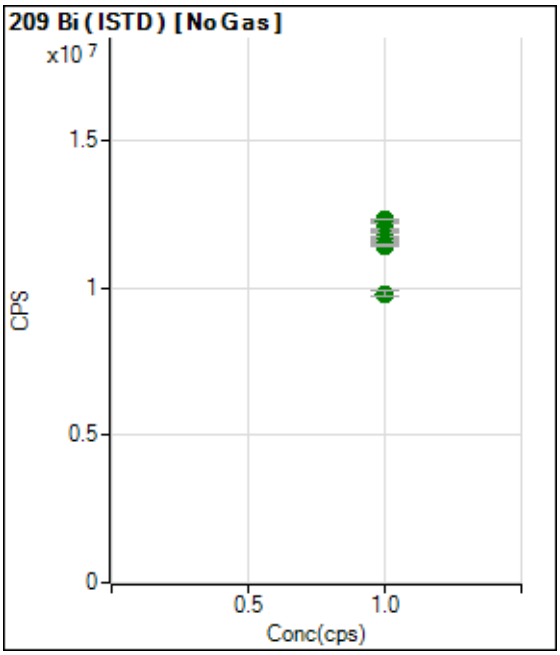


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19157449.02		A	0.7
2	☐	1.000		19017315.97		A	0.9
3	☐	1.000		18648965.83		A	0.7
4	☐	1.000		18665360.55		A	0.7
5	☐	1.000		18539301.81		A	0.2
6	☐	1.000		18580705.14		A	1.5
7	☐	1.000		19217077.63		A	0.8
8	☐	1.000		17600709.04		A	0.2

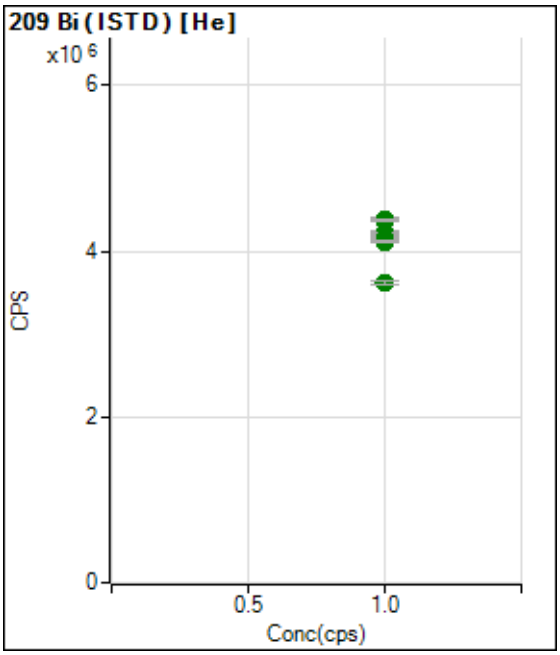


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5921529.77		A	0.7
2	☐	1.000		5816352.55		A	0.9
3	☐	1.000		5785418.66		A	1.4
4	☐	1.000		5819086.23		A	0.7
5	☐	1.000		5787795.33		A	0.6
6	☐	1.000		5794845.40		A	0.5
7	☐	1.000		5959408.80		A	0.7
8	☐	1.000		5560483.73		A	0.7

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12320231.62		A	0.9
2	☐	1.000		12284237.04		A	0.8
3	☐	1.000		12007511.63		A	0.5
4	☐	1.000		11783608.44		A	1.8
5	☐	1.000		11649291.49		A	1.9
6	☐	1.000		11524544.83		A	1.4
7	☐	1.000		11453109.14		A	0.5
8	☐	1.000		9824743.40		A	1.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4376696.74		A	0.9
2	☐	1.000		4371151.36		A	0.9
3	☐	1.000		4224833.69		A	0.8
4	☐	1.000		4204169.56		A	0.8
5	☐	1.000		4156770.25		A	0.4
6	☐	1.000		4120218.76		A	0.4
7	☐	1.000		4106906.99		A	0.5
8	☐	1.000		3623347.24		A	1.6

US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:21:
PM
Inst Id :P8
LB :LB134821

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P8022525 MS.b
Acq. Date-Time	2025-02-25 10:21:10
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		40504	405039.42			0.172	5.000
24		377503	3775025.83			0.863	5.000
25		49858	498575.30			0.163	5.000
26		56776	567761.31			0.097	5.000
59		218144	2181441.88			0.542	5.000
113		24237	242365.31			0.383	5.000
115		322356	3223563.70			0.964	5.000
206		73642	736416.16			0.290	5.000
207		62950	629496.79			0.479	5.000
208		161097	1610970.08			0.661	5.000
220		1	5.60			30.541	

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	40550	40602	40439	40447	40482
24	377467	374232	380808	374275	380731
25	49968	49877	49871	49744	49828
26	56755	56844	56820	56706	56756
59	219311	216296	219032	217987	218095
113	24368	24201	24260	24240	24113
115	327889	321236	320598	320752	321306
206	73576	73440	73972	73497	73723
207	62504	62855	63288	62946	63155
208	161419	159751	162581	160477	161257

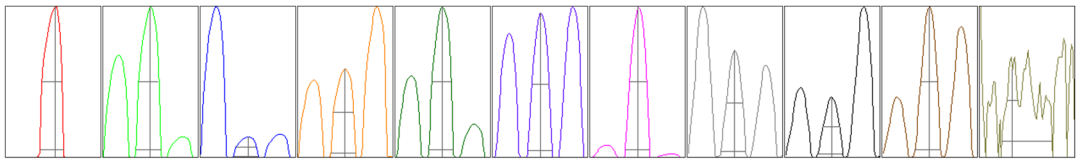
US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:21:
PM
Inst Id :P8
LB :LB134821

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

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	70130.76	9.10	8.90 - 9.10	
24	635806.53	24.00	23.90 - 24.10	
25	84054.87	25.05	24.90 - 25.10	
26	95970.74	26.00	25.90 - 26.10	
59	385416.01	59.00	58.90 - 59.10	
113	47211.96	113.05	112.90 - 113.10	
115	628385.67	115.05	114.90 - 115.10	
206	143759.49	206.00	205.90 - 206.10	
207	123519.49	207.00	206.90 - 207.10	
208	310432.23	208.00	207.90 - 208.10	
220	0.70	219.55	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.62	0.742	0.900	
24	0.63	0.789	0.900	
25	0.63	0.786	0.900	
26	0.63	0.786	0.900	
59	0.60	0.776	0.900	
113	0.54	0.760	0.900	
115	0.53	0.764	0.900	
206	0.51	0.784	0.900	
207	0.52	0.797	0.900	
208	0.52	0.799	0.900	
220	0.35	1.558		

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 8:21:
PM
Inst Id :P8
LB :LB134821

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	8.7 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	170 V		

QP Parameters

Mass Gain	103	Axis Gain	0.9961	QP Bias	-4.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	1.4 mm

EM

Discriminator	4.0 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		36940	369396.27			0.669	
89		35751	357510.87			0.653	
205		38769	387692.40			0.268	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	37064	37278	36939	36769	36647
89	35838	36012	35859	35640	35407
205	38696	38657	38920	38817	38755

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	8.7 V	Deflect	3.2 V

US EPA Tune Check Report

Reviewed By:kare
On:3/3/2025 8:21:
PM
Inst Id :P8
LB :LB134821

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	0.9961	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	1.4 mm		

EM

Discriminator	4.0 mV	Analog HV	2193 V	Pulse HV	1102 V

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.04	0.25	-0.29	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	-0.03	-0.02	0.05	0.00	N/A	ppb
Barium	135-1	0.00	-0.01	0.01	0.00	N/A	ppb
Barium	137-1	0.01	-0.01	0.00	0.00	N/A	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	0.03	0.02	-0.05	0.00	N/A	ppb
Cadmium	106-1	0.53	-0.33	-0.20	0.00	N/A	ppb
Cadmium	111-1	0.04	-0.03	-0.01	0.00	N/A	ppb
Calcium	43-1	0.49	-0.47	-0.02	0.00	N/A	ppb
Calcium	44-1	0.63	-0.35	-0.29	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	-0.04	0.03	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	0.00	0.02	-0.02	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	54-2	-0.06	0.10	-0.04	0.00	N/A	ppb
Iron	56-2	0.21	-0.10	-0.10	0.00	N/A	ppb
Iron	57-2	0.29	0.20	-0.49	0.00	N/A	ppb
Krypton	83-1						cps
Lead	206-1	0.00	-0.01	0.00	0.00	N/A	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	0.00	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	0.45	-0.37	-0.08	0.00	N/A	ppb
Manganese	55-2	-0.03	-0.01	0.03	0.00	N/A	ppb
Molybdenum	94-1	0.00	0.00	-0.01	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.00	-0.01	0.00	N/A	ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.01	-0.01	0.00	N/A	ppb
Molybdenum	98-1	0.00	-0.01	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.01	-0.05	0.03	0.00	N/A	ppb
Phosphorus	31-2	-21.81	-13.88	-14.90	-16.87		ppb
Potassium	39-2	1.26	-1.10	-0.16	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Sdium	23-2	-0.73	0.14	0.59	0.00	N/A	ppb
Selenium	82-1	0.03	-0.01	-0.01	0.00	N/A	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.09	-0.09	0.19	0.00	N/A	ppb
Silicon	28-1	0.01	-0.05	0.04	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
Strontium	86-1	0.01	0.00	-0.01	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-113.08	-86.90	-18.28	-72.76		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	0.01	0.00	N/A	ppb
Titanium	47-1	0.01	0.00	-0.01	0.00	N/A	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	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	-0.01	0.02	-0.01	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 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20.20	19.72	21.47	20.46	4.41	ppb
Antimony	121-1	2.06	2.09	2.07	2.07	0.73	ppb
Arsenic	75-2	0.99	0.98	1.14	1.04	8.25	ppb
Barium	135-1	10.26	10.47	10.30	10.34	1.07	ppb
Barium	137-1	10.28	10.70	10.30	10.43	2.29	ppb
Beryllium	9-1	1.02	1.02	1.01	1.02	0.24	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	0.92	1.02	1.03	0.99	6.02	ppb
Cadmium	106-1	1.67	1.64	1.20	1.51	17.62	ppb
Cadmium	111-1	1.07	1.15	1.08	1.10	3.88	ppb
Calcium	43-1	527.87	527.06	530.84	528.59	0.38	ppb
Calcium	44-1	527.93	532.24	533.77	531.31	0.57	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.09	2.08	2.08	2.09	0.35	ppb
Cobalt	59-2	1.12	1.07	1.13	1.11	2.54	ppb
Copper	63-2	1.97	1.95	1.91	1.94	1.64	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	54-2	56.69	57.89	58.16	57.58	1.35	ppb
Iron	56-2	56.15	55.98	55.41	55.85	0.69	ppb
Iron	57-2	58.05	56.42	52.31	55.59	5.32	ppb
Krypton	83-1						cps
Lead	206-1	0.99	0.92	0.99	0.97	3.89	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.00	0.96	0.99	0.98	1.79	ppb
Lead	208-1	1.00	0.95	0.98	0.97	2.29	ppb
Lithium	6-1				101		%
Magnesium	24-2	548.65	547.40	540.10	545.38	0.85	ppb
Manganese	55-2	0.99	1.02	1.00	1.00	1.51	ppb
Molybdenum	94-1	5.97	5.98	5.89	5.95	0.85	ppb
Molybdenum	95-1	4.96	4.95	5.16	5.03	2.39	ppb
Molybdenum	96-1	5.00	5.06	5.10	5.05	1.00	ppb
Molybdenum	97-1	5.08	4.93	4.96	4.99	1.56	ppb
Molybdenum	98-1	4.90	4.93	4.95	4.93	0.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.04	0.96	0.94	0.98	5.19	ppb
Phosphorus	31-2	14.68	21.05	14.86	16.87	21.50	ppb
Potassium	39-2	510.64	515.49	511.84	512.66	0.49	ppb
Rhodium	103-1				99		%
Rhodium	103-2				99		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Sdium	23-2	528.33	523.70	524.17	525.40	0.48	ppb
Selenium	82-1	4.88	4.88	5.36	5.04	5.59	ppb
Selenium	77-2	3.78	6.71	3.83	4.78	35.14	ppb
Selenium	78-2	4.71	3.63	8.48	5.61	45.40	ppb
Silicon	28-1	4.33	4.30	4.83	4.49	6.61	ppb
Silver	107-1	0.99	1.03	1.03	1.02	2.17	ppb
Silver	109-1	0.98	1.04	1.01	1.01	3.11	ppb
Strontium	86-1	1.00	1.07	1.07	1.05	3.77	ppb
Strontium	88-1	1.03	1.02	1.05	1.03	1.62	ppb
Sulfur	34-1	31.77	24.55	161.95	72.76	106.28	ppb
Terbium	159-1				100		%
Terbium	159-2				98		%
Thallium	203-1	0.98	0.96	0.95	0.96	1.73	ppb
Thallium	205-1	0.98	0.94	0.98	0.96	2.51	ppb
Tin	118-1	5.26	5.34	5.23	5.28	1.04	ppb
Titanium	47-1	5.17	5.19	5.17	5.18	0.22	ppb
Uranium	238-1	0.95	0.94	0.95	0.95	0.62	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.27	5.10	5.04	5.14	2.28	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				98		%
Zinc	66-2	5.63	5.32	5.37	5.44	3.06	ppb
Zirconium	90-1	0.99	1.01	1.04	1.01	2.40	ppb
Zirconium	91-1	1.00	0.97	1.00	0.99	1.85	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	999.98	1011.73	1021.94	1011.21	1.09	ppb
Antimony	121-1	50.02	49.92	50.51	50.15	0.63	ppb
Arsenic	75-2	52.38	52.51	51.87	52.26	0.64	ppb
Barium	135-1	245.47	245.46	247.02	245.98	0.37	ppb
Barium	137-1	260.39	259.87	255.88	258.72	0.95	ppb
Beryllium	9-1	50.63	50.77	50.51	50.63	0.26	ppb
Bismuth	209-1				97		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	53.80	52.11	52.95	52.95	1.60	ppb
Cadmium	106-1	53.92	53.11	53.82	53.61	0.82	ppb
Cadmium	111-1	50.80	51.59	51.24	51.21	0.77	ppb
Calcium	43-1	5120.79	5178.03	5183.37	5160.73	0.67	ppb
Calcium	44-1	5300.23	5374.76	5278.76	5317.92	0.95	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	50.04	50.73	50.68	50.48	0.77	ppb
Cobalt	59-2	51.63	52.11	51.92	51.88	0.47	ppb
Copper	63-2	557.13	558.44	555.75	557.11	0.24	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				96		%
Iron	54-2	2685.70	2712.45	2690.45	2696.20	0.53	ppb
Iron	56-2	2740.05	2752.73	2780.35	2757.71	0.75	ppb
Iron	57-2	2618.81	2680.70	2662.18	2653.89	1.20	ppb
Krypton	83-1						cps
Lead	206-1	257.36	258.70	255.63	257.23	0.60	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	253.90	261.05	252.04	255.67	1.86	ppb
Lead	208-1	253.86	258.30	252.91	255.02	1.13	ppb
Lithium	6-1				98		%
Magnesium	24-2	5373.30	5538.91	5502.99	5471.73	1.59	ppb
Manganese	55-2	504.30	504.56	506.49	505.12	0.24	ppb
Molybdenum	94-1	525.19	518.17	515.02	519.46	1.00	ppb
Molybdenum	95-1	514.26	517.81	514.98	515.68	0.36	ppb
Molybdenum	96-1	509.37	517.93	507.19	511.50	1.11	ppb
Molybdenum	97-1	510.99	510.32	509.92	510.41	0.11	ppb
Molybdenum	98-1	515.30	509.15	507.52	510.66	0.80	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	52.32	52.81	52.26	52.47	0.58	ppb
Phosphorus	31-2	1021.89	1026.35	1034.69	1027.64	0.63	ppb
Potassium	39-2	2493.82	2509.64	2508.95	2504.14	0.36	ppb
Rhodium	103-1				97		%
Rhodium	103-2				97		%
Scandium	45-1				96		%
Scandium	45-2				97		%
Sdium	23-2	5344.30	5482.96	5417.52	5414.93	1.28	ppb
Selenium	82-1	53.14	52.23	51.47	52.28	1.60	ppb
Selenium	77-2	49.67	47.34	54.66	50.56	7.39	ppb
Selenium	78-2	50.03	61.08	50.84	53.98	11.41	ppb
Silicon	28-1	65.68	68.80	68.75	67.74	2.63	ppb
Silver	107-1	51.16	51.44	51.42	51.34	0.30	ppb
Silver	109-1	51.17	52.25	52.23	51.88	1.20	ppb
Strontium	86-1	50.10	49.79	50.57	50.15	0.78	ppb
Strontium	88-1	53.00	51.66	51.38	52.02	1.66	ppb
Sulfur	34-1	1361.23	1361.00	1322.56	1348.27	1.65	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	47.51	48.44	47.96	47.97	0.97	ppb
Thallium	205-1	51.05	51.03	50.86	50.98	0.21	ppb
Tin	118-1	50.44	50.70	51.17	50.77	0.73	ppb
Titanium	47-1	516.98	535.05	531.23	527.75	1.80	ppb
Uranium	238-1	49.33	50.01	50.09	49.81	0.84	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	50.14	50.62	50.24	50.33	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				96		%
Zinc	66-2	521.63	527.81	526.43	525.29	0.62	ppb
Zirconium	90-1	51.62	52.28	50.58	51.49	1.66	ppb
Zirconium	91-1	48.49	48.82	48.93	48.75	0.48	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2542.31	2512.86	2540.89	2532.02	0.66	ppb
Antimony	121-1	128.86	131.66	130.00	130.18	1.08	ppb
Arsenic	75-2	134.23	131.66	131.71	132.54	1.11	ppb
Barium	135-1	647.40	655.17	653.87	652.15	0.64	ppb
Barium	137-1	652.25	656.64	649.43	652.77	0.56	ppb
Beryllium	9-1	124.00	125.89	126.85	125.58	1.16	ppb
Bismuth	209-1				96		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	133.83	136.11	132.80	134.24	1.26	ppb
Cadmium	106-1	128.88	132.13	131.06	130.69	1.27	ppb
Cadmium	111-1	125.64	130.13	126.84	127.54	1.82	ppb
Calcium	43-1	12742.10	12949.33	12826.14	12839.19	0.81	ppb
Calcium	44-1	13196.94	13176.17	13139.70	13170.94	0.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	128.07	125.12	126.55	126.58	1.17	ppb
Cobalt	59-2	130.45	128.17	129.55	129.39	0.89	ppb
Copper	63-2	1402.43	1364.91	1385.99	1384.44	1.36	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				96		%
Indium	115-2				96		%
Iron	54-2	6800.26	6678.16	6775.08	6751.17	0.95	ppb
Iron	56-2	6897.40	6923.52	6848.87	6889.93	0.55	ppb
Iron	57-2	6704.28	6629.48	6653.21	6662.33	0.57	ppb
Krypton	83-1						cps
Lead	206-1	630.92	639.38	650.32	640.21	1.52	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	626.97	634.71	649.85	637.18	1.83	ppb
Lead	208-1	627.91	640.15	646.97	638.34	1.51	ppb
Lithium	6-1				97		%
Magnesium	24-2	13818.68	13658.56	13619.47	13698.90	0.77	ppb
Manganese	55-2	1363.82	1296.56	1326.38	1328.92	2.54	ppb
Molybdenum	94-1	1280.81	1294.74	1284.18	1286.58	0.56	ppb
Molybdenum	95-1	1285.77	1307.80	1288.01	1293.86	0.94	ppb
Molybdenum	96-1	1278.50	1288.24	1285.30	1284.01	0.39	ppb
Molybdenum	97-1	1259.80	1276.97	1269.83	1268.87	0.68	ppb
Molybdenum	98-1	1276.60	1293.92	1260.23	1276.92	1.32	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	131.57	129.50	129.82	130.29	0.85	ppb
Phosphorus	31-2	2621.05	2572.33	2571.90	2588.43	1.09	ppb
Potassium	39-2	6313.98	6283.88	6241.30	6279.72	0.58	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Sdium	23-2	13448.43	13572.43	13254.97	13425.28	1.19	ppb
Selenium	82-1	130.01	135.06	132.46	132.51	1.91	ppb
Selenium	77-2	122.23	120.44	122.68	121.79	0.97	ppb
Selenium	78-2	129.09	136.53	142.11	135.91	4.81	ppb
Silicon	28-1	159.60	164.20	162.00	161.94	1.42	ppb
Silver	107-1	137.17	137.66	135.13	136.65	0.98	ppb
Silver	109-1	134.70	136.19	134.67	135.19	0.64	ppb
Strontium	86-1	124.71	126.91	124.49	125.37	1.07	ppb
Strontium	88-1	129.30	129.63	127.85	128.93	0.74	ppb
Sulfur	34-1	2910.36	2874.11	2655.78	2813.41	4.89	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	127.04	129.56	130.46	129.02	1.37	ppb
Thallium	205-1	127.31	128.38	129.64	128.44	0.91	ppb
Tin	118-1	130.08	133.89	131.83	131.93	1.44	ppb
Titanium	47-1	1290.12	1300.51	1277.20	1289.28	0.91	ppb
Uranium	238-1	123.33	125.26	127.59	125.39	1.70	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	126.41	127.04	127.03	126.83	0.29	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	1331.35	1299.42	1316.30	1315.69	1.21	ppb
Zirconium	90-1	128.70	131.44	129.23	129.79	1.12	ppb
Zirconium	91-1	121.65	125.68	123.17	123.50	1.65	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4999.75	4897.75	4999.82	4965.77	1.19	ppb
Antimony	121-1	253.72	258.90	256.56	256.39	1.01	ppb
Arsenic	75-2	260.55	256.85	250.45	255.95	2.00	ppb
Barium	135-1	1280.34	1288.90	1292.47	1287.24	0.48	ppb
Barium	137-1	1260.92	1239.32	1281.52	1260.59	1.67	ppb
Beryllium	9-1	255.43	265.05	263.54	261.34	1.98	ppb
Bismuth	209-1				95		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	258.36	256.72	262.11	259.06	1.07	ppb
Cadmium	106-1	256.80	257.04	260.42	258.09	0.78	ppb
Cadmium	111-1	244.90	247.57	248.53	247.00	0.76	ppb
Calcium	43-1	25892.03	26089.87	26487.36	26156.42	1.16	ppb
Calcium	44-1	26167.23	26228.33	25858.51	26084.69	0.76	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	246.44	247.16	247.92	247.18	0.30	ppb
Cobalt	59-2	264.60	264.61	267.40	265.54	0.61	ppb
Copper	63-2	2664.96	2636.75	2674.42	2658.71	0.74	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	13935.59	14135.07	13791.74	13954.13	1.24	ppb
Iron	56-2	13475.22	13414.68	13389.13	13426.34	0.33	ppb
Iron	57-2	12947.75	12957.86	12998.69	12968.10	0.21	ppb
Krypton	83-1						cps
Lead	206-1	1252.54	1289.30	1247.62	1263.15	1.80	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1257.64	1287.46	1242.01	1262.37	1.83	ppb
Lead	208-1	1256.52	1282.79	1252.96	1264.09	1.29	ppb
Lithium	6-1				96		%
Magnesium	24-2	26554.34	26365.62	27067.23	26662.40	1.36	ppb
Manganese	55-2	2622.19	2589.93	2623.15	2611.76	0.72	ppb
Molybdenum	94-1	2557.72	2506.55	2568.37	2544.21	1.30	ppb
Molybdenum	95-1	2556.49	2512.34	2563.99	2544.27	1.10	ppb
Molybdenum	96-1	2540.88	2513.07	2571.92	2541.96	1.16	ppb
Molybdenum	97-1	2536.80	2522.37	2552.68	2537.28	0.60	ppb
Molybdenum	98-1	2571.74	2518.28	2551.06	2547.03	1.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	252.16	255.43	256.22	254.60	0.85	ppb
Phosphorus	31-2	5152.84	5098.15	5013.80	5088.26	1.38	ppb
Potassium	39-2	12896.59	12867.11	13050.20	12937.96	0.76	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				96		%
Scandium	45-2				97		%
Sdium	23-2	26704.84	26398.84	26603.41	26569.03	0.59	ppb
Selenium	82-1	258.65	253.32	260.22	257.40	1.40	ppb
Selenium	77-2	253.85	257.22	238.96	250.01	3.89	ppb
Selenium	78-2	265.95	239.40	273.38	259.58	6.88	ppb
Silicon	28-1	320.58	319.30	324.51	321.46	0.85	ppb
Silver	107-1	263.51	262.73	262.26	262.84	0.24	ppb
Silver	109-1	259.14	259.62	265.83	261.53	1.43	ppb
Strontium	86-1	247.38	246.42	248.59	247.46	0.44	ppb
Strontium	88-1	253.83	255.78	256.30	255.30	0.51	ppb
Sulfur	34-1	5264.85	4994.81	5417.33	5225.66	4.09	ppb
Terbium	159-1				98		%
Terbium	159-2				97		%
Thallium	203-1	249.52	256.60	245.13	250.42	2.31	ppb
Thallium	205-1	248.76	251.42	248.78	249.65	0.61	ppb
Tin	118-1	259.90	254.10	256.74	256.91	1.13	ppb
Titanium	47-1	2537.60	2560.36	2557.81	2551.93	0.49	ppb
Uranium	238-1	245.34	249.90	249.06	248.10	0.98	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	249.74	248.48	249.11	249.11	0.25	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	2555.57	2562.98	2560.62	2559.73	0.15	ppb
Zirconium	90-1	252.36	252.02	257.53	253.97	1.22	ppb
Zirconium	91-1	254.47	256.62	261.76	257.62	1.45	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9702.31	9615.62	9701.27	9673.07	0.51	ppb
Antimony	121-1	503.39	487.89	506.29	499.19	1.98	ppb
Arsenic	75-2	507.85	498.12	496.32	500.76	1.24	ppb
Barium	135-1	2521.21	2452.34	2545.39	2506.32	1.93	ppb
Barium	137-1	2507.04	2463.00	2522.73	2497.59	1.24	ppb
Beryllium	9-1	497.70	499.42	505.57	500.90	0.83	ppb
Bismuth	209-1				94		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	505.03	489.77	506.15	500.31	1.83	ppb
Cadmium	106-1	507.38	500.69	506.86	504.97	0.74	ppb
Cadmium	111-1	513.03	501.39	513.07	509.16	1.32	ppb
Calcium	43-1	53269.08	51462.73	51820.51	52184.11	1.83	ppb
Calcium	44-1	51286.24	51006.56	51271.81	51188.20	0.31	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	513.81	507.16	508.55	509.84	0.69	ppb
Cobalt	59-2	517.32	518.41	511.82	515.85	0.68	ppb
Copper	63-2	5065.27	5168.79	5215.29	5149.78	1.49	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	26937.63	27076.00	27011.76	27008.46	0.26	ppb
Iron	56-2	26152.92	26297.65	26321.10	26257.22	0.35	ppb
Iron	57-2	26617.24	26431.82	26659.47	26569.51	0.46	ppb
Krypton	83-1						cps
Lead	206-1	2486.47	2529.14	2532.19	2515.93	1.02	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2488.32	2534.05	2525.89	2516.09	0.97	ppb
Lead	208-1	2493.36	2523.78	2511.51	2509.55	0.61	ppb
Lithium	6-1				96		%
Magnesium	24-2	52698.16	52706.54	51543.95	52316.22	1.28	ppb
Manganese	55-2	5048.54	5043.84	5071.75	5054.71	0.30	ppb
Molybdenum	94-1	4977.11	5076.71	5058.87	5037.56	1.05	ppb
Molybdenum	95-1	5016.96	5088.41	5029.98	5045.12	0.75	ppb
Molybdenum	96-1	5068.34	5109.95	4969.45	5049.25	1.43	ppb
Molybdenum	97-1	5091.17	5138.72	4991.53	5073.81	1.48	ppb
Molybdenum	98-1	5090.99	5087.66	5020.63	5066.42	0.78	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	485.73	490.82	490.87	489.14	0.60	ppb
Phosphorus	31-2	10064.52	10177.16	10195.59	10145.76	0.70	ppb
Potassium	39-2	25072.40	25039.57	25395.94	25169.30	0.78	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				97		%
Scandium	45-2				98		%
Sdium	23-2	51728.06	52321.94	51434.74	51828.25	0.87	ppb
Selenium	82-1	513.53	505.53	501.26	506.78	1.23	ppb
Selenium	77-2	506.59	518.15	495.25	506.66	2.26	ppb
Selenium	78-2	522.89	500.91	513.74	512.51	2.15	ppb
Silicon	28-1	637.93	614.70	607.68	620.10	2.55	ppb
Silver	107-1	508.93	495.32	512.03	505.43	1.76	ppb
Silver	109-1	514.93	488.52	512.98	505.48	2.91	ppb
Strontium	86-1	503.47	506.36	509.42	506.41	0.59	ppb
Strontium	88-1	499.90	504.87	500.35	501.71	0.55	ppb
Sulfur	34-1	10980.15	9908.73	9938.51	10275.80	5.94	ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	497.57	511.46	509.81	506.28	1.50	ppb
Thallium	205-1	507.96	502.75	509.48	506.73	0.70	ppb
Tin	118-1	514.61	490.65	509.38	504.88	2.50	ppb
Titanium	47-1	5101.97	5074.31	4985.99	5054.09	1.20	ppb
Uranium	238-1	493.00	491.84	496.88	493.91	0.53	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	482.80	490.96	493.64	489.13	1.15	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	5120.49	5205.94	5238.67	5188.37	1.18	ppb
Zirconium	90-1	500.48	509.22	503.70	504.46	0.88	ppb
Zirconium	91-1	509.18	511.94	505.04	508.72	0.68	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20114.51	20016.33	19830.84	19987.23	0.72	ppb
Antimony	121-1	1010.00	979.44	1005.02	998.15	1.64	ppb
Arsenic	75-2	1001.35	1003.22	986.66	997.08	0.91	ppb
Barium	135-1	5004.87	4948.54	4999.61	4984.34	0.62	ppb
Barium	137-1	5016.56	4965.99	5001.40	4994.65	0.52	ppb
Beryllium	9-1	998.72	1001.01	990.10	996.61	0.58	ppb
Bismuth	209-1				93		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Cadmium	108-1	994.88	981.32	1012.62	996.27	1.58	ppb
Cadmium	106-1	992.67	981.06	1010.07	994.60	1.47	ppb
Cadmium	111-1	991.60	993.24	1002.53	995.79	0.59	ppb
Calcium	43-1	101907.44	101771.12	101820.99	101833.19	0.07	ppb
Calcium	44-1	100209.05	100631.68	101927.07	100922.60	0.89	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1002.26	996.51	987.91	995.56	0.73	ppb
Cobalt	59-2	991.56	992.88	978.21	987.55	0.82	ppb
Copper	63-2	9806.57	9918.18	9872.56	9865.77	0.57	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				101		%
Indium	115-1				94		%
Indium	115-2				94		%
Iron	54-2	52761.83	52495.85	51493.01	52250.23	1.28	ppb
Iron	56-2	51883.06	51547.33	51077.91	51502.77	0.79	ppb
Iron	57-2	52953.04	52207.68	52239.19	52466.64	0.80	ppb
Krypton	83-1						cps
Lead	206-1	4981.22	4974.97	5003.25	4986.48	0.30	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4939.03	4992.61	5029.53	4987.06	0.91	ppb
Lead	208-1	4928.16	5006.80	5034.39	4989.78	1.10	ppb
Lithium	6-1				97		%
Magnesium	24-2	101367.91	102296.55	100635.10	101433.18	0.82	ppb
Manganese	55-2	9946.47	10070.94	9786.34	9934.58	1.44	ppb
Molybdenum	94-1	9858.98	9945.40	10089.48	9964.62	1.17	ppb
Molybdenum	95-1	9866.93	9968.31	10045.08	9960.11	0.90	ppb
Molybdenum	96-1	9891.99	9891.12	10097.07	9960.06	1.19	ppb
Molybdenum	97-1	9932.77	9846.93	10072.99	9950.90	1.15	ppb
Molybdenum	98-1	9960.04	9896.55	9996.81	9951.13	0.51	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1012.69	1015.04	982.75	1003.49	1.79	ppb
Phosphorus	31-2	19582.83	20045.61	20049.41	19892.62	1.35	ppb
Potassium	39-2	49737.75	50281.94	48858.94	49626.21	1.45	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				99		%
Scandium	45-2				102		%
Sdium	23-2	99839.15	101528.51	100322.12	100563.26	0.87	ppb
Selenium	82-1	978.88	994.68	1007.57	993.71	1.45	ppb
Selenium	77-2	965.08	1077.17	948.88	997.04	7.01	ppb
Selenium	78-2	973.39	1015.29	980.67	989.78	2.26	ppb
Silicon	28-1	920.81	925.58	903.51	916.63	1.27	ppb
Silver	107-1	989.15	987.87	1000.64	992.55	0.71	ppb
Silver	109-1	995.33	979.72	1003.98	993.01	1.24	ppb
Strontium	86-1	983.32	1013.43	995.37	997.37	1.52	ppb
Strontium	88-1	985.11	997.15	1009.43	997.23	1.22	ppb
Sulfur	34-1	20023.17	19542.92	19681.20	19749.10	1.25	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	991.05	989.87	1008.14	996.35	1.03	ppb
Thallium	205-1	994.11	993.92	1000.70	996.24	0.39	ppb
Tin	118-1	999.88	982.97	1001.93	994.93	1.05	ppb
Titanium	47-1	9921.09	9918.64	10021.30	9953.68	0.59	ppb
Uranium	238-1	993.05	1015.14	1002.25	1003.48	1.11	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	1005.92	1004.77	1005.55	1005.41	0.06	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				100		%
Zinc	66-2	9907.29	10010.77	9726.16	9881.41	1.46	ppb
Zirconium	90-1	989.94	995.42	1002.95	996.10	0.66	ppb
Zirconium	91-1	975.72	997.69	1008.55	993.99	1.68	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100540.20	98862.59	100705.35	100036.05	1.02	ppb
Antimony	121-1	0.49	0.50	0.47	0.49	2.65	ppb
Arsenic	75-2	0.49	0.38	0.51	0.46	15.07	ppb
Barium	135-1	2.51	2.41	2.26	2.39	5.23	ppb
Barium	137-1	2.58	2.51	2.41	2.50	3.37	ppb
Beryllium	9-1	0.33	0.30	0.28	0.30	9.44	ppb
Bismuth	209-1				80		%
Bismuth	209-2				83		%
Bromine	81-1						cps
Cadmium	108-1	0.70	0.72	0.80	0.74	7.48	ppb
Cadmium	106-1	-0.38	-0.43	0.15	-0.22		ppb
Cadmium	111-1	0.24	0.23	0.25	0.24	5.13	ppb
Calcium	43-1	494889.87	498398.52	504752.66	499347.02	1.00	ppb
Calcium	44-1	493315.57	500396.46	505155.29	499622.44	1.19	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.96	2.88	2.91	2.92	1.27	ppb
Cobalt	59-2	1.96	1.98	2.01	1.98	1.25	ppb
Copper	63-2	1.33	1.28	1.30	1.30	2.13	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				92		%
Holmium	165-2				94		%
Indium	115-1				86		%
Indium	115-2				89		%
Iron	54-2	248316.41	248359.20	251110.12	249261.91	0.64	ppb
Iron	56-2	248626.09	249242.11	250658.29	249508.83	0.42	ppb
Iron	57-2	246836.66	250127.36	250979.39	249314.47	0.88	ppb
Krypton	83-1						cps
Lead	206-1	0.96	1.01	1.00	0.99	2.50	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.99	1.04	1.00	1.01	2.60	ppb
Lead	208-1	0.98	1.03	1.00	1.00	2.42	ppb
Lithium	6-1				88		%
Magnesium	24-2	499319.16	495180.14	503592.35	499363.89	0.84	ppb
Manganese	55-2	4.81	5.02	4.74	4.86	3.00	ppb
Molybdenum	94-1	7.52	7.34	7.35	7.40	1.34	ppb
Molybdenum	95-1	5.35	5.25	5.32	5.31	0.93	ppb
Molybdenum	96-1	5.63	5.68	5.57	5.63	0.98	ppb
Molybdenum	97-1	5.17	5.28	5.08	5.18	1.97	ppb
Molybdenum	98-1	5.08	5.16	5.06	5.10	1.09	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.93	3.08	2.78	2.93	5.10	ppb
Phosphorus	31-2	-7.43	7.75	-14.87	-4.85		ppb
Potassium	39-2	248765.33	248675.91	252664.12	250035.12	0.91	ppb
Rhodium	103-1				81		%
Rhodium	103-2				83		%
Scandium	45-1				92		%
Scandium	45-2				96		%
Sdium	23-2	499958.50	499176.00	499661.79	499598.76	0.08	ppb
Selenium	82-1	0.17	-0.06	0.00	0.04	303.44	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.21	0.50	0.78	0.50	57.71	ppb
Silicon	28-1	13.18	12.87	12.71	12.92	1.84	ppb
Silver	107-1	0.17	0.17	0.16	0.17	3.87	ppb
Silver	109-1	0.18	0.17	0.16	0.17	3.93	ppb
Strontium	86-1	3.01	3.12	3.17	3.10	2.64	ppb
Strontium	88-1	3.04	3.04	3.08	3.05	0.65	ppb
Sulfur	34-1	-672.81	-462.51	-332.35	-489.22		ppb
Terbium	159-1				92		%
Terbium	159-2				93		%
Thallium	203-1	0.10	0.10	0.09	0.09	8.70	ppb
Thallium	205-1	0.11	0.09	0.08	0.09	13.27	ppb
Tin	118-1	0.33	0.30	0.31	0.31	6.01	ppb
Titanium	47-1	2.45	2.36	2.31	2.37	2.94	ppb
Uranium	238-1	0.05	0.05	0.04	0.05	10.28	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.25	0.23	0.29	0.26	12.03	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				92		%
Yttrium	89-2				96		%
Zinc	66-2	5.88	5.94	6.41	6.08	4.75	ppb
Zirconium	90-1	1.67	1.63	1.64	1.65	1.25	ppb
Zirconium	91-1	1.71	1.68	1.63	1.67	2.47	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	483.29	480.74	482.37	482.13	0.27	ppb
Antimony	121-1	200.97	204.17	205.71	203.62	1.19	ppb
Arsenic	75-2	201.83	201.40	198.51	200.58	0.90	ppb
Barium	135-1	99.22	99.16	101.00	99.79	1.05	ppb
Barium	137-1	100.42	101.33	101.43	101.06	0.55	ppb
Beryllium	9-1	96.91	98.40	97.76	97.69	0.76	ppb
Bismuth	209-1				96		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	84.75	84.32	87.49	85.52	2.01	ppb
Cadmium	106-1	79.53	82.17	83.05	81.58	2.25	ppb
Cadmium	111-1	98.99	101.17	99.72	99.96	1.11	ppb
Calcium	43-1	1951.41	1932.45	1989.36	1957.74	1.48	ppb
Calcium	44-1	2025.07	2063.53	2066.27	2051.62	1.12	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	98.86	99.14	98.28	98.76	0.44	ppb
Cobalt	59-2	100.42	102.42	100.77	101.20	1.06	ppb
Copper	63-2	107.10	106.64	105.86	106.53	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				97		%
Holmium	165-2				99		%
Indium	115-1				98		%
Indium	115-2				100		%
Iron	54-2	2157.98	2199.03	2144.77	2167.26	1.31	ppb
Iron	56-2	2193.20	2190.60	2158.92	2180.91	0.88	ppb
Iron	57-2	2084.69	2101.78	2054.61	2080.36	1.15	ppb
Krypton	83-1						cps
Lead	206-1	208.42	205.70	206.80	206.97	0.66	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	199.88	197.19	194.65	197.24	1.33	ppb
Lead	208-1	201.52	198.69	199.38	199.86	0.74	ppb
Lithium	6-1				99		%
Magnesium	24-2	1149.75	1174.45	1159.37	1161.19	1.07	ppb
Manganese	55-2	99.71	100.30	99.55	99.85	0.40	ppb
Molybdenum	94-1	0.12	0.10	0.11	0.11	9.18	ppb
Molybdenum	95-1	0.06	0.04	0.03	0.04	25.94	ppb
Molybdenum	96-1	0.14	0.11	0.14	0.13	11.80	ppb
Molybdenum	97-1	0.06	0.05	0.05	0.05	14.28	ppb
Molybdenum	98-1	0.06	0.05	0.05	0.06	9.82	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	102.30	103.32	103.27	102.96	0.56	ppb
Phosphorus	31-2	-10.14	-21.57	-25.26	-18.99		ppb
Potassium	39-2	1930.67	1934.72	1921.39	1928.93	0.35	ppb
Rhodium	103-1				98		%
Rhodium	103-2				98		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Sdium	23-2	1980.79	1983.87	1974.83	1979.83	0.23	ppb
Selenium	82-1	204.87	202.72	207.35	204.98	1.13	ppb
Selenium	77-2	216.25	210.82	206.24	211.10	2.37	ppb
Selenium	78-2	214.89	220.87	228.39	221.38	3.05	ppb
Silicon	28-1	0.78	0.74	1.21	0.91	28.54	ppb
Silver	107-1	46.30	47.60	47.46	47.12	1.51	ppb
Silver	109-1	46.64	48.12	48.17	47.64	1.83	ppb
Strontium	86-1	0.23	0.20	0.22	0.21	5.42	ppb
Strontium	88-1	0.21	0.20	0.21	0.21	3.10	ppb
Sulfur	34-1	-1216.80	-1199.99	-1132.36	-1183.05		ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	203.04	201.25	200.46	201.58	0.66	ppb
Thallium	205-1	199.24	197.79	194.98	197.33	1.10	ppb
Tin	118-1	0.03	0.02	0.02	0.02	38.21	ppb
Titanium	47-1	0.00	0.03	0.02	0.01	107.88	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	46.39	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	96.07	97.00	95.38	96.15	0.84	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	202.53	203.95	201.62	202.70	0.58	ppb
Zirconium	90-1	0.01	0.02	0.01	0.01	31.24	ppb
Zirconium	91-1	0.12	0.11	0.10	0.11	11.80	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21.50	19.95	20.67	20.71	3.74	ppb
Antimony	121-1	2.10	2.11	2.15	2.12	1.34	ppb
Arsenic	75-2	0.89	1.05	1.10	1.01	10.94	ppb
Barium	135-1	10.29	10.16	10.41	10.29	1.25	ppb
Barium	137-1	10.56	10.44	10.64	10.55	0.99	ppb
Beryllium	9-1	1.11	1.11	1.08	1.10	1.67	ppb
Bismuth	209-1				97		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	1.00	0.98	1.16	1.05	9.20	ppb
Cadmium	106-1	-1.66	-0.58	-0.74	-1.00		ppb
Cadmium	111-1	0.90	0.93	0.95	0.93	2.90	ppb
Calcium	43-1	533.60	529.91	525.41	529.64	0.77	ppb
Calcium	44-1	522.84	522.89	518.96	521.56	0.43	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.94	2.00	2.05	2.00	2.78	ppb
Cobalt	59-2	1.11	1.14	1.07	1.11	3.00	ppb
Copper	63-2	1.89	1.86	1.74	1.83	4.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				100		%
Indium	115-1				98		%
Indium	115-2				100		%
Iron	54-2	59.16	56.61	57.29	57.69	2.29	ppb
Iron	56-2	56.36	56.30	54.72	55.79	1.66	ppb
Iron	57-2	56.34	53.67	52.75	54.25	3.44	ppb
Krypton	83-1						cps
Lead	206-1	1.10	1.06	1.08	1.08	1.41	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.12	1.10	1.07	1.10	2.22	ppb
Lead	208-1	1.11	1.09	1.07	1.09	1.83	ppb
Lithium	6-1				99		%
Magnesium	24-2	533.11	534.28	525.32	530.90	0.92	ppb
Manganese	55-2	1.23	1.24	1.11	1.19	5.85	ppb
Molybdenum	94-1	5.95	5.86	6.07	5.96	1.77	ppb
Molybdenum	95-1	5.13	4.94	5.03	5.03	1.91	ppb
Molybdenum	96-1	5.00	5.03	5.09	5.04	0.88	ppb
Molybdenum	97-1	5.13	4.93	5.12	5.06	2.26	ppb
Molybdenum	98-1	4.94	4.89	4.96	4.93	0.77	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.91	1.01	0.90	0.94	6.30	ppb
Phosphorus	31-2	13.62	-2.91	12.18	7.63	120.00	ppb
Potassium	39-2	517.33	509.34	494.74	507.14	2.26	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Sdium	23-2	528.44	520.37	514.13	520.98	1.38	ppb
Selenium	82-1	4.95	5.42	5.33	5.23	4.76	ppb
Selenium	77-2	6.62	7.57	3.78	5.99	32.96	ppb
Selenium	78-2	5.55	5.27	3.01	4.61	30.24	ppb
Silicon	28-1	4.54	4.26	4.11	4.31	5.05	ppb
Silver	107-1	1.02	1.04	1.03	1.03	0.91	ppb
Silver	109-1	1.04	1.03	1.05	1.04	0.84	ppb
Strontium	86-1	1.01	1.05	1.01	1.03	2.15	ppb
Strontium	88-1	0.99	0.98	1.01	0.99	1.65	ppb
Sulfur	34-1	-890.71	-964.76	-887.34	-914.27		ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.97	0.98	0.96	0.97	1.39	ppb
Thallium	205-1	0.99	0.98	0.98	0.98	0.48	ppb
Tin	118-1	5.23	5.22	5.27	5.24	0.53	ppb
Titanium	47-1	5.20	4.84	4.82	4.95	4.31	ppb
Uranium	238-1	0.96	0.95	0.93	0.95	1.38	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.27	4.99	5.01	5.09	3.02	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	5.65	5.37	5.67	5.56	2.97	ppb
Zirconium	90-1	1.02	1.00	1.02	1.01	0.95	ppb
Zirconium	91-1	1.00	0.99	1.02	1.00	1.33	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.54	0.23	0.17	0.31	63.93	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	4.26	ppb
Arsenic	75-2	0.00	0.01	-0.03	-0.01		ppb
Barium	135-1	0.16	0.12	0.16	0.15	14.94	ppb
Barium	137-1	0.18	0.20	0.16	0.18	10.78	ppb
Beryllium	9-1	0.05	0.05	0.05	0.05	3.48	ppb
Bismuth	209-1				98		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	-0.03	0.07	0.12	0.05	140.82	ppb
Cadmium	106-1	-2.24	-1.65	-1.85	-1.91		ppb
Cadmium	111-1	-0.16	-0.12	-0.14	-0.14		ppb
Calcium	43-1	0.65	0.75	-0.57	0.28	266.27	ppb
Calcium	44-1	-3.24	-3.23	-3.03	-3.17		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.04	0.04	0.03	81.83	ppb
Cobalt	59-2	0.01	0.03	0.02	0.02	45.91	ppb
Copper	63-2	-0.17	-0.15	-0.16	-0.16		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	54-2	1.43	0.86	0.39	0.90	57.95	ppb
Iron	56-2	0.41	0.64	0.64	0.56	23.26	ppb
Iron	57-2	0.76	0.79	-0.29	0.42	147.18	ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.09	0.11	0.09	10.78	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.10	0.09	0.10	0.10	4.81	ppb
Lead	208-1	0.09	0.09	0.10	0.09	3.80	ppb
Lithium	6-1				99		%
Magnesium	24-2	-1.32	-1.24	-1.54	-1.37		ppb
Manganese	55-2	0.17	0.18	0.18	0.18	1.92	ppb
Molybdenum	94-1	0.00	-0.01	0.02	0.01	245.71	ppb
Molybdenum	95-1	0.01	0.00	0.02	0.01	62.26	ppb
Molybdenum	96-1	0.02	0.02	0.01	0.02	25.15	ppb
Molybdenum	97-1	0.01	0.00	0.01	0.01	85.68	ppb
Molybdenum	98-1	0.02	0.01	0.01	0.01	46.91	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.05	-0.08	-0.06	-0.06		ppb
Phosphorus	31-2	-23.96	-20.09	-14.40	-19.49		ppb
Potassium	39-2	-1.04	4.08	1.38	1.47	173.77	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				99		%
Scandium	45-2				98		%
Sdium	23-2	3.58	4.37	4.41	4.12	11.30	ppb
Selenium	82-1	0.18	-0.03	0.10	0.08	124.86	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.09	-0.37	1.35	0.30	312.60	ppb
Silicon	28-1	-0.66	-0.52	-0.35	-0.51		ppb
Silver	107-1	0.01	0.01	0.01	0.01	3.15	ppb
Silver	109-1	0.01	0.01	0.01	0.01	14.47	ppb
Strontium	86-1	-0.03	-0.04	-0.02	-0.03		ppb
Strontium	88-1	-0.02	-0.02	-0.02	-0.02		ppb
Sulfur	34-1	-813.13	-715.46	-702.46	-743.69		ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.01	0.01	0.01	12.50	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	9.86	ppb
Tin	118-1	0.02	0.01	0.01	0.01	20.21	ppb
Titanium	47-1	-0.03	-0.04	-0.03	-0.03		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	73.04	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	0.10	0.01	0.18	0.10	86.77	ppb
Zirconium	90-1	0.00	0.00	0.01	0.00	147.56	ppb
Zirconium	91-1	0.01	0.01	0.00	0.01	83.75	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	97639.13	97742.65	98758.56	98046.78	0.63	ppb
Antimony	121-1	1.10	1.09	1.07	1.08	1.15	ppb
Arsenic	75-2	0.25	0.31	0.37	0.31	17.99	ppb
Barium	135-1	1.43	1.52	1.50	1.48	3.00	ppb
Barium	137-1	1.57	1.52	1.47	1.52	3.53	ppb
Beryllium	9-1	0.31	0.32	0.29	0.31	5.02	ppb
Bismuth	209-1				88		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Cadmium	108-1	16.04	16.16	16.22	16.14	0.56	ppb
Cadmium	106-1	-2.02	-3.20	-3.19	-2.80		ppb
Cadmium	111-1	0.48	0.41	0.31	0.40	20.42	ppb
Calcium	43-1	106469.88	103183.58	103797.16	104483.54	1.67	ppb
Calcium	44-1	105624.04	103093.63	103906.07	104207.91	1.24	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	19.10	19.10	18.81	19.00	0.88	ppb
Cobalt	59-2	1.08	1.12	1.16	1.12	3.25	ppb
Copper	63-2	8.06	8.07	7.96	8.03	0.75	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				96		%
Indium	115-1				92		%
Indium	115-2				93		%
Iron	54-2	106785.88	109382.56	105626.16	107264.87	1.79	ppb
Iron	56-2	108927.20	108713.92	106757.85	108132.99	1.11	ppb
Iron	57-2	107304.14	110345.01	106650.02	108099.72	1.82	ppb
Krypton	83-1						cps
Lead	206-1	4.60	4.68	4.70	4.66	1.06	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4.29	4.24	4.37	4.30	1.48	ppb
Lead	208-1	4.40	4.39	4.42	4.40	0.35	ppb
Lithium	6-1				94		%
Magnesium	24-2	100518.86	99738.59	99384.11	99880.52	0.58	ppb
Manganese	55-2	7.62	7.28	7.29	7.39	2.63	ppb
Molybdenum	94-1	1637.80	1648.24	1622.82	1636.29	0.78	ppb
Molybdenum	95-1	2011.12	2006.12	1980.94	1999.39	0.81	ppb
Molybdenum	96-1	1966.16	1935.26	1959.00	1953.48	0.83	ppb
Molybdenum	97-1	1999.15	1936.85	1955.20	1963.74	1.63	ppb
Molybdenum	98-1	2000.39	1958.72	1989.76	1982.96	1.09	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.12	5.13	5.00	5.08	1.40	ppb
Phosphorus	31-2	104614.45	105850.99	104565.41	105010.28	0.69	ppb
Potassium	39-2	102328.72	103557.01	101390.05	102425.26	1.06	ppb
Rhodium	103-1				88		%
Rhodium	103-2				89		%
Scandium	45-1				95		%
Scandium	45-2				96		%
Sdium	23-2	106434.01	105513.63	104614.58	105520.74	0.86	ppb
Selenium	82-1	0.09	-0.18	0.43	0.11	272.15	ppb
Selenium	77-2	0.00	0.98	0.00	0.33	173.21	ppb
Selenium	78-2	0.22	0.21	0.21	0.21	4.41	ppb
Silicon	28-1	19.02	18.85	19.29	19.05	1.19	ppb
Silver	107-1	0.07	0.05	0.06	0.06	16.28	ppb
Silver	109-1	0.07	0.06	0.06	0.06	13.47	ppb
Strontium	86-1	33.04	33.36	33.31	33.24	0.52	ppb
Strontium	88-1	35.24	34.96	35.79	35.33	1.19	ppb
Sulfur	34-1	104652.73	101735.43	102340.21	102909.46	1.50	ppb
Terbium	159-1				97		%
Terbium	159-2				96		%
Thallium	203-1	0.10	0.13	0.16	0.13	23.03	ppb
Thallium	205-1	0.10	0.13	0.15	0.13	19.56	ppb
Tin	118-1	0.17	0.17	0.15	0.16	5.00	ppb
Titanium	47-1	2106.79	2066.23	2066.77	2079.93	1.12	ppb
Uranium	238-1	0.01	0.02	0.02	0.02	8.58	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.15	0.15	0.16	0.15	2.69	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	11.35	11.30	10.87	11.17	2.34	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	12.84	ppb
Zirconium	91-1	0.02	0.02	0.01	0.02	16.81	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	95189.87	96315.68	93359.60	94955.05	1.57	ppb
Antimony	121-1	20.38	20.74	20.27	20.46	1.22	ppb
Arsenic	75-2	21.67	20.20	20.37	20.75	3.87	ppb
Barium	135-1	21.64	21.00	21.00	21.21	1.76	ppb
Barium	137-1	21.36	21.88	21.14	21.46	1.79	ppb
Beryllium	9-1	20.54	20.46	20.04	20.35	1.33	ppb
Bismuth	209-1				87		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Cadmium	108-1	31.71	31.32	31.25	31.43	0.78	ppb
Cadmium	106-1	12.22	13.81	11.86	12.63	8.24	ppb
Cadmium	111-1	19.19	19.30	18.60	19.03	1.96	ppb
Calcium	43-1	104770.87	102632.62	102299.69	103234.39	1.30	ppb
Calcium	44-1	104354.37	102746.33	103517.07	103539.26	0.78	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	37.77	37.52	37.59	37.63	0.35	ppb
Cobalt	59-2	20.21	20.51	20.18	20.30	0.90	ppb
Copper	63-2	27.35	27.79	27.62	27.59	0.81	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				94		%
Holmium	165-2				96		%
Indium	115-1				91		%
Indium	115-2				93		%
Iron	54-2	105504.99	106431.64	105441.94	105792.86	0.52	ppb
Iron	56-2	105321.57	106842.95	105091.48	105752.00	0.90	ppb
Iron	57-2	106812.36	104962.62	103887.03	105220.67	1.41	ppb
Krypton	83-1						cps
Lead	206-1	24.54	24.06	24.16	24.25	1.05	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	23.87	23.68	23.66	23.74	0.47	ppb
Lead	208-1	23.81	23.59	23.71	23.70	0.48	ppb
Lithium	6-1				93		%
Magnesium	24-2	98522.80	98863.55	96467.16	97951.17	1.32	ppb
Manganese	55-2	26.70	26.96	27.25	26.97	1.02	ppb
Molybdenum	94-1	1659.96	1588.64	1622.18	1623.59	2.20	ppb
Molybdenum	95-1	2002.79	1936.80	1969.09	1969.56	1.68	ppb
Molybdenum	96-1	1952.99	1896.46	1944.51	1931.32	1.58	ppb
Molybdenum	97-1	1965.08	1948.78	1978.31	1964.06	0.75	ppb
Molybdenum	98-1	1970.83	1965.63	1975.04	1970.50	0.24	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	23.97	24.27	23.82	24.02	0.94	ppb
Phosphorus	31-2	103313.91	102787.93	102008.53	102703.45	0.64	ppb
Potassium	39-2	101220.93	100491.40	100806.73	100839.69	0.36	ppb
Rhodium	103-1				88		%
Rhodium	103-2				90		%
Scandium	45-1				94		%
Scandium	45-2				97		%
Sdium	23-2	103566.42	104294.16	101283.63	103048.07	1.52	ppb
Selenium	82-1	19.81	20.42	19.52	19.92	2.29	ppb
Selenium	77-2	15.80	21.14	21.37	19.44	16.22	ppb
Selenium	78-2	22.30	16.82	20.48	19.86	14.06	ppb
Silicon	28-1	20.36	20.26	20.07	20.23	0.74	ppb
Silver	107-1	18.09	18.33	17.99	18.13	0.99	ppb
Silver	109-1	18.18	18.59	17.92	18.23	1.85	ppb
Strontium	86-1	33.31	32.84	33.16	33.11	0.72	ppb
Strontium	88-1	35.51	35.05	34.79	35.12	1.04	ppb
Sulfur	34-1	104250.96	100514.81	99173.98	101313.25	2.60	ppb
Terbium	159-1				95		%
Terbium	159-2				96		%
Thallium	203-1	19.59	19.78	19.87	19.75	0.72	ppb
Thallium	205-1	19.80	19.76	20.01	19.86	0.67	ppb
Tin	118-1	0.15	0.15	0.15	0.15	1.25	ppb
Titanium	47-1	2116.85	2073.67	2081.32	2090.62	1.10	ppb
Uranium	238-1	0.02	0.02	0.01	0.02	7.75	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	19.29	19.39	19.15	19.28	0.63	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				96		%
Zinc	66-2	30.89	30.41	30.46	30.59	0.87	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	4.79	ppb
Zirconium	91-1	0.02	0.02	0.03	0.02	32.81	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51173.10	51828.63	51105.39	51369.04	0.78	ppb
Antimony	121-1	474.98	468.14	476.69	473.27	0.96	ppb
Arsenic	75-2	478.90	469.21	470.16	472.76	1.13	ppb
Barium	135-1	2465.21	2448.51	2464.35	2459.36	0.38	ppb
Barium	137-1	2445.84	2433.94	2493.45	2457.75	1.28	ppb
Beryllium	9-1	493.07	500.42	502.14	498.54	0.97	ppb
Bismuth	209-1				83		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	466.88	463.77	462.41	464.36	0.49	ppb
Cadmium	106-1	463.80	467.97	470.59	467.45	0.73	ppb
Cadmium	111-1	469.02	468.63	472.57	470.07	0.46	ppb
Calcium	43-1	248491.10	252308.62	249142.15	249980.62	0.82	ppb
Calcium	44-1	245973.17	254355.90	246490.94	248940.01	1.89	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	477.16	492.97	475.93	482.02	1.97	ppb
Cobalt	59-2	473.23	472.81	462.97	469.67	1.24	ppb
Copper	63-2	4668.85	4656.36	4638.93	4654.71	0.32	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				94		%
Indium	115-1				87		%
Indium	115-2				89		%
Iron	54-2	126589.65	127242.41	124777.55	126203.20	1.01	ppb
Iron	56-2	126760.27	125438.67	125253.77	125817.57	0.65	ppb
Iron	57-2	126166.52	125174.85	125571.49	125637.62	0.40	ppb
Krypton	83-1						cps
Lead	206-1	2459.36	2509.56	2504.81	2491.24	1.11	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2477.83	2546.79	2513.89	2512.84	1.37	ppb
Lead	208-1	2482.79	2511.26	2519.99	2504.68	0.78	ppb
Lithium	6-1				89		%
Magnesium	24-2	248183.59	247527.33	249653.80	248454.91	0.44	ppb
Manganese	55-2	4974.88	4881.90	4834.78	4897.19	1.46	ppb
Molybdenum	94-1	4974.76	5027.21	4981.61	4994.53	0.57	ppb
Molybdenum	95-1	4920.12	4983.91	4959.03	4954.35	0.65	ppb
Molybdenum	96-1	4920.10	5012.68	4990.99	4974.59	0.97	ppb
Molybdenum	97-1	4925.48	4985.86	4957.63	4956.32	0.61	ppb
Molybdenum	98-1	4916.05	4991.38	4947.39	4951.61	0.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	478.12	480.94	473.58	477.55	0.78	ppb
Phosphorus	31-2	9699.12	9783.57	9788.77	9757.15	0.52	ppb
Potassium	39-2	123921.32	123678.23	124793.89	124131.15	0.47	ppb
Rhodium	103-1				83		%
Rhodium	103-2				86		%
Scandium	45-1				93		%
Scandium	45-2				96		%
Sdium	23-2	247725.05	249316.56	245738.92	247593.51	0.72	ppb
Selenium	82-1	465.04	469.69	473.37	469.37	0.89	ppb
Selenium	77-2	480.60	462.61	433.63	458.95	5.16	ppb
Selenium	78-2	450.33	495.09	473.08	472.83	4.73	ppb
Silicon	28-1	484.28	496.20	487.36	489.28	1.26	ppb
Silver	107-1	460.38	463.92	457.99	460.76	0.65	ppb
Silver	109-1	463.59	468.20	455.98	462.59	1.33	ppb
Strontium	86-1	497.14	514.46	506.21	505.94	1.71	ppb
Strontium	88-1	490.65	497.06	495.32	494.34	0.67	ppb
Sulfur	34-1	9345.21	9745.00	9392.96	9494.39	2.30	ppb
Terbium	159-1				92		%
Terbium	159-2				94		%
Thallium	203-1	484.11	493.16	485.68	487.65	0.99	ppb
Thallium	205-1	488.12	492.48	492.77	491.13	0.53	ppb
Tin	118-1	486.49	486.10	490.64	487.74	0.52	ppb
Titanium	47-1	4906.15	4959.64	4855.88	4907.23	1.06	ppb
Uranium	238-1	513.98	525.45	514.78	518.07	1.24	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	464.27	462.19	462.41	462.96	0.25	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	4852.42	4862.64	4837.07	4850.71	0.27	ppb
Zirconium	90-1	513.23	515.34	510.10	512.89	0.51	ppb
Zirconium	91-1	517.40	522.03	520.28	519.91	0.45	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.79	0.29	0.49	0.52	48.35	ppb
Antimony	121-1	0.09	0.09	0.09	0.09	1.58	ppb
Arsenic	75-2	0.01	-0.02	-0.02	-0.01		ppb
Barium	135-1	0.28	0.25	0.27	0.27	5.16	ppb
Barium	137-1	0.31	0.29	0.26	0.29	9.25	ppb
Beryllium	9-1	0.11	0.10	0.10	0.11	3.21	ppb
Bismuth	209-1				97		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.01	0.06	0.03	95.19	ppb
Cadmium	106-1	-2.35	-2.04	-2.13	-2.17		ppb
Cadmium	111-1	-0.15	-0.12	-0.14	-0.14		ppb
Calcium	43-1	4.91	4.34	4.25	4.50	8.01	ppb
Calcium	44-1	2.62	1.17	0.24	1.35	88.96	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.08	0.02	0.04	0.05	66.76	ppb
Cobalt	59-2	0.02	0.01	0.02	0.02	51.19	ppb
Copper	63-2	-0.14	-0.11	-0.13	-0.13		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	54-2	2.90	2.98	1.90	2.59	23.33	ppb
Iron	56-2	2.93	2.90	2.73	2.85	3.83	ppb
Iron	57-2	1.91	2.71	2.16	2.26	18.00	ppb
Krypton	83-1						cps
Lead	206-1	0.20	0.18	0.18	0.19	4.93	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.20	0.18	0.18	0.19	7.77	ppb
Lead	208-1	0.19	0.18	0.17	0.18	5.76	ppb
Lithium	6-1				98		%
Magnesium	24-2	1.92	2.05	1.78	1.92	7.01	ppb
Manganese	55-2	0.20	0.21	0.19	0.20	4.62	ppb
Molybdenum	94-1	0.18	0.15	0.12	0.15	17.45	ppb
Molybdenum	95-1	0.16	0.13	0.13	0.14	12.55	ppb
Molybdenum	96-1	0.16	0.13	0.12	0.14	14.53	ppb
Molybdenum	97-1	0.18	0.14	0.12	0.14	22.71	ppb
Molybdenum	98-1	0.16	0.15	0.12	0.14	13.22	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.03	0.02	-0.04	0.00	1085.78	ppb
Phosphorus	31-2	-20.02	-15.29	-19.25	-18.18		ppb
Potassium	39-2	8.66	11.02	11.60	10.42	14.94	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				97		%
Scandium	45-2				98		%
Sdium	23-2	18.82	18.22	17.24	18.09	4.40	ppb
Selenium	82-1	0.17	-0.20	-0.07	-0.03		ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.18	-0.37	0.19	0.00		ppb
Silicon	28-1	0.99	0.80	0.66	0.81	20.43	ppb
Silver	107-1	0.04	0.03	0.03	0.04	13.62	ppb
Silver	109-1	0.05	0.04	0.03	0.04	18.68	ppb
Strontium	86-1	-0.03	-0.06	-0.03	-0.04		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-1014.03	-1268.67	-1086.40	-1123.03		ppb
Terbium	159-1				97		%
Terbium	159-2				99		%
Thallium	203-1	0.07	0.07	0.06	0.07	5.80	ppb
Thallium	205-1	0.08	0.07	0.07	0.07	6.39	ppb
Tin	118-1	0.03	0.02	0.02	0.02	7.99	ppb
Titanium	47-1	0.08	0.07	0.05	0.06	27.78	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	25.12	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.01	0.01	13.40	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				100		%
Zinc	66-2	0.25	0.15	0.08	0.16	51.65	ppb
Zirconium	90-1	0.03	0.02	0.02	0.02	37.09	ppb
Zirconium	91-1	0.03	0.02	0.02	0.02	23.06	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21.79	19.98	20.55	20.77	4.45	ppb
Antimony	121-1	1.97	2.02	2.03	2.01	1.53	ppb
Arsenic	75-2	1.12	1.44	0.92	1.16	22.34	ppb
Barium	135-1	9.97	10.20	10.22	10.13	1.40	ppb
Barium	137-1	10.24	10.27	10.36	10.29	0.61	ppb
Beryllium	9-1	1.07	1.07	1.07	1.07	0.27	ppb
Bismuth	209-1				97		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.90	1.04	1.12	1.02	10.78	ppb
Cadmium	106-1	-1.06	-0.60	0.20	-0.49		ppb
Cadmium	111-1	0.86	0.93	0.99	0.93	7.39	ppb
Calcium	43-1	510.48	518.23	520.10	516.27	0.99	ppb
Calcium	44-1	512.03	515.75	518.13	515.30	0.60	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.01	1.99	2.11	2.04	2.93	ppb
Cobalt	59-2	1.09	1.10	1.10	1.10	0.59	ppb
Copper	63-2	1.87	1.85	1.89	1.87	0.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				97		%
Indium	115-2				99		%
Iron	54-2	61.27	61.97	58.81	60.68	2.73	ppb
Iron	56-2	57.04	56.66	56.85	56.85	0.33	ppb
Iron	57-2	52.72	54.87	53.22	53.60	2.10	ppb
Krypton	83-1						cps
Lead	206-1	1.06	1.07	1.08	1.07	0.65	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.09	1.03	1.11	1.08	3.59	ppb
Lead	208-1	1.05	1.05	1.07	1.06	0.93	ppb
Lithium	6-1				97		%
Magnesium	24-2	535.31	531.18	536.45	534.31	0.52	ppb
Manganese	55-2	1.10	1.18	1.21	1.16	4.44	ppb
Molybdenum	94-1	5.85	6.04	6.00	5.96	1.62	ppb
Molybdenum	95-1	4.87	4.99	5.00	4.96	1.51	ppb
Molybdenum	96-1	4.99	5.00	5.06	5.01	0.74	ppb
Molybdenum	97-1	5.01	4.92	5.05	5.00	1.30	ppb
Molybdenum	98-1	4.90	5.00	5.00	4.97	1.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.03	1.06	1.07	1.05	1.68	ppb
Phosphorus	31-2	31.16	14.84	9.88	18.63	59.80	ppb
Potassium	39-2	513.56	506.91	517.92	512.80	1.08	ppb
Rhodium	103-1				98		%
Rhodium	103-2				98		%
Scandium	45-1				98		%
Scandium	45-2				97		%
Sdium	23-2	529.33	526.90	530.77	529.00	0.37	ppb
Selenium	82-1	5.41	4.73	5.64	5.26	9.03	ppb
Selenium	77-2	4.81	2.83	4.68	4.11	26.95	ppb
Selenium	78-2	3.36	5.54	4.37	4.42	24.67	ppb
Silicon	28-1	3.90	4.15	4.26	4.10	4.53	ppb
Silver	107-1	0.95	0.99	1.03	0.99	3.88	ppb
Silver	109-1	0.97	1.01	0.99	0.99	1.99	ppb
Strontium	86-1	0.97	0.97	1.03	0.99	3.20	ppb
Strontium	88-1	0.98	0.96	0.99	0.98	1.51	ppb
Sulfur	34-1	-1011.51	-1010.13	-898.34	-973.33		ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	1.00	0.97	0.96	0.97	2.19	ppb
Thallium	205-1	0.97	0.96	1.00	0.98	1.77	ppb
Tin	118-1	5.01	5.13	5.13	5.09	1.28	ppb
Titanium	47-1	5.01	5.06	5.21	5.09	2.03	ppb
Uranium	238-1	0.91	0.92	0.93	0.92	1.07	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.98	5.14	5.04	5.05	1.57	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				98		%
Zinc	66-2	5.40	5.82	5.03	5.41	7.32	ppb
Zirconium	90-1	1.02	0.99	1.02	1.01	1.73	ppb
Zirconium	91-1	1.02	0.97	1.01	1.00	2.43	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.25	-0.02	-0.31	-0.19		ppb
Antimony	121-1	0.02	0.01	0.02	0.02	11.32	ppb
Arsenic	75-2	-0.03	0.04	-0.02	0.00		ppb
Barium	135-1	0.16	0.15	0.15	0.15	3.64	ppb
Barium	137-1	0.18	0.16	0.17	0.17	4.53	ppb
Beryllium	9-1	0.03	0.05	0.03	0.04	18.39	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.00	-0.01	0.02	0.00	2731.43	ppb
Cadmium	106-1	-3.02	-1.64	-1.84	-2.17		ppb
Cadmium	111-1	-0.22	-0.12	-0.13	-0.16		ppb
Calcium	43-1	-0.23	-1.53	-0.77	-0.85		ppb
Calcium	44-1	-3.23	-3.63	-3.67	-3.51		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.05	0.06	0.01	0.04	57.97	ppb
Cobalt	59-2	0.01	0.01	0.00	0.01	57.55	ppb
Copper	63-2	-0.20	-0.18	-0.21	-0.20		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				97		%
Indium	115-1				97		%
Indium	115-2				96		%
Iron	54-2	1.56	1.72	0.48	1.25	54.04	ppb
Iron	56-2	0.80	0.81	0.77	0.79	2.43	ppb
Iron	57-2	-0.19	0.58	-0.28	0.03	1380.48	ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.07	0.08	0.08	9.16	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.08	0.07	0.08	0.08	6.88	ppb
Lead	208-1	0.09	0.07	0.08	0.08	7.15	ppb
Lithium	6-1				96		%
Magnesium	24-2	-0.49	-1.38	-1.41	-1.09		ppb
Manganese	55-2	0.05	0.13	0.10	0.09	45.55	ppb
Molybdenum	94-1	0.01	0.03	0.00	0.01	95.36	ppb
Molybdenum	95-1	0.02	0.00	0.01	0.01	134.80	ppb
Molybdenum	96-1	0.02	0.02	0.02	0.02	6.08	ppb
Molybdenum	97-1	0.02	-0.01	0.00	0.00	238.48	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	11.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.05	0.01	-0.03	-0.02		ppb
Phosphorus	31-2	-17.03	-18.18	-29.25	-21.49		ppb
Potassium	39-2	6.48	2.26	4.33	4.36	48.36	ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				96		%
Scandium	45-2				95		%
Sdium	23-2	7.60	7.31	6.39	7.10	8.94	ppb
Selenium	82-1	-0.31	-0.03	-0.19	-0.18		ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.79	0.51	-0.08	0.41	108.36	ppb
Silicon	28-1	-0.32	-0.04	-0.23	-0.20		ppb
Silver	107-1	0.01	0.01	0.01	0.01	3.03	ppb
Silver	109-1	0.01	0.01	0.01	0.01	17.39	ppb
Strontium	86-1	-0.03	-0.03	-0.05	-0.04		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-902.99	-828.37	-854.82	-862.06		ppb
Terbium	159-1				96		%
Terbium	159-2				95		%
Thallium	203-1	0.02	0.02	0.02	0.02	8.61	ppb
Thallium	205-1	0.03	0.02	0.03	0.03	6.84	ppb
Tin	118-1	0.01	0.01	0.00	0.01	84.63	ppb
Titanium	47-1	-0.01	-0.02	-0.03	-0.02		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	331.39	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	0.04	0.06	0.13	0.08	64.64	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	40.42	ppb
Zirconium	91-1	0.01	0.00	0.00	0.00	302.43	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9660.08	9757.65	9714.61	9710.78	0.50	ppb
Antimony	121-1	498.15	504.18	493.38	498.57	1.09	ppb
Arsenic	75-2	509.80	505.43	499.90	505.04	0.98	ppb
Barium	135-1	2483.01	2522.10	2429.79	2478.30	1.87	ppb
Barium	137-1	2466.37	2541.83	2436.79	2481.66	2.18	ppb
Beryllium	9-1	501.46	502.79	499.56	501.27	0.32	ppb
Bismuth	209-1				91		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	501.99	503.65	494.41	500.02	0.99	ppb
Cadmium	106-1	506.39	510.33	495.53	504.08	1.52	ppb
Cadmium	111-1	514.67	509.85	494.51	506.34	2.08	ppb
Calcium	43-1	52794.75	52456.99	50241.66	51831.13	2.68	ppb
Calcium	44-1	52271.46	51265.41	50793.47	51443.45	1.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	513.95	518.23	503.90	512.03	1.44	ppb
Cobalt	59-2	513.27	526.61	501.76	513.88	2.42	ppb
Copper	63-2	5122.89	5136.33	5141.60	5133.61	0.19	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				97		%
Indium	115-1				91		%
Indium	115-2				93		%
Iron	54-2	26837.30	27387.10	26352.49	26858.97	1.93	ppb
Iron	56-2	26217.99	26457.60	26276.84	26317.47	0.47	ppb
Iron	57-2	26431.00	27027.22	25054.12	26170.78	3.87	ppb
Krypton	83-1						cps
Lead	206-1	2472.98	2497.99	2542.92	2504.63	1.42	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2494.06	2507.06	2541.50	2514.21	0.97	ppb
Lead	208-1	2486.55	2502.04	2540.70	2509.76	1.11	ppb
Lithium	6-1				94		%
Magnesium	24-2	52131.72	52604.17	51681.46	52139.11	0.88	ppb
Manganese	55-2	5045.83	5129.02	5087.43	5087.43	0.82	ppb
Molybdenum	94-1	5146.34	5019.18	5015.41	5060.31	1.47	ppb
Molybdenum	95-1	5167.42	4979.58	5076.84	5074.61	1.85	ppb
Molybdenum	96-1	5116.72	5017.59	4993.99	5042.77	1.29	ppb
Molybdenum	97-1	5092.25	5054.48	4997.73	5048.15	0.94	ppb
Molybdenum	98-1	5202.48	5036.06	5005.14	5081.22	2.09	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	479.13	494.64	481.45	485.07	1.72	ppb
Phosphorus	31-2	9892.88	10147.56	9899.75	9980.06	1.45	ppb
Potassium	39-2	25349.73	25669.34	24923.52	25314.19	1.48	ppb
Rhodium	103-1				90		%
Rhodium	103-2				92		%
Scandium	45-1				94		%
Scandium	45-2				97		%
Sdium	23-2	51493.96	52211.29	51231.91	51645.72	0.98	ppb
Selenium	82-1	512.70	507.33	497.80	505.94	1.49	ppb
Selenium	77-2	496.67	514.14	480.21	497.00	3.41	ppb
Selenium	78-2	519.36	509.41	504.75	511.17	1.46	ppb
Silicon	28-1	633.14	630.12	607.82	623.69	2.22	ppb
Silver	107-1	510.41	511.57	494.39	505.46	1.90	ppb
Silver	109-1	520.16	512.96	487.66	506.93	3.37	ppb
Strontium	86-1	523.16	510.37	512.00	515.18	1.35	ppb
Strontium	88-1	509.76	503.52	495.22	502.83	1.45	ppb
Sulfur	34-1	9822.17	10067.48	9503.94	9797.86	2.88	ppb
Terbium	159-1				96		%
Terbium	159-2				95		%
Thallium	203-1	502.41	501.90	509.45	504.59	0.84	ppb
Thallium	205-1	499.01	503.91	499.79	500.90	0.53	ppb
Tin	118-1	497.69	512.73	492.07	500.83	2.13	ppb
Titanium	47-1	5104.98	5045.98	4944.17	5031.71	1.62	ppb
Uranium	238-1	490.33	495.04	499.28	494.89	0.90	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	486.41	490.49	484.33	487.08	0.64	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				96		%
Zinc	66-2	5156.97	5264.66	5189.25	5203.63	1.06	ppb
Zirconium	90-1	511.10	508.50	497.94	505.85	1.38	ppb
Zirconium	91-1	512.24	505.81	502.22	506.76	1.00	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.59	0.45	0.55	0.53	14.30	ppb
Antimony	121-1	0.06	0.06	0.06	0.06	4.56	ppb
Arsenic	75-2	-0.02	-0.01	0.01	-0.01		ppb
Barium	135-1	0.31	0.31	0.30	0.31	3.06	ppb
Barium	137-1	0.32	0.31	0.31	0.31	1.49	ppb
Beryllium	9-1	0.10	0.07	0.07	0.08	17.61	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.12	0.05	0.03	0.07	65.64	ppb
Cadmium	106-1	-1.84	-1.92	-1.66	-1.81		ppb
Cadmium	111-1	-0.13	-0.13	-0.11	-0.13		ppb
Calcium	43-1	0.85	-1.29	-1.07	-0.50		ppb
Calcium	44-1	-3.70	-3.53	-3.72	-3.65		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.05	0.06	0.04	66.97	ppb
Cobalt	59-2	0.03	0.02	0.02	0.02	11.34	ppb
Copper	63-2	-0.13	-0.11	-0.08	-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				98		%
Indium	115-1				96		%
Indium	115-2				96		%
Iron	54-2	0.67	0.62	0.57	0.62	8.10	ppb
Iron	56-2	0.65	0.66	0.63	0.65	2.86	ppb
Iron	57-2	0.77	0.74	2.17	1.22	66.64	ppb
Krypton	83-1						cps
Lead	206-1	0.13	0.12	0.12	0.12	3.80	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.13	0.13	0.11	0.12	10.98	ppb
Lead	208-1	0.13	0.12	0.12	0.12	4.32	ppb
Lithium	6-1				96		%
Magnesium	24-2	-0.71	-0.63	-0.69	-0.68		ppb
Manganese	55-2	0.34	0.31	0.29	0.32	8.07	ppb
Molybdenum	94-1	0.08	0.03	0.08	0.06	44.70	ppb
Molybdenum	95-1	0.10	0.05	0.06	0.07	33.12	ppb
Molybdenum	96-1	0.09	0.07	0.06	0.07	15.86	ppb
Molybdenum	97-1	0.07	0.06	0.06	0.06	9.14	ppb
Molybdenum	98-1	0.09	0.06	0.07	0.07	21.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	-0.02	-0.06	-0.03		ppb
Phosphorus	31-2	-22.06	-20.47	-10.83	-17.79		ppb
Potassium	39-2	3.85	3.99	6.08	4.64	26.88	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				95		%
Scandium	45-2				95		%
Sdium	23-2	5.92	6.40	4.83	5.72	14.11	ppb
Selenium	82-1	-0.22	-0.15	0.31	-0.02		ppb
Selenium	77-2	0.98	0.00	0.00	0.33	173.21	ppb
Selenium	78-2	0.51	0.20	-0.37	0.11	394.05	ppb
Silicon	28-1	0.66	0.98	1.00	0.88	21.33	ppb
Silver	107-1	0.02	0.02	0.02	0.02	3.93	ppb
Silver	109-1	0.02	0.02	0.02	0.02	7.30	ppb
Strontium	86-1	-0.04	-0.02	-0.03	-0.03		ppb
Strontium	88-1	-0.03	-0.03	-0.03	-0.03		ppb
Sulfur	34-1	-929.15	-812.36	-797.93	-846.48		ppb
Terbium	159-1				95		%
Terbium	159-2				97		%
Thallium	203-1	0.03	0.03	0.02	0.03	13.27	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	14.69	ppb
Tin	118-1	0.03	0.04	0.02	0.03	26.71	ppb
Titanium	47-1	0.03	0.02	0.03	0.03	21.17	ppb
Uranium	238-1	0.01	0.00	0.00	0.00	34.98	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	828.89	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	0.17	0.11	0.11	0.13	26.30	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	29.22	ppb
Zirconium	91-1	0.01	0.00	0.01	0.01	60.05	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3418.46	3409.46	3450.31	3426.08	0.63	ppb
Antimony	121-1	0.04	0.04	0.03	0.04	6.91	ppb
Arsenic	75-2	0.41	0.41	0.44	0.42	4.26	ppb
Barium	135-1	24.97	24.34	24.20	24.50	1.68	ppb
Barium	137-1	25.47	25.07	24.52	25.02	1.90	ppb
Beryllium	9-1	0.20	0.19	0.20	0.20	2.28	ppb
Bismuth	209-1				94		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.12	0.18	0.10	0.13	31.25	ppb
Cadmium	106-1	-1.83	-0.93	-1.35	-1.37		ppb
Cadmium	111-1	-0.03	0.03	0.00	0.00	12293.52	ppb
Calcium	43-1	69838.04	69963.81	67772.63	69191.49	1.78	ppb
Calcium	44-1	69557.03	68741.83	67957.40	68752.09	1.16	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.04	1.06	1.09	1.06	2.46	ppb
Cobalt	59-2	15.08	15.05	15.04	15.06	0.15	ppb
Copper	63-2	19.25	19.06	19.15	19.15	0.50	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				96		%
Indium	115-2				97		%
Iron	54-2	39642.92	39388.32	39889.87	39640.37	0.63	ppb
Iron	56-2	39758.97	39921.41	39447.36	39709.25	0.61	ppb
Iron	57-2	40788.40	40206.03	39822.39	40272.27	1.21	ppb
Krypton	83-1						cps
Lead	206-1	0.29	0.28	0.26	0.28	4.58	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.30	0.28	0.28	0.28	4.96	ppb
Lead	208-1	0.29	0.29	0.28	0.29	2.34	ppb
Lithium	6-1				97		%
Magnesium	24-2	7428.26	7338.14	7466.67	7411.03	0.89	ppb
Manganese	55-2	1349.61	1349.86	1326.46	1341.98	1.00	ppb
Molybdenum	94-1	0.29	0.30	0.29	0.29	2.30	ppb
Molybdenum	95-1	0.07	0.04	0.04	0.05	33.59	ppb
Molybdenum	96-1	0.13	0.14	0.12	0.13	6.43	ppb
Molybdenum	97-1	0.05	0.06	0.04	0.05	18.85	ppb
Molybdenum	98-1	0.07	0.05	0.04	0.05	22.11	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.50	5.36	5.43	5.43	1.23	ppb
Phosphorus	31-2	22.21	32.68	8.70	21.20	56.72	ppb
Potassium	39-2	433.26	436.25	447.69	439.07	1.73	ppb
Rhodium	103-1				94		%
Rhodium	103-2				96		%
Scandium	45-1				97		%
Scandium	45-2				98		%
Sdium	23-2	10462.24	10205.13	10421.15	10362.84	1.33	ppb
Selenium	82-1	0.23	0.30	0.25	0.26	14.77	ppb
Selenium	77-2	12.79	19.21	10.00	14.00	33.76	ppb
Selenium	78-2	3.17	3.45	3.15	3.26	5.12	ppb
Silicon	28-1	4042.26	4137.62	4099.87	4093.25	1.17	ppb
Silver	107-1	0.01	0.01	0.01	0.01	32.83	ppb
Silver	109-1	0.01	0.01	0.01	0.01	30.44	ppb
Strontium	86-1	109.04	106.80	106.70	107.51	1.23	ppb
Strontium	88-1	113.49	112.18	111.22	112.30	1.01	ppb
Sulfur	34-1	68306.80	70040.27	68184.97	68844.01	1.51	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.02	0.02	0.02	14.34	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	3.55	ppb
Tin	118-1	0.07	0.07	0.07	0.07	3.50	ppb
Titanium	47-1	0.57	0.61	0.61	0.60	3.75	ppb
Uranium	238-1	0.63	0.63	0.63	0.63	0.29	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	18.41	18.53	18.48	18.47	0.33	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				102		%
Zinc	66-2	140.73	139.06	139.14	139.64	0.67	ppb
Zirconium	90-1	0.14	0.13	0.13	0.13	3.60	ppb
Zirconium	91-1	0.13	0.14	0.14	0.14	4.82	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5678.00	5668.82	5630.85	5659.22	0.44	ppb
Antimony	121-1	0.02	0.03	0.03	0.03	5.92	ppb
Arsenic	75-2	0.42	0.33	0.52	0.42	22.71	ppb
Barium	135-1	21.83	21.62	21.86	21.77	0.61	ppb
Barium	137-1	22.32	21.99	22.28	22.20	0.81	ppb
Beryllium	9-1	0.22	0.22	0.21	0.21	1.53	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.18	0.15	0.19	0.17	13.87	ppb
Cadmium	106-1	-1.05	-1.49	-1.10	-1.21		ppb
Cadmium	111-1	0.02	-0.02	0.00	0.00	2336.26	ppb
Calcium	43-1	57043.93	56990.66	57730.77	57255.12	0.72	ppb
Calcium	44-1	56482.03	56420.88	57352.12	56751.68	0.92	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.53	1.67	1.64	1.61	4.45	ppb
Cobalt	59-2	16.27	16.27	15.85	16.13	1.49	ppb
Copper	63-2	20.88	20.82	20.86	20.85	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				97		%
Holmium	165-2				98		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	54-2	43195.50	43148.52	42057.31	42800.44	1.50	ppb
Iron	56-2	42884.46	43404.28	42652.42	42980.38	0.90	ppb
Iron	57-2	43499.03	43634.45	43635.78	43589.75	0.18	ppb
Krypton	83-1						cps
Lead	206-1	0.30	0.34	0.34	0.32	6.75	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.30	0.32	0.30	0.31	4.72	ppb
Lead	208-1	0.30	0.32	0.31	0.31	4.31	ppb
Lithium	6-1				98		%
Magnesium	24-2	8819.15	8877.45	8670.04	8788.88	1.22	ppb
Manganese	55-2	1264.76	1280.50	1263.76	1269.67	0.74	ppb
Molybdenum	94-1	0.29	0.24	0.26	0.26	10.69	ppb
Molybdenum	95-1	0.04	0.02	0.04	0.03	29.09	ppb
Molybdenum	96-1	0.11	0.11	0.10	0.11	1.93	ppb
Molybdenum	97-1	0.03	0.02	0.02	0.02	20.14	ppb
Molybdenum	98-1	0.03	0.02	0.03	0.03	14.73	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.51	6.23	6.28	6.34	2.34	ppb
Phosphorus	31-2	87.08	120.19	112.39	106.55	16.24	ppb
Potassium	39-2	480.94	462.65	459.71	467.77	2.46	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Sdium	23-2	9139.73	9153.99	9149.49	9147.73	0.08	ppb
Selenium	82-1	0.36	0.11	0.05	0.17	92.61	ppb
Selenium	77-2	18.73	15.32	15.37	16.47	11.86	ppb
Selenium	78-2	3.08	4.19	5.02	4.10	23.69	ppb
Silicon	28-1	4288.12	4201.97	4359.30	4283.13	1.84	ppb
Silver	107-1	0.00	0.01	0.00	0.00	17.12	ppb
Silver	109-1	0.01	0.01	0.01	0.01	12.79	ppb
Strontium	86-1	88.05	88.54	89.47	88.69	0.82	ppb
Strontium	88-1	93.49	92.95	93.99	93.48	0.56	ppb
Sulfur	34-1	68725.11	68143.12	68706.94	68525.06	0.48	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.03	0.03	0.02	0.03	13.31	ppb
Thallium	205-1	0.02	0.03	0.02	0.02	10.14	ppb
Tin	118-1	0.06	0.40	0.05	0.17	119.09	ppb
Titanium	47-1	0.70	0.66	0.67	0.68	2.87	ppb
Uranium	238-1	0.69	0.70	0.68	0.69	0.92	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	33.87	33.99	33.55	33.80	0.67	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	163.05	165.68	161.61	163.45	1.26	ppb
Zirconium	90-1	0.14	0.14	0.15	0.14	4.70	ppb
Zirconium	91-1	0.15	0.15	0.15	0.15	0.76	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6543.68	6565.22	6562.97	6557.29	0.18	ppb
Antimony	121-1	0.29	0.28	0.29	0.29	1.57	ppb
Arsenic	75-2	0.59	0.52	0.46	0.52	12.30	ppb
Barium	135-1	23.58	24.39	23.63	23.87	1.91	ppb
Barium	137-1	24.12	24.19	24.49	24.27	0.83	ppb
Beryllium	9-1	0.21	0.21	0.22	0.21	2.42	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.13	0.14	0.22	0.16	30.94	ppb
Cadmium	106-1	-1.57	-0.72	-1.51	-1.27		ppb
Cadmium	111-1	-0.02	0.03	-0.03	-0.01		ppb
Calcium	43-1	58415.58	58929.97	59127.11	58824.22	0.62	ppb
Calcium	44-1	57538.47	58100.01	58318.87	57985.78	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.04	2.08	1.93	2.01	3.92	ppb
Cobalt	59-2	16.97	16.78	16.76	16.84	0.69	ppb
Copper	63-2	20.09	20.17	20.55	20.27	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				97		%
Holmium	165-2				98		%
Indium	115-1				97		%
Indium	115-2				97		%
Iron	54-2	45269.18	45401.69	45126.23	45265.70	0.30	ppb
Iron	56-2	45479.90	45489.81	45383.13	45450.95	0.13	ppb
Iron	57-2	46338.88	45442.47	46105.55	45962.30	1.01	ppb
Krypton	83-1						cps
Lead	206-1	0.41	0.40	0.39	0.40	1.56	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.39	0.40	0.41	0.40	2.40	ppb
Lead	208-1	0.39	0.39	0.40	0.40	1.59	ppb
Lithium	6-1				99		%
Magnesium	24-2	9382.39	9274.10	9298.90	9318.46	0.61	ppb
Manganese	55-2	1253.16	1260.01	1259.74	1257.63	0.31	ppb
Molybdenum	94-1	0.29	0.29	0.23	0.27	11.60	ppb
Molybdenum	95-1	0.04	0.02	0.04	0.03	37.70	ppb
Molybdenum	96-1	0.11	0.10	0.11	0.10	5.95	ppb
Molybdenum	97-1	0.03	0.01	0.02	0.02	45.33	ppb
Molybdenum	98-1	0.03	0.03	0.02	0.03	15.50	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.41	6.53	6.39	6.45	1.20	ppb
Phosphorus	31-2	148.32	139.63	121.70	136.55	9.94	ppb
Potassium	39-2	461.16	457.15	461.27	459.86	0.51	ppb
Rhodium	103-1				96		%
Rhodium	103-2				96		%
Scandium	45-1				100		%
Scandium	45-2				98		%
Sdium	23-2	8687.01	8634.72	8626.78	8649.50	0.38	ppb
Selenium	82-1	0.36	0.42	-0.01	0.26	91.88	ppb
Selenium	77-2	15.32	15.33	17.35	16.00	7.32	ppb
Selenium	78-2	6.61	5.27	3.98	5.29	24.85	ppb
Silicon	28-1	4613.15	4572.60	4568.04	4584.60	0.54	ppb
Silver	107-1	0.00	0.01	0.01	0.00	37.23	ppb
Silver	109-1	0.00	0.01	0.00	0.00	13.60	ppb
Strontium	86-1	90.57	90.86	91.00	90.81	0.24	ppb
Strontium	88-1	93.53	96.05	95.35	94.98	1.37	ppb
Sulfur	34-1	71605.31	70234.72	71425.50	71088.51	1.05	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.02	0.02	0.02	11.42	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	11.45	ppb
Tin	118-1	0.04	0.05	0.04	0.04	8.76	ppb
Titanium	47-1	0.76	0.78	0.72	0.75	3.94	ppb
Uranium	238-1	0.67	0.69	0.69	0.68	2.05	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	38.30	37.83	37.94	38.02	0.64	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				103		%
Zinc	66-2	155.85	153.53	152.85	154.08	1.02	ppb
Zirconium	90-1	0.14	0.14	0.14	0.14	1.01	ppb
Zirconium	91-1	0.14	0.13	0.14	0.14	3.37	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3750.67	3687.25	3792.28	3743.40	1.41	ppb
Antimony	121-1	0.02	0.03	0.03	0.03	11.47	ppb
Arsenic	75-2	0.38	0.32	0.49	0.40	21.58	ppb
Barium	135-1	22.48	23.05	23.20	22.91	1.65	ppb
Barium	137-1	23.23	23.51	23.32	23.35	0.61	ppb
Beryllium	9-1	0.19	0.20	0.20	0.19	3.76	ppb
Bismuth	209-1				93		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	0.13	0.15	0.09	0.13	23.20	ppb
Cadmium	106-1	-1.35	-0.92	-0.69	-0.99		ppb
Cadmium	111-1	0.01	0.04	0.03	0.03	54.15	ppb
Calcium	43-1	68552.75	69501.11	68629.83	68894.56	0.76	ppb
Calcium	44-1	67417.84	67915.42	67959.05	67764.10	0.44	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.62	1.67	1.57	1.62	3.23	ppb
Cobalt	59-2	15.89	16.07	16.40	16.12	1.61	ppb
Copper	63-2	29.87	29.76	30.39	30.01	1.12	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				99		%
Indium	115-1				96		%
Indium	115-2				97		%
Iron	54-2	42083.79	41479.22	42526.22	42029.75	1.25	ppb
Iron	56-2	42071.87	41864.64	42459.16	42131.89	0.72	ppb
Iron	57-2	42585.12	42800.56	43909.93	43098.54	1.65	ppb
Krypton	83-1						cps
Lead	206-1	0.27	0.30	0.27	0.28	6.67	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.28	0.26	0.27	0.27	4.10	ppb
Lead	208-1	0.27	0.27	0.27	0.27	0.80	ppb
Lithium	6-1				99		%
Magnesium	24-2	8010.29	8046.58	8096.78	8051.22	0.54	ppb
Manganese	55-2	1437.20	1421.36	1454.45	1437.67	1.15	ppb
Molybdenum	94-1	0.26	0.26	0.27	0.26	1.56	ppb
Molybdenum	95-1	0.03	0.03	0.03	0.03	1.94	ppb
Molybdenum	96-1	0.12	0.12	0.11	0.12	1.19	ppb
Molybdenum	97-1	0.02	0.03	0.02	0.02	16.31	ppb
Molybdenum	98-1	0.03	0.03	0.03	0.03	8.72	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.58	6.74	6.55	6.62	1.55	ppb
Phosphorus	31-2	33.50	30.99	20.04	28.18	25.39	ppb
Potassium	39-2	484.56	482.33	496.00	487.63	1.50	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				98		%
Sdium	23-2	11695.03	11900.70	12039.19	11878.31	1.46	ppb
Selenium	82-1	0.19	0.23	0.24	0.22	10.84	ppb
Selenium	77-2	13.39	11.90	12.77	12.69	5.87	ppb
Selenium	78-2	4.42	4.27	1.80	3.50	41.98	ppb
Silicon	28-1	4466.39	4593.45	4638.42	4566.09	1.95	ppb
Silver	107-1	0.00	0.00	0.00	0.00	49.27	ppb
Silver	109-1	0.00	0.00	0.00	0.00	52.51	ppb
Strontium	86-1	108.80	110.47	111.48	110.25	1.23	ppb
Strontium	88-1	114.81	114.69	115.75	115.08	0.50	ppb
Sulfur	34-1	71013.89	71442.16	72118.18	71524.74	0.78	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.02	0.02	0.02	8.85	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	12.37	ppb
Tin	118-1	0.07	0.09	0.07	0.08	16.07	ppb
Titanium	47-1	0.61	0.56	0.64	0.60	6.79	ppb
Uranium	238-1	0.66	0.67	0.69	0.67	2.27	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	20.81	20.27	20.90	20.66	1.64	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	147.89	144.22	147.18	146.43	1.33	ppb
Zirconium	90-1	0.13	0.14	0.13	0.13	6.34	ppb
Zirconium	91-1	0.13	0.13	0.15	0.14	7.57	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5561.81	5730.73	5748.44	5680.32	1.81	ppb
Antimony	121-1	0.02	0.02	0.01	0.02	17.39	ppb
Arsenic	75-2	0.65	0.43	0.43	0.50	24.97	ppb
Barium	135-1	24.63	24.01	23.72	24.12	1.93	ppb
Barium	137-1	24.39	24.66	24.26	24.44	0.84	ppb
Beryllium	9-1	0.18	0.20	0.18	0.19	4.31	ppb
Bismuth	209-1				94		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	0.10	0.08	0.23	0.14	59.97	ppb
Cadmium	106-1	-1.31	-0.97	-1.98	-1.42		ppb
Cadmium	111-1	-0.01	0.01	-0.08	-0.03		ppb
Calcium	43-1	69698.15	68273.25	69454.31	69141.90	1.10	ppb
Calcium	44-1	69605.31	68016.80	68157.52	68593.21	1.28	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.58	1.59	1.50	1.56	3.39	ppb
Cobalt	59-2	15.63	16.03	16.10	15.92	1.58	ppb
Copper	63-2	19.82	20.31	20.10	20.08	1.21	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				98		%
Indium	115-1				97		%
Indium	115-2				97		%
Iron	54-2	43104.38	42960.45	42805.34	42956.72	0.35	ppb
Iron	56-2	43259.71	43250.94	43519.08	43343.25	0.35	ppb
Iron	57-2	44215.63	44308.47	44175.00	44233.03	0.15	ppb
Krypton	83-1						cps
Lead	206-1	0.32	0.32	0.30	0.31	3.75	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.32	0.31	0.29	0.31	4.14	ppb
Lead	208-1	0.31	0.32	0.30	0.31	3.13	ppb
Lithium	6-1				97		%
Magnesium	24-2	8646.55	8861.56	8868.62	8792.24	1.44	ppb
Manganese	55-2	1155.79	1167.85	1177.16	1166.93	0.92	ppb
Molybdenum	94-1	0.26	0.23	0.22	0.24	8.90	ppb
Molybdenum	95-1	0.02	0.02	0.01	0.02	29.37	ppb
Molybdenum	96-1	0.11	0.10	0.10	0.10	4.12	ppb
Molybdenum	97-1	0.02	0.01	0.00	0.01	59.69	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	9.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.08	6.30	6.35	6.24	2.29	ppb
Phosphorus	31-2	84.54	76.05	108.01	89.53	18.49	ppb
Potassium	39-2	448.53	449.93	459.86	452.77	1.36	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				98		%
Scandium	45-2				100		%
Sdium	23-2	9110.53	9017.62	9268.17	9132.11	1.39	ppb
Selenium	82-1	0.49	0.23	0.43	0.39	35.53	ppb
Selenium	77-2	13.41	22.50	12.72	16.21	33.66	ppb
Selenium	78-2	3.36	3.92	3.96	3.75	8.96	ppb
Silicon	28-1	4499.49	4429.20	4458.79	4462.49	0.79	ppb
Silver	107-1	0.00	0.00	0.00	0.00	123.03	ppb
Silver	109-1	0.00	0.00	0.00	0.00	29.59	ppb
Strontium	86-1	91.77	91.54	90.26	91.19	0.89	ppb
Strontium	88-1	97.34	96.27	95.46	96.36	0.98	ppb
Sulfur	34-1	76068.71	73841.98	75301.47	75070.72	1.51	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.02	0.01	0.02	0.02	16.04	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	6.94	ppb
Tin	118-1	0.05	0.02	0.03	0.03	43.39	ppb
Titanium	47-1	0.69	0.64	0.62	0.65	6.11	ppb
Uranium	238-1	0.67	0.66	0.67	0.67	0.63	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	30.85	31.23	31.27	31.12	0.74	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				103		%
Yttrium	89-2				104		%
Zinc	66-2	155.32	160.85	156.45	157.54	1.85	ppb
Zirconium	90-1	0.14	0.14	0.13	0.14	3.10	ppb
Zirconium	91-1	0.13	0.13	0.13	0.13	0.54	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8703.32	8594.14	8700.99	8666.15	0.72	ppb
Antimony	121-1	0.02	0.02	0.01	0.02	2.26	ppb
Arsenic	75-2	0.47	0.71	0.57	0.58	20.31	ppb
Barium	135-1	22.20	22.08	22.02	22.10	0.42	ppb
Barium	137-1	22.70	22.36	22.54	22.54	0.75	ppb
Beryllium	9-1	0.21	0.19	0.20	0.20	4.78	ppb
Bismuth	209-1				96		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.03	0.09	0.16	0.09	68.44	ppb
Cadmium	106-1	-1.05	-1.20	-1.79	-1.35		ppb
Cadmium	111-1	0.01	0.00	-0.07	-0.02		ppb
Calcium	43-1	49358.86	48667.72	48713.28	48913.29	0.79	ppb
Calcium	44-1	48536.09	48581.26	47850.46	48322.60	0.85	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3.28	3.43	3.35	3.35	2.18	ppb
Cobalt	59-2	17.27	17.64	17.21	17.37	1.32	ppb
Copper	63-2	21.82	21.54	21.73	21.70	0.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	54-2	47604.61	46292.66	46220.82	46706.03	1.67	ppb
Iron	56-2	47004.75	46916.76	46831.21	46917.58	0.18	ppb
Iron	57-2	47992.43	47181.61	47476.33	47550.12	0.86	ppb
Krypton	83-1						cps
Lead	206-1	0.42	0.43	0.43	0.43	2.01	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.42	0.42	0.43	0.42	0.91	ppb
Lead	208-1	0.41	0.43	0.42	0.42	2.13	ppb
Lithium	6-1				98		%
Magnesium	24-2	10338.13	10349.02	10411.95	10366.37	0.38	ppb
Manganese	55-2	1024.66	1095.40	1095.87	1071.97	3.82	ppb
Molybdenum	94-1	0.28	0.29	0.27	0.28	3.72	ppb
Molybdenum	95-1	0.04	0.04	0.04	0.04	3.29	ppb
Molybdenum	96-1	0.13	0.13	0.13	0.13	2.57	ppb
Molybdenum	97-1	0.05	0.05	0.02	0.04	41.75	ppb
Molybdenum	98-1	0.04	0.03	0.03	0.03	9.92	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	8.04	7.92	8.14	8.03	1.34	ppb
Phosphorus	31-2	241.10	242.57	233.25	238.97	2.10	ppb
Potassium	39-2	494.39	495.87	498.28	496.18	0.40	ppb
Rhodium	103-1				96		%
Rhodium	103-2				98		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Sdium	23-2	8900.69	8869.06	8861.48	8877.08	0.23	ppb
Selenium	82-1	0.57	0.04	0.16	0.26	107.84	ppb
Selenium	77-2	7.92	18.01	18.42	14.79	40.22	ppb
Selenium	78-2	2.25	4.73	4.08	3.69	34.82	ppb
Silicon	28-1	4946.31	4911.29	4938.47	4932.02	0.37	ppb
Silver	107-1	0.00	0.00	0.00	0.00	67.00	ppb
Silver	109-1	0.00	0.00	0.00	0.00	43.05	ppb
Strontium	86-1	79.89	81.42	81.10	80.80	1.00	ppb
Strontium	88-1	84.82	84.62	85.68	85.04	0.66	ppb
Sulfur	34-1	70491.36	70598.45	70423.40	70504.41	0.13	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.01	0.01	0.01	0.01	11.06	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	6.55	ppb
Tin	118-1	0.05	0.04	0.05	0.05	9.79	ppb
Titanium	47-1	0.89	0.92	0.88	0.90	2.05	ppb
Uranium	238-1	0.72	0.72	0.70	0.71	1.21	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	47.25	47.27	47.56	47.36	0.36	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				105		%
Yttrium	89-2				105		%
Zinc	66-2	164.19	163.96	163.42	163.86	0.24	ppb
Zirconium	90-1	0.14	0.14	0.15	0.14	1.95	ppb
Zirconium	91-1	0.13	0.15	0.13	0.14	5.98	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51674.84	51203.09	49953.94	50943.96	1.75	ppb
Antimony	121-1	481.69	475.18	480.64	479.17	0.73	ppb
Arsenic	75-2	488.87	487.16	490.19	488.74	0.31	ppb
Barium	135-1	2412.51	2405.15	2448.16	2421.94	0.95	ppb
Barium	137-1	2431.88	2434.18	2451.36	2439.14	0.44	ppb
Beryllium	9-1	498.53	507.66	505.52	503.90	0.95	ppb
Bismuth	209-1				84		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	465.48	476.73	476.40	472.87	1.35	ppb
Cadmium	106-1	479.12	476.64	478.68	478.15	0.28	ppb
Cadmium	111-1	473.62	478.14	469.06	473.61	0.96	ppb
Calcium	43-1	249547.52	257027.98	246072.48	250882.66	2.23	ppb
Calcium	44-1	247281.52	252967.08	249058.09	249768.90	1.16	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	495.41	496.95	488.17	493.51	0.95	ppb
Cobalt	59-2	493.45	490.95	478.68	487.69	1.62	ppb
Copper	63-2	4758.67	4778.07	4670.71	4735.82	1.21	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				95		%
Holmium	165-2				95		%
Indium	115-1				88		%
Indium	115-2				90		%
Iron	54-2	126569.51	128215.00	123930.21	126238.24	1.71	ppb
Iron	56-2	128513.27	127863.37	125178.28	127184.97	1.39	ppb
Iron	57-2	127253.84	127125.67	124321.80	126233.77	1.31	ppb
Krypton	83-1						cps
Lead	206-1	2449.98	2533.95	2517.72	2500.55	1.78	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2479.88	2567.12	2503.72	2516.91	1.79	ppb
Lead	208-1	2470.87	2552.45	2511.83	2511.72	1.62	ppb
Lithium	6-1				90		%
Magnesium	24-2	252533.61	255141.83	244857.36	250844.26	2.13	ppb
Manganese	55-2	5001.19	4956.44	4769.92	4909.18	2.50	ppb
Molybdenum	94-1	4955.89	5060.95	5000.56	5005.80	1.05	ppb
Molybdenum	95-1	4987.54	5047.58	5048.32	5027.81	0.69	ppb
Molybdenum	96-1	4937.11	5050.45	5002.13	4996.56	1.14	ppb
Molybdenum	97-1	4940.40	5029.41	5049.64	5006.49	1.16	ppb
Molybdenum	98-1	4977.36	5056.23	5023.83	5019.14	0.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	458.99	461.29	447.30	455.86	1.65	ppb
Phosphorus	31-2	10127.66	9776.88	9528.33	9810.96	3.07	ppb
Potassium	39-2	125407.54	127995.77	123221.36	125541.56	1.90	ppb
Rhodium	103-1				86		%
Rhodium	103-2				87		%
Scandium	45-1				94		%
Scandium	45-2				98		%
Sdium	23-2	250922.99	254247.32	247875.63	251015.31	1.27	ppb
Selenium	82-1	481.32	482.55	480.83	481.56	0.18	ppb
Selenium	77-2	572.02	495.36	454.67	507.35	11.75	ppb
Selenium	78-2	488.06	517.11	526.50	510.56	3.93	ppb
Silicon	28-1	580.98	604.45	585.85	590.42	2.10	ppb
Silver	107-1	475.82	463.60	466.84	468.75	1.35	ppb
Silver	109-1	468.97	463.96	467.34	466.75	0.55	ppb
Strontium	86-1	508.26	506.90	509.09	508.08	0.22	ppb
Strontium	88-1	491.77	499.29	501.74	497.60	1.04	ppb
Sulfur	34-1	9527.33	10176.65	9952.75	9885.58	3.34	ppb
Terbium	159-1				95		%
Terbium	159-2				94		%
Thallium	203-1	489.80	505.39	503.32	499.50	1.69	ppb
Thallium	205-1	490.60	509.76	496.42	498.93	1.97	ppb
Tin	118-1	485.81	481.73	486.43	484.66	0.53	ppb
Titanium	47-1	4901.18	4978.59	4972.45	4950.74	0.87	ppb
Uranium	238-1	512.43	517.74	520.04	516.74	0.76	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	481.80	482.55	470.31	478.22	1.44	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				93		%
Yttrium	89-2				96		%
Zinc	66-2	4848.57	4973.16	4712.90	4844.88	2.69	ppb
Zirconium	90-1	499.36	507.39	511.40	506.05	1.21	ppb
Zirconium	91-1	509.74	510.97	517.93	512.88	0.86	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.13	0.25	-0.16	0.07	284.27	ppb
Antimony	121-1	0.06	0.06	0.07	0.06	8.98	ppb
Arsenic	75-2	0.00	0.04	-0.03	0.00	748.03	ppb
Barium	135-1	0.19	0.22	0.22	0.21	6.53	ppb
Barium	137-1	0.22	0.23	0.20	0.22	5.06	ppb
Beryllium	9-1	0.11	0.09	0.09	0.10	9.96	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	-0.01	0.02	0.00	0.00	1609.58	ppb
Cadmium	106-1	-2.27	-2.80	-1.02	-2.03		ppb
Cadmium	111-1	-0.15	-0.20	-0.06	-0.14		ppb
Calcium	43-1	3.35	2.94	0.68	2.32	61.81	ppb
Calcium	44-1	-2.22	-3.24	-3.37	-2.94		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.07	0.02	0.03	110.96	ppb
Cobalt	59-2	0.02	0.02	0.01	0.02	28.28	ppb
Copper	63-2	-0.18	-0.14	-0.16	-0.16		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				97		%
Indium	115-1				97		%
Indium	115-2				97		%
Iron	54-2	3.09	2.48	2.15	2.57	18.48	ppb
Iron	56-2	1.75	2.01	1.89	1.88	6.77	ppb
Iron	57-2	1.20	0.00	0.73	0.65	93.70	ppb
Krypton	83-1						cps
Lead	206-1	0.15	0.14	0.14	0.14	4.66	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.15	0.15	0.12	0.14	10.72	ppb
Lead	208-1	0.15	0.14	0.14	0.14	5.06	ppb
Lithium	6-1				97		%
Magnesium	24-2	-0.45	-0.29	0.06	-0.23		ppb
Manganese	55-2	0.29	0.29	0.22	0.27	14.91	ppb
Molybdenum	94-1	0.09	0.05	0.04	0.06	45.05	ppb
Molybdenum	95-1	0.09	0.07	0.06	0.07	19.92	ppb
Molybdenum	96-1	0.08	0.07	0.07	0.07	13.55	ppb
Molybdenum	97-1	0.10	0.08	0.06	0.08	26.22	ppb
Molybdenum	98-1	0.09	0.07	0.06	0.07	17.95	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	-0.09	-0.11	-0.07		ppb
Phosphorus	31-2	-23.47	-19.73	-16.51	-19.91		ppb
Potassium	39-2	5.51	4.93	7.27	5.90	20.62	ppb
Rhodium	103-1				96		%
Rhodium	103-2				99		%
Scandium	45-1				98		%
Scandium	45-2				97		%
Sdium	23-2	10.34	9.83	10.23	10.14	2.67	ppb
Selenium	82-1	-0.34	-0.35	-0.14	-0.28		ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.20	-0.37	0.20	0.01	3199.58	ppb
Silicon	28-1	-0.19	0.17	0.42	0.13	228.54	ppb
Silver	107-1	0.02	0.02	0.02	0.02	3.37	ppb
Silver	109-1	0.02	0.02	0.02	0.02	1.93	ppb
Strontium	86-1	-0.05	-0.04	-0.03	-0.04		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-1141.77	-1022.34	-863.03	-1009.05		ppb
Terbium	159-1				96		%
Terbium	159-2				97		%
Thallium	203-1	0.03	0.02	0.03	0.03	8.90	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	7.64	ppb
Tin	118-1	0.02	0.02	0.03	0.02	17.67	ppb
Titanium	47-1	0.02	0.02	0.00	0.01	123.26	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	34.26	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.00	0.00	0.00	212.83	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	0.15	0.17	0.15	0.16	8.39	ppb
Zirconium	90-1	0.02	0.01	0.01	0.01	25.37	ppb
Zirconium	91-1	0.02	0.03	0.02	0.02	33.43	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8604.54	8552.87	8571.56	8576.32	0.31	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	6.73	ppb
Arsenic	75-2	0.51	0.60	0.42	0.51	17.17	ppb
Barium	135-1	23.60	23.88	24.35	23.94	1.59	ppb
Barium	137-1	24.16	24.30	24.90	24.45	1.60	ppb
Beryllium	9-1	0.24	0.21	0.23	0.23	5.63	ppb
Bismuth	209-1				94		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.08	0.10	0.30	0.16	75.18	ppb
Cadmium	106-1	-1.40	-1.45	-2.20	-1.68		ppb
Cadmium	111-1	-0.01	-0.04	-0.09	-0.05		ppb
Calcium	43-1	50697.75	50851.33	51373.04	50974.04	0.69	ppb
Calcium	44-1	49467.75	50287.26	50550.87	50101.96	1.13	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.09	2.12	2.23	2.15	3.32	ppb
Cobalt	59-2	17.82	18.36	17.82	18.00	1.74	ppb
Copper	63-2	23.40	24.07	23.54	23.67	1.49	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	54-2	48125.25	48598.38	46855.66	47859.76	1.88	ppb
Iron	56-2	47915.77	47824.50	47343.62	47694.63	0.64	ppb
Iron	57-2	48188.73	49178.30	47905.88	48424.31	1.38	ppb
Krypton	83-1						cps
Lead	206-1	0.45	0.45	0.44	0.45	1.23	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.44	0.45	0.45	0.45	0.89	ppb
Lead	208-1	0.44	0.44	0.44	0.44	0.48	ppb
Lithium	6-1				98		%
Magnesium	24-2	10515.20	10453.29	10286.90	10418.46	1.13	ppb
Manganese	55-2	998.06	997.87	987.16	994.36	0.63	ppb
Molybdenum	94-1	0.31	0.27	0.28	0.29	7.73	ppb
Molybdenum	95-1	0.04	0.05	0.03	0.04	22.38	ppb
Molybdenum	96-1	0.12	0.14	0.12	0.13	10.24	ppb
Molybdenum	97-1	0.03	0.02	0.03	0.03	24.94	ppb
Molybdenum	98-1	0.04	0.03	0.02	0.03	23.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.34	7.40	7.26	7.33	0.92	ppb
Phosphorus	31-2	212.22	284.03	220.95	239.06	16.39	ppb
Potassium	39-2	522.56	517.18	514.14	517.96	0.82	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				98		%
Scandium	45-2				99		%
Sdium	23-2	9028.00	8967.20	8919.25	8971.48	0.61	ppb
Selenium	82-1	0.52	0.54	0.27	0.44	34.26	ppb
Selenium	77-2	27.71	18.95	18.65	21.77	23.64	ppb
Selenium	78-2	5.23	3.93	2.81	3.99	30.35	ppb
Silicon	28-1	4989.93	5028.16	5075.46	5031.18	0.85	ppb
Silver	107-1	0.00	0.01	0.01	0.00	48.11	ppb
Silver	109-1	0.01	0.01	0.01	0.01	7.25	ppb
Strontium	86-1	84.19	86.36	85.60	85.38	1.29	ppb
Strontium	88-1	88.16	90.05	89.56	89.26	1.10	ppb
Sulfur	34-1	70502.66	72633.43	71433.91	71523.33	1.49	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.02	0.02	0.03	0.02	5.55	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	6.01	ppb
Tin	118-1	0.05	0.05	0.35	0.15	116.22	ppb
Titanium	47-1	0.91	0.96	1.02	0.97	5.72	ppb
Uranium	238-1	0.94	0.98	0.94	0.95	2.28	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	44.67	44.99	44.93	44.86	0.37	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	170.39	175.54	172.93	172.95	1.49	ppb
Zirconium	90-1	0.15	0.15	0.14	0.15	1.53	ppb
Zirconium	91-1	0.16	0.15	0.16	0.16	1.95	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6340.30	6181.42	6231.49	6251.07	1.30	ppb
Antimony	121-1	0.03	0.03	0.02	0.02	6.37	ppb
Arsenic	75-2	0.71	0.43	0.56	0.57	24.68	ppb
Barium	135-1	22.72	24.00	23.70	23.47	2.87	ppb
Barium	137-1	23.21	24.00	23.47	23.56	1.70	ppb
Beryllium	9-1	0.22	0.22	0.21	0.22	1.63	ppb
Bismuth	209-1				95		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.17	0.24	0.16	0.19	21.12	ppb
Cadmium	106-1	-2.03	-1.62	-2.34	-2.00		ppb
Cadmium	111-1	-0.08	-0.05	-0.08	-0.07		ppb
Calcium	43-1	61785.22	61339.48	60401.61	61175.44	1.15	ppb
Calcium	44-1	60308.33	60174.41	60476.59	60319.78	0.25	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.03	2.05	2.08	2.05	1.25	ppb
Cobalt	59-2	16.65	16.44	16.67	16.59	0.76	ppb
Copper	63-2	20.47	20.39	20.60	20.49	0.54	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				98		%
Holmium	165-2				100		%
Indium	115-1				99		%
Indium	115-2				99		%
Iron	54-2	46981.10	45425.30	46065.67	46157.35	1.69	ppb
Iron	56-2	46813.48	45474.50	46369.92	46219.30	1.48	ppb
Iron	57-2	47057.25	46013.42	47215.32	46762.00	1.40	ppb
Krypton	83-1						cps
Lead	206-1	0.36	0.37	0.37	0.37	1.81	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.35	0.39	0.35	0.36	5.53	ppb
Lead	208-1	0.36	0.37	0.36	0.36	1.57	ppb
Lithium	6-1				98		%
Magnesium	24-2	9793.27	9405.46	9527.10	9575.28	2.07	ppb
Manganese	55-2	1158.17	1148.62	1149.23	1152.01	0.46	ppb
Molybdenum	94-1	0.28	0.29	0.31	0.29	4.73	ppb
Molybdenum	95-1	0.03	0.02	0.02	0.02	19.12	ppb
Molybdenum	96-1	0.12	0.13	0.11	0.12	10.71	ppb
Molybdenum	97-1	0.02	0.02	0.01	0.02	16.13	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	4.87	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.62	6.68	7.03	6.78	3.24	ppb
Phosphorus	31-2	137.74	137.13	120.75	131.87	7.31	ppb
Potassium	39-2	473.96	453.91	465.31	464.40	2.17	ppb
Rhodium	103-1				97		%
Rhodium	103-2				98		%
Scandium	45-1				101		%
Scandium	45-2				100		%
Sdium	23-2	10121.97	9752.65	9892.74	9922.45	1.88	ppb
Selenium	82-1	0.30	0.38	0.36	0.34	12.68	ppb
Selenium	77-2	17.63	19.59	15.19	17.47	12.63	ppb
Selenium	78-2	3.83	6.27	4.16	4.75	27.81	ppb
Silicon	28-1	4833.86	4754.44	4709.90	4766.07	1.32	ppb
Silver	107-1	0.01	0.00	0.00	0.00	11.73	ppb
Silver	109-1	0.01	0.01	0.01	0.01	9.37	ppb
Strontium	86-1	92.50	94.91	94.01	93.81	1.29	ppb
Strontium	88-1	98.29	102.15	99.55	100.00	1.97	ppb
Sulfur	34-1	71246.28	71968.96	71374.23	71529.82	0.54	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	0.02	0.02	0.02	0.02	16.36	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.59	ppb
Tin	118-1	0.06	0.05	0.07	0.06	13.33	ppb
Titanium	47-1	0.69	0.68	0.68	0.68	0.40	ppb
Uranium	238-1	0.69	0.74	0.71	0.71	3.34	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	37.76	37.50	37.67	37.65	0.35	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				105		%
Yttrium	89-2				105		%
Zinc	66-2	146.43	143.18	145.98	145.20	1.21	ppb
Zirconium	90-1	0.14	0.15	0.15	0.15	3.60	ppb
Zirconium	91-1	0.14	0.14	0.13	0.14	4.06	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8595.26	8634.37	8590.90	8606.84	0.28	ppb
Antimony	121-1	0.02	0.02	0.03	0.02	10.29	ppb
Arsenic	75-2	0.54	0.60	0.54	0.56	6.19	ppb
Barium	135-1	21.03	20.50	21.04	20.86	1.46	ppb
Barium	137-1	21.18	21.11	20.98	21.09	0.47	ppb
Beryllium	9-1	0.23	0.21	0.21	0.22	4.07	ppb
Bismuth	209-1				95		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.13	0.25	0.16	0.18	32.76	ppb
Cadmium	106-1	-1.90	-1.82	-1.38	-1.70		ppb
Cadmium	111-1	-0.02	-0.04	-0.01	-0.02		ppb
Calcium	43-1	60155.85	60745.51	61526.99	60809.45	1.13	ppb
Calcium	44-1	60508.83	60070.54	60460.94	60346.77	0.40	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.62	2.52	2.55	2.57	1.93	ppb
Cobalt	59-2	18.30	18.29	18.77	18.46	1.49	ppb
Copper	63-2	22.72	23.06	23.30	23.03	1.27	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				98		%
Indium	115-2				100		%
Iron	54-2	50437.93	50837.27	50909.97	50728.39	0.50	ppb
Iron	56-2	50323.62	50741.06	50575.39	50546.69	0.42	ppb
Iron	57-2	50977.21	51114.91	51072.83	51054.98	0.14	ppb
Krypton	83-1						cps
Lead	206-1	0.42	0.40	0.42	0.41	2.15	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.39	0.39	0.39	0.39	0.28	ppb
Lead	208-1	0.40	0.40	0.40	0.40	0.31	ppb
Lithium	6-1				100		%
Magnesium	24-2	10917.16	11172.49	11144.42	11078.02	1.26	ppb
Manganese	55-2	1151.50	1168.43	1163.36	1161.10	0.75	ppb
Molybdenum	94-1	0.33	0.33	0.28	0.31	8.34	ppb
Molybdenum	95-1	0.02	0.02	0.03	0.02	6.29	ppb
Molybdenum	96-1	0.13	0.12	0.10	0.11	14.31	ppb
Molybdenum	97-1	0.02	0.02	0.03	0.03	9.19	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	0.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.62	7.82	7.87	7.77	1.69	ppb
Phosphorus	31-2	178.81	183.51	219.88	194.07	11.58	ppb
Potassium	39-2	530.63	520.40	530.10	527.05	1.09	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				101		%
Scandium	45-2				101		%
Sdium	23-2	9359.59	9488.41	9551.22	9466.41	1.03	ppb
Selenium	82-1	0.25	0.25	0.00	0.17	86.90	ppb
Selenium	77-2	13.06	9.46	11.43	11.32	15.92	ppb
Selenium	78-2	4.30	5.78	3.04	4.37	31.44	ppb
Silicon	28-1	5342.93	5307.57	5294.38	5314.96	0.47	ppb
Silver	107-1	0.00	0.00	0.00	0.00	23.71	ppb
Silver	109-1	0.00	0.00	0.00	0.00	29.33	ppb
Strontium	86-1	91.01	93.56	92.74	92.44	1.41	ppb
Strontium	88-1	97.07	97.23	97.98	97.43	0.50	ppb
Sulfur	34-1	76877.44	78636.42	77255.16	77589.68	1.19	ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.02	0.01	0.02	0.02	8.77	ppb
Thallium	205-1	0.01	0.02	0.02	0.02	6.06	ppb
Tin	118-1	0.04	0.04	0.04	0.04	10.04	ppb
Titanium	47-1	0.83	0.81	0.87	0.84	3.51	ppb
Uranium	238-1	0.73	0.76	0.76	0.75	2.41	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	46.75	46.21	46.68	46.55	0.63	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				107		%
Zinc	66-2	154.94	151.50	153.74	153.39	1.14	ppb
Zirconium	90-1	0.16	0.15	0.15	0.15	2.98	ppb
Zirconium	91-1	0.13	0.15	0.15	0.14	7.85	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8772.26	8863.41	8828.58	8821.42	0.52	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	7.94	ppb
Arsenic	75-2	0.60	0.57	0.52	0.56	7.51	ppb
Barium	135-1	22.25	23.30	23.06	22.87	2.41	ppb
Barium	137-1	22.60	23.61	23.44	23.22	2.33	ppb
Beryllium	9-1	0.25	0.27	0.26	0.26	3.51	ppb
Bismuth	209-1				95		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.16	0.23	0.16	0.19	22.16	ppb
Cadmium	106-1	-2.06	-1.43	-1.47	-1.65		ppb
Cadmium	111-1	-0.06	-0.02	-0.03	-0.04		ppb
Calcium	43-1	56737.12	57149.51	56533.54	56806.72	0.55	ppb
Calcium	44-1	55979.41	56074.67	56944.70	56332.93	0.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.30	2.17	2.22	2.23	2.96	ppb
Cobalt	59-2	18.41	18.38	18.55	18.45	0.48	ppb
Copper	63-2	23.65	23.49	23.28	23.47	0.80	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	54-2	49272.91	50062.75	49633.69	49656.45	0.80	ppb
Iron	56-2	50035.02	49940.15	49838.50	49937.89	0.20	ppb
Iron	57-2	49639.41	50205.51	50576.18	50140.36	0.94	ppb
Krypton	83-1						cps
Lead	206-1	0.43	0.45	0.42	0.43	3.39	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.40	0.42	0.45	0.42	6.78	ppb
Lead	208-1	0.41	0.42	0.44	0.43	3.17	ppb
Lithium	6-1				99		%
Magnesium	24-2	10962.77	10861.96	10910.52	10911.75	0.46	ppb
Manganese	55-2	1156.15	1148.54	1157.25	1153.98	0.41	ppb
Molybdenum	94-1	0.29	0.26	0.28	0.28	4.87	ppb
Molybdenum	95-1	0.03	0.02	0.03	0.02	21.57	ppb
Molybdenum	96-1	0.12	0.11	0.12	0.12	7.07	ppb
Molybdenum	97-1	0.02	0.01	0.01	0.01	6.14	ppb
Molybdenum	98-1	0.02	0.01	0.02	0.01	54.80	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.58	7.46	7.47	7.50	0.88	ppb
Phosphorus	31-2	222.02	220.21	213.09	218.44	2.16	ppb
Potassium	39-2	516.35	514.88	504.96	512.07	1.21	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				101		%
Scandium	45-2				102		%
Sdium	23-2	9031.52	8914.07	8927.96	8957.85	0.72	ppb
Selenium	82-1	0.14	0.26	0.33	0.24	40.30	ppb
Selenium	77-2	22.47	20.58	25.14	22.73	10.08	ppb
Selenium	78-2	3.49	5.00	5.06	4.52	19.62	ppb
Silicon	28-1	5376.51	5463.00	5563.98	5467.83	1.72	ppb
Silver	107-1	0.00	0.00	0.00	0.00	41.08	ppb
Silver	109-1	0.00	0.00	0.00	0.00	43.09	ppb
Strontium	86-1	87.60	88.36	88.72	88.23	0.65	ppb
Strontium	88-1	92.27	91.27	91.86	91.80	0.55	ppb
Sulfur	34-1	76116.41	75355.88	78395.69	76622.66	2.06	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	0.02	0.01	0.02	0.02	8.34	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	10.37	ppb
Tin	118-1	0.07	0.07	0.05	0.06	12.89	ppb
Titanium	47-1	0.84	0.87	0.93	0.88	5.08	ppb
Uranium	238-1	0.79	0.79	0.82	0.80	2.03	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	45.87	46.47	45.98	46.11	0.69	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				108		%
Zinc	66-2	153.48	154.11	153.53	153.71	0.23	ppb
Zirconium	90-1	0.14	0.14	0.15	0.14	3.97	ppb
Zirconium	91-1	0.16	0.16	0.15	0.15	2.00	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8790.80	8932.18	8860.30	8861.10	0.80	ppb
Antimony	121-1	0.02	0.01	0.02	0.02	11.55	ppb
Arsenic	75-2	0.77	0.64	0.54	0.65	17.38	ppb
Barium	135-1	22.61	22.72	22.73	22.69	0.29	ppb
Barium	137-1	22.57	23.30	23.14	23.01	1.67	ppb
Beryllium	9-1	0.26	0.27	0.27	0.27	2.83	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.13	0.07	0.07	74.16	ppb
Cadmium	106-1	-1.83	-1.25	-1.79	-1.63		ppb
Cadmium	111-1	-0.04	-0.01	-0.04	-0.03		ppb
Calcium	43-1	55928.50	57108.68	56930.32	56655.83	1.12	ppb
Calcium	44-1	55725.28	56726.00	57177.81	56543.03	1.31	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.23	2.14	2.20	2.19	2.16	ppb
Cobalt	59-2	18.41	18.46	18.54	18.47	0.34	ppb
Copper	63-2	23.14	23.22	23.37	23.24	0.50	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				99		%
Indium	115-1				99		%
Indium	115-2				99		%
Iron	54-2	49871.16	49836.60	49698.88	49802.21	0.18	ppb
Iron	56-2	50249.90	49460.75	49594.41	49768.35	0.85	ppb
Iron	57-2	50083.50	49930.21	49631.33	49881.68	0.46	ppb
Krypton	83-1						cps
Lead	206-1	0.44	0.44	0.43	0.44	1.42	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.41	0.43	0.43	0.42	2.42	ppb
Lead	208-1	0.42	0.43	0.43	0.42	1.19	ppb
Lithium	6-1				98		%
Magnesium	24-2	10831.43	10895.35	10802.30	10843.03	0.44	ppb
Manganese	55-2	1160.08	1137.78	1155.07	1150.98	1.02	ppb
Molybdenum	94-1	0.27	0.24	0.29	0.27	8.57	ppb
Molybdenum	95-1	0.03	0.02	0.01	0.02	41.64	ppb
Molybdenum	96-1	0.11	0.11	0.12	0.11	3.10	ppb
Molybdenum	97-1	0.01	-0.01	0.01	0.00	268.86	ppb
Molybdenum	98-1	0.02	0.02	0.01	0.02	35.74	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.51	7.44	7.70	7.55	1.79	ppb
Phosphorus	31-2	203.44	217.40	227.59	216.14	5.61	ppb
Potassium	39-2	506.03	505.56	514.28	508.63	0.96	ppb
Rhodium	103-1				97		%
Rhodium	103-2				98		%
Scandium	45-1				101		%
Scandium	45-2				101		%
Sdium	23-2	8839.50	8901.66	8876.42	8872.53	0.35	ppb
Selenium	82-1	0.61	0.53	0.26	0.47	38.61	ppb
Selenium	77-2	16.94	24.04	13.27	18.08	30.27	ppb
Selenium	78-2	5.21	5.47	2.79	4.49	32.84	ppb
Silicon	28-1	5327.86	5469.86	5508.37	5435.36	1.75	ppb
Silver	107-1	0.00	0.00	0.00	0.00	154.24	ppb
Silver	109-1	0.00	0.00	0.00	0.00	110.52	ppb
Strontium	86-1	87.89	87.61	89.34	88.28	1.05	ppb
Strontium	88-1	92.49	92.21	92.83	92.51	0.34	ppb
Sulfur	34-1	76274.01	77974.07	77676.30	77308.13	1.17	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	0.02	0.02	0.02	0.02	9.77	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	12.05	ppb
Tin	118-1	0.05	0.07	0.05	0.06	16.92	ppb
Titanium	47-1	0.87	0.87	0.91	0.88	2.93	ppb
Uranium	238-1	0.79	0.81	0.79	0.80	1.01	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	46.42	47.00	46.78	46.74	0.63	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				105		%
Zinc	66-2	152.36	153.22	153.58	153.05	0.41	ppb
Zirconium	90-1	0.15	0.15	0.14	0.15	2.82	ppb
Zirconium	91-1	0.13	0.15	0.14	0.14	6.13	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1792.79	1839.26	1795.60	1809.21	1.44	ppb
Antimony	121-1	0.00	0.01	0.01	0.01	36.16	ppb
Arsenic	75-2	0.18	0.13	0.11	0.14	26.91	ppb
Barium	135-1	4.59	4.78	4.65	4.68	2.10	ppb
Barium	137-1	4.74	4.64	4.67	4.68	1.10	ppb
Beryllium	9-1	0.07	0.07	0.07	0.07	2.76	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.04	0.01	-0.04	0.00	1860.59	ppb
Cadmium	106-1	-2.07	-2.48	-2.41	-2.32		ppb
Cadmium	111-1	-0.13	-0.16	-0.16	-0.15		ppb
Calcium	43-1	10825.04	10990.86	11037.33	10951.08	1.02	ppb
Calcium	44-1	11308.60	11539.17	11476.14	11441.30	1.04	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.39	0.47	0.43	0.43	9.33	ppb
Cobalt	59-2	3.84	3.86	3.77	3.82	1.15	ppb
Copper	63-2	4.67	4.77	4.61	4.68	1.65	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				98		%
Holmium	165-2				99		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	54-2	9784.15	9836.79	9683.44	9768.12	0.80	ppb
Iron	56-2	10107.64	10325.54	10132.36	10188.51	1.17	ppb
Iron	57-2	9733.48	9791.45	9725.43	9750.12	0.37	ppb
Krypton	83-1						cps
Lead	206-1	0.12	0.13	0.11	0.12	7.78	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.12	0.12	0.12	0.12	2.71	ppb
Lead	208-1	0.12	0.12	0.12	0.12	1.10	ppb
Lithium	6-1				98		%
Magnesium	24-2	2094.08	2126.55	2095.96	2105.53	0.87	ppb
Manganese	55-2	221.34	222.64	220.37	221.45	0.51	ppb
Molybdenum	94-1	0.05	0.05	0.03	0.04	29.45	ppb
Molybdenum	95-1	0.01	0.00	0.00	0.00	262.76	ppb
Molybdenum	96-1	0.03	0.01	0.02	0.02	32.89	ppb
Molybdenum	97-1	0.01	0.00	-0.01	0.00	873.30	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	252.83	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.45	1.43	1.38	1.42	2.43	ppb
Phosphorus	31-2	16.36	37.43	18.51	24.10	48.11	ppb
Potassium	39-2	98.56	103.78	105.75	102.70	3.62	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Sdium	23-2	1738.12	1757.35	1724.26	1739.91	0.96	ppb
Selenium	82-1	0.07	0.10	0.08	0.08	23.26	ppb
Selenium	77-2	4.70	2.78	2.76	3.41	32.66	ppb
Selenium	78-2	2.15	0.73	0.72	1.20	68.19	ppb
Silicon	28-1	1079.73	1119.84	1101.13	1100.23	1.82	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	47.98	ppb
Strontium	86-1	18.64	18.40	18.67	18.57	0.78	ppb
Strontium	88-1	18.58	18.42	18.62	18.54	0.58	ppb
Sulfur	34-1	15196.55	15396.23	14944.89	15179.22	1.49	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.01	0.01	0.00	0.01	37.28	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	34.61	ppb
Tin	118-1	0.01	0.01	0.02	0.02	30.35	ppb
Titanium	47-1	0.15	0.11	0.16	0.14	16.31	ppb
Uranium	238-1	0.16	0.16	0.16	0.16	2.04	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	9.36	9.53	9.32	9.40	1.16	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				100		%
Zinc	66-2	31.54	32.30	31.12	31.65	1.89	ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	7.44	ppb
Zirconium	91-1	0.04	0.03	0.03	0.03	12.11	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10319.47	10254.00	10098.96	10224.14	1.11	ppb
Antimony	121-1	97.18	92.69	93.44	94.44	2.55	ppb
Arsenic	75-2	0.55	0.67	0.58	0.60	10.31	ppb
Barium	135-1	464.66	459.49	472.08	465.41	1.36	ppb
Barium	137-1	455.67	463.92	470.07	463.22	1.56	ppb
Beryllium	9-1	87.25	86.78	87.75	87.26	0.56	ppb
Bismuth	209-1				93		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	89.45	88.24	90.77	89.48	1.42	ppb
Cadmium	106-1	94.00	93.87	95.16	94.34	0.75	ppb
Cadmium	111-1	90.87	90.85	91.53	91.08	0.42	ppb
Calcium	43-1	64668.84	63749.02	62667.69	63695.19	1.57	ppb
Calcium	44-1	63668.59	63165.15	63038.58	63290.77	0.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	91.65	90.87	89.55	90.69	1.17	ppb
Cobalt	59-2	110.82	111.48	109.19	110.50	1.07	ppb
Copper	63-2	1029.41	1024.08	1022.31	1025.26	0.36	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				99		%
Indium	115-1				96		%
Indium	115-2				97		%
Iron	54-2	52156.77	51704.24	51553.23	51804.75	0.61	ppb
Iron	56-2	52341.82	51726.40	50778.51	51615.58	1.53	ppb
Iron	57-2	52920.69	53076.34	52034.69	52677.24	1.07	ppb
Krypton	83-1						cps
Lead	206-1	474.35	468.40	469.55	470.77	0.67	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	474.44	470.30	471.27	472.00	0.46	ppb
Lead	208-1	471.76	470.39	468.29	470.15	0.37	ppb
Lithium	6-1				96		%
Magnesium	24-2	20137.32	19614.98	20010.11	19920.81	1.37	ppb
Manganese	55-2	2118.89	2102.59	2073.52	2098.33	1.10	ppb
Molybdenum	94-1	428.54	441.34	436.64	435.50	1.49	ppb
Molybdenum	95-1	327.10	323.15	330.73	326.99	1.16	ppb
Molybdenum	96-1	336.86	337.48	339.26	337.87	0.37	ppb
Molybdenum	97-1	327.63	327.10	327.75	327.49	0.11	ppb
Molybdenum	98-1	322.04	321.37	326.07	323.16	0.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	98.77	99.09	98.23	98.70	0.44	ppb
Phosphorus	31-2	199.50	208.97	234.11	214.20	8.35	ppb
Potassium	39-2	4739.65	4763.99	4671.87	4725.17	1.01	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				98		%
Scandium	45-2				98		%
Sdium	23-2	18283.53	18125.19	18169.84	18192.85	0.45	ppb
Selenium	82-1	89.39	87.77	90.93	89.36	1.77	ppb
Selenium	77-2	109.29	104.09	110.65	108.01	3.21	ppb
Selenium	78-2	94.95	91.63	96.71	94.43	2.73	ppb
Silicon	28-1	5235.32	5113.45	5170.58	5173.12	1.18	ppb
Silver	107-1	15.16	15.21	15.56	15.31	1.41	ppb
Silver	109-1	15.18	15.29	15.61	15.36	1.44	ppb
Strontium	86-1	186.47	185.40	190.00	187.29	1.29	ppb
Strontium	88-1	193.53	191.76	195.75	193.68	1.03	ppb
Sulfur	34-1	74248.38	72264.72	72487.15	73000.09	1.49	ppb
Terbium	159-1				98		%
Terbium	159-2				98		%
Thallium	203-1	87.66	86.93	86.30	86.97	0.78	ppb
Thallium	205-1	93.43	92.67	91.73	92.61	0.92	ppb
Tin	118-1	83.96	84.10	85.52	84.53	1.02	ppb
Titanium	47-1	1.15	1.07	1.17	1.13	4.97	ppb
Uranium	238-1	94.67	93.33	93.54	93.84	0.77	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	138.90	136.66	137.48	137.68	0.82	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				103		%
Zinc	66-2	1102.88	1106.97	1099.87	1103.24	0.32	ppb
Zirconium	90-1	92.06	92.74	92.31	92.37	0.38	ppb
Zirconium	91-1	85.85	86.89	88.33	87.02	1.44	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10115.65	10054.67	10021.33	10063.88	0.48	ppb
Antimony	121-1	89.88	92.00	92.52	91.46	1.53	ppb
Arsenic	75-2	0.67	0.59	0.64	0.63	6.85	ppb
Barium	135-1	448.36	462.84	464.75	458.65	1.95	ppb
Barium	137-1	452.57	460.94	458.96	457.49	0.96	ppb
Beryllium	9-1	85.58	85.82	86.44	85.94	0.52	ppb
Bismuth	209-1				94		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	86.83	89.97	90.02	88.94	2.05	ppb
Cadmium	106-1	89.22	91.65	93.26	91.38	2.23	ppb
Cadmium	111-1	88.51	90.61	91.16	90.10	1.55	ppb
Calcium	43-1	62026.39	62812.04	63190.45	62676.30	0.95	ppb
Calcium	44-1	61817.52	62470.41	62495.64	62261.19	0.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	90.51	89.45	88.36	89.44	1.20	ppb
Cobalt	59-2	109.61	109.19	106.90	108.57	1.35	ppb
Copper	63-2	1020.57	1008.08	1006.84	1011.83	0.75	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	54-2	51478.15	50969.70	50856.34	51101.40	0.65	ppb
Iron	56-2	52093.32	50601.84	50528.58	51074.58	1.73	ppb
Iron	57-2	52602.58	52642.69	51601.40	52282.22	1.13	ppb
Krypton	83-1						cps
Lead	206-1	456.95	465.17	470.01	464.05	1.42	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	465.42	463.75	474.62	467.93	1.25	ppb
Lead	208-1	464.66	464.36	469.61	466.21	0.63	ppb
Lithium	6-1				97		%
Magnesium	24-2	19953.89	19596.99	19748.67	19766.52	0.91	ppb
Manganese	55-2	2102.88	2074.28	2003.15	2060.10	2.49	ppb
Molybdenum	94-1	447.29	441.28	431.89	440.15	1.76	ppb
Molybdenum	95-1	329.34	328.80	324.72	327.62	0.77	ppb
Molybdenum	96-1	339.66	334.50	338.99	337.72	0.83	ppb
Molybdenum	97-1	330.02	329.85	328.49	329.45	0.26	ppb
Molybdenum	98-1	326.91	323.12	323.35	324.46	0.66	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	97.48	97.78	96.61	97.29	0.62	ppb
Phosphorus	31-2	213.64	212.58	189.32	205.18	6.70	ppb
Potassium	39-2	4668.31	4708.36	4665.45	4680.71	0.51	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Sdium	23-2	18214.18	17959.14	17585.46	17919.59	1.76	ppb
Selenium	82-1	88.47	89.95	91.32	89.91	1.58	ppb
Selenium	77-2	120.66	135.26	97.43	117.78	16.20	ppb
Selenium	78-2	103.07	87.39	89.62	93.36	9.09	ppb
Silicon	28-1	4993.62	5032.30	5042.78	5022.90	0.52	ppb
Silver	107-1	14.95	15.47	15.51	15.31	2.06	ppb
Silver	109-1	14.86	15.27	15.40	15.18	1.86	ppb
Strontium	86-1	185.09	186.94	187.60	186.55	0.70	ppb
Strontium	88-1	192.59	192.83	194.72	193.38	0.60	ppb
Sulfur	34-1	71020.55	71074.75	71209.21	71101.50	0.14	ppb
Terbium	159-1				99		%
Terbium	159-2				100		%
Thallium	203-1	84.98	85.80	86.63	85.80	0.96	ppb
Thallium	205-1	91.62	91.52	91.33	91.49	0.16	ppb
Tin	118-1	82.79	84.16	84.36	83.77	1.02	ppb
Titanium	47-1	1.10	1.13	1.12	1.12	1.27	ppb
Uranium	238-1	92.86	93.10	92.28	92.75	0.46	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	136.58	136.38	133.52	135.49	1.26	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				106		%
Zinc	66-2	1098.97	1097.18	1084.01	1093.38	0.75	ppb
Zirconium	90-1	92.25	91.97	92.06	92.09	0.15	ppb
Zirconium	91-1	86.17	86.64	87.95	86.92	1.06	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10078.70	10109.32	10031.80	10073.27	0.39	ppb
Antimony	121-1	91.61	90.49	89.58	90.56	1.12	ppb
Arsenic	75-2	0.57	0.46	0.64	0.56	16.70	ppb
Barium	135-1	466.51	456.44	445.49	456.15	2.31	ppb
Barium	137-1	462.76	458.00	443.26	454.67	2.24	ppb
Beryllium	9-1	85.64	85.12	84.78	85.18	0.51	ppb
Bismuth	209-1				94		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	88.20	88.47	88.83	88.50	0.36	ppb
Cadmium	106-1	91.21	91.38	91.53	91.37	0.18	ppb
Cadmium	111-1	89.90	90.45	88.84	89.73	0.91	ppb
Calcium	43-1	63584.00	63753.03	63699.87	63678.97	0.14	ppb
Calcium	44-1	63317.31	62936.83	62594.41	62949.52	0.57	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	89.37	90.20	89.66	89.75	0.47	ppb
Cobalt	59-2	108.09	110.55	107.96	108.87	1.34	ppb
Copper	63-2	1014.79	1034.60	1020.54	1023.31	1.00	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				99		%
Iron	54-2	51194.61	51500.63	51022.74	51239.33	0.47	ppb
Iron	56-2	51208.32	51681.10	50896.07	51261.83	0.77	ppb
Iron	57-2	51333.88	51850.20	51796.66	51660.25	0.55	ppb
Krypton	83-1						cps
Lead	206-1	457.36	466.07	464.66	462.70	1.01	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	462.41	475.29	466.57	468.09	1.40	ppb
Lead	208-1	463.46	466.18	463.49	464.38	0.34	ppb
Lithium	6-1				98		%
Magnesium	24-2	19834.52	19730.64	19932.77	19832.64	0.51	ppb
Manganese	55-2	2065.54	2101.85	2044.19	2070.53	1.41	ppb
Molybdenum	94-1	434.87	435.09	438.02	436.00	0.40	ppb
Molybdenum	95-1	326.29	327.51	323.33	325.71	0.66	ppb
Molybdenum	96-1	330.90	337.07	333.67	333.88	0.93	ppb
Molybdenum	97-1	325.61	329.38	323.17	326.05	0.96	ppb
Molybdenum	98-1	324.52	329.59	327.49	327.20	0.78	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	96.41	99.66	98.08	98.05	1.66	ppb
Phosphorus	31-2	179.18	162.47	228.65	190.10	18.10	ppb
Potassium	39-2	4703.41	4747.32	4719.75	4723.49	0.47	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Sdium	23-2	18084.08	18225.83	18056.59	18122.17	0.50	ppb
Selenium	82-1	90.05	88.45	89.51	89.34	0.91	ppb
Selenium	77-2	97.37	104.24	110.35	103.98	6.25	ppb
Selenium	78-2	94.89	97.29	96.72	96.30	1.30	ppb
Silicon	28-1	5071.04	5011.58	5104.50	5062.37	0.93	ppb
Silver	107-1	15.18	15.21	15.04	15.14	0.58	ppb
Silver	109-1	15.25	15.25	15.08	15.19	0.63	ppb
Strontium	86-1	187.09	187.89	186.45	187.14	0.39	ppb
Strontium	88-1	197.74	196.81	191.90	195.48	1.61	ppb
Sulfur	34-1	73372.55	71981.03	72860.46	72738.02	0.97	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	84.97	86.42	86.67	86.02	1.07	ppb
Thallium	205-1	90.88	92.54	91.06	91.49	1.00	ppb
Tin	118-1	83.48	82.83	82.66	82.99	0.52	ppb
Titanium	47-1	1.16	1.08	1.02	1.09	6.35	ppb
Uranium	238-1	91.92	91.85	92.49	92.08	0.38	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	136.87	136.06	136.31	136.41	0.31	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	1094.84	1106.63	1108.78	1103.42	0.68	ppb
Zirconium	90-1	91.94	92.76	92.99	92.56	0.60	ppb
Zirconium	91-1	85.95	87.10	86.69	86.58	0.67	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.24	0.14	0.09	0.15	48.48	ppb
Antimony	121-1	0.01	0.00	0.01	0.00	40.08	ppb
Arsenic	75-2	-0.01	-0.02	-0.01	-0.01		ppb
Barium	135-1	0.09	0.07	0.08	0.08	8.16	ppb
Barium	137-1	0.10	0.10	0.09	0.10	5.63	ppb
Beryllium	9-1	0.04	0.04	0.03	0.04	11.69	ppb
Bismuth	209-1				97		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.04	0.00	0.02	0.02	120.56	ppb
Cadmium	106-1	-1.87	-1.97	-2.76	-2.20		ppb
Cadmium	111-1	-0.14	-0.14	-0.20	-0.16		ppb
Calcium	43-1	4.25	3.47	5.51	4.41	23.30	ppb
Calcium	44-1	-5.31	-5.84	-5.56	-5.57		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	0.01	0.03	0.02	47.55	ppb
Cobalt	59-2	0.02	0.01	0.01	0.01	29.75	ppb
Copper	63-2	0.01	-0.05	0.03	0.00		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				96		%
Iron	54-2	1.95	1.80	2.10	1.95	7.69	ppb
Iron	56-2	1.55	1.72	1.55	1.61	6.13	ppb
Iron	57-2	2.98	1.81	1.06	1.95	49.69	ppb
Krypton	83-1						cps
Lead	206-1	0.05	0.04	0.04	0.04	8.16	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.03	0.04	0.04	0.04	11.63	ppb
Lead	208-1	0.04	0.04	0.04	0.04	7.24	ppb
Lithium	6-1				96		%
Magnesium	24-2	-1.85	-2.01	-2.24	-2.03		ppb
Manganese	55-2	0.21	0.34	0.20	0.25	32.05	ppb
Molybdenum	94-1	0.02	0.01	0.02	0.02	30.81	ppb
Molybdenum	95-1	0.01	0.00	-0.01	0.00		ppb
Molybdenum	96-1	0.00	0.00	0.01	0.00	135.91	ppb
Molybdenum	97-1	0.00	0.00	-0.02	-0.01		ppb
Molybdenum	98-1	0.01	0.01	0.00	0.01	47.94	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.11	-0.14	-0.06	-0.10		ppb
Phosphorus	31-2	-28.28	-17.32	-21.92	-22.51		ppb
Potassium	39-2	-0.74	-1.26	-2.45	-1.48		ppb
Rhodium	103-1				98		%
Rhodium	103-2				98		%
Scandium	45-1				97		%
Scandium	45-2				96		%
Sdium	23-2	2.22	0.53	1.71	1.48	58.48	ppb
Selenium	82-1	0.30	-0.35	0.25	0.06	569.20	ppb
Selenium	77-2	0.00	0.00	0.96	0.32	173.21	ppb
Selenium	78-2	0.20	-0.09	0.77	0.29	148.85	ppb
Silicon	28-1	-1.05	-1.12	-0.79	-0.99		ppb
Silver	107-1	0.00	0.00	0.00	0.00	103.04	ppb
Silver	109-1	0.00	0.00	0.00	0.00	3.55	ppb
Strontium	86-1	-0.06	-0.06	-0.06	-0.06		ppb
Strontium	88-1	-0.05	-0.04	-0.04	-0.05		ppb
Sulfur	34-1	-1078.46	-1020.32	-939.07	-1012.62		ppb
Terbium	159-1				97		%
Terbium	159-2				96		%
Thallium	203-1	0.02	0.01	0.02	0.01	17.92	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	7.99	ppb
Tin	118-1	0.02	0.01	0.03	0.02	47.82	ppb
Titanium	47-1	-0.03	-0.03	-0.04	-0.03		ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	70.57	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				98		%
Zinc	66-2	0.07	-0.03	0.03	0.02	238.20	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	17.43	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	44.12	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50350.87	51114.08	51969.77	51144.91	1.58	ppb
Antimony	121-1	473.59	486.60	487.03	482.41	1.58	ppb
Arsenic	75-2	479.58	476.33	494.30	483.40	1.98	ppb
Barium	135-1	2401.85	2445.38	2448.95	2432.06	1.08	ppb
Barium	137-1	2408.17	2446.96	2450.00	2435.05	0.96	ppb
Beryllium	9-1	490.44	494.56	508.89	497.96	1.95	ppb
Bismuth	209-1				84		%
Bismuth	209-2				85		%
Bromine	81-1						cps
Cadmium	108-1	461.40	470.64	470.20	467.41	1.12	ppb
Cadmium	106-1	457.26	466.31	470.59	464.72	1.47	ppb
Cadmium	111-1	467.91	473.95	471.17	471.01	0.64	ppb
Calcium	43-1	253147.80	250006.46	249451.21	250868.49	0.79	ppb
Calcium	44-1	251211.29	248788.18	249617.44	249872.30	0.49	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	495.84	498.69	505.91	500.14	1.04	ppb
Cobalt	59-2	481.72	490.20	489.46	487.13	0.96	ppb
Copper	63-2	4686.19	4773.44	4733.28	4730.97	0.92	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				93		%
Holmium	165-2				95		%
Indium	115-1				88		%
Indium	115-2				88		%
Iron	54-2	126155.80	126674.62	126711.94	126514.12	0.25	ppb
Iron	56-2	124985.80	126639.32	128074.99	126566.70	1.22	ppb
Iron	57-2	124961.14	127592.38	129214.06	127255.86	1.69	ppb
Krypton	83-1						cps
Lead	206-1	2478.36	2473.72	2490.45	2480.84	0.35	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2500.80	2480.53	2485.41	2488.91	0.43	ppb
Lead	208-1	2495.00	2484.19	2491.64	2490.27	0.22	ppb
Lithium	6-1				89		%
Magnesium	24-2	250790.58	252750.68	255892.28	253144.51	1.02	ppb
Manganese	55-2	4895.23	4928.18	4983.58	4935.66	0.90	ppb
Molybdenum	94-1	4928.09	4979.02	5048.06	4985.06	1.21	ppb
Molybdenum	95-1	4918.88	4966.98	4977.99	4954.61	0.63	ppb
Molybdenum	96-1	4912.83	4880.19	4955.56	4916.20	0.77	ppb
Molybdenum	97-1	4868.76	4895.75	4952.58	4905.70	0.87	ppb
Molybdenum	98-1	4913.47	4918.91	4940.68	4924.35	0.29	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	454.18	459.04	461.93	458.38	0.85	ppb
Phosphorus	31-2	9759.89	10108.98	9890.39	9919.75	1.78	ppb
Potassium	39-2	125419.27	125823.02	127571.68	126271.32	0.91	ppb
Rhodium	103-1				83		%
Rhodium	103-2				85		%
Scandium	45-1				92		%
Scandium	45-2				94		%
Sdium	23-2	247125.00	251990.23	251232.97	250116.07	1.05	ppb
Selenium	82-1	466.60	472.99	478.26	472.62	1.23	ppb
Selenium	77-2	494.20	477.68	457.44	476.44	3.86	ppb
Selenium	78-2	488.80	494.98	500.70	494.83	1.20	ppb
Silicon	28-1	587.94	595.39	583.78	589.04	1.00	ppb
Silver	107-1	458.78	467.40	470.07	465.42	1.27	ppb
Silver	109-1	455.65	472.94	469.46	466.02	1.96	ppb
Strontium	86-1	497.45	499.73	504.74	500.64	0.75	ppb
Strontium	88-1	492.91	494.76	499.57	495.75	0.69	ppb
Sulfur	34-1	9701.50	9698.31	9536.26	9645.36	0.98	ppb
Terbium	159-1				93		%
Terbium	159-2				93		%
Thallium	203-1	490.68	490.84	493.34	491.62	0.30	ppb
Thallium	205-1	496.68	494.98	493.23	494.97	0.35	ppb
Tin	118-1	474.63	479.28	488.36	480.76	1.45	ppb
Titanium	47-1	4937.73	5023.03	4984.08	4981.62	0.86	ppb
Uranium	238-1	506.58	509.29	507.18	507.68	0.28	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	468.86	475.80	478.95	474.54	1.09	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	4790.57	4881.82	4822.33	4831.57	0.96	ppb
Zirconium	90-1	494.12	505.18	507.09	502.13	1.39	ppb
Zirconium	91-1	509.11	506.12	514.16	509.80	0.80	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.58	0.59	0.46	0.54	13.77	ppb
Antimony	121-1	0.11	0.11	0.10	0.11	5.85	ppb
Arsenic	75-2	-0.02	0.00	-0.01	-0.01		ppb
Barium	135-1	0.25	0.25	0.25	0.25	1.37	ppb
Barium	137-1	0.29	0.28	0.26	0.28	5.03	ppb
Beryllium	9-1	0.13	0.11	0.11	0.12	11.53	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.13	0.09	0.01	0.08	80.89	ppb
Cadmium	106-1	-2.18	-2.22	-2.35	-2.25		ppb
Cadmium	111-1	-0.15	-0.16	-0.16	-0.15		ppb
Calcium	43-1	5.75	5.35	5.40	5.50	3.93	ppb
Calcium	44-1	-2.37	-2.66	-3.42	-2.81		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.05	0.08	0.06	0.06	26.96	ppb
Cobalt	59-2	0.01	0.01	0.02	0.01	25.79	ppb
Copper	63-2	-0.18	-0.19	-0.22	-0.19		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				98		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	54-2	1.87	2.63	2.25	2.25	17.00	ppb
Iron	56-2	2.63	2.72	2.62	2.66	2.18	ppb
Iron	57-2	1.92	3.37	0.93	2.07	59.27	ppb
Krypton	83-1						cps
Lead	206-1	0.16	0.17	0.14	0.15	11.58	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.16	0.17	0.15	0.16	6.62	ppb
Lead	208-1	0.16	0.16	0.14	0.16	8.55	ppb
Lithium	6-1				96		%
Magnesium	24-2	0.81	0.90	0.82	0.84	6.29	ppb
Manganese	55-2	0.30	0.27	0.25	0.27	9.82	ppb
Molybdenum	94-1	0.19	0.15	0.14	0.16	15.27	ppb
Molybdenum	95-1	0.12	0.12	0.11	0.11	4.03	ppb
Molybdenum	96-1	0.14	0.13	0.11	0.13	11.04	ppb
Molybdenum	97-1	0.15	0.11	0.11	0.13	18.67	ppb
Molybdenum	98-1	0.15	0.11	0.10	0.12	20.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.14	-0.09	-0.14	-0.12		ppb
Phosphorus	31-2	-17.38	-16.12	-21.21	-18.23		ppb
Potassium	39-2	4.11	4.16	3.80	4.02	4.85	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				97		%
Scandium	45-2				97		%
Sdium	23-2	8.86	9.58	6.97	8.47	15.95	ppb
Selenium	82-1	0.11	0.00	0.23	0.11	101.67	ppb
Selenium	77-2	0.95	0.00	0.00	0.32	173.21	ppb
Selenium	78-2	0.20	-0.09	-0.08	0.01	2098.67	ppb
Silicon	28-1	0.02	0.27	-0.58	-0.10		ppb
Silver	107-1	0.04	0.03	0.03	0.03	15.24	ppb
Silver	109-1	0.04	0.04	0.04	0.04	8.03	ppb
Strontium	86-1	-0.03	-0.04	-0.05	-0.04		ppb
Strontium	88-1	-0.04	-0.04	-0.04	-0.04		ppb
Sulfur	34-1	-1085.43	-1026.48	-1189.98	-1100.63		ppb
Terbium	159-1				96		%
Terbium	159-2				97		%
Thallium	203-1	0.04	0.04	0.04	0.04	8.89	ppb
Thallium	205-1	0.05	0.03	0.04	0.04	19.01	ppb
Tin	118-1	0.02	0.04	0.03	0.03	30.22	ppb
Titanium	47-1	0.06	0.05	0.00	0.04	80.88	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	23.75	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.00	0.01	81.58	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				98		%
Zinc	66-2	0.11	0.21	0.24	0.19	35.21	ppb
Zirconium	90-1	0.03	0.02	0.02	0.02	25.99	ppb
Zirconium	91-1	0.02	0.02	0.02	0.02	5.32	ppb

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	67	80	47	64	26.03	cps
Antimony	121-1	63	30	30	41	46.81	cps
Arsenic	75-2	0	3	23	9	142.00	cps
Barium	135-1	213	173	223	203	13.01	cps
Barium	137-1	297	220	260	259	14.81	cps
Beryllium	9-1	362	371	400	378	5.19	cps
Bismuth	209-1	12354969	12407036	12198690	12320232	0.88	cps
Bismuth	209-2	4332740	4409615	4387735	4376697	0.90	cps
Bromine	81-1	4691	4744	4931	4789	2.63	cps
Cadmium	108-1	43	43	20	36	37.89	cps
Cadmium	106-1	8393	8069	8046	8169	2.37	cps
Cadmium	111-1	5865	5638	5638	5714	2.29	cps
Calcium	43-1	477	423	447	449	5.96	cps
Calcium	44-1	22671	21777	21743	22064	2.39	cps
Carbon	12-1	3966281	3816183	3768394	3850286	2.68	cps
Carbon	12-2	23045	23375	23092	23171	0.77	cps
Chlorine	35-1	94996	94063	95284	94781	0.67	cps
Chlorine	35-2	323	333	307	321	4.20	cps
Chromium	52-2	1867	1710	1920	1832	5.96	cps
Cobalt	59-2	190	220	223	211	8.70	cps
Copper	63-2	4971	5074	4878	4974	1.98	cps
Dysprosium	156-1	420	400	443	421	5.15	cps
Dysprosium	156-2	3	17	0	7	132.33	cps
Erbium	164-1	80	63	107	83	26.23	cps
Erbium	164-2	20	27	30	26	19.92	cps
Gadolinium	160-1	143	130	100	124	17.84	cps
Gadolinium	160-2	17	10	13	13	25.01	cps
Holmium	165-1	19142493	19024619	19305235	19157449	0.74	cps
Holmium	165-2	5877352	5965424	5921813	5921530	0.74	cps
Indium	115-1	15088881	14952467	14676193	14905847	1.41	cps
Indium	115-2	1254055	1249127	1248666	1250616	0.24	cps
Iron	54-2	687	710	690	696	1.81	cps
Iron	56-2	11325	10691	10651	10889	3.47	cps
Iron	57-2	307	303	263	291	8.28	cps
Krypton	83-1	237	233	253	241	4.44	cps
Lead	206-1	1137	987	1117	1080	7.54	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	893	967	957	939	4.24	cps
Lead	208-1	4390	4370	4364	4375	0.32	cps
Lithium	6-1	8662261	8596363	8442793	8567139	1.31	cps
Magnesium	24-2	1527	1353	1410	1430	6.18	cps
Manganese	55-2	303	333	380	339	11.40	cps
Molybdenum	94-1	670	677	617	654	5.02	cps
Molybdenum	95-1	613	603	537	584	7.13	cps
Molybdenum	96-1	700	630	663	664	5.27	cps
Molybdenum	97-1	387	407	313	369	13.32	cps
Molybdenum	98-1	937	790	877	868	8.50	cps
Neodymium	150-1	3	13	20	12	68.66	cps
Neodymium	150-2	0	0	10	3	173.21	cps
Nickel	60-2	1137	1040	1170	1116	6.05	cps
Phosphorus	31-2	67	90	87	81	15.56	cps
Potassium	39-2	7455	7209	7292	7319	1.72	cps
Rhodium	103-1	14082841	14131694	13885989	14033508	0.93	cps
Rhodium	103-2	4985359	4968154	4962955	4972156	0.24	cps
Scandium	45-1	10911216	10901462	10858614	10890430	0.26	cps
Scandium	45-2	174761	175640	174903	175101	0.27	cps
Sdium	23-2	29714	30248	30321	30094	1.10	cps
Selenium	82-1	10	0	0	3	173.21	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	3	7	4	43.40	cps
Silicon	28-1	561307	559520	559073	559967	0.21	cps
Silver	107-1	223	200	197	207	7.03	cps
Silver	109-1	53	43	70	56	24.25	cps
Strontium	86-1	833	783	740	786	5.95	cps
Strontium	88-1	3480	3307	3500	3429	3.10	cps
Sulfur	34-1	665976	667284	669630	667630	0.28	cps
Terbium	159-1	19486364	19612475	19411368	19503402	0.52	cps
Terbium	159-2	5769648	5708260	5684336	5720748	0.77	cps
Thallium	203-1	273	237	260	257	7.23	cps
Thallium	205-1	577	593	557	576	3.19	cps
Tin	118-1	1223	1213	1327	1255	5.00	cps
Titanium	47-1	303	287	250	280	9.74	cps
Uranium	238-1	147	117	140	134	11.72	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P8
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:00:21	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	17	3	12	63.01	cps
Ytterbium	172-1	100	77	77	84	15.95	cps
Ytterbium	172-2	43	47	23	38	33.41	cps
Ytterbium	176-1	2320	2377	2394	2364	1.63	cps
Ytterbium	176-2	297	377	370	348	12.76	cps
Yttrium	89-1	26490189	26060396	26093371	26214652	0.91	cps
Yttrium	89-2	1638531	1643386	1628332	1636750	0.47	cps
Zinc	66-2	127	143	130	133	6.62	cps
Zirconium	90-1	853	763	877	831	7.20	cps
Zirconium	91-1	213	167	180	187	12.88	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1293	1277	1393	1321	4.78	cps
Antimony	121-1	33357	33140	33097	33198	0.42	cps
Arsenic	75-2	290	283	327	300	7.78	cps
Barium	135-1	40969	40952	40661	40860	0.42	cps
Barium	137-1	70462	71883	69822	70722	1.49	cps
Beryllium	9-1	6603	6702	6656	6654	0.74	cps
Bismuth	209-1	12219056	12402032	12231623	12284237	0.83	cps
Bismuth	209-2	4392683	4396862	4323910	4371151	0.94	cps
Bromine	81-1	4764	4811	4841	4805	0.80	cps
Cadmium	108-1	327	350	357	344	4.57	cps
Cadmium	106-1	8970	8773	8659	8801	1.78	cps
Cadmium	111-1	10154	10253	10056	10154	0.97	cps
Calcium	43-1	29574	29584	29367	29508	0.42	cps
Calcium	44-1	495745	500531	494727	497001	0.62	cps
Carbon	12-1	4097548	3985352	3922201	4001700	2.22	cps
Carbon	12-2	24160	24083	24591	24278	1.13	cps
Chlorine	35-1	97881	98650	98781	98437	0.49	cps
Chlorine	35-2	333	313	340	329	4.22	cps
Chromium	52-2	8406	8456	8499	8454	0.55	cps
Cobalt	59-2	6845	6658	7025	6843	2.68	cps
Copper	63-2	13623	13660	13567	13617	0.35	cps
Dysprosium	156-1	453	457	457	456	0.42	cps
Dysprosium	156-2	33	10	7	17	87.16	cps
Erbium	164-1	87	103	120	103	16.13	cps
Erbium	164-2	40	13	37	30	48.44	cps
Gadolinium	160-1	100	110	97	102	6.79	cps
Gadolinium	160-2	23	13	27	21	32.88	cps
Holmium	165-1	19171401	19058064	18822482	19017316	0.94	cps
Holmium	165-2	5841166	5757342	5850550	5816353	0.88	cps
Indium	115-1	15039769	14982011	14756043	14925941	1.00	cps
Indium	115-2	1237962	1239506	1239380	1238949	0.07	cps
Iron	54-2	7435	7652	7735	7608	2.04	cps
Iron	56-2	133561	134510	134147	134073	0.36	cps
Iron	57-2	3480	3424	3217	3374	4.11	cps
Krypton	83-1	250	250	270	257	4.50	cps
Lead	206-1	14532	13881	14608	14340	2.79	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	12656	12449	12596	12567	0.85	cps
Lead	208-1	58442	56863	57467	57591	1.38	cps
Lithium	6-1	8540576	8665850	8640883	8615770	0.77	cps
Magnesium	24-2	121326	122236	121434	121665	0.41	cps
Manganese	55-2	1573	1627	1613	1605	1.73	cps
Molybdenum	94-1	34710	34600	33474	34261	2.00	cps
Molybdenum	95-1	41559	41211	42221	41663	1.23	cps
Molybdenum	96-1	46287	46537	46140	46321	0.43	cps
Molybdenum	97-1	26552	25657	25367	25859	2.39	cps
Molybdenum	98-1	66954	66927	66066	66649	0.76	cps
Neodymium	150-1	23	37	30	30	22.23	cps
Neodymium	150-2	7	7	0	4	86.60	cps
Nickel	60-2	2800	2700	2687	2729	2.27	cps
Phosphorus	31-2	170	190	173	178	6.03	cps
Potassium	39-2	67671	68913	68937	68507	1.06	cps
Rhodium	103-1	13963412	13877716	13874675	13905268	0.36	cps
Rhodium	103-2	4900558	4947028	4942547	4930044	0.52	cps
Scandium	45-1	10945110	10965305	10808468	10906294	0.78	cps
Scandium	45-2	172808	174498	175669	174325	0.83	cps
Sdium	23-2	260683	261188	263153	261675	0.50	cps
Selenium	82-1	1250	1243	1343	1279	4.37	cps
Selenium	77-2	13	23	13	17	34.65	cps
Selenium	78-2	60	47	103	70	42.33	cps
Silicon	28-1	646454	646910	647788	647051	0.10	cps
Silver	107-1	20572	20929	21103	20868	1.30	cps
Silver	109-1	19097	19905	19467	19489	2.07	cps
Strontium	86-1	6218	6552	6442	6404	2.65	cps
Strontium	88-1	51722	51214	51749	51561	0.58	cps
Sulfur	34-1	678617	679342	679528	679162	0.07	cps
Terbium	159-1	19663953	19263098	19434215	19453755	1.03	cps
Terbium	159-2	5642401	5664993	5583130	5630174	0.75	cps
Thallium	203-1	17155	17045	16604	16934	1.72	cps
Thallium	205-1	40379	39343	40590	40104	1.66	cps
Tin	118-1	69257	68801	68055	68704	0.88	cps
Titanium	47-1	13643	13727	13496	13622	0.86	cps
Uranium	238-1	52809	53057	52916	52927	0.23	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P8
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:03:43	DataFile Name :	005CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13083	12792	12729	12868	1.47	cps
Ytterbium	172-1	90	160	77	109	41.11	cps
Ytterbium	172-2	47	33	23	34	34.00	cps
Ytterbium	176-1	2404	2164	2514	2360	7.58	cps
Ytterbium	176-2	357	370	370	366	2.11	cps
Yttrium	89-1	26705892	26567736	26099588	26457739	1.20	cps
Yttrium	89-2	1613213	1591617	1594403	1599745	0.73	cps
Zinc	66-2	2764	2644	2687	2698	2.25	cps
Zirconium	90-1	28977	29311	29652	29313	1.15	cps
Zirconium	91-1	6488	6261	6352	6367	1.79	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	60110	60495	60565	60390	0.41	cps
Antimony	121-1	794422	795893	799362	796559	0.32	cps
Arsenic	75-2	14698	14267	14244	14403	1.77	cps
Barium	135-1	957446	961047	960031	959508	0.19	cps
Barium	137-1	1745526	1748602	1709102	1734410	1.27	cps
Beryllium	9-1	304490	306842	304366	305233	0.46	cps
Bismuth	209-1	12003186	11949438	12069911	12007512	0.50	cps
Bismuth	209-2	4235583	4186324	4252594	4224834	0.81	cps
Bromine	81-1	4728	4521	4417	4555	3.47	cps
Cadmium	108-1	16734	16270	16410	16471	1.44	cps
Cadmium	106-1	31245	31015	31092	31117	0.38	cps
Cadmium	111-1	209575	213533	210550	211219	0.98	cps
Calcium	43-1	272561	272300	271631	272164	0.18	cps
Calcium	44-1	4600955	4609445	4511732	4574044	1.18	cps
Carbon	12-1	4747474	4758855	4678656	4728329	0.92	cps
Carbon	12-2	28591	28581	28094	28422	1.00	cps
Chlorine	35-1	108798	107022	108738	108186	0.93	cps
Chlorine	35-2	373	390	333	366	7.97	cps
Chromium	52-2	157274	158591	157038	157634	0.53	cps
Cobalt	59-2	303111	304321	300542	302658	0.64	cps
Copper	63-2	2436333	2429174	2396143	2420550	0.89	cps
Dysprosium	156-1	557	477	473	502	9.39	cps
Dysprosium	156-2	13	13	13	13	0.00	cps
Erbium	164-1	63	93	97	84	21.74	cps
Erbium	164-2	23	33	30	29	17.63	cps
Gadolinium	160-1	93	103	123	107	14.32	cps
Gadolinium	160-2	17	20	17	18	10.81	cps
Holmium	165-1	18709660	18741929	18495309	18648966	0.72	cps
Holmium	165-2	5876262	5739055	5740939	5785419	1.36	cps
Indium	115-1	14724856	14550135	14451342	14575444	0.95	cps
Indium	115-2	1212883	1199884	1207727	1206831	0.54	cps
Iron	54-2	315977	317435	312087	315166	0.88	cps
Iron	56-2	5921596	5917582	5924098	5921092	0.06	cps
Iron	57-2	142349	144938	142669	143319	0.99	cps
Krypton	83-1	263	250	230	248	6.77	cps
Lead	206-1	3453138	3455558	3448948	3452548	0.10	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2937705	3006817	2932414	2958979	1.40	cps
Lead	208-1	13548214	13723781	13572901	13614965	0.70	cps
Lithium	6-1	8380119	8420925	8396646	8399230	0.24	cps
Magnesium	24-2	1159594	1188989	1170859	1173147	1.26	cps
Manganese	55-2	625106	622137	619002	622081	0.49	cps
Molybdenum	94-1	2900998	2844740	2831249	2858996	1.29	cps
Molybdenum	95-1	4111535	4114643	4097598	4107925	0.22	cps
Molybdenum	96-1	4500069	4547723	4459405	4502399	0.98	cps
Molybdenum	97-1	2551660	2532726	2534124	2539503	0.42	cps
Molybdenum	98-1	6727543	6606543	6594321	6642803	1.11	cps
Neodymium	150-1	87	83	100	90	9.80	cps
Neodymium	150-2	0	10	3	4	114.60	cps
Nickel	60-2	85518	85853	84217	85196	1.01	cps
Phosphorus	31-2	3000	2997	2994	2997	0.11	cps
Potassium	39-2	298263	298528	295814	297535	0.50	cps
Rhodium	103-1	13624955	13595898	13481178	13567344	0.56	cps
Rhodium	103-2	4818400	4779298	4819030	4805576	0.47	cps
Scandium	45-1	10542566	10416226	10379960	10446251	0.82	cps
Scandium	45-2	170424	169526	168029	169327	0.71	cps
Sdium	23-2	2333570	2380741	2331904	2348738	1.18	cps
Selenium	82-1	13163	12860	12689	12904	1.86	cps
Selenium	77-2	173	160	187	173	7.69	cps
Selenium	78-2	590	697	587	624	10.02	cps
Silicon	28-1	1763648	1799836	1792515	1785333	1.07	cps
Silver	107-1	1029459	1038935	1030915	1033103	0.49	cps
Silver	109-1	975997	1000453	992689	989713	1.26	cps
Strontium	86-1	262920	259710	264095	262242	0.87	cps
Strontium	88-1	2417338	2341893	2332398	2363876	1.97	cps
Sulfur	34-1	747123	738154	732923	739400	0.97	cps
Terbium	159-1	19295592	19368611	19225963	19296722	0.37	cps
Terbium	159-2	5601999	5507909	5547672	5552527	0.85	cps
Thallium	203-1	804954	817052	817148	813051	0.86	cps
Thallium	205-1	2044255	2034284	2047770	2042103	0.34	cps
Tin	118-1	640801	646492	647708	645000	0.57	cps
Titanium	47-1	1288452	1317486	1303520	1303153	1.11	cps
Uranium	238-1	2679703	2704909	2736289	2706967	1.05	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P8
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:07:06	DataFile Name :	006CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	122633	123154	121157	122314	0.85	cps
Ytterbium	172-1	100	113	123	112	10.43	cps
Ytterbium	172-2	50	40	40	43	13.32	cps
Ytterbium	176-1	5718	6235	5875	5943	4.46	cps
Ytterbium	176-2	1397	1387	1493	1426	4.13	cps
Yttrium	89-1	25872340	25714301	25748708	25778450	0.32	cps
Yttrium	89-2	1598285	1547793	1564154	1570077	1.64	cps
Zinc	66-2	240588	242152	239389	240709	0.58	cps
Zirconium	90-1	1420057	1429273	1384786	1411372	1.66	cps
Zirconium	91-1	295177	295383	296463	295674	0.23	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	149957	150842	150890	150563	0.35	cps
Antimony	121-1	2044385	2044131	2074084	2054200	0.84	cps
Arsenic	75-2	36186	36023	35953	36054	0.33	cps
Barium	135-1	2522116	2497771	2561716	2527201	1.28	cps
Barium	137-1	4367181	4302454	4372848	4347494	0.90	cps
Beryllium	9-1	749797	751148	753127	751357	0.22	cps
Bismuth	209-1	11890257	11927587	11532981	11783608	1.85	cps
Bismuth	209-2	4171856	4238757	4201896	4204170	0.80	cps
Bromine	81-1	4414	4514	4464	4464	1.12	cps
Cadmium	108-1	41529	41332	41442	41434	0.24	cps
Cadmium	106-1	63385	63391	64681	63819	1.17	cps
Cadmium	111-1	509410	516102	517116	514209	0.81	cps
Calcium	43-1	677100	684742	686952	682932	0.76	cps
Calcium	44-1	11416119	11342496	11456584	11405066	0.51	cps
Carbon	12-1	4787970	4736770	4713652	4746130	0.80	cps
Carbon	12-2	29533	28802	29219	29185	1.26	cps
Chlorine	35-1	107515	107062	108402	107660	0.63	cps
Chlorine	35-2	350	377	413	380	8.37	cps
Chromium	52-2	392540	390304	390514	391119	0.32	cps
Cobalt	59-2	751736	751647	751593	751658	0.01	cps
Copper	63-2	6014398	5957163	5984268	5985276	0.48	cps
Dysprosium	156-1	440	440	407	429	4.49	cps
Dysprosium	156-2	27	23	27	26	7.55	cps
Erbium	164-1	157	123	113	131	17.30	cps
Erbium	164-2	37	47	20	34	39.11	cps
Gadolinium	160-1	113	113	87	104	14.74	cps
Gadolinium	160-2	7	30	23	20	60.08	cps
Holmium	165-1	18524033	18676876	18795172	18665361	0.73	cps
Holmium	165-2	5856775	5828550	5771935	5819086	0.74	cps
Indium	115-1	14486234	14151659	14418701	14352198	1.23	cps
Indium	115-2	1195460	1201250	1199894	1198868	0.25	cps
Iron	54-2	784541	784095	786942	785193	0.20	cps
Iron	56-2	14620149	14935066	14615864	14723693	1.24	cps
Iron	57-2	357381	359648	357067	358032	0.39	cps
Krypton	83-1	230	233	243	236	2.95	cps
Lead	206-1	8384132	8523238	8382263	8429878	0.96	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	7184584	7296100	7222943	7234542	0.78	cps
Lead	208-1	33190087	33943165	33169609	33434287	1.32	cps
Lithium	6-1	8431295	8319773	8278394	8343154	0.95	cps
Magnesium	24-2	2925954	2943223	2903358	2924179	0.68	cps
Manganese	55-2	1659326	1605412	1624739	1629826	1.68	cps
Molybdenum	94-1	7009718	7023774	7065037	7032843	0.41	cps
Molybdenum	95-1	10185758	10269317	10257015	10237364	0.44	cps
Molybdenum	96-1	11191604	11177868	11310154	11226542	0.65	cps
Molybdenum	97-1	6233271	6262817	6315864	6270651	0.67	cps
Molybdenum	98-1	16514263	16591323	16388034	16497874	0.62	cps
Neodymium	150-1	207	160	203	190	13.70	cps
Neodymium	150-2	7	7	17	10	57.72	cps
Nickel	60-2	209520	209897	208152	209190	0.44	cps
Phosphorus	31-2	7362	7355	7275	7331	0.66	cps
Potassium	39-2	730755	740170	727325	732750	0.91	cps
Rhodium	103-1	13367206	12999466	13213089	13193254	1.40	cps
Rhodium	103-2	4728680	4747898	4686516	4721032	0.67	cps
Scandium	45-1	10535282	10483803	10618592	10545892	0.64	cps
Scandium	45-2	167335	170295	168470	168700	0.89	cps
Sdium	23-2	5722154	5876798	5678520	5759158	1.81	cps
Selenium	82-1	31910	32859	32682	32484	1.55	cps
Selenium	77-2	410	410	417	412	0.93	cps
Selenium	78-2	1457	1563	1623	1548	5.45	cps
Silicon	28-1	3507848	3575865	3580590	3554768	1.15	cps
Silver	107-1	2756773	2707313	2731184	2731757	0.91	cps
Silver	109-1	2566504	2539336	2580288	2562043	0.81	cps
Strontium	86-1	647382	653031	649648	650020	0.44	cps
Strontium	88-1	5838954	5802442	5803543	5814980	0.36	cps
Sulfur	34-1	855439	848725	844177	849447	0.67	cps
Terbium	159-1	19274649	18862208	19383516	19173458	1.43	cps
Terbium	159-2	5635357	5608805	5554370	5599511	0.74	cps
Thallium	203-1	2131699	2180843	2123273	2145272	1.45	cps
Thallium	205-1	5049216	5107403	4987080	5047900	1.19	cps
Tin	118-1	1648784	1660673	1680346	1663267	0.96	cps
Titanium	47-1	3212679	3222730	3205643	3213684	0.27	cps
Uranium	238-1	6636907	6761703	6659625	6686079	0.99	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P8
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:10:10	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	303546	310450	307120	307039	1.12	cps
Ytterbium	172-1	113	120	167	133	21.79	cps
Ytterbium	172-2	27	60	50	46	37.54	cps
Ytterbium	176-1	11245	11218	11242	11235	0.13	cps
Ytterbium	176-2	3140	3070	3117	3109	1.15	cps
Yttrium	89-1	25637690	25412711	25772161	25607521	0.71	cps
Yttrium	89-2	1536219	1559083	1555482	1550261	0.79	cps
Zinc	66-2	602718	598669	599946	600444	0.34	cps
Zirconium	90-1	3507072	3550105	3539813	3532330	0.64	cps
Zirconium	91-1	733588	751215	746629	743811	1.23	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	298698	293681	299094	297158	1.02	cps
Antimony	121-1	4010735	4109200	4013258	4044398	1.39	cps
Arsenic	75-2	71487	71688	69628	70934	1.60	cps
Barium	135-1	4969888	5023400	4964564	4985951	0.65	cps
Barium	137-1	8412148	8301558	8460267	8391324	0.97	cps
Beryllium	9-1	1520720	1543254	1575348	1546441	1.78	cps
Bismuth	209-1	11780553	11399609	11767712	11649291	1.86	cps
Bismuth	209-2	4177296	4141540	4151474	4156770	0.44	cps
Bromine	81-1	4567	4604	4411	4527	2.27	cps
Cadmium	108-1	79853	79668	80168	79896	0.32	cps
Cadmium	106-1	117858	118440	118157	118152	0.25	cps
Cadmium	111-1	984030	998726	988111	990289	0.77	cps
Calcium	43-1	1366889	1373163	1395624	1378559	1.10	cps
Calcium	44-1	22474870	22459143	22167331	22367114	0.77	cps
Carbon	12-1	4838418	4769477	4826954	4811617	0.77	cps
Carbon	12-2	30405	30061	30164	30210	0.58	cps
Chlorine	35-1	108865	110877	110383	110042	0.95	cps
Chlorine	35-2	373	403	390	389	3.87	cps
Chromium	52-2	763554	768606	769149	767103	0.40	cps
Cobalt	59-2	1544437	1550200	1562856	1552498	0.61	cps
Copper	63-2	11573781	11493385	11630078	11565748	0.59	cps
Dysprosium	156-1	497	393	343	411	19.02	cps
Dysprosium	156-2	13	23	30	22	37.76	cps
Erbium	164-1	107	137	120	121	12.41	cps
Erbium	164-2	60	43	43	49	19.69	cps
Gadolinium	160-1	100	173	113	129	30.31	cps
Gadolinium	160-2	33	10	47	30	61.87	cps
Holmium	165-1	18523207	18515071	18579628	18539302	0.19	cps
Holmium	165-2	5776959	5760094	5826333	5787795	0.59	cps
Indium	115-1	14050840	14347812	14111121	14169924	1.11	cps
Indium	115-2	1182125	1188119	1193618	1187954	0.48	cps
Iron	54-2	1628029	1657394	1613345	1632923	1.37	cps
Iron	56-2	28925878	28901819	28778854	28868850	0.27	cps
Iron	57-2	698949	702066	702619	701211	0.28	cps
Krypton	83-1	217	240	233	230	5.22	cps
Lead	206-1	16490111	16425171	16407446	16440909	0.26	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	14277687	14143568	14084863	14168706	0.70	cps
Lead	208-1	65799917	65003210	65541994	65448374	0.62	cps
Lithium	6-1	8303444	8120734	8336884	8253687	1.41	cps
Magnesium	24-2	5694744	5675067	5812324	5727379	1.30	cps
Manganese	55-2	3231731	3203704	3237150	3224195	0.56	cps
Molybdenum	94-1	13770592	13755501	13830409	13785501	0.29	cps
Molybdenum	95-1	19923474	19957189	19985457	19955373	0.16	cps
Molybdenum	96-1	21881020	22059119	22152256	22030798	0.63	cps
Molybdenum	97-1	12347935	12514566	12427407	12429970	0.67	cps
Molybdenum	98-1	32728336	32666417	32470931	32621895	0.41	cps
Neodymium	150-1	407	367	383	386	5.21	cps
Neodymium	150-2	20	7	7	11	69.25	cps
Nickel	60-2	405815	412576	412877	410423	0.97	cps
Phosphorus	31-2	14541	14441	14170	14384	1.33	cps
Potassium	39-2	1504706	1506800	1524541	1512016	0.72	cps
Rhodium	103-1	13063212	13101150	13006035	13056799	0.37	cps
Rhodium	103-2	4647537	4665810	4637526	4650291	0.31	cps
Scandium	45-1	10469908	10438232	10449811	10452650	0.15	cps
Scandium	45-2	169520	170144	169743	169802	0.19	cps
Sdium	23-2	11482281	11392768	11453783	11442944	0.40	cps
Selenium	82-1	62452	62345	62841	62546	0.42	cps
Selenium	77-2	867	893	827	862	3.89	cps
Selenium	78-2	3050	2794	3177	3007	6.50	cps
Silicon	28-1	6459263	6416109	6519422	6464931	0.80	cps
Silver	107-1	5276792	5282495	5196863	5252050	0.91	cps
Silver	109-1	4919728	4948807	4994056	4954197	0.76	cps
Strontium	86-1	1262637	1281970	1269022	1271209	0.77	cps
Strontium	88-1	11273300	11579318	11384990	11412536	1.36	cps
Sulfur	34-1	1014517	992651	1023196	1010121	1.56	cps
Terbium	159-1	19205800	19283625	19005146	19164857	0.75	cps
Terbium	159-2	5590210	5535811	5543841	5556621	0.53	cps
Thallium	203-1	4148018	4127827	4070616	4115487	0.98	cps
Thallium	205-1	9774350	9559248	9764467	9699355	1.25	cps
Tin	118-1	3281301	3221013	3207561	3236625	1.21	cps
Titanium	47-1	6279699	6316846	6317558	6304701	0.34	cps
Uranium	238-1	13080655	12892796	13264488	13079313	1.42	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P8
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:13:10	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	607535	606678	606797	607003	0.08	cps
Ytterbium	172-1	117	163	167	149	18.78	cps
Ytterbium	172-2	57	50	57	54	7.07	cps
Ytterbium	176-1	20032	20072	20279	20128	0.66	cps
Ytterbium	176-2	5648	5611	5771	5677	1.48	cps
Yttrium	89-1	25222223	25708890	25226696	25385937	1.10	cps
Yttrium	89-2	1563647	1590656	1584402	1579568	0.90	cps
Zinc	66-2	1171924	1179641	1175781	1175782	0.33	cps
Zirconium	90-1	6764388	6885753	6904246	6851462	1.11	cps
Zirconium	91-1	1509428	1551596	1552955	1537993	1.61	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	586834	581421	586763	585006	0.53	cps
Antimony	121-1	7903813	7915524	7958599	7925978	0.36	cps
Arsenic	75-2	139907	139829	140398	140045	0.22	cps
Barium	135-1	9720226	9769633	9825027	9771628	0.54	cps
Barium	137-1	16612281	16864067	16735927	16737425	0.75	cps
Beryllium	9-1	2977413	2942615	2950598	2956875	0.62	cps
Bismuth	209-1	11590892	11642881	11339862	11524545	1.41	cps
Bismuth	209-2	4133439	4124371	4102846	4120219	0.38	cps
Bromine	81-1	4617	4487	4547	4551	1.43	cps
Cadmium	108-1	155007	155330	155533	155290	0.17	cps
Cadmium	106-1	223491	227996	223533	225007	1.15	cps
Cadmium	111-1	2041390	2061640	2043965	2048998	0.54	cps
Calcium	43-1	2759264	2752378	2794493	2768712	0.82	cps
Calcium	44-1	43207686	44369259	44969709	44182218	2.03	cps
Carbon	12-1	4953885	4994992	4993076	4980651	0.47	cps
Carbon	12-2	32232	32359	32315	32302	0.20	cps
Chlorine	35-1	118880	121391	121451	120574	1.22	cps
Chlorine	35-2	443	440	447	443	0.75	cps
Chromium	52-2	1609937	1588644	1593449	1597343	0.70	cps
Cobalt	59-2	3057153	3062703	3024645	3048167	0.67	cps
Copper	63-2	22269036	22717378	22928057	22638157	1.49	cps
Dysprosium	156-1	483	417	493	464	8.97	cps
Dysprosium	156-2	33	30	23	29	17.63	cps
Erbium	164-1	177	223	177	192	14.02	cps
Erbium	164-2	37	60	47	48	24.50	cps
Gadolinium	160-1	187	130	203	173	22.18	cps
Gadolinium	160-2	33	33	57	41	32.78	cps
Holmium	165-1	18629583	18277285	18835247	18580705	1.52	cps
Holmium	165-2	5765580	5824024	5794932	5794845	0.50	cps
Indium	115-1	14290706	14037252	14127507	14151822	0.91	cps
Indium	115-2	1182036	1189582	1187811	1186476	0.33	cps
Iron	54-2	3185736	3201156	3194452	3193781	0.24	cps
Iron	56-2	56832166	57129831	57196711	57052902	0.34	cps
Iron	57-2	1454537	1443982	1456822	1451780	0.47	cps
Krypton	83-1	287	263	253	268	6.39	cps
Lead	206-1	32207200	32906822	32089027	32401016	1.36	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	27793608	28431330	27602146	27942362	1.55	cps
Lead	208-1	128462942	130613436	126595621	128557333	1.56	cps
Lithium	6-1	8344458	8218537	8140599	8234531	1.25	cps
Magnesium	24-2	11441473	11439931	11190739	11357381	1.27	cps
Manganese	55-2	6299629	6291919	6328493	6306680	0.31	cps
Molybdenum	94-1	26703362	27463543	27919659	27362188	2.25	cps
Molybdenum	95-1	38963169	39845690	40183461	39664107	1.59	cps
Molybdenum	96-1	43495131	44215848	43868368	43859782	0.82	cps
Molybdenum	97-1	24695464	25132772	24905813	24911350	0.88	cps
Molybdenum	98-1	64564161	65056821	65495972	65038985	0.72	cps
Neodymium	150-1	593	797	797	729	16.11	cps
Neodymium	150-2	40	13	33	29	48.05	cps
Nickel	60-2	790498	798521	798831	795950	0.59	cps
Phosphorus	31-2	28635	28946	29006	28862	0.69	cps
Potassium	39-2	2955142	2950416	2993138	2966232	0.79	cps
Rhodium	103-1	13085301	13390303	13087421	13187675	1.33	cps
Rhodium	103-2	4671131	4761866	4695180	4709392	1.00	cps
Scandium	45-1	10274587	10608627	10696597	10526604	2.12	cps
Scandium	45-2	171641	171591	171639	171624	0.02	cps
Sdium	23-2	22492156	22743363	22364441	22533320	0.86	cps
Selenium	82-1	123561	122646	124065	123424	0.58	cps
Selenium	77-2	1737	1810	1743	1763	2.30	cps
Selenium	78-2	6018	5875	6071	5988	1.70	cps
Silicon	28-1	12090676	12049184	12016636	12052166	0.31	cps
Silver	107-1	10122243	10179618	10195830	10165897	0.38	cps
Silver	109-1	9709680	9518615	9684425	9637573	1.08	cps
Strontium	86-1	2560045	2596067	2664491	2606868	2.04	cps
Strontium	88-1	22122501	22527760	22776923	22475728	1.47	cps
Sulfur	34-1	1387178	1356481	1369854	1371171	1.12	cps
Terbium	159-1	19076008	19711369	19098510	19295296	1.87	cps
Terbium	159-2	5556505	5652657	5668350	5625837	1.08	cps
Thallium	203-1	8138084	8402893	8157826	8232935	1.79	cps
Thallium	205-1	19637078	19522593	19269284	19476318	0.97	cps
Tin	118-1	6451912	6356433	6393808	6400718	0.75	cps
Titanium	47-1	12389812	12723274	12605508	12572865	1.35	cps
Uranium	238-1	25861970	25916390	25500688	25759683	0.88	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P8
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:16:00	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1189156	1208898	1215851	1204635	1.15	cps
Ytterbium	172-1	230	243	217	230	5.80	cps
Ytterbium	172-2	97	60	67	74	26.24	cps
Ytterbium	176-1	37132	36998	36965	37032	0.24	cps
Ytterbium	176-2	10918	11238	11088	11081	1.45	cps
Yttrium	89-1	25135151	25343536	25855269	25444652	1.46	cps
Yttrium	89-2	1570121	1599927	1612257	1594102	1.36	cps
Zinc	66-2	2377380	2416345	2432213	2408646	1.17	cps
Zirconium	90-1	13367965	13714257	13839384	13640535	1.79	cps
Zirconium	91-1	3009701	3051113	3070760	3043858	1.02	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1262454	1249785	1250663	1254300	0.56	cps
Antimony	121-1	16048698	15882884	15970686	15967422	0.52	cps
Arsenic	75-2	286004	286166	285506	285892	0.12	cps
Barium	135-1	19527505	19704300	19508341	19580049	0.55	cps
Barium	137-1	33640439	33985337	33541110	33722295	0.69	cps
Beryllium	9-1	5947968	5937305	5955348	5946874	0.15	cps
Bismuth	209-1	11385947	11474094	11499287	11453109	0.52	cps
Bismuth	209-2	4127900	4109469	4083352	4106907	0.55	cps
Bromine	81-1	4918	5084	5028	5010	1.69	cps
Cadmium	108-1	308994	311041	314525	311520	0.90	cps
Cadmium	106-1	434773	438613	442285	438557	0.86	cps
Cadmium	111-1	3987816	4076452	4032004	4032091	1.10	cps
Calcium	43-1	5497171	5518389	5545348	5520303	0.44	cps
Calcium	44-1	87904669	88734729	90271542	88970313	1.35	cps
Carbon	12-1	5357721	5500964	5571458	5476715	1.99	cps
Carbon	12-2	36826	37050	37090	36989	0.38	cps
Chlorine	35-1	140618	145226	149452	145099	3.04	cps
Chlorine	35-2	593	647	537	592	9.29	cps
Chromium	52-2	3257147	3221699	3226050	3234966	0.60	cps
Cobalt	59-2	6080723	6057251	6027832	6055269	0.44	cps
Copper	63-2	44736243	45010953	45254796	45000664	0.58	cps
Dysprosium	156-1	647	653	673	658	2.11	cps
Dysprosium	156-2	47	63	33	48	31.46	cps
Erbium	164-1	330	247	317	298	15.03	cps
Erbium	164-2	93	110	57	87	31.48	cps
Gadolinium	160-1	243	233	207	228	8.32	cps
Gadolinium	160-2	77	83	73	78	6.55	cps
Holmium	165-1	19340755	19270101	19040377	19217078	0.82	cps
Holmium	165-2	5931418	5938862	6007946	5959409	0.71	cps
Indium	115-1	14157984	14182874	13869752	14070203	1.24	cps
Indium	115-2	1176946	1179120	1189189	1181751	0.55	cps
Iron	54-2	6474624	6408619	6349460	6410901	0.98	cps
Iron	56-2	116990068	115631035	115731035	116117379	0.65	cps
Iron	57-2	3002618	2945023	2976451	2974697	0.97	cps
Krypton	83-1	273	283	330	296	10.23	cps
Lead	206-1	63379752	63790361	64293829	63821314	0.72	cps

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	54190743	55202738	55733023	55042168	1.42	cps
Lead	208-1	249415296	255356790	257327599	254033228	1.62	cps
Lithium	6-1	8307680	8273803	8390397	8323960	0.72	cps
Magnesium	24-2	22837640	22927463	22782061	22849055	0.32	cps
Manganese	55-2	12879433	12973056	12733294	12861928	0.94	cps
Molybdenum	94-1	55177161	55179926	56073488	55476858	0.93	cps
Molybdenum	95-1	79934880	80058512	80810717	80268037	0.59	cps
Molybdenum	96-1	88552222	87779492	89757902	88696539	1.12	cps
Molybdenum	97-1	50258584	49393836	50612764	50088395	1.25	cps
Molybdenum	98-1	131762321	129791291	131326645	130960086	0.79	cps
Neodymium	150-1	1503	1470	1497	1490	1.18	cps
Neodymium	150-2	43	40	27	37	24.04	cps
Nickel	60-2	1709060	1704150	1666567	1693259	1.37	cps
Phosphorus	31-2	57694	58748	59351	58598	1.43	cps
Potassium	39-2	6076246	6110827	5997847	6061640	0.96	cps
Rhodium	103-1	13098196	12959494	13120945	13059545	0.67	cps
Rhodium	103-2	4589078	4632310	4732093	4651160	1.58	cps
Scandium	45-1	10700681	10756371	10803626	10753559	0.48	cps
Scandium	45-2	178120	177197	178980	178099	0.50	cps
Sdium	23-2	45021609	45545736	45457758	45341701	0.62	cps
Selenium	82-1	245688	247496	251127	248103	1.12	cps
Selenium	77-2	3430	3824	3417	3557	6.50	cps
Selenium	78-2	11612	12095	11852	11853	2.04	cps
Silicon	28-1	17932029	18115832	17774753	17940871	0.95	cps
Silver	107-1	19909634	20292265	20142368	20114756	0.96	cps
Silver	109-1	18994038	19080148	19160449	19078212	0.44	cps
Strontium	86-1	5214937	5328218	5242057	5261737	1.12	cps
Strontium	88-1	45472039	45630139	46269829	45790669	0.92	cps
Sulfur	34-1	2089988	2066417	2085457	2080621	0.60	cps
Terbium	159-1	19305384	19701922	19306743	19438017	1.18	cps
Terbium	159-2	5654992	5616470	5737056	5669506	1.09	cps
Thallium	203-1	15922642	16026724	16358301	16102556	1.41	cps
Thallium	205-1	37750742	38035761	38379220	38055241	0.83	cps
Tin	118-1	12685446	12727205	12712369	12708340	0.17	cps
Titanium	47-1	25091646	25215984	25588898	25298843	1.02	cps
Uranium	238-1	51172101	52715399	52160479	52015993	1.50	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P8
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:18:47	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	2571138	2554905	2582607	2569550	0.54	cps
Ytterbium	172-1	380	290	403	358	16.73	cps
Ytterbium	172-2	117	83	83	94	20.38	cps
Ytterbium	176-1	73396	73687	73955	73680	0.38	cps
Ytterbium	176-2	22142	22202	22633	22326	1.20	cps
Yttrium	89-1	26219536	25993028	26036745	26083103	0.46	cps
Yttrium	89-2	1627927	1625802	1649281	1634337	0.79	cps
Zinc	66-2	4773319	4798192	4708689	4760067	0.97	cps
Zirconium	90-1	27581622	27494670	27749427	27608573	0.47	cps
Zirconium	91-1	6016058	6098363	6175111	6096511	1.30	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5916210	5876800	5961122	5918044	0.71	cps
Antimony	121-1	7319	7372	6995	7229	2.82	cps
Arsenic	75-2	143	113	150	136	14.41	cps
Barium	135-1	9403	8880	8353	8879	5.92	cps
Barium	137-1	16520	15826	15215	15854	4.12	cps
Beryllium	9-1	2146	2000	1805	1984	8.63	cps
Bismuth	209-1	10015225	9736597	9722408	9824743	1.68	cps
Bismuth	209-2	3562281	3631725	3676036	3623347	1.58	cps
Bromine	81-1	5168	5148	4944	5087	2.43	cps
Cadmium	108-1	237	240	263	247	5.89	cps
Cadmium	106-1	7459	7319	7549	7442	1.56	cps
Cadmium	111-1	6219	6075	6167	6154	1.18	cps
Calcium	43-1	25229380	25014507	25276637	25173508	0.55	cps
Calcium	44-1	408918567	408359967	411319394	409532643	0.38	cps
Carbon	12-1	5399151	5622791	5786022	5602654	3.47	cps
Carbon	12-2	45306	46012	46383	45900	1.19	cps
Chlorine	35-1	99301	99250	98022	98858	0.73	cps
Chlorine	35-2	447	400	403	417	6.25	cps
Chromium	52-2	10754	10641	10667	10687	0.55	cps
Cobalt	59-2	11465	11705	11818	11663	1.55	cps
Copper	63-2	10437	10304	10377	10373	0.64	cps
Dysprosium	156-1	843	867	757	822	7.05	cps
Dysprosium	156-2	147	153	170	157	7.67	cps
Erbium	164-1	700	673	643	672	4.22	cps
Erbium	164-2	237	207	180	208	13.64	cps
Gadolinium	160-1	617	573	507	566	9.80	cps
Gadolinium	160-2	233	253	177	221	17.99	cps
Holmium	165-1	17627585	17602368	17572174	17600709	0.16	cps
Holmium	165-2	5604840	5535720	5540892	5560484	0.69	cps
Indium	115-1	12927634	12658932	12745515	12777361	1.07	cps
Indium	115-2	1116107	1120780	1119234	1118707	0.21	cps
Iron	54-2	28567918	28864125	29060888	28830977	0.86	cps
Iron	56-2	525597672	532271392	533040685	530303250	0.77	cps
Iron	57-2	13122028	13432516	13421493	13325345	1.32	cps
Krypton	83-1	347	310	330	329	5.58	cps
Lead	206-1	11649	11812	11749	11737	0.70	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	10274	10464	10107	10282	1.74	cps
Lead	208-1	47221	47975	46550	47249	1.51	cps
Lithium	6-1	7576264	7613073	7457583	7548973	1.08	cps
Magnesium	24-2	105468498	105660528	107002822	106043950	0.79	cps
Manganese	55-2	6168	6488	6118	6258	3.21	cps
Molybdenum	94-1	39416	38125	38135	38559	1.92	cps
Molybdenum	95-1	40499	39392	39844	39912	1.39	cps
Molybdenum	96-1	47056	47069	46113	46746	1.17	cps
Molybdenum	97-1	24455	24749	23784	24329	2.03	cps
Molybdenum	98-1	62741	63190	61884	62605	1.06	cps
Neodymium	150-1	370	403	300	358	14.74	cps
Neodymium	150-2	80	90	70	80	12.50	cps
Nickel	60-2	5695	5995	5494	5728	4.40	cps
Phosphorus	31-2	103	147	83	111	29.14	cps
Potassium	39-2	28466163	28746026	29083899	28765363	1.08	cps
Rhodium	103-1	11456814	11306068	11303548	11355476	0.77	cps
Rhodium	103-2	4085750	4146099	4133550	4121800	0.77	cps
Scandium	45-1	10113553	9956828	9934512	10001631	0.98	cps
Scandium	45-2	167004	168707	167996	167902	0.51	cps
Sdium	23-2	211267897	213087670	212396497	212250688	0.43	cps
Selenium	82-1	43	-10	3	12	227.11	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	7	10	13	10	33.30	cps
Silicon	28-1	755139	738066	733583	742263	1.53	cps
Silver	107-1	3447	3267	3154	3289	4.50	cps
Silver	109-1	3210	3120	2937	3089	4.51	cps
Strontium	86-1	15439	15832	16039	15770	1.94	cps
Strontium	88-1	132602	131472	132670	132248	0.51	cps
Sulfur	34-1	579541	584524	591836	585300	1.06	cps
Terbium	159-1	18169656	17876491	17879193	17975113	0.94	cps
Terbium	159-2	5338599	5320423	5329165	5329396	0.17	cps
Thallium	203-1	1627	1550	1370	1516	8.69	cps
Thallium	205-1	4071	3504	3137	3571	13.17	cps
Tin	118-1	5144	4628	4774	4849	5.49	cps
Titanium	47-1	6111	5818	5678	5869	3.77	cps
Uranium	238-1	2564	2214	2054	2277	11.46	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P8
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:21:33	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	600	570	710	627	11.76	cps
Ytterbium	172-1	757	753	723	744	2.47	cps
Ytterbium	172-2	273	327	320	307	9.48	cps
Ytterbium	176-1	2700	2537	2434	2557	5.26	cps
Ytterbium	176-2	397	460	520	459	13.44	cps
Yttrium	89-1	24182393	23944537	23917103	24014678	0.61	cps
Yttrium	89-2	1571222	1567603	1578781	1572535	0.36	cps
Zinc	66-2	2784	2840	3040	2888	4.67	cps
Zirconium	90-1	43740	42327	42458	42842	1.82	cps
Zirconium	91-1	9874	9623	9310	9602	2.94	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	29724	29356	29737	29606	0.73	cps
Antimony	121-1	3157335	3206896	3213471	3192567	0.96	cps
Arsenic	75-2	57503	57068	57242	57271	0.38	cps
Barium	135-1	382948	382631	387582	384387	0.72	cps
Barium	137-1	666076	671911	668898	668962	0.44	cps
Beryllium	9-1	592715	594634	594832	594060	0.20	cps
Bismuth	209-1	11771562	11967986	11883162	11874237	0.83	cps
Bismuth	209-2	4316873	4293160	4281570	4297201	0.42	cps
Bromine	81-1	4818	4714	4624	4719	2.05	cps
Cadmium	108-1	26058	25918	26746	26241	1.69	cps
Cadmium	106-1	41793	42903	43044	42580	1.61	cps
Cadmium	111-1	398651	407201	399251	401701	1.19	cps
Calcium	43-1	106836	106181	108240	107085	0.98	cps
Calcium	44-1	1817025	1857744	1842215	1838995	1.12	cps
Carbon	12-1	4360115	4273334	4250463	4294637	1.35	cps
Carbon	12-2	25993	26077	25913	25994	0.31	cps
Chlorine	35-1	85584	84277	84387	84749	0.86	cps
Chlorine	35-2	267	303	303	291	7.27	cps
Chromium	52-2	315805	314426	314693	314975	0.23	cps
Cobalt	59-2	602385	609987	605876	606083	0.63	cps
Copper	63-2	482669	477166	478235	479357	0.61	cps
Dysprosium	156-1	187	190	173	183	4.81	cps
Dysprosium	156-2	3	7	7	6	34.70	cps
Erbium	164-1	107	80	110	99	16.63	cps
Erbium	164-2	37	17	13	22	56.80	cps
Gadolinium	160-1	113	103	60	92	30.74	cps
Gadolinium	160-2	20	17	17	18	10.81	cps
Holmium	165-1	18625671	18495768	18599573	18573671	0.37	cps
Holmium	165-2	5875505	5946934	5817190	5879876	1.11	cps
Indium	115-1	14618590	14727871	14450773	14599078	0.96	cps
Indium	115-2	1244917	1241981	1249386	1245428	0.30	cps
Iron	54-2	259613	262653	258639	260302	0.80	cps
Iron	56-2	4846266	4806022	4781948	4811412	0.68	cps
Iron	57-2	115870	115984	114471	115442	0.73	cps
Krypton	83-1	320	297	263	293	9.71	cps
Lead	206-1	2742696	2752111	2747142	2747316	0.17	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2268259	2275057	2229789	2257702	1.08	cps
Lead	208-1	10548180	10573959	10535564	10552568	0.19	cps
Lithium	6-1	8526595	8425015	8483254	8478288	0.60	cps
Magnesium	24-2	254702	258289	257428	256806	0.73	cps
Manganese	55-2	126585	126430	126682	126566	0.10	cps
Molybdenum	94-1	1310	1217	1297	1275	3.96	cps
Molybdenum	95-1	1030	937	860	942	9.04	cps
Molybdenum	96-1	1887	1670	1907	1821	7.21	cps
Molybdenum	97-1	673	610	627	637	5.16	cps
Molybdenum	98-1	1650	1537	1577	1588	3.62	cps
Neodymium	150-1	50	73	67	63	18.98	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	169823	170279	171824	170642	0.61	cps
Phosphorus	31-2	100	67	57	74	30.48	cps
Potassium	39-2	237636	236422	237087	237049	0.26	cps
Rhodium	103-1	13776431	13837727	13669950	13761369	0.62	cps
Rhodium	103-2	4854193	4830389	4912022	4865535	0.86	cps
Scandium	45-1	10815962	10854684	10749859	10806835	0.49	cps
Scandium	45-2	174175	172933	174586	173898	0.49	cps
Sdium	23-2	902780	897690	902278	900916	0.31	cps
Selenium	82-1	50549	50759	52070	51126	1.61	cps
Selenium	77-2	767	743	740	750	1.94	cps
Selenium	78-2	2560	2617	2754	2644	3.76	cps
Silicon	28-1	570932	572340	575622	572965	0.42	cps
Silver	107-1	921645	947135	939347	936042	1.40	cps
Silver	109-1	880030	907706	903810	897182	1.67	cps
Strontium	86-1	1947	1853	1933	1911	2.64	cps
Strontium	88-1	13016	12729	13316	13021	2.26	cps
Sulfur	34-1	580556	583851	583061	582489	0.30	cps
Terbium	159-1	19087631	19082590	18978600	19049607	0.32	cps
Terbium	159-2	5647967	5591834	5594809	5611536	0.56	cps
Thallium	203-1	3372787	3398881	3361450	3377706	0.57	cps
Thallium	205-1	7822717	7895299	7727899	7815305	1.07	cps
Tin	118-1	1593	1433	1410	1479	6.75	cps
Titanium	47-1	273	353	317	314	12.74	cps
Uranium	238-1	237	173	197	202	15.84	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P8
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:33:17	DataFile Name :	012ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	240121	240718	238978	239939	0.37	cps
Ytterbium	172-1	87	127	163	126	30.54	cps
Ytterbium	172-2	50	27	23	33	43.59	cps
Ytterbium	176-1	1900	2124	2047	2024	5.61	cps
Ytterbium	176-2	293	323	360	326	10.26	cps
Yttrium	89-1	25773427	26155624	26232380	26053810	0.94	cps
Yttrium	89-2	1623715	1614838	1643318	1627290	0.90	cps
Zinc	66-2	95550	95532	95344	95475	0.12	cps
Zirconium	90-1	1063	1293	1160	1172	9.85	cps
Zirconium	91-1	927	863	783	858	8.37	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1370	1280	1353	1335	3.59	cps
Antimony	121-1	32796	33611	33872	33426	1.68	cps
Arsenic	75-2	260	307	320	296	10.66	cps
Barium	135-1	39645	39899	40410	39984	0.98	cps
Barium	137-1	69815	70358	70891	70355	0.76	cps
Beryllium	9-1	7056	7197	6941	7065	1.82	cps
Bismuth	209-1	11774494	11959719	11978051	11904088	0.95	cps
Bismuth	209-2	4334928	4341867	4379259	4352018	0.55	cps
Bromine	81-1	4497	4537	4664	4566	1.91	cps
Cadmium	108-1	340	340	390	357	8.09	cps
Cadmium	106-1	7245	7849	7686	7593	4.11	cps
Cadmium	111-1	9108	9390	9384	9294	1.74	cps
Calcium	43-1	29270	29143	28983	29132	0.49	cps
Calcium	44-1	480980	482219	480146	481115	0.22	cps
Carbon	12-1	4032258	3921144	3911389	3954930	1.70	cps
Carbon	12-2	23682	23332	23586	23533	0.77	cps
Chlorine	35-1	87680	85084	85604	86123	1.59	cps
Chlorine	35-2	350	260	253	288	18.76	cps
Chromium	52-2	7912	8136	8469	8172	3.43	cps
Cobalt	59-2	6788	6998	6748	6845	1.96	cps
Copper	63-2	13253	13136	12899	13096	1.38	cps
Dysprosium	156-1	177	187	147	170	12.24	cps
Dysprosium	156-2	17	3	10	10	66.70	cps
Erbium	164-1	123	67	77	89	34.03	cps
Erbium	164-2	43	10	40	31	59.01	cps
Gadolinium	160-1	87	80	97	88	9.56	cps
Gadolinium	160-2	17	27	10	18	47.19	cps
Holmium	165-1	18671091	19071710	18672211	18805004	1.23	cps
Holmium	165-2	5895491	5895121	6040327	5943646	1.41	cps
Indium	115-1	14550252	14711331	14684991	14648858	0.59	cps
Indium	115-2	1237420	1240552	1265664	1247879	1.24	cps
Iron	54-2	7715	7435	7682	7611	2.01	cps
Iron	56-2	133797	134076	133504	133792	0.21	cps
Iron	57-2	3380	3244	3264	3296	2.24	cps
Krypton	83-1	203	253	267	241	13.85	cps
Lead	206-1	15443	15279	15486	15403	0.71	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	13624	13564	13297	13495	1.29	cps
Lead	208-1	62506	62253	61461	62073	0.88	cps
Lithium	6-1	8400371	8555068	8486259	8480566	0.91	cps
Magnesium	24-2	117717	118348	118947	118337	0.52	cps
Manganese	55-2	1870	1897	1773	1847	3.51	cps
Molybdenum	94-1	33266	33196	34102	33521	1.50	cps
Molybdenum	95-1	41281	40278	40713	40757	1.23	cps
Molybdenum	96-1	44524	45367	45534	45142	1.20	cps
Molybdenum	97-1	25781	25106	25874	25587	1.64	cps
Molybdenum	98-1	64901	65021	65470	65131	0.46	cps
Neodymium	150-1	43	60	53	52	16.07	cps
Neodymium	150-2	0	10	7	6	91.64	cps
Nickel	60-2	2584	2754	2637	2658	3.27	cps
Phosphorus	31-2	167	120	167	151	17.83	cps
Potassium	39-2	68341	67611	67329	67760	0.77	cps
Rhodium	103-1	13700659	13685643	13682584	13689629	0.07	cps
Rhodium	103-2	4915925	4910307	4969046	4931760	0.66	cps
Scandium	45-1	10717874	10744567	10775641	10746027	0.27	cps
Scandium	45-2	172498	173047	176854	174133	1.36	cps
Sdium	23-2	260265	257562	260435	259421	0.62	cps
Selenium	82-1	1220	1353	1320	1298	5.35	cps
Selenium	77-2	23	27	13	21	32.88	cps
Selenium	78-2	70	67	40	59	27.92	cps
Silicon	28-1	636950	633302	632220	634157	0.39	cps
Silver	107-1	20459	21193	20626	20759	1.85	cps
Silver	109-1	19594	19728	19804	19709	0.54	cps
Strontium	86-1	6025	6311	6071	6136	2.51	cps
Strontium	88-1	48183	48156	49270	48536	1.31	cps
Sulfur	34-1	598597	594782	602066	598481	0.61	cps
Terbium	159-1	18972163	19338711	19104113	19138329	0.97	cps
Terbium	159-2	5571797	5669755	5667475	5636342	0.99	cps
Thallium	203-1	16397	16868	16437	16567	1.57	cps
Thallium	205-1	39293	39533	39787	39538	0.63	cps
Tin	118-1	66406	67632	67445	67161	0.98	cps
Titanium	47-1	13446	12562	12556	12855	3.99	cps
Uranium	238-1	51296	51473	50764	51178	0.72	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P8
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:36:46	DataFile Name :	013LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13046	12395	12739	12727	2.56	cps
Ytterbium	172-1	90	103	113	102	11.45	cps
Ytterbium	172-2	30	30	47	36	27.07	cps
Ytterbium	176-1	2027	2167	2067	2087	3.46	cps
Ytterbium	176-2	357	360	360	359	0.54	cps
Yttrium	89-1	25686555	26026120	25826815	25846497	0.66	cps
Yttrium	89-2	1614496	1613603	1616582	1614894	0.09	cps
Zinc	66-2	2767	2647	2847	2754	3.66	cps
Zirconium	90-1	28609	28596	28880	28695	0.56	cps
Zirconium	91-1	6228	6245	6358	6277	1.13	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	97	77	73	82	15.35	cps
Antimony	121-1	373	383	393	383	2.61	cps
Arsenic	75-2	10	10	0	7	86.60	cps
Barium	135-1	830	690	827	782	10.21	cps
Barium	137-1	1453	1620	1323	1466	10.15	cps
Beryllium	9-1	686	696	679	687	1.28	cps
Bismuth	209-1	12182547	12068367	11900205	12050373	1.18	cps
Bismuth	209-2	4394398	4310683	4298502	4334528	1.20	cps
Bromine	81-1	4577	4801	4868	4749	3.20	cps
Cadmium	108-1	27	57	70	51	43.42	cps
Cadmium	106-1	7159	7452	7172	7261	2.28	cps
Cadmium	111-1	5046	5237	5005	5096	2.43	cps
Calcium	43-1	483	483	410	459	9.23	cps
Calcium	44-1	19126	18913	19006	19015	0.56	cps
Carbon	12-1	3944006	3808923	3699163	3817364	3.21	cps
Carbon	12-2	22424	22567	22454	22482	0.34	cps
Chlorine	35-1	85017	85621	84689	85109	0.56	cps
Chlorine	35-2	270	227	280	259	10.95	cps
Chromium	52-2	1820	1900	1930	1883	3.02	cps
Cobalt	59-2	270	363	310	314	14.89	cps
Copper	63-2	4167	4194	4184	4182	0.32	cps
Dysprosium	156-1	190	213	200	201	5.82	cps
Dysprosium	156-2	7	3	7	6	34.70	cps
Erbium	164-1	87	90	77	84	8.22	cps
Erbium	164-2	30	30	17	26	30.11	cps
Gadolinium	160-1	127	107	93	109	15.41	cps
Gadolinium	160-2	10	20	10	13	43.30	cps
Holmium	165-1	18843952	18886433	18502068	18744151	1.12	cps
Holmium	165-2	5897504	5744818	5814678	5819000	1.31	cps
Indium	115-1	14685648	14571599	14498456	14585234	0.65	cps
Indium	115-2	1246645	1225404	1229127	1233725	0.92	cps
Iron	54-2	860	780	730	790	8.30	cps
Iron	56-2	11692	11998	12099	11930	1.78	cps
Iron	57-2	330	327	270	309	10.92	cps
Krypton	83-1	230	227	247	234	4.57	cps
Lead	206-1	2274	2234	2444	2317	4.81	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2110	1984	2020	2038	3.20	cps
Lead	208-1	9365	9071	9318	9251	1.70	cps
Lithium	6-1	8507502	8423127	8457880	8462836	0.50	cps
Magnesium	24-2	1127	1127	1070	1108	2.95	cps
Manganese	55-2	553	553	553	553	0.00	cps
Molybdenum	94-1	670	603	743	672	10.42	cps
Molybdenum	95-1	663	607	707	659	7.61	cps
Molybdenum	96-1	847	857	770	824	5.75	cps
Molybdenum	97-1	393	370	423	396	6.76	cps
Molybdenum	98-1	1070	940	970	993	6.85	cps
Neodymium	150-1	47	17	40	34	45.73	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	1027	967	1003	999	3.03	cps
Phosphorus	31-2	60	70	87	72	18.66	cps
Potassium	39-2	7125	7615	7352	7364	3.33	cps
Rhodium	103-1	13866211	13679195	13686043	13743816	0.77	cps
Rhodium	103-2	4985849	4815722	4935108	4912226	1.78	cps
Scandium	45-1	10865449	10740890	10693088	10766476	0.83	cps
Scandium	45-2	173419	170785	172006	172070	0.77	cps
Sdium	23-2	31377	31240	31481	31366	0.38	cps
Selenium	82-1	47	-3	27	23	107.83	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	3	0	20	8	137.80	cps
Silicon	28-1	546077	542389	543309	543925	0.35	cps
Silver	107-1	343	353	343	347	1.67	cps
Silver	109-1	207	257	217	227	11.67	cps
Strontium	86-1	607	553	660	607	8.79	cps
Strontium	88-1	2384	2264	2440	2362	3.82	cps
Sulfur	34-1	612460	612435	610636	611844	0.17	cps
Terbium	159-1	19394523	19496246	18986415	19292395	1.40	cps
Terbium	159-2	5709355	5503584	5662256	5625065	1.92	cps
Thallium	203-1	547	497	473	506	7.41	cps
Thallium	205-1	1250	1163	1277	1230	4.82	cps
Tin	118-1	1473	1433	1370	1426	3.65	cps
Titanium	47-1	197	183	207	196	5.99	cps
Uranium	238-1	100	80	120	100	20.00	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P8
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:41:17	DataFile Name :	014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	20	13	17	20.01	cps
Ytterbium	172-1	110	93	137	113	19.29	cps
Ytterbium	172-2	40	27	47	38	26.95	cps
Ytterbium	176-1	1980	1927	2020	1976	2.37	cps
Ytterbium	176-2	373	343	263	327	17.41	cps
Yttrium	89-1	25825780	25816585	25586540	25742969	0.53	cps
Yttrium	89-2	1637326	1561520	1583763	1594203	2.44	cps
Zinc	66-2	177	137	217	177	22.64	cps
Zirconium	90-1	780	900	980	887	11.35	cps
Zirconium	91-1	227	233	183	214	12.66	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5736443	5745092	5860888	5780808	1.20	cps
Antimony	121-1	16977	16971	16720	16889	0.87	cps
Arsenic	75-2	77	93	110	93	17.86	cps
Barium	135-1	5638	5998	5948	5861	3.33	cps
Barium	137-1	10514	10277	9887	10226	3.10	cps
Beryllium	9-1	2162	2184	2016	2121	4.30	cps
Bismuth	209-1	10729913	10840692	10853787	10808130	0.63	cps
Bismuth	209-2	3899287	3956549	3893078	3916304	0.89	cps
Bromine	81-1	6752	7155	7185	7031	3.44	cps
Cadmium	108-1	4881	4954	4971	4935	0.97	cps
Cadmium	106-1	7025	6578	6582	6728	3.82	cps
Cadmium	111-1	7362	7141	6779	7094	4.15	cps
Calcium	43-1	5529145	5373286	5372630	5425020	1.66	cps
Calcium	44-1	89199342	87303222	87460275	87987613	1.20	cps
Carbon	12-1	47410521	48231398	48563706	48068542	1.23	cps
Carbon	12-2	297293	303049	297510	299284	1.09	cps
Chlorine	35-1	76503444	82842699	85700957	81682367	5.76	cps
Chlorine	35-2	309920	318226	316630	314926	1.40	cps
Chromium	52-2	59824	59848	59533	59735	0.29	cps
Cobalt	59-2	6425	6662	6912	6666	3.65	cps
Copper	63-2	39150	39231	39134	39172	0.13	cps
Dysprosium	156-1	220	243	230	231	5.07	cps
Dysprosium	156-2	37	27	33	32	15.80	cps
Erbium	164-1	133	103	107	114	14.37	cps
Erbium	164-2	43	47	40	43	7.70	cps
Gadolinium	160-1	140	133	163	146	10.82	cps
Gadolinium	160-2	40	33	83	52	51.99	cps
Holmium	165-1	18085103	18532868	18496668	18371546	1.35	cps
Holmium	165-2	5627967	5681165	5677046	5662059	0.52	cps
Indium	115-1	13584812	13727135	13684163	13665370	0.53	cps
Indium	115-2	1152426	1160548	1169163	1160712	0.72	cps
Iron	54-2	12266345	12570222	12255839	12364135	1.44	cps
Iron	56-2	229915850	229568263	227615957	229033357	0.54	cps
Iron	57-2	5695535	5859550	5718065	5757717	1.54	cps
Krypton	83-1	280	243	187	237	19.87	cps
Lead	206-1	56147	57634	57925	57236	1.67	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	45222	45158	46537	45639	1.70	cps
Lead	208-1	213617	215423	217113	215384	0.81	cps
Lithium	6-1	8083194	8048200	8043442	8058279	0.27	cps
Magnesium	24-2	21199675	21044526	21172339	21138846	0.39	cps
Manganese	55-2	9557	9146	9246	9316	2.30	cps
Molybdenum	94-1	8674897	8888817	8716953	8760222	1.29	cps
Molybdenum	95-1	15418960	15660035	15402061	15493685	0.93	cps
Molybdenum	96-1	16657075	16693149	16830799	16727008	0.55	cps
Molybdenum	97-1	9573038	9443185	9494785	9503669	0.69	cps
Molybdenum	98-1	25044206	24968004	25262900	25091704	0.61	cps
Neodymium	150-1	123	110	77	103	23.26	cps
Neodymium	150-2	27	27	7	20	57.73	cps
Nickel	60-2	9140	9170	9050	9120	0.69	cps
Phosphorus	31-2	287984	291516	290760	290087	0.64	cps
Potassium	39-2	11695096	11840684	11705068	11746949	0.69	cps
Rhodium	103-1	12345109	12325141	12340886	12337045	0.09	cps
Rhodium	103-2	4344809	4454621	4433898	4411109	1.32	cps
Scandium	45-1	10301744	10330179	10267864	10299929	0.30	cps
Scandium	45-2	166741	166816	168427	167328	0.57	cps
Sdium	23-2	44927568	44559214	44606634	44697805	0.45	cps
Selenium	82-1	23	-40	107	30	245.21	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	7	7	7	7	0.00	cps
Silicon	28-1	875317	874588	877431	875779	0.17	cps
Silver	107-1	1617	1233	1400	1417	13.57	cps
Silver	109-1	1407	1170	1120	1232	12.43	cps
Strontium	86-1	166552	171214	170290	169352	1.46	cps
Strontium	88-1	1542631	1558156	1588639	1563142	1.50	cps
Sulfur	34-1	7825838	7646477	7641761	7704692	1.36	cps
Terbium	159-1	18784147	18928609	18924166	18878974	0.44	cps
Terbium	159-2	5470080	5473711	5503858	5482550	0.34	cps
Thallium	203-1	1723	2190	2650	2188	21.18	cps
Thallium	205-1	4164	5381	6025	5190	18.21	cps
Tin	118-1	3264	3321	3130	3238	3.02	cps
Titanium	47-1	5129886	5045009	5015902	5063599	1.17	cps
Uranium	238-1	820	957	930	902	8.03	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P8
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:45:15	DataFile Name :	015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	377	367	390	378	3.10	cps
Ytterbium	172-1	107	133	110	117	12.46	cps
Ytterbium	172-2	23	50	43	39	35.69	cps
Ytterbium	176-1	1840	2044	1860	1915	5.85	cps
Ytterbium	176-2	240	290	270	267	9.44	cps
Yttrium	89-1	24812806	25263554	25163178	25079846	0.94	cps
Yttrium	89-2	1528096	1561792	1576880	1555590	1.61	cps
Zinc	66-2	5244	5224	5081	5183	1.72	cps
Zirconium	90-1	1133	1180	1090	1135	3.97	cps
Zirconium	91-1	293	287	263	281	5.60	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5681363	5699777	5609927	5663689	0.84	cps
Antimony	121-1	311413	313976	315454	313614	0.65	cps
Arsenic	75-2	5885	5638	5625	5716	2.56	cps
Barium	135-1	81386	78211	80440	80012	2.04	cps
Barium	137-1	137935	140016	139079	139010	0.75	cps
Beryllium	9-1	117032	116306	116237	116525	0.38	cps
Bismuth	209-1	10653611	10800332	10711404	10721782	0.69	cps
Bismuth	209-2	3893275	3871849	3862525	3875883	0.41	cps
Bromine	81-1	6281	6495	6798	6525	3.98	cps
Cadmium	108-1	9500	9297	9540	9446	1.38	cps
Cadmium	106-1	12823	13357	12913	13031	2.19	cps
Cadmium	111-1	79514	79189	78708	79137	0.51	cps
Calcium	43-1	5371079	5305023	5346397	5340833	0.62	cps
Calcium	44-1	86996145	86364932	87976612	87112563	0.93	cps
Carbon	12-1	48349383	48816821	49808806	48991670	1.52	cps
Carbon	12-2	305960	303694	302675	304109	0.55	cps
Chlorine	35-1	84710085	86297402	90565769	87191085	3.47	cps
Chlorine	35-2	326148	327906	329352	327802	0.49	cps
Chromium	52-2	118445	116650	118681	117925	0.94	cps
Cobalt	59-2	118047	118794	118709	118517	0.34	cps
Copper	63-2	123447	124305	125461	124404	0.81	cps
Dysprosium	156-1	140	213	260	204	29.59	cps
Dysprosium	156-2	23	17	33	24	34.31	cps
Erbium	164-1	193	173	167	178	7.81	cps
Erbium	164-2	37	63	33	44	36.99	cps
Gadolinium	160-1	140	167	157	154	8.72	cps
Gadolinium	160-2	47	37	30	38	22.21	cps
Holmium	165-1	17983501	18096452	18183416	18087790	0.55	cps
Holmium	165-2	5736414	5640158	5723003	5699858	0.91	cps
Indium	115-1	13450712	13460588	13797114	13569471	1.45	cps
Indium	115-2	1154122	1150910	1170042	1158358	0.88	cps
Iron	54-2	12311685	12314427	12387801	12337971	0.35	cps
Iron	56-2	225836143	227154217	226871530	226620630	0.31	cps
Iron	57-2	5759471	5611710	5639743	5670308	1.38	cps
Krypton	83-1	233	273	247	251	8.11	cps
Lead	206-1	293111	291304	290105	291507	0.52	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	245814	247295	245067	246058	0.46	cps
Lead	208-1	1131501	1136230	1132615	1133449	0.22	cps
Lithium	6-1	7923437	7906472	8066740	7965550	1.11	cps
Magnesium	24-2	21108716	21001983	20808535	20973078	0.73	cps
Manganese	55-2	33205	33245	34111	33520	1.53	cps
Molybdenum	94-1	8846340	8533847	8704886	8695024	1.80	cps
Molybdenum	95-1	15449517	15059761	15294816	15268031	1.29	cps
Molybdenum	96-1	16647173	16294381	16689794	16543783	1.31	cps
Molybdenum	97-1	9467725	9464166	9597497	9509796	0.80	cps
Molybdenum	98-1	24825776	24957975	25051216	24944989	0.45	cps
Neodymium	150-1	113	117	107	112	4.54	cps
Neodymium	150-2	20	27	17	21	24.12	cps
Nickel	60-2	39525	39662	39555	39580	0.18	cps
Phosphorus	31-2	288922	285012	287208	287047	0.68	cps
Potassium	39-2	11752285	11568630	11783625	11701513	0.99	cps
Rhodium	103-1	12265357	12413931	12508073	12395787	0.99	cps
Rhodium	103-2	4436243	4465823	4506272	4469446	0.79	cps
Scandium	45-1	10169509	10253690	10367286	10263495	0.97	cps
Scandium	45-2	169389	167952	170538	169293	0.77	cps
Sdium	23-2	44412169	44344541	43728543	44161751	0.85	cps
Selenium	82-1	4738	4921	4701	4787	2.46	cps
Selenium	77-2	53	73	73	67	17.32	cps
Selenium	78-2	257	200	240	232	12.54	cps
Silicon	28-1	888187	893747	900069	894001	0.66	cps
Silver	107-1	350184	351643	354760	352195	0.66	cps
Silver	109-1	333585	337970	335043	335533	0.67	cps
Strontium	86-1	168947	167908	169324	168726	0.43	cps
Strontium	88-1	1564003	1555995	1542894	1554297	0.69	cps
Sulfur	34-1	7698138	7506397	7496862	7567132	1.50	cps
Terbium	159-1	18560701	18386938	18908573	18618737	1.43	cps
Terbium	159-2	5454878	5464167	5505975	5475007	0.50	cps
Thallium	203-1	294760	301718	300582	299020	1.25	cps
Thallium	205-1	704012	712258	715303	710524	0.82	cps
Tin	118-1	3034	3020	3137	3064	2.08	cps
Titanium	47-1	5088229	5025702	5100123	5071352	0.79	cps
Uranium	238-1	880	893	787	853	6.81	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P8
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:48:29	DataFile Name :	016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	46896	46749	46873	46840	0.17	cps
Ytterbium	172-1	117	113	80	103	19.62	cps
Ytterbium	172-2	37	37	47	40	14.43	cps
Ytterbium	176-1	1843	1887	1813	1848	2.00	cps
Ytterbium	176-2	293	353	320	322	9.33	cps
Yttrium	89-1	24965337	25164642	25138360	25089446	0.43	cps
Yttrium	89-2	1545800	1588688	1571234	1568574	1.37	cps
Zinc	66-2	14284	13944	14181	14136	1.23	cps
Zirconium	90-1	1097	1127	1097	1107	1.57	cps
Zirconium	91-1	267	280	340	296	13.22	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3018081	3053779	3050336	3040732	0.65	cps
Antimony	121-1	7026654	6931032	7029746	6995811	0.80	cps
Arsenic	75-2	128389	127968	128079	128145	0.17	cps
Barium	135-1	8955053	8901559	8923627	8926746	0.30	cps
Barium	137-1	15270134	15208108	15518155	15332132	1.07	cps
Beryllium	9-1	2722964	2743606	2726607	2731059	0.40	cps
Bismuth	209-1	10294557	10133900	10223356	10217271	0.79	cps
Bismuth	209-2	3733948	3787622	3731484	3751018	0.85	cps
Bromine	81-1	5338	5271	5198	5269	1.33	cps
Cadmium	108-1	135020	134229	133303	134184	0.64	cps
Cadmium	106-1	193134	194960	195231	194442	0.59	cps
Cadmium	111-1	1758865	1758805	1766512	1761394	0.25	cps
Calcium	43-1	12734700	12795532	12789093	12773108	0.26	cps
Calcium	44-1	204971924	209746930	205741630	206820161	1.24	cps
Carbon	12-1	5340707	5401009	5313434	5351717	0.84	cps
Carbon	12-2	37387	37979	38006	37791	0.92	cps
Chlorine	35-1	3885724	3647992	3439199	3657638	6.11	cps
Chlorine	35-2	10187	10357	9670	10071	3.55	cps
Chromium	52-2	1458116	1504896	1471851	1478288	1.63	cps
Cobalt	59-2	2727215	2722160	2700174	2716516	0.53	cps
Copper	63-2	20017214	19944307	20128123	20029881	0.46	cps
Dysprosium	156-1	490	490	427	469	7.80	cps
Dysprosium	156-2	80	97	63	80	20.84	cps
Erbium	164-1	330	443	437	403	15.77	cps
Erbium	164-2	133	160	127	140	12.60	cps
Gadolinium	160-1	290	347	310	316	9.11	cps
Gadolinium	160-2	107	97	157	120	26.79	cps
Holmium	165-1	17348953	17620991	17451381	17473775	0.79	cps
Holmium	165-2	5563224	5589989	5608904	5587372	0.41	cps
Indium	115-1	13102085	12759914	13019698	12960566	1.38	cps
Indium	115-2	1109426	1110838	1124152	1114805	0.73	cps
Iron	54-2	14596949	14657992	14561037	14605326	0.34	cps
Iron	56-2	268583403	265525629	268583116	267564049	0.66	cps
Iron	57-2	6722413	6663113	6771174	6718900	0.81	cps
Krypton	83-1	297	297	223	272	15.55	cps
Lead	206-1	28293249	28420177	28616787	28443404	0.57	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24581090	24870842	24766328	24739420	0.59	cps
Lead	208-1	113611909	113121015	114516306	113749743	0.62	cps
Lithium	6-1	7703082	7647440	7573958	7641494	0.85	cps
Magnesium	24-2	52541721	52351996	53488578	52794098	1.15	cps
Manganese	55-2	6053674	5934772	5953952	5980799	1.07	cps
Molybdenum	94-1	25688240	25782091	25594940	25688424	0.36	cps
Molybdenum	95-1	36775859	36998649	36881242	36885250	0.30	cps
Molybdenum	96-1	40637131	41119461	41016408	40924333	0.62	cps
Molybdenum	97-1	22994368	23117541	23028675	23046862	0.28	cps
Molybdenum	98-1	60003871	60507874	60084292	60198679	0.45	cps
Neodymium	150-1	587	697	680	654	9.06	cps
Neodymium	150-2	60	43	43	49	19.69	cps
Nickel	60-2	758814	762547	760652	760671	0.25	cps
Phosphorus	31-2	26915	27122	27489	27175	1.07	cps
Potassium	39-2	14215869	14174243	14488082	14292731	1.19	cps
Rhodium	103-1	11717691	11664667	11759053	11713804	0.40	cps
Rhodium	103-2	4255265	4255002	4261985	4257417	0.09	cps
Scandium	45-1	10166618	10060628	10183362	10136869	0.66	cps
Scandium	45-2	167382	167220	169395	167999	0.72	cps
Sdium	23-2	104932632	105504218	105343382	105260077	0.28	cps
Selenium	82-1	107692	108027	109071	108263	0.66	cps
Selenium	77-2	1603	1570	1470	1548	4.48	cps
Selenium	78-2	5044	5641	5384	5357	5.59	cps
Silicon	28-1	9208048	9323610	9278650	9270103	0.63	cps
Silver	107-1	8627399	8700711	8555438	8627849	0.84	cps
Silver	109-1	8236492	8325023	8075671	8212396	1.54	cps
Strontium	86-1	2432930	2500506	2464899	2466112	1.37	cps
Strontium	88-1	20897461	21026189	20991028	20971559	0.32	cps
Sulfur	34-1	1261759	1275426	1267080	1268089	0.54	cps
Terbium	159-1	17973536	17988060	17916708	17959435	0.21	cps
Terbium	159-2	5387961	5294401	5394421	5358928	1.04	cps
Thallium	203-1	7032469	7052074	7006414	7030319	0.33	cps
Thallium	205-1	16759577	16645539	16802279	16735798	0.48	cps
Tin	118-1	5746908	5746890	5777575	5757124	0.31	cps
Titanium	47-1	11789101	11793386	11687514	11756667	0.51	cps
Uranium	238-1	23946811	24098979	23818273	23954688	0.59	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P8
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:51:58	DataFile Name :	017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1115152	1109074	1124045	1116090	0.67	cps
Ytterbium	172-1	420	473	400	431	8.79	cps
Ytterbium	172-2	190	210	130	177	23.57	cps
Ytterbium	176-1	35441	34819	35815	35358	1.42	cps
Ytterbium	176-2	10654	10891	10845	10797	1.16	cps
Yttrium	89-1	24191060	24026130	24070044	24095745	0.35	cps
Yttrium	89-2	1527962	1554406	1552621	1544996	0.96	cps
Zinc	66-2	2197020	2199512	2216408	2204313	0.48	cps
Zirconium	90-1	13193710	13157607	13047516	13132944	0.58	cps
Zirconium	91-1	2943440	2949548	2945024	2946004	0.11	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	110	80	93	94	15.92	cps
Antimony	121-1	1487	1463	1483	1478	0.85	cps
Arsenic	75-2	13	3	3	7	86.65	cps
Barium	135-1	1257	1170	1247	1225	3.87	cps
Barium	137-1	2280	2134	1974	2129	7.21	cps
Beryllium	9-1	1022	994	996	1004	1.59	cps
Bismuth	209-1	11897039	12070536	11913886	11960487	0.80	cps
Bismuth	209-2	4382019	4263987	4334357	4326787	1.37	cps
Bromine	81-1	4938	4764	5061	4921	3.03	cps
Cadmium	108-1	40	37	53	43	20.34	cps
Cadmium	106-1	6835	7062	7059	6985	1.86	cps
Cadmium	111-1	4883	5061	5010	4985	1.84	cps
Calcium	43-1	693	677	660	677	2.46	cps
Calcium	44-1	23543	22761	21560	22621	4.42	cps
Carbon	12-1	4001855	3841102	3752784	3865247	3.27	cps
Carbon	12-2	23105	22591	22724	22807	1.17	cps
Chlorine	35-1	1777948	1729784	1639526	1715753	4.10	cps
Chlorine	35-2	5261	5301	4808	5123	5.35	cps
Chromium	52-2	2043	1857	1923	1941	4.87	cps
Cobalt	59-2	340	250	357	316	18.18	cps
Copper	63-2	4217	4341	4357	4305	1.78	cps
Dysprosium	156-1	100	107	70	92	21.18	cps
Dysprosium	156-2	0	3	3	2	86.60	cps
Erbium	164-1	90	103	103	99	7.78	cps
Erbium	164-2	30	27	23	27	12.51	cps
Gadolinium	160-1	110	100	107	106	4.82	cps
Gadolinium	160-2	13	3	17	11	62.48	cps
Holmium	165-1	18588388	18789221	18268286	18548632	1.42	cps
Holmium	165-2	5922681	5776848	5803687	5834405	1.33	cps
Indium	115-1	14725435	14678187	14346179	14583267	1.42	cps
Indium	115-2	1236930	1229563	1237223	1234572	0.35	cps
Iron	54-2	1017	1027	913	986	6.37	cps
Iron	56-2	16907	16837	16733	16826	0.52	cps
Iron	57-2	387	430	407	408	5.32	cps
Krypton	83-1	190	280	240	237	19.05	cps
Lead	206-1	3657	3501	3447	3535	3.09	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3220	2987	2930	3046	5.05	cps
Lead	208-1	14470	13896	13413	13926	3.80	cps
Lithium	6-1	8343905	8402197	8412411	8386171	0.44	cps
Magnesium	24-2	1803	1833	1803	1813	0.96	cps
Manganese	55-2	580	587	573	580	1.15	cps
Molybdenum	94-1	1583	1480	1307	1457	9.60	cps
Molybdenum	95-1	1823	1633	1573	1677	7.78	cps
Molybdenum	96-1	2007	1790	1687	1828	8.94	cps
Molybdenum	97-1	1237	1043	927	1069	14.65	cps
Molybdenum	98-1	2844	2760	2394	2666	8.98	cps
Neodymium	150-1	30	37	27	31	16.37	cps
Neodymium	150-2	0	7	3	3	100.05	cps
Nickel	60-2	1137	1123	1030	1097	5.30	cps
Phosphorus	31-2	70	83	73	76	9.18	cps
Potassium	39-2	8126	8406	8606	8379	2.88	cps
Rhodium	103-1	13546975	13708514	13695810	13650433	0.66	cps
Rhodium	103-2	4873113	4946153	4882757	4900675	0.81	cps
Scandium	45-1	10507956	10725537	10538229	10590574	1.11	cps
Scandium	45-2	170252	170339	173017	171203	0.92	cps
Sdium	23-2	37368	37127	37284	37260	0.33	cps
Selenium	82-1	43	-47	-13	-6	-818.96	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	7	0	7	4	86.60	cps
Silicon	28-1	558638	566589	554080	559769	1.13	cps
Silver	107-1	987	813	883	894	9.75	cps
Silver	109-1	960	873	687	840	16.63	cps
Strontium	86-1	627	467	603	566	15.28	cps
Strontium	88-1	1747	1650	1700	1699	2.85	cps
Sulfur	34-1	578232	571993	574812	575012	0.54	cps
Terbium	159-1	18646993	18908555	19005001	18853516	0.98	cps
Terbium	159-2	5596579	5634682	5684847	5638702	0.79	cps
Thallium	203-1	1467	1393	1340	1400	4.54	cps
Thallium	205-1	3574	3554	3230	3453	5.58	cps
Tin	118-1	1530	1513	1513	1519	0.63	cps
Titanium	47-1	470	450	383	434	10.45	cps
Uranium	238-1	650	513	453	539	18.70	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P8
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:55:11	DataFile Name :	018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	23	27	27	26	7.55	cps
Ytterbium	172-1	127	103	103	111	12.12	cps
Ytterbium	172-2	37	43	37	39	9.89	cps
Ytterbium	176-1	2147	2000	2030	2059	3.76	cps
Ytterbium	176-2	263	290	263	272	5.66	cps
Yttrium	89-1	25402991	25787195	25528468	25572885	0.77	cps
Yttrium	89-2	1654410	1631180	1637169	1640920	0.74	cps
Zinc	66-2	243	200	170	204	18.03	cps
Zirconium	90-1	1643	1337	1233	1405	15.18	cps
Zirconium	91-1	340	300	287	309	8.99	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1367	1277	1290	1311	3.70	cps
Antimony	121-1	31597	32058	31583	31746	0.85	cps
Arsenic	75-2	320	417	273	337	21.71	cps
Barium	135-1	39347	39875	39197	39473	0.90	cps
Barium	137-1	69380	68924	68171	68825	0.89	cps
Beryllium	9-1	6769	6763	6684	6739	0.70	cps
Bismuth	209-1	11920199	11977465	11791244	11896303	0.80	cps
Bismuth	209-2	4331853	4266116	4281510	4293160	0.80	cps
Bromine	81-1	4831	4888	4771	4830	1.21	cps
Cadmium	108-1	317	357	373	349	8.35	cps
Cadmium	106-1	7682	7809	7992	7828	1.99	cps
Cadmium	111-1	9160	9361	9434	9318	1.52	cps
Calcium	43-1	28057	28301	28251	28203	0.46	cps
Calcium	44-1	472101	472445	472015	472187	0.05	cps
Carbon	12-1	4084622	4027839	3906178	4006213	2.28	cps
Carbon	12-2	23439	23629	24023	23697	1.26	cps
Chlorine	35-1	1234219	1173580	1079035	1162278	6.73	cps
Chlorine	35-2	3594	3630	3220	3482	6.52	cps
Chromium	52-2	8009	8072	8282	8121	1.76	cps
Cobalt	59-2	6575	6745	6612	6644	1.35	cps
Copper	63-2	12976	13083	13009	13023	0.42	cps
Dysprosium	156-1	130	100	120	117	13.09	cps
Dysprosium	156-2	0	13	3	6	124.93	cps
Erbium	164-1	93	103	113	103	9.68	cps
Erbium	164-2	20	20	30	23	24.74	cps
Gadolinium	160-1	117	123	70	103	28.12	cps
Gadolinium	160-2	10	30	17	19	53.91	cps
Holmium	165-1	18562767	18658180	18643230	18621392	0.28	cps
Holmium	165-2	5902473	5875431	5785234	5854379	1.05	cps
Indium	115-1	14713015	14392999	14316853	14474289	1.45	cps
Indium	115-2	1233142	1235670	1234873	1234562	0.10	cps
Iron	54-2	7846	8042	7542	7810	3.23	cps
Iron	56-2	133225	134352	132545	133374	0.68	cps
Iron	57-2	3134	3297	3154	3195	2.79	cps
Krypton	83-1	250	193	240	228	13.28	cps
Lead	206-1	15222	15389	15242	15285	0.60	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	13407	12846	13497	13250	2.66	cps
Lead	208-1	60101	60269	60278	60216	0.17	cps
Lithium	6-1	8353817	8318969	8263797	8312194	0.55	cps
Magnesium	24-2	116413	117207	116413	116678	0.39	cps
Manganese	55-2	1693	1807	1813	1771	3.81	cps
Molybdenum	94-1	32678	33594	33059	33110	1.39	cps
Molybdenum	95-1	39152	40031	39723	39635	1.13	cps
Molybdenum	96-1	44317	44277	44364	44319	0.10	cps
Molybdenum	97-1	25173	24655	25029	24952	1.07	cps
Molybdenum	98-1	64221	65363	64690	64758	0.89	cps
Neodymium	150-1	60	53	37	50	24.03	cps
Neodymium	150-2	0	0	7	2	173.21	cps
Nickel	60-2	2744	2820	2794	2786	1.40	cps
Phosphorus	31-2	213	170	153	179	17.31	cps
Potassium	39-2	66870	67058	67236	67055	0.27	cps
Rhodium	103-1	13934876	13720384	13692455	13782572	0.96	cps
Rhodium	103-2	4870401	4886818	4867653	4874957	0.21	cps
Scandium	45-1	10731965	10665833	10609357	10669052	0.58	cps
Scandium	45-2	169894	172365	169537	170599	0.90	cps
Sdium	23-2	256718	259391	256795	257635	0.59	cps
Selenium	82-1	1330	1160	1370	1287	8.67	cps
Selenium	77-2	17	10	17	14	26.66	cps
Selenium	78-2	43	70	57	57	23.53	cps
Silicon	28-1	625638	626479	625299	625805	0.10	cps
Silver	107-1	19521	20008	20469	19999	2.37	cps
Silver	109-1	18669	19244	18516	18810	2.04	cps
Strontium	86-1	5798	5798	6015	5870	2.13	cps
Strontium	88-1	47541	46557	47390	47163	1.12	cps
Sulfur	34-1	590739	587197	591997	589978	0.42	cps
Terbium	159-1	19436499	19253815	18877892	19189402	1.48	cps
Terbium	159-2	5684792	5537271	5597801	5606622	1.32	cps
Thallium	203-1	17045	16627	16170	16614	2.63	cps
Thallium	205-1	39065	39075	39724	39288	0.96	cps
Tin	118-1	65271	66082	64792	65382	1.00	cps
Titanium	47-1	12983	13033	13333	13116	1.44	cps
Uranium	238-1	49061	50051	49539	49551	1.00	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P8
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 11:58:34	DataFile Name :	019LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	12159	12722	12272	12384	2.41	cps
Ytterbium	172-1	100	110	87	99	11.84	cps
Ytterbium	172-2	57	53	30	47	31.14	cps
Ytterbium	176-1	2050	1833	2247	2044	10.12	cps
Ytterbium	176-2	303	313	303	307	1.88	cps
Yttrium	89-1	25638332	25573860	25323619	25511937	0.65	cps
Yttrium	89-2	1585716	1616505	1630377	1610866	1.42	cps
Zinc	66-2	2610	2844	2434	2629	7.82	cps
Zirconium	90-1	28636	27691	28175	28167	1.68	cps
Zirconium	91-1	6311	6021	6185	6173	2.36	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	47	60	43	50	17.64	cps
Antimony	121-1	283	260	317	287	9.93	cps
Arsenic	75-2	0	20	3	8	137.80	cps
Barium	135-1	783	787	753	774	2.37	cps
Barium	137-1	1413	1323	1390	1376	3.40	cps
Beryllium	9-1	571	646	566	595	7.54	cps
Bismuth	209-1	11818645	11803499	11707436	11776527	0.51	cps
Bismuth	209-2	4227955	4257344	4300966	4262088	0.86	cps
Bromine	81-1	4794	4711	4784	4763	0.96	cps
Cadmium	108-1	33	30	40	34	14.78	cps
Cadmium	106-1	6575	7205	7139	6973	4.97	cps
Cadmium	111-1	4616	5059	5016	4897	4.99	cps
Calcium	43-1	423	350	390	388	9.47	cps
Calcium	44-1	18622	18051	18025	18233	1.85	cps
Carbon	12-1	3849592	3742897	3668587	3753692	2.42	cps
Carbon	12-2	22183	22100	22390	22225	0.67	cps
Chlorine	35-1	709904	680596	654726	681742	4.05	cps
Chlorine	35-2	2097	2177	2034	2102	3.42	cps
Chromium	52-2	1897	1923	1797	1872	3.57	cps
Cobalt	59-2	267	233	223	241	9.41	cps
Copper	63-2	3857	3961	3854	3891	1.56	cps
Dysprosium	156-1	117	100	120	112	9.55	cps
Dysprosium	156-2	0	13	3	6	124.93	cps
Erbium	164-1	100	60	117	92	31.58	cps
Erbium	164-2	13	20	17	17	20.01	cps
Gadolinium	160-1	97	83	80	87	10.18	cps
Gadolinium	160-2	7	10	17	11	45.82	cps
Holmium	165-1	18046607	18559590	18439182	18348460	1.46	cps
Holmium	165-2	5683197	5772987	5758986	5738390	0.84	cps
Indium	115-1	14409057	14411835	14420234	14413709	0.04	cps
Indium	115-2	1193411	1206776	1201113	1200433	0.56	cps
Iron	54-2	840	857	720	806	9.26	cps
Iron	56-2	12042	12032	12049	12041	0.07	cps
Iron	57-2	267	307	263	279	8.65	cps
Krypton	83-1	270	300	273	281	5.85	cps
Lead	206-1	2210	2024	2044	2092	4.90	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1867	1740	1793	1800	3.53	cps
Lead	208-1	8708	8104	8261	8358	3.75	cps
Lithium	6-1	8252570	8285958	8208322	8248950	0.47	cps
Magnesium	24-2	1257	1067	1070	1131	9.61	cps
Manganese	55-2	380	480	443	434	11.64	cps
Molybdenum	94-1	690	787	643	707	10.35	cps
Molybdenum	95-1	720	543	610	624	14.29	cps
Molybdenum	96-1	783	790	777	783	0.85	cps
Molybdenum	97-1	437	327	367	377	14.78	cps
Molybdenum	98-1	1147	1077	1087	1103	3.43	cps
Neodymium	150-1	47	37	30	38	22.21	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	980	1067	1023	1023	4.23	cps
Phosphorus	31-2	77	73	43	64	28.49	cps
Potassium	39-2	7699	7202	7495	7465	3.35	cps
Rhodium	103-1	13476608	13476660	13690196	13547821	0.91	cps
Rhodium	103-2	4771755	4799847	4776743	4782781	0.31	cps
Scandium	45-1	10573442	10445123	10448575	10489047	0.70	cps
Scandium	45-2	166512	166138	167443	166697	0.40	cps
Sdium	23-2	31821	31628	31484	31644	0.54	cps
Selenium	82-1	-73	-3	-43	-40	-87.78	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	13	10	3	9	57.30	cps
Silicon	28-1	537743	536252	532944	535646	0.46	cps
Silver	107-1	320	317	317	318	0.61	cps
Silver	109-1	217	280	230	242	13.79	cps
Strontium	86-1	593	600	490	561	10.99	cps
Strontium	88-1	1723	1730	1687	1713	1.36	cps
Sulfur	34-1	589665	587706	586057	587809	0.31	cps
Terbium	159-1	18697547	18844111	18886778	18809479	0.53	cps
Terbium	159-2	5427269	5419896	5508748	5451971	0.90	cps
Thallium	203-1	587	623	560	590	5.39	cps
Thallium	205-1	1577	1507	1633	1572	4.04	cps
Tin	118-1	1370	1280	1240	1297	5.14	cps
Titanium	47-1	247	220	197	221	11.31	cps
Uranium	238-1	100	77	53	77	30.44	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BL	Instrumnet Name :	P8
Client Sample ID :	PB166778BL	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:02:51	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13	13	10	12	15.73	cps
Ytterbium	172-1	103	117	80	100	18.56	cps
Ytterbium	172-2	47	37	33	39	17.85	cps
Ytterbium	176-1	1957	1943	1987	1962	1.13	cps
Ytterbium	176-2	297	287	247	277	9.56	cps
Yttrium	89-1	25384012	25065959	25075434	25175135	0.72	cps
Yttrium	89-2	1564989	1549469	1540778	1551746	0.79	cps
Zinc	66-2	143	153	187	161	14.08	cps
Zirconium	90-1	910	843	857	870	4.05	cps
Zirconium	91-1	217	193	157	189	16.01	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	578287	575744	580592	578208	0.42	cps
Antimony	121-1	7638414	7704075	7763232	7701907	0.81	cps
Arsenic	75-2	139674	138250	138867	138930	0.51	cps
Barium	135-1	9348888	9463154	9387879	9399974	0.62	cps
Barium	137-1	15960267	16391545	16181466	16177759	1.33	cps
Beryllium	9-1	2921636	2905461	2868620	2898572	0.94	cps
Bismuth	209-1	11246223	11217297	11226249	11229923	0.13	cps
Bismuth	209-2	4077044	3970563	4019467	4022358	1.33	cps
Bromine	81-1	4601	4668	4701	4656	1.09	cps
Cadmium	108-1	150467	150444	152075	150995	0.62	cps
Cadmium	106-1	217849	218722	218926	218499	0.26	cps
Cadmium	111-1	1999944	1974429	1972115	1982163	0.78	cps
Calcium	43-1	2665174	2676935	2642852	2661654	0.65	cps
Calcium	44-1	42917739	42550034	43456711	42974828	1.06	cps
Carbon	12-1	4761308	4800714	4818348	4793457	0.61	cps
Carbon	12-2	31557	30983	31400	31313	0.95	cps
Chlorine	35-1	436590	435706	430533	434276	0.75	cps
Chlorine	35-2	1450	1550	1480	1493	3.44	cps
Chromium	52-2	1593853	1584041	1560118	1579337	1.10	cps
Cobalt	59-2	3002130	3035943	2929961	2989345	1.81	cps
Copper	63-2	22291260	22028958	22335776	22218664	0.75	cps
Dysprosium	156-1	357	313	370	347	8.55	cps
Dysprosium	156-2	23	23	40	29	33.32	cps
Erbium	164-1	133	213	173	173	23.08	cps
Erbium	164-2	60	47	40	49	20.83	cps
Gadolinium	160-1	143	130	160	144	10.41	cps
Gadolinium	160-2	27	33	37	32	15.80	cps
Holmium	165-1	17795469	17994337	18253831	18014546	1.28	cps
Holmium	165-2	5785216	5683030	5715227	5727824	0.91	cps
Indium	115-1	13442500	13543533	13864258	13616764	1.62	cps
Indium	115-2	1166494	1153392	1167711	1162532	0.68	cps
Iron	54-2	3141315	3159651	3079494	3126820	1.34	cps
Iron	56-2	56389104	56087719	56422459	56299761	0.33	cps
Iron	57-2	1429545	1440808	1352855	1407736	3.40	cps
Krypton	83-1	257	243	213	238	9.33	cps
Lead	206-1	31079894	31313469	31902135	31431832	1.35	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	27029353	27100350	27494500	27208068	0.92	cps
Lead	208-1	124302477	124755238	126783551	125280422	1.05	cps
Lithium	6-1	8126701	8060459	8009649	8065603	0.73	cps
Magnesium	24-2	11202401	11141686	11087343	11143810	0.52	cps
Manganese	55-2	6231663	6243496	6272676	6249278	0.34	cps
Molybdenum	94-1	26528699	26566777	26879738	26658405	0.72	cps
Molybdenum	95-1	38558199	38152574	39385526	38698767	1.62	cps
Molybdenum	96-1	42188742	42480342	42810797	42493294	0.73	cps
Molybdenum	97-1	23732241	24187621	24215981	24045281	1.13	cps
Molybdenum	98-1	63391139	63008231	63406726	63268699	0.36	cps
Neodymium	150-1	657	670	643	657	2.03	cps
Neodymium	150-2	20	20	20	20	0.00	cps
Nickel	60-2	771767	785283	774214	777088	0.93	cps
Phosphorus	31-2	27860	28164	27833	27952	0.66	cps
Potassium	39-2	2957102	2951324	2902709	2937045	1.02	cps
Rhodium	103-1	12481865	12676632	12748338	12635612	1.09	cps
Rhodium	103-2	4570052	4514481	4578611	4554382	0.76	cps
Scandium	45-1	10013373	10122311	10434008	10189897	2.14	cps
Scandium	45-2	169881	167443	169601	168975	0.79	cps
Sdium	23-2	22160815	22146657	22011831	22106434	0.37	cps
Selenium	82-1	118524	120427	119646	119532	0.80	cps
Selenium	77-2	1693	1750	1660	1701	2.67	cps
Selenium	78-2	5945	5821	5858	5875	1.08	cps
Silicon	28-1	11698829	11772089	11724118	11731679	0.32	cps
Silver	107-1	9914057	9902067	9854051	9890058	0.32	cps
Silver	109-1	9578850	9413459	9215364	9402558	1.94	cps
Strontium	86-1	2555827	2560228	2600618	2572224	0.96	cps
Strontium	88-1	21674154	21982658	21891827	21849546	0.73	cps
Sulfur	34-1	1274589	1305014	1305989	1295197	1.38	cps
Terbium	159-1	18629514	18564944	19116969	18770476	1.61	cps
Terbium	159-2	5569115	5403308	5395991	5456138	1.79	cps
Thallium	203-1	7972980	7944384	8070358	7995908	0.83	cps
Thallium	205-1	18717260	18852484	18713291	18761012	0.42	cps
Tin	118-1	6093775	6256161	6182547	6177494	1.32	cps
Titanium	47-1	12081953	12072237	12192921	12115704	0.55	cps
Uranium	238-1	24956807	25131901	25367286	25151998	0.82	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778BS	Instrumnet Name :	P8
Client Sample ID :	PB166778BS	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:07:53	DataFile Name :	021LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1185772	1178547	1178751	1181023	0.35	cps
Ytterbium	172-1	237	237	200	224	9.43	cps
Ytterbium	172-2	53	80	83	72	22.77	cps
Ytterbium	176-1	35721	35541	35367	35543	0.50	cps
Ytterbium	176-2	10788	11115	10905	10936	1.52	cps
Yttrium	89-1	24149647	24796985	25107965	24684866	1.98	cps
Yttrium	89-2	1561539	1558967	1583262	1567923	0.85	cps
Zinc	66-2	2369756	2384521	2380657	2378311	0.32	cps
Zirconium	90-1	13116520	13399452	13285919	13267297	1.07	cps
Zirconium	91-1	2909106	2949596	2965350	2941351	0.99	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	97	87	93	92	5.52	cps
Antimony	121-1	980	903	937	940	4.09	cps
Arsenic	75-2	3	7	10	7	50.03	cps
Barium	135-1	1380	1383	1290	1351	3.92	cps
Barium	137-1	2314	2300	2207	2274	2.56	cps
Beryllium	9-1	937	806	775	840	10.27	cps
Bismuth	209-1	11745646	11738610	11665240	11716499	0.38	cps
Bismuth	209-2	4195766	4192888	4216818	4201824	0.31	cps
Bromine	81-1	4474	4641	4707	4607	2.61	cps
Cadmium	108-1	70	50	43	54	25.49	cps
Cadmium	106-1	7062	7055	6989	7035	0.58	cps
Cadmium	111-1	4964	4974	4942	4960	0.33	cps
Calcium	43-1	473	357	367	399	16.21	cps
Calcium	44-1	17921	17831	17614	17789	0.89	cps
Carbon	12-1	3912546	3772838	3721869	3802417	2.60	cps
Carbon	12-2	22380	22634	22240	22418	0.89	cps
Chlorine	35-1	311505	305548	303861	306971	1.31	cps
Chlorine	35-2	1057	1100	950	1036	7.45	cps
Chromium	52-2	1783	1883	1907	1858	3.53	cps
Cobalt	59-2	350	327	317	331	5.17	cps
Copper	63-2	4214	4221	4384	4273	2.25	cps
Dysprosium	156-1	110	143	103	119	18.03	cps
Dysprosium	156-2	3	3	0	2	86.60	cps
Erbium	164-1	87	97	97	93	6.19	cps
Erbium	164-2	30	23	30	28	13.86	cps
Gadolinium	160-1	67	80	97	81	18.53	cps
Gadolinium	160-2	20	33	13	22	45.83	cps
Holmium	165-1	18194766	18229607	18066810	18163728	0.47	cps
Holmium	165-2	5830748	5780025	5738667	5783147	0.80	cps
Indium	115-1	14286745	14213687	14548406	14349613	1.23	cps
Indium	115-2	1205540	1210067	1202861	1206156	0.30	cps
Iron	54-2	743	727	723	731	1.47	cps
Iron	56-2	11808	11658	11628	11698	0.83	cps
Iron	57-2	320	313	390	341	12.45	cps
Krypton	83-1	253	270	223	249	9.50	cps
Lead	206-1	2720	2644	2580	2648	2.65	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2417	2340	2107	2288	7.06	cps
Lead	208-1	10865	10639	10242	10582	2.98	cps
Lithium	6-1	8284560	8262618	8229199	8258792	0.34	cps
Magnesium	24-2	1220	1217	1210	1216	0.42	cps
Manganese	55-2	743	697	673	704	5.06	cps
Molybdenum	94-1	1070	793	1063	976	16.18	cps
Molybdenum	95-1	1340	970	1070	1127	16.99	cps
Molybdenum	96-1	1400	1267	1193	1287	8.14	cps
Molybdenum	97-1	693	630	673	666	4.86	cps
Molybdenum	98-1	2000	1587	1740	1776	11.77	cps
Neodymium	150-1	50	67	50	56	17.32	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	1050	1013	970	1011	3.96	cps
Phosphorus	31-2	63	67	93	74	22.09	cps
Potassium	39-2	7455	7355	7622	7478	1.80	cps
Rhodium	103-1	13634114	13307544	13429389	13457016	1.23	cps
Rhodium	103-2	4736977	4828604	4829199	4798260	1.11	cps
Scandium	45-1	10402542	10267247	10234841	10301543	0.86	cps
Scandium	45-2	167783	165170	165841	166265	0.82	cps
Sdium	23-2	31350	31063	30529	30981	1.35	cps
Selenium	82-1	-50	-33	80	-1	-6353.75	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	10	7	0	6	91.64	cps
Silicon	28-1	547080	545761	544242	545695	0.26	cps
Silver	107-1	607	597	613	606	1.39	cps
Silver	109-1	490	453	503	482	5.37	cps
Strontium	86-1	580	653	627	620	5.99	cps
Strontium	88-1	1843	2040	2023	1969	5.54	cps
Sulfur	34-1	578319	578794	577952	578355	0.07	cps
Terbium	159-1	18685543	18762225	18299883	18582551	1.33	cps
Terbium	159-2	5590976	5585192	5500263	5558810	0.91	cps
Thallium	203-1	737	757	637	710	9.06	cps
Thallium	205-1	1853	1597	1537	1662	10.12	cps
Tin	118-1	1580	1680	1443	1568	7.58	cps
Titanium	47-1	343	317	343	334	4.60	cps
Uranium	238-1	410	320	267	332	21.81	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166778TB	Instrumnet Name :	P8
Client Sample ID :	PB166778TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:12:20	DataFile Name :	022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	17	13	7	12	41.65	cps
Ytterbium	172-1	150	83	110	114	29.32	cps
Ytterbium	172-2	47	30	43	40	22.05	cps
Ytterbium	176-1	1987	1953	1944	1961	1.16	cps
Ytterbium	176-2	300	317	290	302	4.46	cps
Yttrium	89-1	25544617	25231762	25487070	25421150	0.66	cps
Yttrium	89-2	1552863	1586436	1573357	1570885	1.08	cps
Zinc	66-2	207	177	177	187	9.28	cps
Zirconium	90-1	1080	990	960	1010	6.18	cps
Zirconium	91-1	247	197	260	234	14.24	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	206599	206412	210707	207906	1.17	cps
Antimony	121-1	623	657	590	623	5.35	cps
Arsenic	75-2	130	130	140	133	4.33	cps
Barium	135-1	94255	93825	95070	94383	0.67	cps
Barium	137-1	165135	166011	165496	165547	0.27	cps
Beryllium	9-1	1550	1499	1546	1532	1.87	cps
Bismuth	209-1	11476928	11649057	11654998	11593661	0.87	cps
Bismuth	209-2	4217823	4176823	4183683	4192776	0.52	cps
Bromine	81-1	5211	5051	5238	5167	1.95	cps
Cadmium	108-1	70	90	67	76	16.70	cps
Cadmium	106-1	7049	7579	7542	7390	4.01	cps
Cadmium	111-1	5358	5679	5686	5574	3.36	cps
Calcium	43-1	3698314	3707226	3622676	3676072	1.26	cps
Calcium	44-1	59903977	59238147	59076784	59406303	0.74	cps
Carbon	12-1	4464903	4493984	4488326	4482404	0.34	cps
Carbon	12-2	28070	28401	29349	28607	2.32	cps
Chlorine	35-1	290870	290966	292318	291385	0.28	cps
Chlorine	35-2	937	1113	1210	1087	12.76	cps
Chromium	52-2	5044	5118	5261	5141	2.14	cps
Cobalt	59-2	89247	89234	89915	89465	0.44	cps
Copper	63-2	89402	88718	89899	89340	0.66	cps
Dysprosium	156-1	41541	41742	41671	41651	0.24	cps
Dysprosium	156-2	13467	13774	13514	13585	1.22	cps
Erbium	164-1	54956	55659	57323	55979	2.17	cps
Erbium	164-2	16677	16824	16641	16714	0.58	cps
Gadolinium	160-1	44096	43999	44253	44116	0.29	cps
Gadolinium	160-2	15519	16133	16647	16100	3.51	cps
Holmium	165-1	18226062	18900079	18708686	18611609	1.87	cps
Holmium	165-2	5783350	5878331	5838580	5833420	0.82	cps
Indium	115-1	14146838	14348682	14277411	14257644	0.72	cps
Indium	115-2	1209729	1221861	1212184	1214592	0.53	cps
Iron	54-2	4683360	4661348	4761869	4702193	1.12	cps
Iron	56-2	86308315	86811025	86528482	86549274	0.29	cps
Iron	57-2	2226589	2198605	2196622	2207272	0.76	cps
Krypton	83-1	347	357	370	358	3.27	cps
Lead	206-1	4681	4698	4444	4608	3.08	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4201	3997	3984	4061	2.99	cps
Lead	208-1	18989	19099	18612	18900	1.35	cps
Lithium	6-1	8228678	8236482	8375686	8280282	1.00	cps
Magnesium	24-2	1612386	1595602	1637686	1615225	1.31	cps
Manganese	55-2	1682637	1685873	1671093	1679868	0.46	cps
Molybdenum	94-1	2224	2347	2324	2298	2.85	cps
Molybdenum	95-1	1130	937	907	991	12.23	cps
Molybdenum	96-1	1757	1890	1760	1802	4.22	cps
Molybdenum	97-1	597	683	597	626	8.00	cps
Molybdenum	98-1	1717	1503	1480	1567	8.33	cps
Neodymium	150-1	39020	39047	39083	39050	0.08	cps
Neodymium	150-2	8359	8733	8640	8577	2.27	cps
Nickel	60-2	10017	9817	10007	9947	1.13	cps
Phosphorus	31-2	190	220	153	188	17.78	cps
Potassium	39-2	58059	58511	60379	58983	2.08	cps
Rhodium	103-1	13032364	13261386	13243729	13179160	0.97	cps
Rhodium	103-2	4749054	4788120	4735664	4757612	0.57	cps
Scandium	45-1	10504462	10510848	10603168	10539492	0.52	cps
Scandium	45-2	171472	171769	173267	172170	0.56	cps
Sdium	23-2	4568164	4464347	4597977	4543496	1.54	cps
Selenium	82-1	60	80	67	69	14.79	cps
Selenium	77-2	47	70	37	51	33.46	cps
Selenium	78-2	43	47	43	44	4.34	cps
Silicon	28-1	75445159	77259051	77231681	76645297	1.36	cps
Silver	107-1	420	320	367	369	13.56	cps
Silver	109-1	280	243	180	234	21.58	cps
Strontium	86-1	569141	569376	573553	570690	0.43	cps
Strontium	88-1	5152592	5201920	5200569	5185027	0.54	cps
Sulfur	34-1	5433858	5558662	5476304	5489608	1.16	cps
Terbium	159-1	18636966	19033288	19397914	19022722	2.00	cps
Terbium	159-2	5575648	5625503	5596323	5599158	0.45	cps
Thallium	203-1	633	543	587	588	7.66	cps
Thallium	205-1	1490	1447	1473	1470	1.49	cps
Tin	118-1	2037	2104	2084	2075	1.65	cps
Titanium	47-1	1693	1797	1800	1763	3.44	cps
Uranium	238-1	33019	33534	33377	33310	0.79	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-02DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-01-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:15:41	DataFile Name :	023AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	45305	45683	45960	45649	0.72	cps
Ytterbium	172-1	20750	20770	20302	20607	1.28	cps
Ytterbium	172-2	7042	7539	7682	7421	4.53	cps
Ytterbium	176-1	14648	14381	14558	14529	0.93	cps
Ytterbium	176-2	5164	5061	4908	5044	2.56	cps
Yttrium	89-1	25774200	26324848	26543641	26214230	1.51	cps
Yttrium	89-2	1671338	1668553	1680143	1673345	0.36	cps
Zinc	66-2	65400	64740	65339	65160	0.56	cps
Zirconium	90-1	4574	4461	4464	4500	1.43	cps
Zirconium	91-1	980	1083	1053	1039	5.12	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	345986	342144	346521	344883	0.69	cps
Antimony	121-1	430	467	470	456	4.87	cps
Arsenic	75-2	137	107	163	136	20.91	cps
Barium	135-1	84770	83807	83730	84102	0.69	cps
Barium	137-1	148893	146432	146578	147301	0.94	cps
Beryllium	9-1	1682	1686	1601	1657	2.90	cps
Bismuth	209-1	11738552	11527059	11699482	11655031	0.97	cps
Bismuth	209-2	4204912	4149957	4185595	4180155	0.67	cps
Bromine	81-1	4964	5428	5131	5174	4.54	cps
Cadmium	108-1	90	80	93	88	7.90	cps
Cadmium	106-1	7582	7379	7455	7472	1.38	cps
Cadmium	111-1	5711	5532	5527	5590	1.88	cps
Calcium	43-1	3083079	3127414	3113222	3107905	0.73	cps
Calcium	44-1	49649238	50355728	50301081	50102015	0.78	cps
Carbon	12-1	4560076	4588769	4620295	4589713	0.66	cps
Carbon	12-2	29440	28287	28561	28763	2.09	cps
Chlorine	35-1	277021	277214	273898	276044	0.67	cps
Chlorine	35-2	943	963	973	960	1.59	cps
Chromium	52-2	6638	6998	7052	6896	3.26	cps
Cobalt	59-2	97031	96128	95504	96221	0.80	cps
Copper	63-2	97354	96186	98260	97267	1.07	cps
Dysprosium	156-1	51592	52302	51726	51874	0.73	cps
Dysprosium	156-2	15746	16370	16287	16134	2.10	cps
Erbium	164-1	65122	66455	65527	65701	1.04	cps
Erbium	164-2	19358	19531	19728	19539	0.95	cps
Gadolinium	160-1	53413	54350	54370	54044	1.01	cps
Gadolinium	160-2	20229	20048	20663	20313	1.55	cps
Holmium	165-1	18792913	18690687	18519313	18667638	0.74	cps
Holmium	165-2	5743876	5793953	5858197	5798675	0.99	cps
Indium	115-1	14356183	14473800	14412178	14414053	0.41	cps
Indium	115-2	1221692	1217778	1233673	1224381	0.68	cps
Iron	54-2	5145681	5091244	5059866	5098930	0.85	cps
Iron	56-2	93870915	94105892	94290252	94089020	0.22	cps
Iron	57-2	2394402	2379034	2425782	2399739	0.99	cps
Krypton	83-1	313	387	397	366	12.45	cps
Lead	206-1	4948	5348	5425	5240	4.89	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4251	4471	4277	4333	2.77	cps
Lead	208-1	19676	20687	20210	20191	2.50	cps
Lithium	6-1	8446518	8447228	8196783	8363510	1.73	cps
Magnesium	24-2	1930041	1924332	1916277	1923550	0.36	cps
Manganese	55-2	1590058	1594556	1604583	1596399	0.47	cps
Molybdenum	94-1	2407	2087	2167	2220	7.50	cps
Molybdenum	95-1	940	800	923	888	8.61	cps
Molybdenum	96-1	1697	1690	1633	1673	2.08	cps
Molybdenum	97-1	530	487	487	501	4.99	cps
Molybdenum	98-1	1343	1243	1240	1276	4.60	cps
Neodymium	150-1	50789	50776	51515	51026	0.83	cps
Neodymium	150-2	11035	11025	11231	11097	1.05	cps
Nickel	60-2	11755	11194	11488	11479	2.44	cps
Phosphorus	31-2	377	467	453	432	11.24	cps
Potassium	39-2	64192	61437	62290	62640	2.25	cps
Rhodium	103-1	13535992	13464859	13350227	13450360	0.70	cps
Rhodium	103-2	4826066	4798079	4867845	4830663	0.73	cps
Scandium	45-1	10720765	10885097	10696808	10767557	0.95	cps
Scandium	45-2	172906	171263	174624	172931	0.97	cps
Sdium	23-2	4027850	3995755	4072160	4031922	0.95	cps
Selenium	82-1	97	33	17	49	86.35	cps
Selenium	77-2	70	57	57	61	12.59	cps
Selenium	78-2	43	57	67	56	21.08	cps
Silicon	28-1	81648304	81245715	82809162	81901060	0.99	cps
Silver	107-1	277	307	290	291	5.16	cps
Silver	109-1	157	180	153	163	8.89	cps
Strontium	86-1	488701	493011	488808	490173	0.50	cps
Strontium	88-1	4512704	4501390	4465812	4493302	0.54	cps
Sulfur	34-1	5575655	5618876	5561899	5585477	0.53	cps
Terbium	159-1	19169100	19134086	18903460	19068882	0.76	cps
Terbium	159-2	5637656	5574060	5620922	5610880	0.59	cps
Thallium	203-1	707	660	597	654	8.44	cps
Thallium	205-1	1477	1533	1370	1460	5.68	cps
Tin	118-1	1977	6267	1793	3346	75.66	cps
Titanium	47-1	2050	1983	1980	2005	1.97	cps
Uranium	238-1	36957	36415	36322	36565	0.94	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-04DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-02-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:18:54	DataFile Name :	024AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	84045	83552	84088	83895	0.35	cps
Ytterbium	172-1	23738	23801	22997	23512	1.90	cps
Ytterbium	172-2	8546	8610	8556	8571	0.40	cps
Ytterbium	176-1	16587	16240	16497	16441	1.10	cps
Ytterbium	176-2	5818	5858	5818	5831	0.40	cps
Yttrium	89-1	27398969	27487503	26969092	27285188	1.02	cps
Yttrium	89-2	1711697	1694456	1688303	1698152	0.71	cps
Zinc	66-2	76387	76880	76468	76579	0.35	cps
Zirconium	90-1	4894	5051	5201	5049	3.04	cps
Zirconium	91-1	1167	1180	1143	1163	1.60	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	395310	395012	395315	395212	0.04	cps
Antimony	121-1	4644	4464	4618	4575	2.12	cps
Arsenic	75-2	183	163	143	163	12.24	cps
Barium	135-1	92432	93956	91352	92580	1.41	cps
Barium	137-1	162406	160054	162658	161706	0.89	cps
Beryllium	9-1	1644	1626	1681	1650	1.70	cps
Bismuth	209-1	11703234	11705365	11582527	11663709	0.60	cps
Bismuth	209-2	4205740	4198013	4203690	4202481	0.10	cps
Bromine	81-1	5394	5074	5478	5316	4.01	cps
Cadmium	108-1	77	77	103	86	17.99	cps
Cadmium	106-1	7432	7662	7352	7482	2.15	cps
Cadmium	111-1	5575	5690	5477	5581	1.91	cps
Calcium	43-1	3205651	3218222	3218474	3214116	0.23	cps
Calcium	44-1	51353601	51603581	51629246	51528809	0.30	cps
Carbon	12-1	4725826	4695638	4667506	4696323	0.62	cps
Carbon	12-2	29052	28882	28498	28810	0.99	cps
Chlorine	35-1	246841	246328	241377	244849	1.23	cps
Chlorine	35-2	870	870	843	861	1.79	cps
Chromium	52-2	8159	8256	7789	8068	3.05	cps
Cobalt	59-2	100360	98840	98823	99341	0.89	cps
Copper	63-2	93059	93022	94824	93635	1.10	cps
Dysprosium	156-1	52860	53868	53005	53244	1.02	cps
Dysprosium	156-2	16577	16584	17078	16746	1.71	cps
Erbium	164-1	68538	66944	67714	67732	1.18	cps
Erbium	164-2	19812	20806	20342	20320	2.45	cps
Gadolinium	160-1	55271	56017	56161	55816	0.86	cps
Gadolinium	160-2	20559	20619	20626	20602	0.18	cps
Holmium	165-1	18613697	18768559	18625911	18669389	0.46	cps
Holmium	165-2	5851233	5813440	5793417	5819363	0.50	cps
Indium	115-1	14625342	14523669	14378392	14509134	0.86	cps
Indium	115-2	1213663	1211032	1209539	1211412	0.17	cps
Iron	54-2	5346485	5340510	5313997	5333664	0.32	cps
Iron	56-2	98698809	98322222	98200422	98407151	0.26	cps
Iron	57-2	2528855	2469940	2508755	2502517	1.20	cps
Krypton	83-1	337	293	417	349	17.93	cps
Lead	206-1	6335	6258	6108	6234	1.85	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5271	5354	5428	5351	1.47	cps
Lead	208-1	24529	24613	24873	24672	0.73	cps
Lithium	6-1	8514795	8417972	8429585	8454117	0.63	cps
Magnesium	24-2	2035629	2004035	2011618	2017094	0.82	cps
Manganese	55-2	1561986	1564187	1565587	1563920	0.12	cps
Molybdenum	94-1	2347	2364	2047	2252	7.91	cps
Molybdenum	95-1	910	747	907	854	10.93	cps
Molybdenum	96-1	1670	1597	1713	1660	3.55	cps
Molybdenum	97-1	537	443	483	488	9.60	cps
Molybdenum	98-1	1317	1267	1210	1265	4.22	cps
Neodymium	150-1	53526	53225	53406	53386	0.28	cps
Neodymium	150-2	11238	11362	11425	11342	0.84	cps
Nickel	60-2	11501	11652	11431	11528	0.98	cps
Phosphorus	31-2	547	520	470	512	7.60	cps
Potassium	39-2	61320	60603	61152	61025	0.61	cps
Rhodium	103-1	13522089	13466145	13272439	13420224	0.98	cps
Rhodium	103-2	4727630	4778161	4764001	4756597	0.55	cps
Scandium	45-1	10885280	10832593	10797324	10838399	0.41	cps
Scandium	45-2	171425	170734	170923	171028	0.21	cps
Sdium	23-2	3797006	3759105	3759842	3771984	0.57	cps
Selenium	82-1	97	113	0	70	87.42	cps
Selenium	77-2	57	57	63	59	6.53	cps
Selenium	78-2	87	70	53	70	23.81	cps
Silicon	28-1	89142605	87936312	87563065	88213994	0.94	cps
Silver	107-1	257	310	310	292	10.54	cps
Silver	109-1	133	153	137	141	7.59	cps
Strontium	86-1	497904	500795	502712	500471	0.48	cps
Strontium	88-1	4472153	4604520	4580957	4552543	1.55	cps
Sulfur	34-1	5870284	5742863	5809904	5807684	1.10	cps
Terbium	159-1	19357061	19019616	19088011	19154896	0.93	cps
Terbium	159-2	5547545	5650813	5623550	5607303	0.95	cps
Thallium	203-1	540	587	610	579	6.16	cps
Thallium	205-1	1427	1333	1233	1331	7.26	cps
Tin	118-1	1783	1813	1727	1775	2.48	cps
Titanium	47-1	2230	2274	2117	2207	3.67	cps
Uranium	238-1	35496	36673	36489	36219	1.75	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-06DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-03-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:22:08	DataFile Name :	025AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	94220	92694	93063	93326	0.85	cps
Ytterbium	172-1	24456	24479	24710	24548	0.57	cps
Ytterbium	172-2	8936	8993	8933	8954	0.38	cps
Ytterbium	176-1	17351	17038	17091	17160	0.98	cps
Ytterbium	176-2	5695	5881	5925	5834	2.10	cps
Yttrium	89-1	27139122	27209960	27271819	27206967	0.24	cps
Yttrium	89-2	1693856	1693274	1671394	1686175	0.76	cps
Zinc	66-2	72397	71030	70796	71407	1.21	cps
Zirconium	90-1	4871	4964	4948	4928	1.01	cps
Zirconium	91-1	1103	1047	1080	1077	2.65	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	228094	224759	228536	227129	0.91	cps
Antimony	121-1	390	460	467	439	9.68	cps
Arsenic	75-2	123	103	153	127	19.87	cps
Barium	135-1	87839	88440	89701	88660	1.07	cps
Barium	137-1	155920	154946	154882	155249	0.37	cps
Beryllium	9-1	1516	1569	1596	1560	2.60	cps
Bismuth	209-1	11484394	11520004	11533275	11512557	0.22	cps
Bismuth	209-2	4159142	4172112	4156245	4162500	0.20	cps
Bromine	81-1	5281	5054	5138	5158	2.22	cps
Cadmium	108-1	77	80	63	73	12.03	cps
Cadmium	106-1	7499	7549	7702	7583	1.40	cps
Cadmium	111-1	5692	5695	5731	5706	0.38	cps
Calcium	43-1	3790575	3756772	3693551	3746966	1.31	cps
Calcium	44-1	60626416	59703229	59481794	59937146	1.01	cps
Carbon	12-1	4785921	4839368	4870415	4831902	0.88	cps
Carbon	12-2	29389	29727	29513	29543	0.58	cps
Chlorine	35-1	225719	223730	224951	224800	0.45	cps
Chlorine	35-2	797	737	820	784	5.48	cps
Chromium	52-2	6912	7085	6678	6892	2.96	cps
Cobalt	59-2	94631	95866	96772	95757	1.12	cps
Copper	63-2	136905	136724	137925	137185	0.47	cps
Dysprosium	156-1	45544	45373	45333	45417	0.25	cps
Dysprosium	156-2	14368	14338	14178	14294	0.72	cps
Erbium	164-1	59361	60001	60229	59864	0.75	cps
Erbium	164-2	18420	18066	17809	18098	1.69	cps
Gadolinium	160-1	47809	48290	48244	48114	0.55	cps
Gadolinium	160-2	17825	17398	17692	17638	1.24	cps
Holmium	165-1	18712323	18487301	18619059	18606228	0.61	cps
Holmium	165-2	5874803	5852101	5807474	5844793	0.59	cps
Indium	115-1	14295665	14227577	14410709	14311317	0.65	cps
Indium	115-2	1217333	1219153	1211330	1215939	0.34	cps
Iron	54-2	5002894	4942499	5009725	4985039	0.74	cps
Iron	56-2	91901929	91661939	91908322	91824063	0.15	cps
Iron	57-2	2339253	2356552	2390186	2361997	1.10	cps
Krypton	83-1	333	353	340	342	2.98	cps
Lead	206-1	4427	4884	4508	4606	5.30	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3957	3731	3901	3863	3.05	cps
Lead	208-1	17888	17885	18122	17965	0.76	cps
Lithium	6-1	8533481	8528274	8487240	8516332	0.30	cps
Magnesium	24-2	1749529	1761534	1752397	1754487	0.36	cps
Manganese	55-2	1803073	1787353	1808200	1799542	0.60	cps
Molybdenum	94-1	2170	2170	2184	2175	0.35	cps
Molybdenum	95-1	880	867	857	868	1.35	cps
Molybdenum	96-1	1757	1747	1710	1738	1.41	cps
Molybdenum	97-1	500	520	477	499	4.35	cps
Molybdenum	98-1	1303	1323	1243	1290	3.23	cps
Neodymium	150-1	40725	42106	42624	41818	2.35	cps
Neodymium	150-2	9430	9350	9157	9312	1.51	cps
Nickel	60-2	11852	12139	11688	11893	1.92	cps
Phosphorus	31-2	223	217	183	208	10.31	cps
Potassium	39-2	64487	64373	65243	64701	0.73	cps
Rhodium	103-1	13382639	13158623	13428833	13323365	1.08	cps
Rhodium	103-2	4772875	4825751	4785039	4794555	0.58	cps
Scandium	45-1	10968351	10722224	10675601	10788726	1.46	cps
Scandium	45-2	172549	172950	170987	172162	0.60	cps
Sdium	23-2	5135008	5236941	5237412	5203120	1.13	cps
Selenium	82-1	53	63	63	60	9.62	cps
Selenium	77-2	50	43	47	47	7.15	cps
Selenium	78-2	60	57	27	48	38.42	cps
Silicon	28-1	86983325	87434775	87901479	87439860	0.53	cps
Silver	107-1	233	220	253	236	7.12	cps
Silver	109-1	120	140	80	113	26.96	cps
Strontium	86-1	594797	599664	600283	598248	0.50	cps
Strontium	88-1	5459544	5415088	5421580	5432071	0.44	cps
Sulfur	34-1	5871825	5770685	5793718	5812076	0.91	cps
Terbium	159-1	19289263	18943695	19089970	19107643	0.91	cps
Terbium	159-2	5636342	5639116	5541632	5605697	0.99	cps
Thallium	203-1	553	547	507	536	4.71	cps
Thallium	205-1	1250	1110	1253	1205	6.79	cps
Tin	118-1	2124	2337	2080	2180	6.30	cps
Titanium	47-1	1867	1693	1890	1817	5.91	cps
Uranium	238-1	34350	35272	36094	35239	2.48	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-08DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-04-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:25:23	DataFile Name :	026AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	51536	50318	51281	51045	1.26	cps
Ytterbium	172-1	21397	21080	21765	21414	1.60	cps
Ytterbium	172-2	8193	8076	8043	8104	0.97	cps
Ytterbium	176-1	14902	15022	15509	15144	2.12	cps
Ytterbium	176-2	5164	5411	5211	5262	2.49	cps
Yttrium	89-1	26995310	26804115	26590417	26796614	0.76	cps
Yttrium	89-2	1710555	1667119	1673772	1683815	1.39	cps
Zinc	66-2	69154	67600	68200	68318	1.15	cps
Zirconium	90-1	4561	4971	4537	4690	5.20	cps
Zirconium	91-1	1047	987	1107	1047	5.73	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	345558	350669	353182	349803	1.11	cps
Antimony	121-1	317	357	267	313	14.39	cps
Arsenic	75-2	203	137	137	159	24.23	cps
Barium	135-1	94122	92093	92446	92887	1.17	cps
Barium	137-1	160145	162489	162442	161692	0.83	cps
Beryllium	9-1	1460	1552	1457	1490	3.63	cps
Bismuth	209-1	11677651	11538493	11667194	11627779	0.67	cps
Bismuth	209-2	4112742	4189774	4220780	4174432	1.33	cps
Bromine	81-1	5094	5258	5101	5151	1.80	cps
Cadmium	108-1	63	60	107	77	33.96	cps
Cadmium	106-1	7355	7525	7212	7364	2.13	cps
Cadmium	111-1	5481	5583	5334	5466	2.29	cps
Calcium	43-1	3693397	3696945	3760026	3716790	1.01	cps
Calcium	44-1	59985987	59898204	60008282	59964158	0.10	cps
Carbon	12-1	4656257	4671215	4722481	4683318	0.74	cps
Carbon	12-2	28999	28491	28301	28597	1.26	cps
Chlorine	35-1	202752	201769	202942	202488	0.31	cps
Chlorine	35-2	703	757	683	714	5.31	cps
Chromium	52-2	6922	6865	6582	6789	2.68	cps
Cobalt	59-2	95101	96037	96856	95998	0.91	cps
Copper	63-2	94508	95236	94693	94813	0.40	cps
Dysprosium	156-1	53319	52881	54152	53451	1.21	cps
Dysprosium	156-2	17188	16877	17114	17060	0.95	cps
Erbium	164-1	66499	66069	67078	66548	0.76	cps
Erbium	164-2	20132	19975	20018	20042	0.40	cps
Gadolinium	160-1	56261	55692	55418	55790	0.77	cps
Gadolinium	160-2	20426	21017	21134	20859	1.82	cps
Holmium	165-1	18561206	18487761	18655773	18568247	0.45	cps
Holmium	165-2	5863424	5840981	5791717	5832041	0.63	cps
Indium	115-1	14426449	14386745	14524901	14446032	0.49	cps
Indium	115-2	1206055	1216887	1214509	1212483	0.47	cps
Iron	54-2	5235600	5139247	5141497	5172114	1.06	cps
Iron	56-2	96550589	95071949	96049915	95890817	0.78	cps
Iron	57-2	2481607	2449229	2451772	2460869	0.73	cps
Krypton	83-1	333	323	320	326	2.13	cps
Lead	206-1	5224	5134	4941	5100	2.84	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4454	4377	4191	4341	3.12	cps
Lead	208-1	20453	20590	19813	20285	2.05	cps
Lithium	6-1	8340786	8372075	8292760	8335207	0.48	cps
Magnesium	24-2	1929433	1947488	1956957	1944626	0.72	cps
Manganese	55-2	1481618	1474436	1492230	1482761	0.60	cps
Molybdenum	94-1	2180	2000	1987	2056	5.25	cps
Molybdenum	95-1	800	790	720	770	5.66	cps
Molybdenum	96-1	1657	1597	1670	1641	2.38	cps
Molybdenum	97-1	473	437	410	440	7.23	cps
Molybdenum	98-1	1147	1130	1120	1132	1.19	cps
Neodymium	150-1	53918	53279	54185	53794	0.87	cps
Neodymium	150-2	11652	11522	11658	11611	0.66	cps
Nickel	60-2	11275	11458	11595	11442	1.40	cps
Phosphorus	31-2	377	347	440	388	12.29	cps
Potassium	39-2	61537	60774	62207	61506	1.17	cps
Rhodium	103-1	13384864	13369449	13449305	13401206	0.32	cps
Rhodium	103-2	4759975	4802367	4757297	4773213	0.53	cps
Scandium	45-1	10511549	10741213	10738744	10663835	1.24	cps
Scandium	45-2	176300	173635	174340	174758	0.79	cps
Sdium	23-2	4093874	3991180	4117906	4067654	1.65	cps
Selenium	82-1	130	63	117	103	34.14	cps
Selenium	77-2	50	83	47	60	33.79	cps
Selenium	78-2	47	53	53	51	7.52	cps
Silicon	28-1	83974424	84477280	85018449	84490051	0.62	cps
Silver	107-1	273	203	220	232	15.75	cps
Silver	109-1	113	130	97	113	14.70	cps
Strontium	86-1	499834	502569	499174	500526	0.36	cps
Strontium	88-1	4610644	4596560	4591353	4599519	0.22	cps
Sulfur	34-1	5981601	5952797	6055943	5996781	0.89	cps
Terbium	159-1	18870059	18938564	19245601	19018075	1.05	cps
Terbium	159-2	5540519	5728680	5666617	5645272	1.70	cps
Thallium	203-1	537	450	507	498	8.84	cps
Thallium	205-1	1163	1073	1147	1128	4.25	cps
Tin	118-1	1820	1463	1650	1645	10.85	cps
Titanium	47-1	1994	1900	1840	1911	4.04	cps
Uranium	238-1	35326	34620	35443	35130	1.27	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-10DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-05-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:28:34	DataFile Name :	027AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	78071	77820	78252	78048	0.28	cps
Ytterbium	172-1	23695	23534	23731	23653	0.44	cps
Ytterbium	172-2	8840	8519	8303	8554	3.16	cps
Ytterbium	176-1	16420	16230	15913	16188	1.58	cps
Ytterbium	176-2	5781	5718	5968	5822	2.23	cps
Yttrium	89-1	26887518	27103268	27299859	27096882	0.76	cps
Yttrium	89-2	1707540	1696445	1680548	1694844	0.80	cps
Zinc	66-2	74199	75674	73908	74594	1.27	cps
Zirconium	90-1	4948	4848	4774	4856	1.79	cps
Zirconium	91-1	1030	1047	1047	1041	0.92	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	539320	534088	538804	537404	0.54	cps
Antimony	121-1	273	287	277	279	2.49	cps
Arsenic	75-2	153	220	183	186	17.99	cps
Barium	135-1	84817	85903	85712	85477	0.68	cps
Barium	137-1	148970	149438	150686	149698	0.59	cps
Beryllium	9-1	1620	1511	1575	1569	3.48	cps
Bismuth	209-1	11914296	11689416	11788742	11797485	0.96	cps
Bismuth	209-2	4227048	4203335	4222928	4217770	0.30	cps
Bromine	81-1	4754	5164	5201	5040	4.92	cps
Cadmium	108-1	43	63	83	63	31.58	cps
Cadmium	106-1	7459	7532	7282	7424	1.73	cps
Cadmium	111-1	5567	5615	5366	5516	2.40	cps
Calcium	43-1	2695890	2674477	2669797	2680055	0.52	cps
Calcium	44-1	43117184	43422411	42654784	43064793	0.90	cps
Carbon	12-1	4561174	4531614	4619428	4570739	0.98	cps
Carbon	12-2	28434	28501	28889	28608	0.86	cps
Chlorine	35-1	189939	191218	193025	191394	0.81	cps
Chlorine	35-2	697	677	590	654	8.66	cps
Chromium	52-2	12369	12873	12559	12600	2.02	cps
Cobalt	59-2	104785	107283	104325	105464	1.51	cps
Copper	63-2	103275	102278	102768	102774	0.49	cps
Dysprosium	156-1	57958	58410	58045	58138	0.41	cps
Dysprosium	156-2	18269	18556	18379	18402	0.79	cps
Erbium	164-1	71993	71323	71005	71440	0.71	cps
Erbium	164-2	21304	21841	21150	21432	1.69	cps
Gadolinium	160-1	59120	60158	59478	59586	0.88	cps
Gadolinium	160-2	22082	22115	22058	22085	0.13	cps
Holmium	165-1	18533345	18923110	18461717	18639391	1.33	cps
Holmium	165-2	5895583	5889118	5877906	5887536	0.15	cps
Indium	115-1	14705079	14486837	14583550	14591822	0.75	cps
Indium	115-2	1233620	1232976	1243183	1236593	0.46	cps
Iron	54-2	5767332	5624546	5595846	5662575	1.62	cps
Iron	56-2	104639482	104744162	104181332	104521658	0.29	cps
Iron	57-2	2686658	2648872	2655937	2663822	0.75	cps
Krypton	83-1	360	400	357	372	6.48	cps
Lead	206-1	6608	6665	6745	6673	1.03	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5718	5651	5745	5705	0.84	cps
Lead	208-1	25987	26367	26437	26264	0.92	cps
Lithium	6-1	8416042	8432099	8349101	8399081	0.52	cps
Magnesium	24-2	2300713	2309761	2315535	2308670	0.32	cps
Manganese	55-2	1310194	1404645	1400250	1371696	3.89	cps
Molybdenum	94-1	2327	2364	2250	2314	2.50	cps
Molybdenum	95-1	933	947	937	939	0.74	cps
Molybdenum	96-1	1897	1937	1940	1925	1.25	cps
Molybdenum	97-1	637	667	500	601	14.78	cps
Molybdenum	98-1	1430	1340	1343	1371	3.72	cps
Neodymium	150-1	59622	60228	60951	60267	1.10	cps
Neodymium	150-2	13270	12840	13013	13041	1.66	cps
Nickel	60-2	14514	14351	14658	14507	1.06	cps
Phosphorus	31-2	830	837	807	824	1.91	cps
Potassium	39-2	66904	67276	67326	67169	0.34	cps
Rhodium	103-1	13323238	13608375	13302191	13411268	1.28	cps
Rhodium	103-2	4866042	4857028	4851340	4858137	0.15	cps
Scandium	45-1	10833730	10900282	10871034	10868349	0.31	cps
Scandium	45-2	175848	176354	175727	175976	0.19	cps
Sdium	23-2	3990034	3987402	3969852	3982430	0.28	cps
Selenium	82-1	153	13	47	71	102.85	cps
Selenium	77-2	30	67	70	56	39.95	cps
Selenium	78-2	33	63	57	51	30.82	cps
Silicon	28-1	95087559	94998322	95264679	95116853	0.14	cps
Silver	107-1	260	213	253	242	10.42	cps
Silver	109-1	90	90	127	102	20.71	cps
Strontium	86-1	448190	452972	452596	451253	0.59	cps
Strontium	88-1	4138217	4094045	4158175	4130146	0.79	cps
Sulfur	34-1	5762007	5805188	5776921	5781372	0.38	cps
Terbium	159-1	18858128	19203425	19215900	19092484	1.06	cps
Terbium	159-2	5655321	5689336	5687238	5677298	0.34	cps
Thallium	203-1	423	453	457	444	4.13	cps
Thallium	205-1	1200	1140	1233	1191	3.97	cps
Tin	118-1	1860	1777	1850	1829	2.49	cps
Titanium	47-1	2554	2640	2544	2579	2.06	cps
Uranium	238-1	38762	38274	37709	38249	1.38	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-12DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-06-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:31:48	DataFile Name :	028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	119241	119641	119930	119604	0.29	cps
Ytterbium	172-1	25789	25949	26029	25922	0.47	cps
Ytterbium	172-2	9527	9690	9493	9570	1.10	cps
Ytterbium	176-1	17815	18122	18069	18002	0.91	cps
Ytterbium	176-2	6255	6532	6412	6399	2.17	cps
Yttrium	89-1	27689160	27459065	27545563	27564596	0.42	cps
Yttrium	89-2	1733991	1694929	1740014	1722978	1.42	cps
Zinc	66-2	78228	78345	77812	78128	0.36	cps
Zirconium	90-1	4991	5031	5128	5050	1.39	cps
Zirconium	91-1	1070	1153	1063	1096	4.58	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3066342	3059119	3072031	3065831	0.21	cps
Antimony	121-1	7329584	7290081	7282813	7300826	0.34	cps
Arsenic	75-2	133007	134878	135154	134346	0.87	cps
Barium	135-1	9013942	9060481	9108812	9061078	0.52	cps
Barium	137-1	15616719	15760189	15675798	15684235	0.46	cps
Beryllium	9-1	2805127	2809107	2764167	2792800	0.89	cps
Bismuth	209-1	10453845	10342441	10300068	10365452	0.77	cps
Bismuth	209-2	3775835	3782024	3772464	3776774	0.13	cps
Bromine	81-1	5221	5238	5228	5229	0.16	cps
Cadmium	108-1	138459	142973	141114	140849	1.61	cps
Cadmium	106-1	204959	205618	203920	204832	0.42	cps
Cadmium	111-1	1826798	1859348	1801669	1829272	1.58	cps
Calcium	43-1	13068558	13085194	12722171	12958641	1.58	cps
Calcium	44-1	210569104	209407284	209376004	209784130	0.32	cps
Carbon	12-1	5003053	5037462	5088489	5043002	0.85	cps
Carbon	12-2	35620	36519	36335	36158	1.31	cps
Chlorine	35-1	191897	191911	192592	192133	0.21	cps
Chlorine	35-2	720	747	700	722	3.24	cps
Chromium	52-2	1523098	1538264	1555440	1538934	1.05	cps
Cobalt	59-2	2861162	2866134	2876458	2867918	0.27	cps
Copper	63-2	20527187	20751715	20880590	20719831	0.86	cps
Dysprosium	156-1	707	670	603	660	7.94	cps
Dysprosium	156-2	100	100	100	100	0.00	cps
Erbium	164-1	307	483	473	421	23.57	cps
Erbium	164-2	153	137	150	147	6.01	cps
Gadolinium	160-1	343	400	303	349	13.92	cps
Gadolinium	160-2	107	83	140	110	25.89	cps
Holmium	165-1	18214547	18014926	18086480	18105318	0.56	cps
Holmium	165-2	5589786	5543274	5736617	5623226	1.79	cps
Indium	115-1	13223360	13146080	13146403	13171948	0.34	cps
Indium	115-2	1117271	1119720	1145683	1127558	1.40	cps
Iron	54-2	14684031	14976607	14900745	14853794	1.02	cps
Iron	56-2	273965609	274443529	276561503	274990214	0.50	cps
Iron	57-2	6821881	6861597	6907091	6863523	0.62	cps
Krypton	83-1	270	257	310	279	9.95	cps
Lead	206-1	28621390	29286880	28980104	28962791	1.15	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	24982047	25585301	24851157	25139502	1.56	cps
Lead	208-1	114815947	117342858	115002388	115720398	1.22	cps
Lithium	6-1	7848504	7718367	7627054	7731308	1.44	cps
Magnesium	24-2	53790123	54717164	54051911	54186399	0.88	cps
Manganese	55-2	6122967	6109664	6052220	6094951	0.62	cps
Molybdenum	94-1	26045928	26324034	25861870	26077277	0.89	cps
Molybdenum	95-1	37942824	38003940	37793142	37913302	0.29	cps
Molybdenum	96-1	41502808	42018182	41379268	41633419	0.81	cps
Molybdenum	97-1	23474225	23650965	23610903	23578697	0.39	cps
Molybdenum	98-1	61832641	62165321	61415271	61804411	0.61	cps
Neodymium	150-1	730	883	750	788	10.58	cps
Neodymium	150-2	43	93	53	63	41.78	cps
Nickel	60-2	732956	741659	740291	738302	0.63	cps
Phosphorus	31-2	28271	27483	27573	27775	1.55	cps
Potassium	39-2	14474408	14873980	14739444	14695944	1.38	cps
Rhodium	103-1	12041497	11992940	11973336	12002591	0.29	cps
Rhodium	103-2	4328461	4286472	4389511	4334815	1.20	cps
Scandium	45-1	10388984	10099476	10256440	10248300	1.41	cps
Scandium	45-2	168407	169559	174532	170833	1.91	cps
Sdium	23-2	106937962	109095028	109481545	108504845	1.26	cps
Selenium	82-1	113443	112562	111521	112509	0.85	cps
Selenium	77-2	1937	1707	1560	1735	10.95	cps
Selenium	78-2	5548	5981	6065	5865	4.73	cps
Silicon	28-1	11181597	11288225	11127096	11198973	0.73	cps
Silver	107-1	9171387	9009481	8960514	9047128	1.22	cps
Silver	109-1	8570005	8548264	8504417	8540895	0.39	cps
Strontium	86-1	2531546	2498796	2495275	2508539	0.80	cps
Strontium	88-1	21317957	21420785	21403297	21380680	0.26	cps
Sulfur	34-1	1301974	1309423	1314459	1308619	0.48	cps
Terbium	159-1	18486993	18639251	18409476	18511907	0.63	cps
Terbium	159-2	5430444	5292229	5462215	5394962	1.68	cps
Thallium	203-1	7225270	7375696	7315397	7305454	1.04	cps
Thallium	205-1	17105448	17583955	17053817	17247740	1.69	cps
Tin	118-1	5902781	5901450	5885584	5896605	0.16	cps
Titanium	47-1	12034740	11884140	12053977	11990952	0.78	cps
Uranium	238-1	24243910	24234127	24242295	24240111	0.02	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P8
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:36:27	DataFile Name :	029CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1164347	1174134	1177902	1172128	0.60	cps
Ytterbium	172-1	543	547	580	557	3.64	cps
Ytterbium	172-2	213	250	217	227	8.94	cps
Ytterbium	176-1	35595	35568	36340	35834	1.22	cps
Ytterbium	176-2	10601	10651	10751	10668	0.72	cps
Yttrium	89-1	24621282	24367636	24228921	24405947	0.82	cps
Yttrium	89-2	1550671	1577987	1571451	1566703	0.91	cps
Zinc	66-2	2208722	2280961	2225005	2238229	1.69	cps
Zirconium	90-1	13065366	13138761	13167240	13123789	0.40	cps
Zirconium	91-1	2951454	2928059	2951083	2943532	0.46	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	70	77	53	67	18.03	cps
Antimony	121-1	960	960	1083	1001	7.11	cps
Arsenic	75-2	10	20	0	10	100.00	cps
Barium	135-1	933	1023	1007	988	4.85	cps
Barium	137-1	1687	1733	1550	1657	5.75	cps
Beryllium	9-1	1019	904	902	942	7.09	cps
Bismuth	209-1	11748031	11771973	11837251	11785752	0.39	cps
Bismuth	209-2	4259394	4190976	4290282	4246884	1.20	cps
Bromine	81-1	4924	4991	5008	4974	0.89	cps
Cadmium	108-1	30	40	33	34	14.78	cps
Cadmium	106-1	6938	6758	7299	6999	3.93	cps
Cadmium	111-1	4919	4780	5182	4960	4.12	cps
Calcium	43-1	630	597	470	566	14.93	cps
Calcium	44-1	19994	18742	18415	19050	4.37	cps
Carbon	12-1	3971757	3907722	3829514	3902998	1.83	cps
Carbon	12-2	22634	23182	22347	22721	1.87	cps
Chlorine	35-1	164263	164671	163113	164016	0.49	cps
Chlorine	35-2	443	603	520	522	15.32	cps
Chromium	52-2	1783	1990	1853	1876	5.60	cps
Cobalt	59-2	303	323	273	300	8.39	cps
Copper	63-2	4047	4187	4127	4121	1.71	cps
Dysprosium	156-1	197	140	107	148	30.79	cps
Dysprosium	156-2	3	3	7	4	43.40	cps
Erbium	164-1	67	103	73	81	24.08	cps
Erbium	164-2	30	33	30	31	6.18	cps
Gadolinium	160-1	77	80	63	73	12.03	cps
Gadolinium	160-2	13	27	23	21	32.88	cps
Holmium	165-1	18473159	18229680	18288911	18330583	0.69	cps
Holmium	165-2	5724259	5764361	5779637	5756086	0.50	cps
Indium	115-1	14645589	14385193	14269754	14433512	1.33	cps
Indium	115-2	1213325	1215239	1218474	1215679	0.21	cps
Iron	54-2	1033	957	930	973	5.51	cps
Iron	56-2	14294	14744	14684	14574	1.68	cps
Iron	57-2	347	280	323	317	10.68	cps
Krypton	83-1	300	273	230	268	13.20	cps
Lead	206-1	3004	2834	2944	2927	2.95	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2554	2600	2300	2485	6.50	cps
Lead	208-1	11986	11532	11332	11617	2.88	cps
Lithium	6-1	8421791	8178817	8355830	8318813	1.51	cps
Magnesium	24-2	1287	1313	1407	1336	4.72	cps
Manganese	55-2	687	677	603	656	6.94	cps
Molybdenum	94-1	1137	903	843	961	16.12	cps
Molybdenum	95-1	1263	1137	1013	1138	10.99	cps
Molybdenum	96-1	1380	1230	1203	1271	7.49	cps
Molybdenum	97-1	857	737	640	744	14.58	cps
Molybdenum	98-1	1973	1717	1620	1770	10.32	cps
Neodymium	150-1	43	33	57	44	26.35	cps
Neodymium	150-2	7	3	3	4	43.40	cps
Nickel	60-2	1073	927	903	968	9.52	cps
Phosphorus	31-2	60	70	80	70	14.29	cps
Potassium	39-2	7722	7605	7979	7769	2.46	cps
Rhodium	103-1	13518804	13339974	13677440	13512072	1.25	cps
Rhodium	103-2	4884928	4934933	4965056	4928306	0.82	cps
Scandium	45-1	10842375	10649048	10524489	10671971	1.50	cps
Scandium	45-2	169442	168353	170572	169455	0.65	cps
Sdium	23-2	33555	33121	33732	33469	0.94	cps
Selenium	82-1	-80	-83	-30	-64	-46.36	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	7	0	7	4	86.60	cps
Silicon	28-1	553846	550839	548931	551206	0.45	cps
Silver	107-1	673	647	643	654	2.51	cps
Silver	109-1	490	487	463	480	3.03	cps
Strontium	86-1	513	537	593	548	7.51	cps
Strontium	88-1	1583	1450	1467	1500	4.84	cps
Sulfur	34-1	587399	585406	589739	587515	0.37	cps
Terbium	159-1	18833123	18957784	18427101	18739336	1.48	cps
Terbium	159-2	5522654	5584936	5564735	5557442	0.57	cps
Thallium	203-1	700	640	717	686	5.88	cps
Thallium	205-1	1713	1707	1573	1665	4.75	cps
Tin	118-1	1463	1500	1530	1498	2.23	cps
Titanium	47-1	330	313	260	301	12.14	cps
Uranium	238-1	313	270	220	268	17.44	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P8
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 12:40:34	DataFile Name :	030CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	27	3	23	18	71.00	cps
Ytterbium	172-1	97	127	93	106	17.39	cps
Ytterbium	172-2	20	33	30	28	24.98	cps
Ytterbium	176-1	2114	1837	1944	1965	7.10	cps
Ytterbium	176-2	270	270	233	258	8.21	cps
Yttrium	89-1	25664022	25553416	25134955	25450798	1.10	cps
Yttrium	89-2	1602585	1580923	1580686	1588065	0.79	cps
Zinc	66-2	197	207	200	201	2.53	cps
Zirconium	90-1	1260	1080	1123	1155	8.14	cps
Zirconium	91-1	273	357	297	309	13.92	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	526387	520063	527803	524751	0.79	cps
Antimony	121-1	487	547	513	516	5.83	cps
Arsenic	75-2	163	187	137	162	15.42	cps
Barium	135-1	91902	92261	93224	92462	0.74	cps
Barium	137-1	161629	161273	163738	162213	0.82	cps
Beryllium	9-1	1805	1666	1729	1733	4.01	cps
Bismuth	209-1	11641591	11538043	11623297	11600977	0.48	cps
Bismuth	209-2	4219459	4161035	4225688	4202060	0.85	cps
Bromine	81-1	4844	5284	5101	5077	4.36	cps
Cadmium	108-1	60	67	127	84	43.48	cps
Cadmium	106-1	7455	7375	6992	7274	3.41	cps
Cadmium	111-1	5587	5449	5189	5408	3.74	cps
Calcium	43-1	2748914	2715111	2735351	2733125	0.62	cps
Calcium	44-1	43625553	43670304	43777298	43691052	0.18	cps
Carbon	12-1	4482132	4573258	4687676	4581022	2.25	cps
Carbon	12-2	29045	28003	28738	28596	1.87	cps
Chlorine	35-1	154794	155990	154302	155029	0.56	cps
Chlorine	35-2	543	570	560	558	2.42	cps
Chromium	52-2	8443	8466	8923	8610	3.15	cps
Cobalt	59-2	106713	109282	107404	107799	1.23	cps
Copper	63-2	108960	111255	110284	110166	1.05	cps
Dysprosium	156-1	58641	59384	59920	59315	1.08	cps
Dysprosium	156-2	18573	18783	18797	18718	0.67	cps
Erbium	164-1	72841	71474	72546	72287	1.00	cps
Erbium	164-2	22245	22542	22175	22321	0.87	cps
Gadolinium	160-1	61527	61839	60751	61373	0.91	cps
Gadolinium	160-2	23164	22733	23184	23027	1.11	cps
Holmium	165-1	18674782	18295266	18520709	18496919	1.03	cps
Holmium	165-2	5890651	5721045	5937588	5849761	1.95	cps
Indium	115-1	14423924	14350871	14388983	14387926	0.25	cps
Indium	115-2	1218534	1226202	1235367	1226701	0.69	cps
Iron	54-2	5755906	5777348	5640774	5724676	1.28	cps
Iron	56-2	105304468	104468492	104728465	104833808	0.41	cps
Iron	57-2	2663179	2701431	2664885	2676498	0.81	cps
Krypton	83-1	360	307	307	324	9.49	cps
Lead	206-1	6925	6809	6772	6835	1.17	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5845	5881	5878	5868	0.35	cps
Lead	208-1	26991	26541	26881	26804	0.88	cps
Lithium	6-1	8380412	8452142	8328203	8386919	0.74	cps
Magnesium	24-2	2310195	2282718	2274867	2289260	0.81	cps
Manganese	55-2	1259877	1252030	1254283	1255397	0.32	cps
Molybdenum	94-1	2524	2244	2280	2349	6.48	cps
Molybdenum	95-1	957	993	857	936	7.56	cps
Molybdenum	96-1	1783	1977	1827	1862	5.45	cps
Molybdenum	97-1	560	480	533	524	7.77	cps
Molybdenum	98-1	1433	1253	1240	1309	8.25	cps
Neodymium	150-1	60844	60730	60924	60833	0.16	cps
Neodymium	150-2	13177	13293	13410	13293	0.88	cps
Nickel	60-2	13170	13190	13133	13164	0.22	cps
Phosphorus	31-2	737	937	767	813	13.26	cps
Potassium	39-2	69399	68344	68846	68863	0.77	cps
Rhodium	103-1	13436896	13538546	13502416	13492620	0.38	cps
Rhodium	103-2	4851095	4842711	4783306	4825704	0.77	cps
Scandium	45-1	10755122	10590789	10561401	10635771	0.98	cps
Scandium	45-2	173601	172552	174738	173631	0.63	cps
Sdium	23-2	3994971	3944275	3973051	3970766	0.64	cps
Selenium	82-1	140	143	73	119	33.21	cps
Selenium	77-2	103	70	70	81	23.72	cps
Selenium	78-2	70	53	40	54	27.61	cps
Silicon	28-1	95225329	94484469	95103569	94937789	0.42	cps
Silver	107-1	247	330	303	293	14.51	cps
Silver	109-1	183	193	200	192	4.36	cps
Strontium	86-1	467889	469976	470586	469484	0.30	cps
Strontium	88-1	4260704	4261856	4281931	4268164	0.28	cps
Sulfur	34-1	5721009	5784078	5683548	5729545	0.89	cps
Terbium	159-1	19228828	19075681	18904547	19069686	0.85	cps
Terbium	159-2	5647109	5635065	5663460	5648545	0.25	cps
Thallium	203-1	620	637	663	640	3.42	cps
Thallium	205-1	1610	1630	1520	1587	3.69	cps
Tin	118-1	1887	1827	5604	3106	69.66	cps
Titanium	47-1	2600	2670	2827	2699	4.31	cps
Uranium	238-1	49851	51142	49369	50121	1.83	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-14DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-07-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:44:58	DataFile Name :	031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	111301	111402	112679	111794	0.69	cps
Ytterbium	172-1	25885	25922	26106	25971	0.45	cps
Ytterbium	172-2	9814	9413	9720	9649	2.17	cps
Ytterbium	176-1	17876	18543	18677	18365	2.34	cps
Ytterbium	176-2	6522	6205	6672	6466	3.69	cps
Yttrium	89-1	27430302	26863193	27136426	27143307	1.04	cps
Yttrium	89-2	1707682	1692028	1718594	1706101	0.78	cps
Zinc	66-2	80141	82062	81864	81356	1.30	cps
Zirconium	90-1	5204	5068	5024	5099	1.84	cps
Zirconium	91-1	1213	1153	1197	1188	2.61	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	387903	386708	385536	386716	0.31	cps
Antimony	121-1	447	447	410	434	4.87	cps
Arsenic	75-2	227	140	177	181	24.02	cps
Barium	135-1	90093	91771	93248	91704	1.72	cps
Barium	137-1	158142	157616	158633	158131	0.32	cps
Beryllium	9-1	1687	1684	1651	1674	1.19	cps
Bismuth	209-1	11910309	11416554	11616945	11647936	2.13	cps
Bismuth	209-2	4244571	4279539	4205543	4243218	0.87	cps
Bromine	81-1	5228	5238	5414	5293	1.98	cps
Cadmium	108-1	90	107	87	94	11.35	cps
Cadmium	106-1	7315	7225	7125	7222	1.32	cps
Cadmium	111-1	5418	5320	5370	5369	0.91	cps
Calcium	43-1	3400607	3402898	3379752	3394419	0.38	cps
Calcium	44-1	53984488	54292591	55035348	54437475	0.99	cps
Carbon	12-1	4589769	4632841	4686082	4636231	1.04	cps
Carbon	12-2	28752	28938	29059	28916	0.54	cps
Chlorine	35-1	149371	151685	152059	151038	0.96	cps
Chlorine	35-2	567	547	573	562	2.47	cps
Chromium	52-2	8236	8496	8493	8408	1.78	cps
Cobalt	59-2	99749	100703	100944	100465	0.63	cps
Copper	63-2	95947	97716	97619	97094	1.02	cps
Dysprosium	156-1	54393	53570	54501	54155	0.94	cps
Dysprosium	156-2	17311	17118	16801	17077	1.51	cps
Erbium	164-1	66720	68612	68411	67914	1.53	cps
Erbium	164-2	20329	20249	20826	20468	1.53	cps
Gadolinium	160-1	56961	55783	56777	56507	1.12	cps
Gadolinium	160-2	20946	21100	20790	20945	0.74	cps
Holmium	165-1	18663469	18779396	18780736	18741200	0.36	cps
Holmium	165-2	5968103	5953473	5790738	5904105	1.67	cps
Indium	115-1	14742503	14569168	14809318	14706996	0.84	cps
Indium	115-2	1242006	1238716	1245589	1242104	0.28	cps
Iron	54-2	5619300	5555688	5571805	5582265	0.59	cps
Iron	56-2	102886252	102196228	103057978	102713486	0.44	cps
Iron	57-2	2600756	2600386	2638847	2613330	0.85	cps
Krypton	83-1	350	360	357	356	1.43	cps
Lead	206-1	5848	5768	5831	5816	0.73	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4938	5121	4828	4962	2.99	cps
Lead	208-1	23355	22818	22658	22944	1.59	cps
Lithium	6-1	8407048	8417670	8422865	8415861	0.10	cps
Magnesium	24-2	2151769	2113191	2116874	2127278	1.00	cps
Manganese	55-2	1462002	1482622	1467030	1470552	0.73	cps
Molybdenum	94-1	2380	2384	2454	2406	1.72	cps
Molybdenum	95-1	870	783	777	810	6.43	cps
Molybdenum	96-1	1883	1960	1697	1847	7.33	cps
Molybdenum	97-1	487	473	447	469	4.34	cps
Molybdenum	98-1	1280	1223	1240	1248	2.33	cps
Neodymium	150-1	54215	52994	53894	53701	1.18	cps
Neodymium	150-2	11775	11358	11785	11640	2.09	cps
Nickel	60-2	11992	12355	12799	12382	3.27	cps
Phosphorus	31-2	523	533	480	512	5.54	cps
Potassium	39-2	63623	62618	63298	63180	0.81	cps
Rhodium	103-1	13552536	13518665	13617674	13562958	0.37	cps
Rhodium	103-2	4910955	4833172	4883948	4876025	0.81	cps
Scandium	45-1	10917602	11004336	11099169	11007035	0.83	cps
Scandium	45-2	173608	177521	175561	175564	1.11	cps
Sdium	23-2	4475621	4410622	4424153	4436799	0.77	cps
Selenium	82-1	83	103	97	94	10.79	cps
Selenium	77-2	67	73	57	66	12.79	cps
Selenium	78-2	53	83	57	64	25.51	cps
Silicon	28-1	93658125	92860412	92788632	93102390	0.52	cps
Silver	107-1	313	287	290	297	4.90	cps
Silver	109-1	177	167	193	179	7.53	cps
Strontium	86-1	528366	528474	517688	524843	1.18	cps
Strontium	88-1	4882602	4947033	4768075	4865904	1.86	cps
Sulfur	34-1	5861575	5961174	5968528	5930426	1.01	cps
Terbium	159-1	19579256	18876225	19423281	19292921	1.91	cps
Terbium	159-2	5679208	5778608	5656726	5704848	1.14	cps
Thallium	203-1	523	500	593	539	9.01	cps
Thallium	205-1	1287	1273	1323	1295	2.00	cps
Tin	118-1	1980	1890	2130	2000	6.06	cps
Titanium	47-1	2054	2060	2074	2062	0.49	cps
Uranium	238-1	37304	38221	37565	37697	1.25	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-16DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-08-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:48:10	DataFile Name :	032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	94090	95553	94924	94856	0.77	cps
Ytterbium	172-1	24012	24650	24556	24406	1.41	cps
Ytterbium	172-2	8916	9173	9120	9070	1.49	cps
Ytterbium	176-1	16828	17338	17402	17189	1.83	cps
Ytterbium	176-2	6031	6091	6048	6057	0.51	cps
Yttrium	89-1	28197686	27490380	27186967	27625011	1.88	cps
Yttrium	89-2	1732220	1714143	1708930	1718431	0.71	cps
Zinc	66-2	68893	68883	69456	69077	0.47	cps
Zirconium	90-1	5184	5341	5251	5259	1.50	cps
Zirconium	91-1	1157	1090	1043	1097	5.19	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	538716	540786	535745	538416	0.47	cps
Antimony	121-1	380	440	460	427	9.76	cps
Arsenic	75-2	177	197	173	182	6.92	cps
Barium	135-1	82432	81141	83186	82253	1.26	cps
Barium	137-1	142608	143472	142501	142860	0.37	cps
Beryllium	9-1	1741	1676	1675	1697	2.23	cps
Bismuth	209-1	11816066	11528975	11626366	11657135	1.25	cps
Bismuth	209-2	4224781	4226181	4275637	4242199	0.68	cps
Bromine	81-1	5498	5675	5621	5598	1.62	cps
Cadmium	108-1	77	113	87	92	20.55	cps
Cadmium	106-1	7285	7389	7575	7416	1.98	cps
Cadmium	111-1	5583	5549	5686	5606	1.27	cps
Calcium	43-1	3330318	3349497	3436045	3371953	1.67	cps
Calcium	44-1	54480913	53869948	54914526	54421795	0.96	cps
Carbon	12-1	4744509	4754610	4842870	4780663	1.13	cps
Carbon	12-2	29570	29596	29717	29628	0.26	cps
Chlorine	35-1	149853	150523	150762	150379	0.31	cps
Chlorine	35-2	503	570	557	543	6.49	cps
Chromium	52-2	10360	10040	10090	10164	1.69	cps
Cobalt	59-2	112295	112157	114599	113017	1.21	cps
Copper	63-2	108544	110008	110630	109727	0.98	cps
Dysprosium	156-1	62056	62341	62575	62324	0.42	cps
Dysprosium	156-2	19518	19805	19274	19532	1.36	cps
Erbium	164-1	77155	76626	77259	77013	0.44	cps
Erbium	164-2	22940	23968	22863	23257	2.65	cps
Gadolinium	160-1	63721	64575	64458	64251	0.72	cps
Gadolinium	160-2	23952	23684	24079	23905	0.84	cps
Holmium	165-1	19154376	18775410	18918408	18949398	1.01	cps
Holmium	165-2	5917823	5952439	5911654	5927305	0.37	cps
Indium	115-1	14627973	14688595	14619123	14645231	0.26	cps
Indium	115-2	1256522	1251756	1253661	1253980	0.19	cps
Iron	54-2	6180430	6224977	6207006	6204138	0.36	cps
Iron	56-2	113308138	114167615	113304365	113593373	0.44	cps
Iron	57-2	2886366	2892127	2877289	2885261	0.26	cps
Krypton	83-1	407	377	380	388	4.24	cps
Lead	206-1	6525	6175	6432	6377	2.84	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5338	5228	5274	5280	1.05	cps
Lead	208-1	25030	24533	24736	24766	1.01	cps
Lithium	6-1	8443179	8620788	8525948	8529972	1.04	cps
Magnesium	24-2	2457278	2512946	2495830	2488685	1.15	cps
Manganese	55-2	1489176	1510005	1496969	1498717	0.70	cps
Molybdenum	94-1	2657	2604	2354	2538	6.38	cps
Molybdenum	95-1	823	803	830	819	1.69	cps
Molybdenum	96-1	1940	1787	1613	1780	9.18	cps
Molybdenum	97-1	527	520	543	530	2.27	cps
Molybdenum	98-1	1257	1240	1243	1247	0.71	cps
Neodymium	150-1	63352	62592	62478	62807	0.76	cps
Neodymium	150-2	13974	13680	13610	13755	1.40	cps
Nickel	60-2	13967	14291	14314	14191	1.37	cps
Phosphorus	31-2	657	670	773	700	9.12	cps
Potassium	39-2	72085	70789	71660	71511	0.92	cps
Rhodium	103-1	13667708	13601563	13661521	13643597	0.27	cps
Rhodium	103-2	4899735	4933428	4908784	4913982	0.35	cps
Scandium	45-1	10981502	10937545	11077667	10998905	0.65	cps
Scandium	45-2	177859	177734	176968	177520	0.27	cps
Sdium	23-2	4242158	4297101	4306697	4281985	0.81	cps
Selenium	82-1	70	70	3	48	80.57	cps
Selenium	77-2	50	37	43	43	15.38	cps
Selenium	78-2	60	80	43	61	30.04	cps
Silicon	28-1	104067868	102969142	104030422	103689144	0.60	cps
Silver	107-1	247	240	260	249	4.09	cps
Silver	109-1	133	100	133	122	15.75	cps
Strontium	86-1	514733	522550	519027	518770	0.75	cps
Strontium	88-1	4774901	4723069	4769026	4755665	0.60	cps
Sulfur	34-1	6308251	6411294	6391395	6370313	0.86	cps
Terbium	159-1	19351168	19531513	19515049	19465910	0.51	cps
Terbium	159-2	5727403	5713698	5760122	5733741	0.42	cps
Thallium	203-1	527	470	493	497	5.73	cps
Thallium	205-1	1137	1163	1190	1163	2.29	cps
Tin	118-1	1743	1713	1813	1757	2.92	cps
Titanium	47-1	2447	2377	2560	2461	3.76	cps
Uranium	238-1	39090	39725	40157	39657	1.35	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-18DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-09-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:51:25	DataFile Name :	033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	119338	117877	118545	118587	0.62	cps
Ytterbium	172-1	27081	27819	27435	27445	1.35	cps
Ytterbium	172-2	10401	10377	10398	10392	0.12	cps
Ytterbium	176-1	19508	19328	18810	19215	1.88	cps
Ytterbium	176-2	6672	6495	6882	6683	2.90	cps
Yttrium	89-1	27921245	27572240	27627945	27707143	0.68	cps
Yttrium	89-2	1752877	1774529	1736241	1754549	1.09	cps
Zinc	66-2	74672	72967	73724	73787	1.16	cps
Zirconium	90-1	5535	5211	5421	5389	3.05	cps
Zirconium	91-1	1063	1183	1173	1140	5.84	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	554374	556816	557746	556312	0.31	cps
Antimony	121-1	330	307	283	307	7.61	cps
Arsenic	75-2	197	187	170	184	7.30	cps
Barium	135-1	88792	90147	90530	89823	1.02	cps
Barium	137-1	154902	156904	158034	156614	1.01	cps
Beryllium	9-1	1949	1980	1979	1969	0.90	cps
Bismuth	209-1	11816515	11790853	11547210	11718193	1.27	cps
Bismuth	209-2	4267752	4180391	4233572	4227238	1.04	cps
Bromine	81-1	5501	5278	5491	5423	2.33	cps
Cadmium	108-1	87	107	87	93	12.37	cps
Cadmium	106-1	7345	7392	7485	7408	0.96	cps
Cadmium	111-1	5528	5503	5562	5531	0.54	cps
Calcium	43-1	3199351	3169752	3083721	3150941	1.91	cps
Calcium	44-1	51339473	50583418	50518133	50813674	0.90	cps
Carbon	12-1	4668192	4779760	4767949	4738634	1.29	cps
Carbon	12-2	29981	30017	30355	30117	0.68	cps
Chlorine	35-1	147179	146220	146112	146504	0.40	cps
Chlorine	35-2	540	483	517	513	5.55	cps
Chromium	52-2	9393	8910	9143	9149	2.64	cps
Cobalt	59-2	113880	113047	114704	113877	0.73	cps
Copper	63-2	113724	112293	111957	112658	0.83	cps
Dysprosium	156-1	63640	62505	62850	62999	0.92	cps
Dysprosium	156-2	19865	19808	19841	19838	0.14	cps
Erbium	164-1	77397	77950	77189	77512	0.51	cps
Erbium	164-2	22943	22826	23497	23089	1.55	cps
Gadolinium	160-1	65238	64763	63688	64563	1.23	cps
Gadolinium	160-2	24219	24229	24476	24308	0.60	cps
Holmium	165-1	18778955	19107818	18654690	18847154	1.24	cps
Holmium	165-2	5876336	6004584	5930846	5937255	1.08	cps
Indium	115-1	15098850	14678096	14799576	14858841	1.46	cps
Indium	115-2	1254492	1249008	1248038	1250513	0.28	cps
Iron	54-2	6087833	6148767	6130352	6122317	0.51	cps
Iron	56-2	113594025	112707008	113110068	113137034	0.39	cps
Iron	57-2	2833969	2849304	2886478	2856584	0.95	cps
Krypton	83-1	367	420	377	388	7.31	cps
Lead	206-1	6648	6959	6478	6695	3.64	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5425	5681	5938	5681	4.52	cps
Lead	208-1	25874	26361	26658	26297	1.51	cps
Lithium	6-1	8612932	8268002	8515890	8465608	2.10	cps
Magnesium	24-2	2488030	2450562	2475350	2471314	0.77	cps
Manganese	55-2	1507603	1488809	1508528	1501647	0.74	cps
Molybdenum	94-1	2424	2260	2317	2334	3.55	cps
Molybdenum	95-1	860	783	853	832	5.10	cps
Molybdenum	96-1	1823	1740	1870	1811	3.64	cps
Molybdenum	97-1	477	467	467	470	1.23	cps
Molybdenum	98-1	1167	1007	1207	1127	9.39	cps
Neodymium	150-1	63452	64749	63864	64022	1.03	cps
Neodymium	150-2	13777	13894	14465	14045	2.62	cps
Nickel	60-2	14014	13730	13823	13856	1.04	cps
Phosphorus	31-2	790	780	763	778	1.73	cps
Potassium	39-2	70930	70330	69506	70255	1.02	cps
Rhodium	103-1	13880254	13466719	13719966	13688980	1.52	cps
Rhodium	103-2	4918848	4888726	4899053	4902209	0.31	cps
Scandium	45-1	11185229	11001796	10819794	11002273	1.66	cps
Scandium	45-2	179336	178274	179276	178962	0.33	cps
Sdium	23-2	4128540	4051109	4080187	4086612	0.96	cps
Selenium	82-1	40	73	90	68	37.56	cps
Selenium	77-2	87	80	97	88	9.56	cps
Selenium	78-2	50	70	70	63	18.23	cps
Silicon	28-1	106661182	106590482	106754495	106668720	0.08	cps
Silver	107-1	243	280	287	270	8.64	cps
Silver	109-1	93	137	150	127	23.39	cps
Strontium	86-1	497802	501352	496260	498471	0.52	cps
Strontium	88-1	4559947	4503760	4468565	4510757	1.02	cps
Sulfur	34-1	6368517	6208279	6324902	6300566	1.31	cps
Terbium	159-1	19698169	19098891	19380343	19392468	1.55	cps
Terbium	159-2	5779922	5717950	5687457	5728443	0.82	cps
Thallium	203-1	523	487	517	509	3.84	cps
Thallium	205-1	1287	1207	1123	1206	6.77	cps
Tin	118-1	2164	2074	1937	2058	5.55	cps
Titanium	47-1	2520	2557	2664	2580	2.89	cps
Uranium	238-1	42487	42043	42785	42438	0.88	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:54:37	DataFile Name :	034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	118055	118882	118310	118416	0.36	cps
Ytterbium	172-1	27452	28247	27943	27880	1.44	cps
Ytterbium	172-2	10191	10174	10307	10224	0.71	cps
Ytterbium	176-1	18897	19334	19114	19115	1.14	cps
Ytterbium	176-2	6785	6725	6795	6768	0.56	cps
Yttrium	89-1	28052311	28008413	27610842	27890522	0.87	cps
Yttrium	89-2	1766423	1780064	1760869	1769119	0.56	cps
Zinc	66-2	74588	74447	74585	74540	0.11	cps
Zirconium	90-1	5018	4954	5191	5054	2.42	cps
Zirconium	91-1	1223	1233	1177	1211	2.50	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	551743	559883	550807	554144	0.90	cps
Antimony	121-1	293	273	330	299	9.62	cps
Arsenic	75-2	240	203	173	206	16.24	cps
Barium	135-1	90825	89057	89188	89690	1.10	cps
Barium	137-1	155727	156907	155927	156187	0.40	cps
Beryllium	9-1	1937	1996	2019	1984	2.11	cps
Bismuth	209-1	11728017	11687970	11583329	11666439	0.64	cps
Bismuth	209-2	4172092	4217172	4221824	4203696	0.65	cps
Bromine	81-1	5281	5408	5344	5344	1.19	cps
Cadmium	108-1	43	77	57	59	28.49	cps
Cadmium	106-1	7495	7565	7342	7468	1.53	cps
Cadmium	111-1	5630	5632	5503	5588	1.32	cps
Calcium	43-1	3174068	3150238	3129300	3151202	0.71	cps
Calcium	44-1	51435614	50892044	51115876	51147845	0.53	cps
Carbon	12-1	4763786	4822709	4937697	4841397	1.83	cps
Carbon	12-2	30288	30415	30194	30299	0.37	cps
Chlorine	35-1	146031	145011	145708	145583	0.36	cps
Chlorine	35-2	530	503	477	503	5.30	cps
Chromium	52-2	9116	8803	8930	8950	1.76	cps
Cobalt	59-2	113114	113262	112792	113056	0.21	cps
Copper	63-2	110613	110828	110593	110678	0.12	cps
Dysprosium	156-1	61433	62522	63389	62448	1.57	cps
Dysprosium	156-2	19361	20072	19855	19763	1.84	cps
Erbium	164-1	77111	77645	75945	76900	1.13	cps
Erbium	164-2	23103	23180	22586	22957	1.41	cps
Gadolinium	160-1	65345	64682	65540	65189	0.69	cps
Gadolinium	160-2	23931	23731	24459	24041	1.56	cps
Holmium	165-1	18846523	18914441	18552886	18771284	1.02	cps
Holmium	165-2	5884944	5833168	5951608	5889906	1.01	cps
Indium	115-1	14849598	14702240	14728918	14760252	0.53	cps
Indium	115-2	1236371	1241478	1237107	1238319	0.22	cps
Iron	54-2	6119560	6107326	6040322	6089069	0.70	cps
Iron	56-2	113300858	111375922	110757698	111811493	1.19	cps
Iron	57-2	2839746	2827354	2787300	2818133	0.97	cps
Krypton	83-1	390	383	360	378	4.17	cps
Lead	206-1	6738	6785	6565	6696	1.73	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5561	5695	5718	5658	1.49	cps
Lead	208-1	25990	26337	26134	26154	0.67	cps
Lithium	6-1	8427164	8424994	8390908	8414355	0.24	cps
Magnesium	24-2	2441411	2452601	2411653	2435222	0.87	cps
Manganese	55-2	1502367	1471572	1481629	1485189	1.06	cps
Molybdenum	94-1	2310	2150	2380	2280	5.17	cps
Molybdenum	95-1	877	763	737	792	9.38	cps
Molybdenum	96-1	1773	1773	1803	1783	0.97	cps
Molybdenum	97-1	450	350	440	413	13.32	cps
Molybdenum	98-1	1237	1207	1057	1167	8.27	cps
Neodymium	150-1	62796	64249	63780	63609	1.17	cps
Neodymium	150-2	13660	13844	13243	13583	2.27	cps
Nickel	60-2	13800	13660	13984	13815	1.17	cps
Phosphorus	31-2	730	770	793	764	4.19	cps
Potassium	39-2	69185	69037	69523	69248	0.36	cps
Rhodium	103-1	13785434	13462948	13589363	13612581	1.19	cps
Rhodium	103-2	4884175	4879432	4910569	4891392	0.34	cps
Scandium	45-1	11257256	10941882	10903202	11034113	1.76	cps
Scandium	45-2	178109	177876	176412	177465	0.52	cps
Sdium	23-2	4013752	4036480	3991989	4014074	0.55	cps
Selenium	82-1	167	147	73	129	38.12	cps
Selenium	77-2	63	90	50	68	30.05	cps
Selenium	78-2	70	73	40	61	30.04	cps
Silicon	28-1	106381975	106142482	106507902	106344120	0.17	cps
Silver	107-1	220	200	243	221	9.81	cps
Silver	109-1	93	120	50	88	40.25	cps
Strontium	86-1	498179	498182	499473	498611	0.15	cps
Strontium	88-1	4559146	4560114	4513689	4544316	0.58	cps
Sulfur	34-1	6421357	6365507	6321355	6369406	0.79	cps
Terbium	159-1	19827979	19351712	19368412	19516034	1.38	cps
Terbium	159-2	5595776	5685011	5641288	5640692	0.79	cps
Thallium	203-1	523	580	537	547	5.42	cps
Thallium	205-1	1333	1353	1177	1288	7.51	cps
Tin	118-1	1987	2150	1920	2019	5.86	cps
Titanium	47-1	2607	2527	2637	2590	2.20	cps
Uranium	238-1	42297	42715	41504	42172	1.46	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20DUPDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 12:57:51	DataFile Name :	035AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	118656	119991	118441	119029	0.71	cps
Ytterbium	172-1	27692	28100	27739	27844	0.80	cps
Ytterbium	172-2	10394	10144	10454	10331	1.59	cps
Ytterbium	176-1	18960	19094	18727	18927	0.98	cps
Ytterbium	176-2	6188	6682	6522	6464	3.90	cps
Yttrium	89-1	27979910	28070977	27597879	27882922	0.90	cps
Yttrium	89-2	1712236	1714451	1725134	1717274	0.40	cps
Zinc	66-2	73536	73854	73419	73603	0.31	cps
Zirconium	90-1	5298	5318	5018	5211	3.22	cps
Zirconium	91-1	1047	1160	1103	1103	5.14	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	110394	112907	110868	111390	1.20	cps
Antimony	121-1	100	167	137	134	24.84	cps
Arsenic	75-2	60	47	40	49	20.83	cps
Barium	135-1	18035	18620	18332	18329	1.59	cps
Barium	137-1	31908	30965	31523	31465	1.51	cps
Beryllium	9-1	771	795	799	788	1.89	cps
Bismuth	209-1	11856679	11698896	11798691	11784755	0.68	cps
Bismuth	209-2	4271714	4222889	4260084	4251562	0.60	cps
Bromine	81-1	4791	4991	5101	4961	3.17	cps
Cadmium	108-1	47	37	23	36	32.93	cps
Cadmium	106-1	7165	6928	7042	7045	1.68	cps
Cadmium	111-1	5106	4951	5020	5026	1.55	cps
Calcium	43-1	602626	605247	603164	603679	0.23	cps
Calcium	44-1	10250545	10346214	10211252	10269337	0.68	cps
Carbon	12-1	4463779	4410960	4350757	4408499	1.28	cps
Carbon	12-2	25596	25679	25679	25651	0.19	cps
Chlorine	35-1	134037	134525	132560	133707	0.77	cps
Chlorine	35-2	493	437	443	458	6.77	cps
Chromium	52-2	3060	3304	3194	3186	3.83	cps
Cobalt	59-2	23282	23326	22955	23188	0.87	cps
Copper	63-2	25834	26201	25670	25901	1.05	cps
Dysprosium	156-1	12746	12603	12609	12653	0.64	cps
Dysprosium	156-2	4061	3864	3867	3931	2.87	cps
Erbium	164-1	15259	15279	15179	15239	0.35	cps
Erbium	164-2	4898	4631	4584	4704	3.59	cps
Gadolinium	160-1	12860	12780	13280	12973	2.07	cps
Gadolinium	160-2	4868	4824	4754	4815	1.19	cps
Holmium	165-1	18780185	18728815	18566037	18691679	0.60	cps
Holmium	165-2	5954600	5873455	5745428	5857827	1.80	cps
Indium	115-1	14565491	14749677	14591851	14635673	0.68	cps
Indium	115-2	1237317	1242415	1232205	1237312	0.41	cps
Iron	54-2	1177898	1180600	1168955	1175818	0.52	cps
Iron	56-2	22357559	22769280	22473258	22533365	0.94	cps
Iron	57-2	541438	542991	542464	542298	0.15	cps
Krypton	83-1	287	317	260	288	9.85	cps
Lead	206-1	2690	2767	2537	2665	4.40	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2234	2257	2294	2261	1.34	cps
Lead	208-1	10445	10442	10448	10445	0.03	cps
Lithium	6-1	8318468	8472414	8367641	8386174	0.94	cps
Magnesium	24-2	464019	469747	465697	466488	0.63	cps
Manganese	55-2	281367	282152	280898	281472	0.22	cps
Molybdenum	94-1	933	957	817	902	8.31	cps
Molybdenum	95-1	633	580	590	601	4.72	cps
Molybdenum	96-1	917	803	857	859	6.60	cps
Molybdenum	97-1	407	377	343	376	8.44	cps
Molybdenum	98-1	917	943	830	897	6.61	cps
Neodymium	150-1	13066	13076	12800	12981	1.21	cps
Neodymium	150-2	2644	2664	2770	2693	2.53	cps
Nickel	60-2	3510	3474	3410	3465	1.46	cps
Phosphorus	31-2	177	237	183	199	16.53	cps
Potassium	39-2	19093	19657	20007	19586	2.36	cps
Rhodium	103-1	13700693	13751527	13808774	13753665	0.39	cps
Rhodium	103-2	4882162	4936544	4874881	4897862	0.69	cps
Scandium	45-1	11035788	10916689	10833337	10928605	0.93	cps
Scandium	45-2	174660	174124	175136	174640	0.29	cps
Sdium	23-2	798062	804087	794096	798748	0.63	cps
Selenium	82-1	20	30	23	24	20.85	cps
Selenium	77-2	17	10	10	12	31.50	cps
Selenium	78-2	30	13	13	19	50.96	cps
Silicon	28-1	21587327	22126795	21600306	21771476	1.41	cps
Silver	107-1	177	187	203	189	7.13	cps
Silver	109-1	67	87	90	81	15.56	cps
Strontium	86-1	99941	100024	100192	100052	0.13	cps
Strontium	88-1	863850	867862	866385	866033	0.23	cps
Sulfur	34-1	1800240	1795348	1749034	1781541	1.59	cps
Terbium	159-1	19224078	19057422	19280596	19187365	0.60	cps
Terbium	159-2	5749848	5675942	5635594	5687128	1.02	cps
Thallium	203-1	417	403	323	381	13.25	cps
Thallium	205-1	850	1043	830	908	12.98	cps
Tin	118-1	1387	1403	1507	1432	4.54	cps
Titanium	47-1	680	577	680	646	9.24	cps
Uranium	238-1	8686	8786	8516	8663	1.58	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20LDLX25	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	25
Date & Time Acquired :	2025-02-25 13:01:03	DataFile Name :	036AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	23459	23813	23443	23572	0.89	cps
Ytterbium	172-1	5414	5861	5741	5672	4.08	cps
Ytterbium	172-2	2060	2040	1947	2016	3.00	cps
Ytterbium	176-1	5364	5378	5001	5248	4.07	cps
Ytterbium	176-2	1500	1653	1697	1617	6.39	cps
Yttrium	89-1	26308729	26661683	26328564	26432992	0.75	cps
Yttrium	89-2	1624376	1646191	1661144	1643904	1.12	cps
Zinc	66-2	15031	15345	14875	15084	1.59	cps
Zirconium	90-1	1707	1650	1757	1705	3.13	cps
Zirconium	91-1	420	400	370	397	6.34	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	622057	620930	613115	618701	0.79	cps
Antimony	121-1	1521781	1469354	1463886	1485007	2.15	cps
Arsenic	75-2	173	207	183	188	9.11	cps
Barium	135-1	1786709	1788659	1816117	1797162	0.92	cps
Barium	137-1	3011340	3103741	3108022	3074368	1.78	cps
Beryllium	9-1	512373	516480	514872	514575	0.40	cps
Bismuth	209-1	11323581	11495534	11644425	11487846	1.40	cps
Bismuth	209-2	4177218	4150725	4153958	4160634	0.35	cps
Bromine	81-1	5241	5778	5951	5657	6.55	cps
Cadmium	108-1	27407	27370	27825	27534	0.92	cps
Cadmium	106-1	47786	48317	48297	48134	0.63	cps
Cadmium	111-1	365192	369607	367971	367590	0.61	cps
Calcium	43-1	3439355	3473745	3372796	3428632	1.50	cps
Calcium	44-1	55070653	55977768	55177974	55408798	0.89	cps
Carbon	12-1	4560927	4623409	4653672	4612669	1.03	cps
Carbon	12-2	29102	28949	29232	29094	0.49	cps
Chlorine	35-1	10896123	12088316	12630792	11871744	7.47	cps
Chlorine	35-2	46866	47785	47390	47347	0.97	cps
Chromium	52-2	287664	286534	283138	285779	0.82	cps
Cobalt	59-2	652888	659736	647839	653488	0.91	cps
Copper	63-2	4514347	4511463	4515251	4513687	0.04	cps
Dysprosium	156-1	58162	58775	59378	58772	1.03	cps
Dysprosium	156-2	18937	18309	18503	18583	1.73	cps
Erbium	164-1	71467	72650	73264	72460	1.26	cps
Erbium	164-2	21808	21444	21841	21698	1.02	cps
Gadolinium	160-1	60212	60048	61685	60648	1.49	cps
Gadolinium	160-2	22532	22930	22309	22590	1.39	cps
Holmium	165-1	18597681	18710725	18663248	18657218	0.30	cps
Holmium	165-2	5781927	5839984	5882782	5834898	0.87	cps
Indium	115-1	14105379	14389019	14401509	14298636	1.17	cps
Indium	115-2	1208611	1207205	1216468	1210761	0.41	cps
Iron	54-2	6146833	6121303	6119116	6129084	0.25	cps
Iron	56-2	113348922	112527288	110749365	112208525	1.18	cps
Iron	57-2	2881908	2903568	2853907	2879794	0.86	cps
Krypton	83-1	407	373	307	362	14.06	cps
Lead	206-1	6003297	6018032	6111044	6044124	0.97	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5177816	5210611	5288904	5225777	1.09	cps
Lead	208-1	23748835	24039369	24242100	24010101	1.03	cps
Lithium	6-1	8186297	8296412	8179171	8220627	0.80	cps
Magnesium	24-2	4358224	4264578	4361639	4328147	1.27	cps
Manganese	55-2	2635265	2626923	2597269	2619819	0.76	cps
Molybdenum	94-1	2495351	2590963	2532667	2539660	1.90	cps
Molybdenum	95-1	2756940	2745996	2776718	2759885	0.56	cps
Molybdenum	96-1	3137311	3168894	3147477	3151227	0.51	cps
Molybdenum	97-1	1724743	1736055	1718682	1726493	0.51	cps
Molybdenum	98-1	4432320	4459419	4470355	4454031	0.44	cps
Neodymium	150-1	58885	60053	60187	59709	1.20	cps
Neodymium	150-2	12666	12553	12960	12726	1.65	cps
Nickel	60-2	161072	162320	161342	161578	0.41	cps
Phosphorus	31-2	690	720	793	734	7.24	cps
Potassium	39-2	562553	567984	558572	563037	0.84	cps
Rhodium	103-1	13203114	13491519	13282570	13325734	1.12	cps
Rhodium	103-2	4753832	4758698	4814059	4775530	0.70	cps
Scandium	45-1	10549696	10808903	10675853	10678151	1.21	cps
Scandium	45-2	171064	171844	172286	171731	0.36	cps
Sdium	23-2	7942203	7909589	7949385	7933726	0.27	cps
Selenium	82-1	23340	23106	23651	23366	1.17	cps
Selenium	77-2	403	380	410	398	3.96	cps
Selenium	78-2	1180	1127	1207	1171	3.48	cps
Silicon	28-1	97973252	98056552	97925559	97985121	0.07	cps
Silver	107-1	300908	305696	308929	305178	1.32	cps
Silver	109-1	285522	291090	293682	290098	1.44	cps
Strontium	86-1	1029321	1031809	1044735	1035288	0.80	cps
Strontium	88-1	9295181	9285435	9365119	9315245	0.47	cps
Sulfur	34-1	5875248	5876624	5820122	5857332	0.55	cps
Terbium	159-1	19024040	19258892	19033124	19105352	0.70	cps
Terbium	159-2	5610065	5619079	5609809	5612984	0.09	cps
Thallium	203-1	1400955	1410327	1418254	1409845	0.61	cps
Thallium	205-1	3529012	3553621	3562998	3548544	0.49	cps
Tin	118-1	1050748	1065603	1070866	1062406	0.98	cps
Titanium	47-1	3147	3000	3227	3125	3.68	cps
Uranium	238-1	4851578	4855548	4929666	4878931	0.90	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:04:23	DataFile Name :	037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	340976	337017	339892	339295	0.60	cps
Ytterbium	172-1	25708	26086	26370	26055	1.27	cps
Ytterbium	172-2	9440	9714	9647	9600	1.49	cps
Ytterbium	176-1	24439	24573	24292	24435	0.57	cps
Ytterbium	176-2	8359	8606	8323	8429	1.83	cps
Yttrium	89-1	27272755	27496385	27167066	27312069	0.62	cps
Yttrium	89-2	1690136	1671947	1696971	1686351	0.77	cps
Zinc	66-2	510431	514663	512676	512590	0.41	cps
Zirconium	90-1	2668666	2710638	2665771	2681692	0.94	cps
Zirconium	91-1	550741	562004	564500	559082	1.31	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	620992	622570	630362	624641	0.80	cps
Antimony	121-1	1445136	1453529	1463865	1454177	0.65	cps
Arsenic	75-2	213	187	207	202	6.86	cps
Barium	135-1	1770289	1795763	1805798	1790617	1.02	cps
Barium	137-1	3071111	3073669	3064912	3069897	0.15	cps
Beryllium	9-1	511516	513650	514337	513168	0.29	cps
Bismuth	209-1	11671924	11639324	11574455	11628567	0.43	cps
Bismuth	209-2	4129122	4204242	4197126	4176830	0.99	cps
Bromine	81-1	5451	5948	5791	5730	4.43	cps
Cadmium	108-1	27320	27815	27872	27669	1.10	cps
Cadmium	106-1	46986	47211	47970	47389	1.09	cps
Cadmium	111-1	365406	367442	370181	367676	0.65	cps
Calcium	43-1	3426365	3447568	3484208	3452714	0.85	cps
Calcium	44-1	55537254	55764659	56042461	55781458	0.45	cps
Carbon	12-1	4655596	4655067	4726511	4679058	0.88	cps
Carbon	12-2	28825	29754	30268	29615	2.47	cps
Chlorine	35-1	11944372	12965282	13532660	12814105	6.28	cps
Chlorine	35-2	49126	50685	50571	50128	1.73	cps
Chromium	52-2	289328	288436	289472	289079	0.19	cps
Cobalt	59-2	657638	660736	657150	658508	0.30	cps
Copper	63-2	4557995	4541053	4607515	4568854	0.76	cps
Dysprosium	156-1	58758	59662	58789	59070	0.87	cps
Dysprosium	156-2	18576	18443	18787	18602	0.93	cps
Erbium	164-1	71585	71085	72694	71788	1.15	cps
Erbium	164-2	21654	21310	21848	21604	1.26	cps
Gadolinium	160-1	60654	60486	61661	60934	1.04	cps
Gadolinium	160-2	22332	22583	23123	22679	1.78	cps
Holmium	165-1	18634634	18795925	18866653	18765737	0.63	cps
Holmium	165-2	5928334	5981513	5900238	5936695	0.70	cps
Indium	115-1	14513220	14321198	14461129	14431849	0.69	cps
Indium	115-2	1223970	1227945	1234383	1228766	0.43	cps
Iron	54-2	6178497	6170208	6254279	6200995	0.75	cps
Iron	56-2	114886572	112559512	114181922	113876002	1.05	cps
Iron	57-2	2917295	2944685	2932294	2931425	0.47	cps
Krypton	83-1	393	363	333	363	8.26	cps
Lead	206-1	5961059	6051377	6080276	6030904	1.03	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5235607	5202247	5294467	5244107	0.89	cps
Lead	208-1	24110703	24028163	24164318	24101061	0.28	cps
Lithium	6-1	8332428	8343926	8295118	8323824	0.31	cps
Magnesium	24-2	4397999	4356592	4460039	4404877	1.18	cps
Manganese	55-2	2663481	2649910	2599702	2637698	1.27	cps
Molybdenum	94-1	2622489	2585351	2513790	2573877	2.15	cps
Molybdenum	95-1	2795023	2788299	2735707	2773010	1.17	cps
Molybdenum	96-1	3185212	3134548	3155800	3158520	0.81	cps
Molybdenum	97-1	1749294	1747116	1728498	1741636	0.66	cps
Molybdenum	98-1	4530376	4474544	4448385	4484435	0.93	cps
Neodymium	150-1	59009	58982	59672	59221	0.66	cps
Neodymium	150-2	13177	13223	13010	13137	0.85	cps
Nickel	60-2	161909	163804	164428	163380	0.80	cps
Phosphorus	31-2	743	747	690	727	4.38	cps
Potassium	39-2	564391	574076	577949	572139	1.22	cps
Rhodium	103-1	13458672	13504049	13510393	13491038	0.21	cps
Rhodium	103-2	4859864	4832665	4761551	4818026	1.05	cps
Scandium	45-1	10957530	10887455	10937278	10927421	0.33	cps
Scandium	45-2	174211	175713	178504	176143	1.24	cps
Sdium	23-2	8057776	8013852	7972391	8014673	0.53	cps
Selenium	82-1	23260	23631	23834	23575	1.23	cps
Selenium	77-2	457	510	373	447	15.42	cps
Selenium	78-2	1313	1110	1157	1193	8.93	cps
Silicon	28-1	97088609	97210775	97857679	97385687	0.42	cps
Silver	107-1	304590	309904	311008	308500	1.11	cps
Silver	109-1	287011	289728	292765	289835	0.99	cps
Strontium	86-1	1028776	1038259	1035121	1034052	0.47	cps
Strontium	88-1	9313721	9318327	9347930	9326659	0.20	cps
Sulfur	34-1	5866519	5832937	5869436	5856297	0.35	cps
Terbium	159-1	19534360	19195465	19223534	19317786	0.97	cps
Terbium	159-2	5656799	5745377	5755068	5719081	0.95	cps
Thallium	203-1	1399766	1409380	1415074	1408073	0.55	cps
Thallium	205-1	3567122	3553310	3525958	3548796	0.59	cps
Tin	118-1	1063913	1062733	1066890	1064512	0.20	cps
Titanium	47-1	3130	3180	3177	3163	0.88	cps
Uranium	238-1	4905523	4904365	4833837	4881242	0.84	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20MSDDLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:07:22	DataFile Name :	038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	341440	343881	342031	342451	0.37	cps
Ytterbium	172-1	26092	26176	25976	26081	0.39	cps
Ytterbium	172-2	9337	9614	9437	9462	1.48	cps
Ytterbium	176-1	24052	24176	24493	24240	0.94	cps
Ytterbium	176-2	8459	8509	8653	8541	1.18	cps
Yttrium	89-1	27460891	27440545	27260946	27387461	0.40	cps
Yttrium	89-2	1733446	1726871	1754908	1738408	0.84	cps
Zinc	66-2	517980	521594	523522	521032	0.54	cps
Zirconium	90-1	2692627	2682656	2667749	2681011	0.47	cps
Zirconium	91-1	556622	559261	563968	559950	0.66	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	624225	621051	621214	622163	0.29	cps
Antimony	121-1	1456538	1448554	1457000	1454031	0.33	cps
Arsenic	75-2	183	150	203	179	15.06	cps
Barium	135-1	1821438	1794225	1779224	1798296	1.19	cps
Barium	137-1	3105251	3094185	3042602	3080679	1.09	cps
Beryllium	9-1	511618	513126	515525	513423	0.38	cps
Bismuth	209-1	11544337	11464439	11618528	11542435	0.67	cps
Bismuth	209-2	4161606	4195569	4096933	4151369	1.21	cps
Bromine	81-1	5695	5751	5888	5778	1.72	cps
Cadmium	108-1	27441	27711	28269	27807	1.52	cps
Cadmium	106-1	47317	47715	48545	47859	1.31	cps
Cadmium	111-1	366894	371610	370959	369821	0.69	cps
Calcium	43-1	3429731	3505579	3479486	3471599	1.11	cps
Calcium	44-1	55545349	56283107	55606711	55811723	0.73	cps
Carbon	12-1	4597607	4601191	4711521	4636773	1.40	cps
Carbon	12-2	29356	29506	29730	29531	0.64	cps
Chlorine	35-1	11989306	13073215	13649410	12903977	6.53	cps
Chlorine	35-2	49036	50715	50996	50249	2.11	cps
Chromium	52-2	288276	288567	289150	288665	0.15	cps
Cobalt	59-2	654249	663750	653357	657119	0.88	cps
Copper	63-2	4572486	4623883	4597576	4597982	0.56	cps
Dysprosium	156-1	57530	59234	58906	58556	1.54	cps
Dysprosium	156-2	18576	18363	18379	18439	0.64	cps
Erbium	164-1	71196	72322	71360	71626	0.85	cps
Erbium	164-2	22212	21351	22199	21920	2.25	cps
Gadolinium	160-1	60252	61323	61595	61057	1.16	cps
Gadolinium	160-2	22192	22703	23087	22660	1.98	cps
Holmium	165-1	18870895	18900997	18402468	18724787	1.49	cps
Holmium	165-2	6024848	5836160	5873048	5911352	1.69	cps
Indium	115-1	14269851	14420358	14614962	14435057	1.20	cps
Indium	115-2	1234845	1234494	1237164	1235501	0.12	cps
Iron	54-2	6199098	6185644	6177229	6187324	0.18	cps
Iron	56-2	113939048	114059592	113224922	113741187	0.40	cps
Iron	57-2	2872252	2877643	2897646	2882514	0.46	cps
Krypton	83-1	337	410	333	360	12.04	cps
Lead	206-1	5901195	5971958	6033927	5969027	1.11	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5144962	5251635	5224577	5207058	1.06	cps
Lead	208-1	23785998	23759871	23940221	23828697	0.41	cps
Lithium	6-1	8327775	8403918	8477067	8402920	0.89	cps
Magnesium	24-2	4410565	4351941	4431644	4398050	0.94	cps
Manganese	55-2	2639451	2664097	2611724	2638424	0.99	cps
Molybdenum	94-1	2540642	2529303	2580579	2550174	1.06	cps
Molybdenum	95-1	2759230	2755828	2757235	2757431	0.06	cps
Molybdenum	96-1	3092075	3134103	3144138	3123439	0.88	cps
Molybdenum	97-1	1719807	1731069	1721234	1724037	0.36	cps
Molybdenum	98-1	4481191	4528628	4560247	4523355	0.88	cps
Neodymium	150-1	58768	60020	59377	59388	1.05	cps
Neodymium	150-2	12643	13237	12853	12911	2.33	cps
Nickel	60-2	161555	165624	164306	163828	1.27	cps
Phosphorus	31-2	650	597	793	680	14.96	cps
Potassium	39-2	573635	574233	575504	574457	0.17	cps
Rhodium	103-1	13363209	13417206	13530883	13437099	0.64	cps
Rhodium	103-2	4761078	4899193	4795243	4818505	1.49	cps
Scandium	45-1	10699642	10907272	10835119	10814011	0.97	cps
Scandium	45-2	175760	174337	175730	175275	0.46	cps
Sdium	23-2	8071560	8068712	8057957	8066076	0.09	cps
Selenium	82-1	23590	23056	23647	23431	1.39	cps
Selenium	77-2	367	397	413	392	6.03	cps
Selenium	78-2	1203	1247	1220	1223	1.79	cps
Silicon	28-1	96264935	96988885	98123385	97125735	0.96	cps
Silver	107-1	305877	308511	310062	308150	0.69	cps
Silver	109-1	291234	293202	294688	293041	0.59	cps
Strontium	86-1	1036163	1035423	1041282	1037622	0.31	cps
Strontium	88-1	9528674	9436826	9324918	9430140	1.08	cps
Sulfur	34-1	5896265	5909472	5933922	5913219	0.32	cps
Terbium	159-1	19316589	19447832	19759330	19507917	1.17	cps
Terbium	159-2	5700559	5645394	5683624	5676526	0.50	cps
Thallium	203-1	1384304	1398310	1421101	1401238	1.33	cps
Thallium	205-1	3499442	3538797	3528973	3522404	0.58	cps
Tin	118-1	1060831	1059737	1074510	1065026	0.77	cps
Titanium	47-1	3207	3057	2897	3054	5.08	cps
Uranium	238-1	4802514	4765778	4863260	4810518	1.02	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	Q1382-20ADLX5	Instrumnet Name :	P8
Client Sample ID :	OU4-PCS-TC-10-021725	Dilution Factor :	5
Date & Time Acquired :	2025-02-25 13:10:23	DataFile Name :	039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	345226	340392	343737	343118	0.72	cps
Ytterbium	172-1	25545	25788	26273	25869	1.43	cps
Ytterbium	172-2	9660	9417	9560	9546	1.28	cps
Ytterbium	176-1	24246	24920	24206	24457	1.64	cps
Ytterbium	176-2	8520	8153	8626	8433	2.95	cps
Yttrium	89-1	27363265	27227493	27593423	27394727	0.68	cps
Yttrium	89-2	1724691	1742895	1715473	1727686	0.81	cps
Zinc	66-2	520625	521966	527158	523250	0.66	cps
Zirconium	90-1	2674149	2684490	2727475	2695371	1.05	cps
Zirconium	91-1	553222	557830	562687	557913	0.85	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	77	70	67	71	7.16	cps
Antimony	121-1	120	83	143	116	26.18	cps
Arsenic	75-2	7	3	7	6	34.70	cps
Barium	135-1	523	477	510	503	4.78	cps
Barium	137-1	923	890	853	889	3.94	cps
Beryllium	9-1	584	612	562	586	4.28	cps
Bismuth	209-1	12024235	12123072	11880778	12009362	1.01	cps
Bismuth	209-2	4203710	4245853	4234913	4228158	0.52	cps
Bromine	81-1	4704	4698	4687	4696	0.18	cps
Cadmium	108-1	47	33	40	40	16.68	cps
Cadmium	106-1	7112	7099	6752	6987	2.92	cps
Cadmium	111-1	4979	4999	4732	4903	3.04	cps
Calcium	43-1	670	623	723	672	7.44	cps
Calcium	44-1	17014	16419	16460	16631	2.00	cps
Carbon	12-1	4109640	3977341	3939265	4008749	2.23	cps
Carbon	12-2	23592	24056	23429	23693	1.37	cps
Chlorine	35-1	490236	464331	441105	465224	5.28	cps
Chlorine	35-2	1470	1407	1253	1377	8.09	cps
Chromium	52-2	1843	1797	1843	1828	1.47	cps
Cobalt	59-2	300	263	257	273	8.54	cps
Copper	63-2	4881	4577	4881	4780	3.67	cps
Dysprosium	156-1	327	260	267	284	12.91	cps
Dysprosium	156-2	3	13	0	6	124.93	cps
Erbium	164-1	107	87	97	97	10.34	cps
Erbium	164-2	17	37	27	27	37.50	cps
Gadolinium	160-1	130	83	93	102	24.04	cps
Gadolinium	160-2	33	3	3	13	129.94	cps
Holmium	165-1	18729421	18512463	18445280	18562388	0.80	cps
Holmium	165-2	5799697	5793602	5751782	5781694	0.45	cps
Indium	115-1	14678749	14610056	14508017	14598941	0.59	cps
Indium	115-2	1208434	1205366	1205014	1206272	0.16	cps
Iron	54-2	903	877	903	894	1.72	cps
Iron	56-2	13894	14130	13650	13891	1.73	cps
Iron	57-2	443	377	333	384	14.41	cps
Krypton	83-1	187	267	227	227	17.65	cps
Lead	206-1	1680	1647	1567	1631	3.57	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1293	1390	1367	1350	3.74	cps
Lead	208-1	6387	6684	6257	6443	3.40	cps
Lithium	6-1	8223597	8250359	8278477	8250811	0.33	cps
Magnesium	24-2	990	947	890	942	5.32	cps
Manganese	55-2	590	743	560	631	15.58	cps
Molybdenum	94-1	730	700	753	728	3.67	cps
Molybdenum	95-1	657	553	503	571	13.69	cps
Molybdenum	96-1	673	643	730	682	6.45	cps
Molybdenum	97-1	340	350	277	322	12.34	cps
Molybdenum	98-1	957	957	883	932	4.54	cps
Neodymium	150-1	47	13	20	27	66.16	cps
Neodymium	150-2	0	7	3	3	100.05	cps
Nickel	60-2	900	857	973	910	6.48	cps
Phosphorus	31-2	47	77	63	62	24.16	cps
Potassium	39-2	7015	6888	6692	6865	2.37	cps
Rhodium	103-1	13956166	13734096	13705768	13798676	0.99	cps
Rhodium	103-2	4856871	4866812	4883738	4869140	0.28	cps
Scandium	45-1	10694183	10612922	10482624	10596576	1.01	cps
Scandium	45-2	169887	168279	166792	168320	0.92	cps
Sdium	23-2	30151	29146	29386	29561	1.78	cps
Selenium	82-1	77	-83	63	19	469.89	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	7	3	13	8	65.47	cps
Silicon	28-1	529995	524709	524310	526338	0.60	cps
Silver	107-1	277	203	230	237	15.68	cps
Silver	109-1	137	143	140	140	2.38	cps
Strontium	86-1	467	450	477	464	2.90	cps
Strontium	88-1	1280	1330	1347	1319	2.63	cps
Sulfur	34-1	583885	583563	582077	583175	0.17	cps
Terbium	159-1	18857149	18933051	18895318	18895173	0.20	cps
Terbium	159-2	5569954	5565502	5422962	5519473	1.51	cps
Thallium	203-1	520	453	527	500	8.11	cps
Thallium	205-1	1243	1163	1230	1212	3.54	cps
Tin	118-1	1407	1377	1590	1458	7.92	cps
Titanium	47-1	210	203	170	194	11.02	cps
Uranium	238-1	70	70	47	62	21.65	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	PB166762TB	Instrumnet Name :	P8
Client Sample ID :	PB166762TB	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:16:48	DataFile Name :	040CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	13	17	20	17	20.01	cps
Ytterbium	172-1	90	130	83	101	24.96	cps
Ytterbium	172-2	37	23	23	28	27.73	cps
Ytterbium	176-1	2044	2044	1787	1958	7.57	cps
Ytterbium	176-2	293	270	297	287	5.07	cps
Yttrium	89-1	25711012	25589370	25556080	25618820	0.32	cps
Yttrium	89-2	1605948	1596856	1595317	1599374	0.36	cps
Zinc	66-2	160	113	140	138	16.99	cps
Zirconium	90-1	1210	1097	1203	1170	5.44	cps
Zirconium	91-1	263	263	213	247	11.70	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2960688	2966135	3017610	2981478	1.05	cps
Antimony	121-1	7169154	7256104	7238760	7221339	0.64	cps
Arsenic	75-2	129972	129014	131409	130132	0.93	cps
Barium	135-1	8927912	8954013	8937735	8939887	0.15	cps
Barium	137-1	15384810	15399251	15367882	15383981	0.10	cps
Beryllium	9-1	2712706	2715932	2762577	2730405	1.02	cps
Bismuth	209-1	10385185	10328252	10329268	10347568	0.31	cps
Bismuth	209-2	3716503	3677652	3718790	3704315	0.62	cps
Bromine	81-1	4858	5048	5118	5008	2.69	cps
Cadmium	108-1	136538	137195	136616	136783	0.26	cps
Cadmium	106-1	194950	195692	196773	195805	0.47	cps
Cadmium	111-1	1795557	1791490	1775197	1787415	0.60	cps
Calcium	43-1	12828400	12656994	12688940	12724778	0.72	cps
Calcium	44-1	206997730	204803530	206463277	206088179	0.56	cps
Carbon	12-1	4731698	4851121	4786285	4789702	1.25	cps
Carbon	12-2	34848	34166	34400	34471	1.00	cps
Chlorine	35-1	321563	320058	314481	318701	1.17	cps
Chlorine	35-2	1140	1123	1237	1167	5.25	cps
Chromium	52-2	1510576	1499316	1521917	1510603	0.75	cps
Cobalt	59-2	2767817	2779628	2777084	2774843	0.22	cps
Copper	63-2	20031306	20136498	19979162	20048989	0.40	cps
Dysprosium	156-1	617	653	597	622	4.62	cps
Dysprosium	156-2	97	80	100	92	11.62	cps
Erbium	164-1	420	363	340	374	10.99	cps
Erbium	164-2	117	140	83	113	25.13	cps
Gadolinium	160-1	280	333	360	324	12.55	cps
Gadolinium	160-2	93	80	103	92	12.69	cps
Holmium	165-1	17963684	17797453	17727148	17829428	0.68	cps
Holmium	165-2	5596879	5565292	5643908	5602026	0.71	cps
Indium	115-1	13010940	13016420	13140417	13055926	0.56	cps
Indium	115-2	1103718	1106299	1109747	1106588	0.27	cps
Iron	54-2	14503321	14371913	14384829	14420021	0.50	cps
Iron	56-2	264029936	264013249	267167389	265070192	0.69	cps
Iron	57-2	6638233	6689086	6778190	6701836	1.06	cps
Krypton	83-1	260	260	267	262	1.47	cps
Lead	206-1	28762837	28551532	28747453	28687274	0.41	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	25027350	24688385	24739388	24818374	0.74	cps
Lead	208-1	115175677	114047751	114401178	114541536	0.50	cps
Lithium	6-1	7715133	7660013	7572132	7649093	0.94	cps
Magnesium	24-2	52934474	52648314	53334886	52972558	0.65	cps
Manganese	55-2	5938896	5900441	5970367	5936568	0.59	cps
Molybdenum	94-1	25452955	25844189	25868872	25722005	0.91	cps
Molybdenum	95-1	36774798	37319486	36925979	37006754	0.76	cps
Molybdenum	96-1	40586153	40517494	40619314	40574320	0.13	cps
Molybdenum	97-1	22734694	22974654	22945385	22884911	0.57	cps
Molybdenum	98-1	59985711	60351476	59846726	60061304	0.43	cps
Neodymium	150-1	627	770	717	704	10.28	cps
Neodymium	150-2	30	63	43	46	36.83	cps
Nickel	60-2	718705	716864	721797	719122	0.35	cps
Phosphorus	31-2	27002	27596	27018	27206	1.24	cps
Potassium	39-2	14344498	14201864	14407839	14318067	0.74	cps
Rhodium	103-1	11750919	11651181	11658271	11686791	0.48	cps
Rhodium	103-2	4142844	4245375	4219821	4202680	1.27	cps
Scandium	45-1	10053035	10043337	10091098	10062490	0.25	cps
Scandium	45-2	166880	164691	164790	165454	0.75	cps
Sdium	23-2	104364762	105022765	104770472	104719333	0.32	cps
Selenium	82-1	108077	110103	109912	109364	1.02	cps
Selenium	77-2	1667	1610	1513	1597	4.86	cps
Selenium	78-2	5534	5601	5561	5566	0.60	cps
Silicon	28-1	10943457	11064960	10910939	10973119	0.74	cps
Silver	107-1	8797439	8828840	8850371	8825550	0.30	cps
Silver	109-1	8283780	8469802	8379887	8377823	1.11	cps
Strontium	86-1	2434972	2458356	2451381	2448236	0.49	cps
Strontium	88-1	20998421	21182453	21115936	21098936	0.44	cps
Sulfur	34-1	1271548	1270108	1265242	1268966	0.26	cps
Terbium	159-1	18391779	18117217	18057924	18188973	0.98	cps
Terbium	159-2	5276919	5294638	5369676	5313744	0.93	cps
Thallium	203-1	7190654	7153517	7190752	7178308	0.30	cps
Thallium	205-1	17203534	17050880	16992284	17082233	0.64	cps
Tin	118-1	5737289	5707030	5796103	5746807	0.79	cps
Titanium	47-1	11732424	11923591	11887393	11847802	0.86	cps
Uranium	238-1	23809763	23805945	23709660	23775123	0.24	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P8
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:20:09	DataFile Name :	041CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1122811	1124471	1132595	1126626	0.46	cps
Ytterbium	172-1	523	587	607	572	7.60	cps
Ytterbium	172-2	213	257	180	217	17.74	cps
Ytterbium	176-1	34906	34990	35869	35255	1.51	cps
Ytterbium	176-2	10448	10331	10538	10439	0.99	cps
Yttrium	89-1	24196472	24317077	24007446	24173665	0.65	cps
Yttrium	89-2	1544609	1543688	1515196	1534498	1.09	cps
Zinc	66-2	2162514	2174795	2149589	2162299	0.58	cps
Zirconium	90-1	12705326	13054511	12936926	12898921	1.38	cps
Zirconium	91-1	2896924	2894257	2902789	2897990	0.15	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	97	97	90	94	4.08	cps
Antimony	121-1	1680	1783	1603	1689	5.35	cps
Arsenic	75-2	3	10	7	7	50.03	cps
Barium	135-1	1133	1113	1143	1130	1.35	cps
Barium	137-1	2127	2044	1933	2035	4.77	cps
Beryllium	9-1	1147	1020	996	1054	7.71	cps
Bismuth	209-1	11843154	11792573	11881325	11839017	0.38	cps
Bismuth	209-2	4234499	4304257	4188670	4242475	1.37	cps
Bromine	81-1	4531	4684	4527	4581	1.95	cps
Cadmium	108-1	73	60	37	57	32.75	cps
Cadmium	106-1	6955	6845	6828	6876	1.00	cps
Cadmium	111-1	4921	4820	4848	4863	1.07	cps
Calcium	43-1	740	710	727	726	2.07	cps
Calcium	44-1	19306	18822	18532	18887	2.07	cps
Carbon	12-1	4016135	3864286	3771673	3884031	3.18	cps
Carbon	12-2	22831	23055	22714	22867	0.76	cps
Chlorine	35-1	248868	243498	239812	244059	1.87	cps
Chlorine	35-2	797	773	783	784	1.49	cps
Chromium	52-2	1930	2020	1953	1968	2.37	cps
Cobalt	59-2	277	267	310	284	7.98	cps
Copper	63-2	4024	3974	3887	3962	1.75	cps
Dysprosium	156-1	140	157	153	150	5.88	cps
Dysprosium	156-2	7	10	7	8	24.71	cps
Erbium	164-1	100	57	73	77	28.51	cps
Erbium	164-2	27	23	57	36	51.64	cps
Gadolinium	160-1	80	87	73	80	8.34	cps
Gadolinium	160-2	20	17	10	16	32.73	cps
Holmium	165-1	18373616	18178733	18468274	18340207	0.80	cps
Holmium	165-2	5775684	5751856	5821161	5782900	0.61	cps
Indium	115-1	14329258	14325159	14529821	14394746	0.81	cps
Indium	115-2	1219041	1217409	1225570	1220673	0.35	cps
Iron	54-2	887	973	940	933	4.68	cps
Iron	56-2	16096	16263	16236	16198	0.55	cps
Iron	57-2	383	460	333	392	16.27	cps
Krypton	83-1	247	233	233	238	3.24	cps
Lead	206-1	3127	3290	2844	3087	7.32	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2770	2820	2607	2733	4.08	cps
Lead	208-1	12889	12789	11682	12454	5.38	cps
Lithium	6-1	8273625	8275900	8232705	8260743	0.29	cps
Magnesium	24-2	1550	1567	1567	1561	0.62	cps
Manganese	55-2	700	650	643	664	4.66	cps
Molybdenum	94-1	1653	1430	1407	1497	9.10	cps
Molybdenum	95-1	1487	1497	1433	1472	2.31	cps
Molybdenum	96-1	1837	1763	1600	1733	6.99	cps
Molybdenum	97-1	1123	913	917	984	12.22	cps
Molybdenum	98-1	2770	2267	2160	2399	13.58	cps
Neodymium	150-1	30	40	43	38	18.36	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	857	923	853	878	4.50	cps
Phosphorus	31-2	77	80	67	74	9.32	cps
Potassium	39-2	7522	7512	7562	7532	0.35	cps
Rhodium	103-1	13719758	13449826	13403216	13524267	1.26	cps
Rhodium	103-2	4896112	4847069	4787350	4843510	1.12	cps
Scandium	45-1	10540531	10409293	10615210	10521678	0.99	cps
Scandium	45-2	168613	168245	170312	169057	0.65	cps
Sdium	23-2	32757	32994	32272	32674	1.13	cps
Selenium	82-1	30	3	60	31	91.13	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	7	3	3	4	43.40	cps
Silicon	28-1	542313	540117	535029	539153	0.69	cps
Silver	107-1	1000	817	807	874	12.45	cps
Silver	109-1	817	710	713	747	8.12	cps
Strontium	86-1	623	563	513	567	9.72	cps
Strontium	88-1	1510	1373	1370	1418	5.64	cps
Sulfur	34-1	575006	571939	571679	572874	0.32	cps
Terbium	159-1	18785417	18532324	18629151	18648964	0.68	cps
Terbium	159-2	5575191	5508037	5543220	5542149	0.61	cps
Thallium	203-1	910	840	963	904	6.84	cps
Thallium	205-1	2387	1847	1943	2059	13.99	cps
Tin	118-1	1507	1737	1607	1617	7.13	cps
Titanium	47-1	423	400	280	368	20.91	cps
Uranium	238-1	630	527	440	532	17.87	cps

Reviewed By:kareem
On:3/3/2025 8:21:18 PM
Inst Id :P8
LB :LB134821

LB Number :	LB134821	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P8
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-02-25 13:23:21	DataFile Name :	042CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	23	40	17	27	45.07	cps
Ytterbium	172-1	117	123	127	122	4.17	cps
Ytterbium	172-2	30	30	27	29	6.65	cps
Ytterbium	176-1	1783	1964	1927	1891	5.03	cps
Ytterbium	176-2	187	323	283	264	26.57	cps
Yttrium	89-1	25563844	25350115	25487612	25467190	0.43	cps
Yttrium	89-2	1599866	1619938	1583741	1601182	1.13	cps
Zinc	66-2	180	223	240	214	14.44	cps
Zirconium	90-1	1510	1477	1227	1405	11.03	cps
Zirconium	91-1	297	307	300	301	1.69	cps

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166841

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:

Supervisor Signature:

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 09:10	[illegible]	[illegible]
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB166841

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB166841BL	PBW841	30	30	<2	N/A	3-1
PB166841BS	LCS841	30	30	<2	MP84602	2
PB166841TB	LEB841	30	30	<2	N/A	3
Q1382-02	OU4-PCS-TC-01-021725	30	30	<2	N/A	4
Q1382-04	OU4-PCS-TC-02-021725	30	30	<2	N/A	5
Q1382-06	OU4-PCS-TC-03-021725	30	30	<2	N/A	6
Q1382-08	OU4-PCS-TC-04-021725	30	30	<2	N/A	7
Q1382-10	OU4-PCS-TC-05-021725	30	30	<2	N/A	8
Q1382-12	OU4-PCS-TC-06-021725	30	30	<2	N/A	9
Q1382-14	OU4-PCS-TC-07-021725	30	30	<2	N/A	10
Q1382-16	OU4-PCS-TC-08-021725	30	30	<2	N/A	11
Q1382-18	OU4-PCS-TC-09-021725	30	30	<2	N/A	12
Q1382-20	OU4-PCS-TC-10-021725	30	30	<2	N/A	13
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	30	30	<2	N/A	14
Q1382-20MS	OU4-PCS-TC-10-021725MS	30	30	<2	MP84602	15
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	30	30	<2	MP84602	16

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166761

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-1 / T-2

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

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : JZ

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
HNO3-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-1 /T-2 checked,30 rpm. Particle size reduction is not required. q1382-20 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/19/25 11:30	JP TCLP Room	SLS. INST-DIG.
	Preparation Group	Analysis Group

02/19/2025

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166778

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 :** 12:30 **Temp :** 96 °C

End Digest Date: 02/19/2025 **Time :** 14:35 **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 15:35	SLD. met. lab	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
PB166778BL	PBW778	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	9
PB166778BS	LCS778	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	10
PB166778TB	LEB778	2	50	50	Colorless	Colorless	Clear	Clear	N/A	24
Q1382-02	OU4-PCS-TC-01-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
Q1382-04	OU4-PCS-TC-02-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
Q1382-06	OU4-PCS-TC-03-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
Q1382-08	OU4-PCS-TC-04-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	14
Q1382-10	OU4-PCS-TC-05-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	15
Q1382-12	OU4-PCS-TC-06-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	16
Q1382-14	OU4-PCS-TC-07-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	17
Q1382-16	OU4-PCS-TC-08-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	18
Q1382-18	OU4-PCS-TC-09-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	19
Q1382-20	OU4-PCS-TC-10-021725	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	20
Q1382-20MS	OU4-PCS-TC-10-021725MS	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	22
Q1382-20MSD	OU4-PCS-TC-10-021725MSD	<2	50	50	Colorless	Colorless	Clear	Clear	MP84472,MP84468,MP84469,M	23
Q1382-20DUP	OU4-PCS-TC-10-021725DUP	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	21

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	PC
PB166761TB	LEB761	11	N/A	2000	N/A	N/A	N/A	4.24	1.0	
Q1382-02	OU4-PCS-TC-01-021725	01	100.02	2000	N/A	N/A	N/A	5.6	1.5	T
Q1382-04	OU4-PCS-TC-02-021725	02	100.03	2000	N/A	N/A	N/A	5.5	1.0	T
Q1382-06	OU4-PCS-TC-03-021725	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-
Q1382-08	OU4-PCS-TC-04-021725	04	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1382-10	OU4-PCS-TC-05-021725	05	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1382-12	OU4-PCS-TC-06-021725	06	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1382-14	OU4-PCS-TC-07-021725	07	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1382-16	OU4-PCS-TC-08-021725	08	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1382-18	OU4-PCS-TC-09-021725	09	100.01	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1382-20	OU4-PCS-TC-10-021725	10	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-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

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

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

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

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

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

Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134821

Review By	JANVI	Review On	2/27/2025 11:03:33 AM
Supervise By	kareem	Supervise On	3/3/2025 8:21:18 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	02/25/25 10:24		Jaswal	OK
2	S0	S0	CAL1	02/25/25 11:00		Jaswal	OK
3	S2	S2	CAL3	02/25/25 11:03		Jaswal	OK
4	S3	S3	CAL4	02/25/25 11:07		Jaswal	OK
5	S4	S4	CAL5	02/25/25 11:10		Jaswal	OK
6	S5	S5	CAL6	02/25/25 11:13		Jaswal	OK
7	S6	S6	CAL7	02/25/25 11:16		Jaswal	OK
8	S7	S7	CAL8	02/25/25 11:18		Jaswal	OK
9	S8	S8	CAL9	02/25/25 11:21		Jaswal	OK
10	ICV01	ICV01	ICV	02/25/25 11:33		Jaswal	OK
11	LLICV	LLICV	LLICV	02/25/25 11:36		Jaswal	OK
12	ICB01	ICB01	ICB	02/25/25 11:41		Jaswal	OK
13	ICSA01	ICSA01	ICSA	02/25/25 11:45		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	02/25/25 11:48		Jaswal	OK
15	CCV01	CCV01	CCV	02/25/25 11:51		Jaswal	OK
16	CCB01	CCB01	CCB	02/25/25 11:55		Jaswal	OK
17	CRI	CRI	CRDL	02/25/25 11:58		Jaswal	OK
18	PB166778BL	PB166778BL	MB	02/25/25 12:02		Jaswal	OK

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

Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134821

Review By	JANVI	Review On	2/27/2025 11:03:33 AM
Supervise By	kareem	Supervise On	3/3/2025 8:21:18 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	PB166778BS	PB166778BS	LCS	02/25/25 12:07		Jaswal	OK
20	PB166778TB	PB166778TB	MB	02/25/25 12:12		Jaswal	OK
21	Q1382-02DL	OU4-PCS-TC-01-021	SAM	02/25/25 12:15	Straight 5X	Jaswal	OK
22	Q1382-04DL	OU4-PCS-TC-02-021	SAM	02/25/25 12:18	Straight 5X	Jaswal	OK
23	Q1382-06DL	OU4-PCS-TC-03-021	SAM	02/25/25 12:22	Straight 5X	Jaswal	OK
24	Q1382-08DL	OU4-PCS-TC-04-021	SAM	02/25/25 12:25	Straight 5X	Jaswal	OK
25	Q1382-10DL	OU4-PCS-TC-05-021	SAM	02/25/25 12:28	Straight 5X	Jaswal	OK
26	Q1382-12DL	OU4-PCS-TC-06-021	SAM	02/25/25 12:31	Straight 5X	Jaswal	OK
27	CCV02	CCV02	CCV	02/25/25 12:36		Jaswal	OK
28	CCB02	CCB02	CCB	02/25/25 12:40		Jaswal	OK
29	Q1382-14DL	OU4-PCS-TC-07-021	SAM	02/25/25 12:44	Straight 5X	Jaswal	OK
30	Q1382-16DL	OU4-PCS-TC-08-021	SAM	02/25/25 12:48	Straight 5X	Jaswal	OK
31	Q1382-18DL	OU4-PCS-TC-09-021	SAM	02/25/25 12:51	Straight 5X	Jaswal	OK
32	Q1382-20DL	OU4-PCS-TC-10-021	SAM	02/25/25 12:54	Straight 5X	Jaswal	OK
33	Q1382-20DUPDL	OU4-PCS-TC-10-021	DUP	02/25/25 12:57	Straight 5X	Jaswal	OK
34	Q1382-20LDL	OU4-PCS-TC-10-021	SD	02/25/25 13:01	Straight 25X	Jaswal	OK
35	Q1382-20MSDL	OU4-PCS-TC-10-021	MS	02/25/25 13:04	Straight 5X	Jaswal	OK
36	Q1382-20MSDDL	OU4-PCS-TC-10-021	MSD	02/25/25 13:07	Straight 5X	Jaswal	OK
37	Q1382-20ADL	OU4-PCS-TC-10-021	PS	02/25/25 13:10		Jaswal	OK
38	PB166762TB	PB166762TB	MB	02/25/25 13:16	Wrong Sample	Jaswal	Not Ok

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

Instrument ID: P8

Daily Analysis Runlog For Sequence/QCBatch ID # LB134821

Review By	JANVI	Review On	2/27/2025 11:03:33 AM
Supervise By	kareem	Supervise On	3/3/2025 8:21:18 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	CCV03	CCV03	CCV	02/25/25 13:20		Jaswal	OK
40	CCB03	CCB03	CCB	02/25/25 13:23		Jaswal	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166761

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-1 / T-2

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

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : JZ

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
HNO3-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-1 /T-2 checked,30 rpm. Particle size reduction is not required. q1382-20 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/19/25 11:30 JP	JP / TCLP Room	SLS. / INST DIG
	Preparation Group	Analysis Group

02/19/2025

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB166761

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
PB166761TB	LEB761	11	N/A	2000	N/A	N/A	N/A	4.24	1.0	T-2
Q1382-02	OU4-PCS-TC-01-021725	01	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1382-04	OU4-PCS-TC-02-021725	02	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1382-06	OU4-PCS-TC-03-021725	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1382-08	OU4-PCS-TC-04-021725	04	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1382-10	OU4-PCS-TC-05-021725	05	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1382-12	OU4-PCS-TC-06-021725	06	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1382-14	OU4-PCS-TC-07-021725	07	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1382-16	OU4-PCS-TC-08-021725	08	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1382-18	OU4-PCS-TC-09-021725	09	100.01	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1382-20	OU4-PCS-TC-10-021725	10	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB166761TB	LEB761	N/A	N/A	N/A	N/A	N/A	N/A
Q1382-02	OU4-PCS-TC-01-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-04	OU4-PCS-TC-02-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-06	OU4-PCS-TC-03-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-08	OU4-PCS-TC-04-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-10	OU4-PCS-TC-05-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-12	OU4-PCS-TC-06-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-14	OU4-PCS-TC-07-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-16	OU4-PCS-TC-08-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-18	OU4-PCS-TC-09-021725	N/A	N/A	N/A	N/A	100	N/A
Q1382-20	OU4-PCS-TC-10-021725	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB166761

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
PB166761TB	LEB761	N/A	N/A	N/A	N/A	#1	4.24
Q1382-02	OU4-PCS-TC-01-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-04	OU4-PCS-TC-02-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-06	OU4-PCS-TC-03-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-08	OU4-PCS-TC-04-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-10	OU4-PCS-TC-05-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-12	OU4-PCS-TC-06-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-14	OU4-PCS-TC-07-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-16	OU4-PCS-TC-08-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-18	OU4-PCS-TC-09-021725	N/A	N/A	N/A	N/A	#1	4.24
Q1382-20	OU4-PCS-TC-10-021725	N/A	N/A	N/A	N/A	#1	4.24

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

Prep Standard - Chemical Standard Summary

Order ID : Q1382

Test : SPLP Mercury,SPLP MetalGroup3

Prepbatch ID : PB166778,PB166841,

Sequence ID/Qc Batch ID: LB134788,LB134821,

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,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP84614	02/24/2025	02/25/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	03/15/2025	01/02/2025 / mohan	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 /	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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**		**Solvent:**	24002546	Nitric Acid
Description:	**Barium (Ba)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

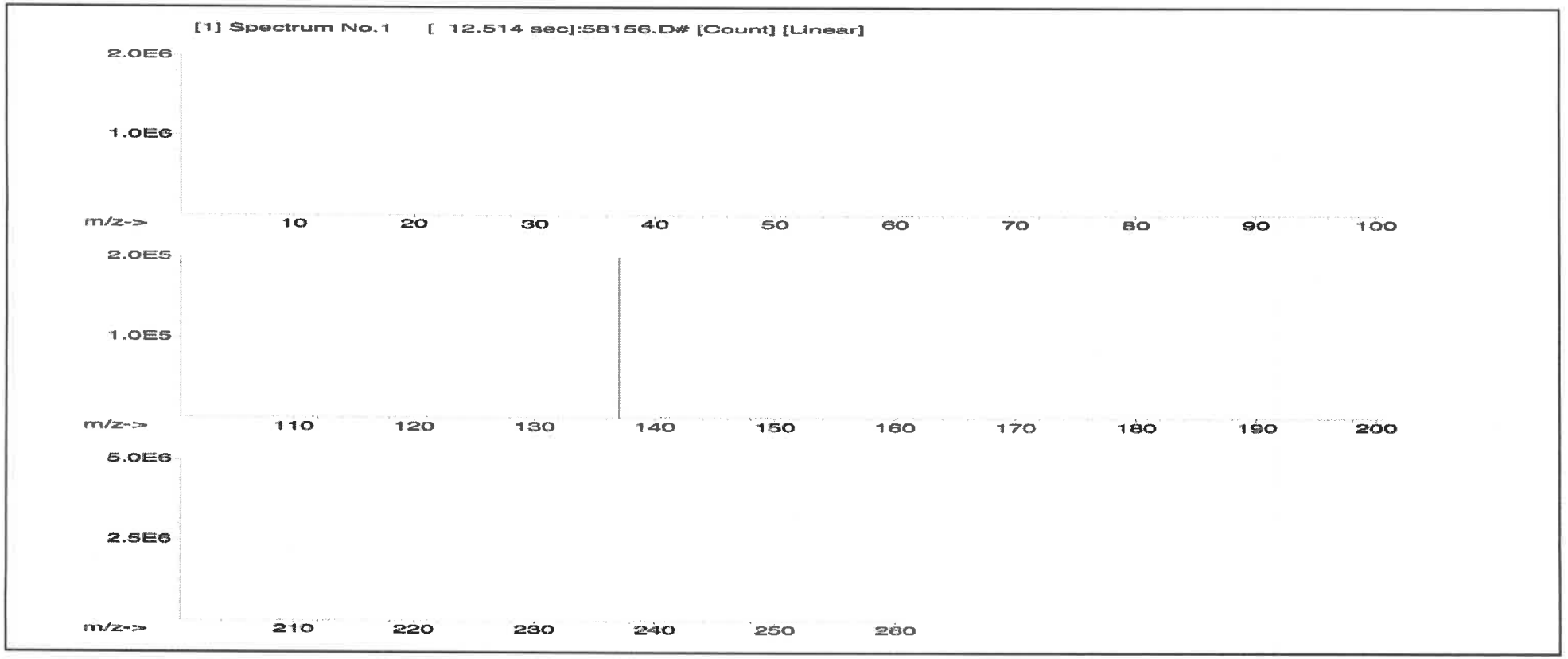
Giovanni Esposito

Formulated By:	Giovanni Esposito	010924

Pedro Rentas

Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

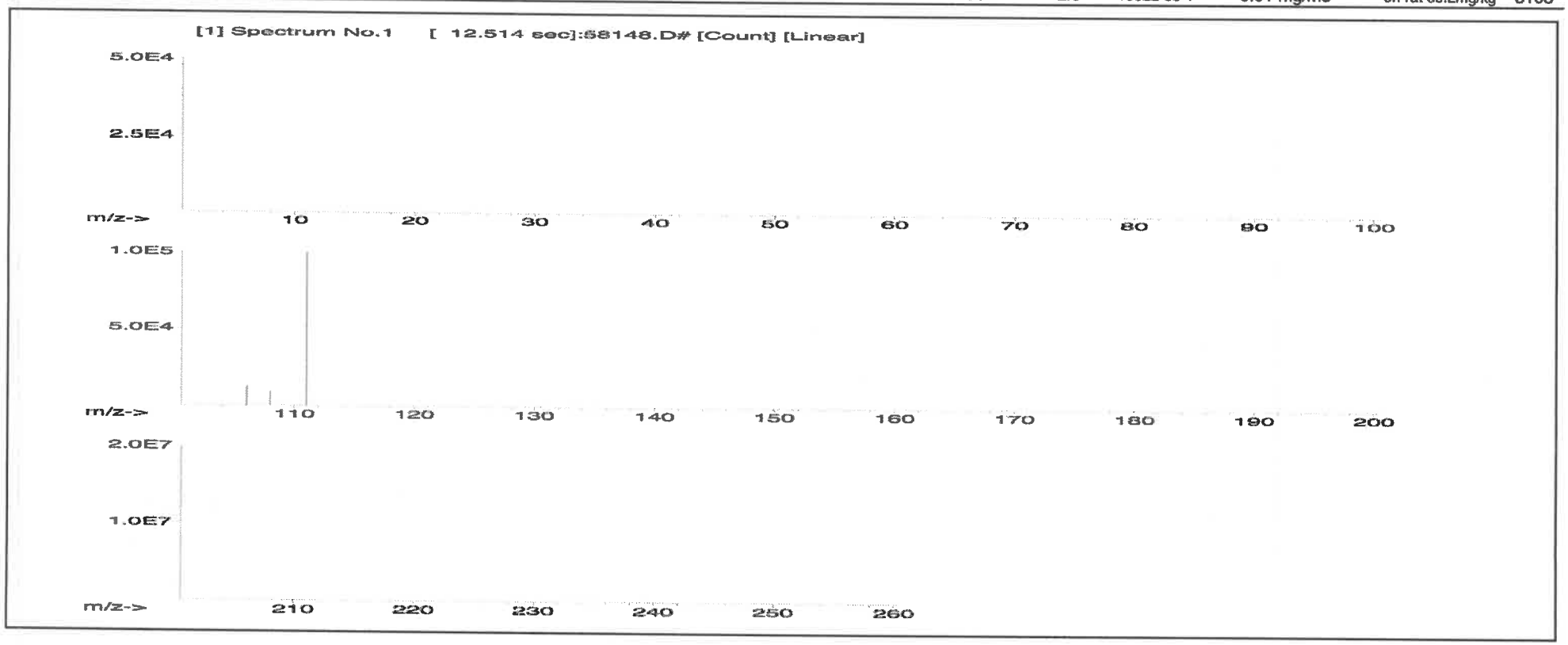
		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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	

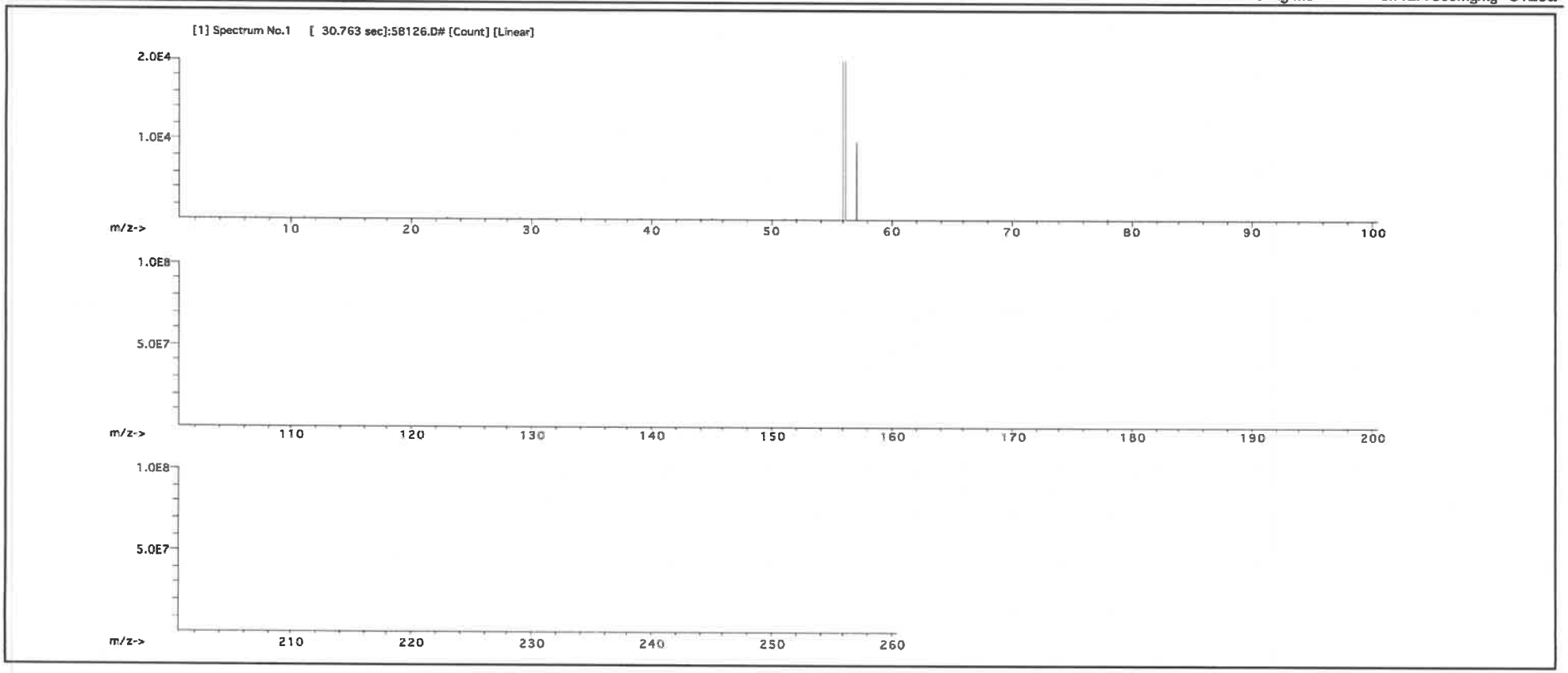
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	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.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/15/24 M6025

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

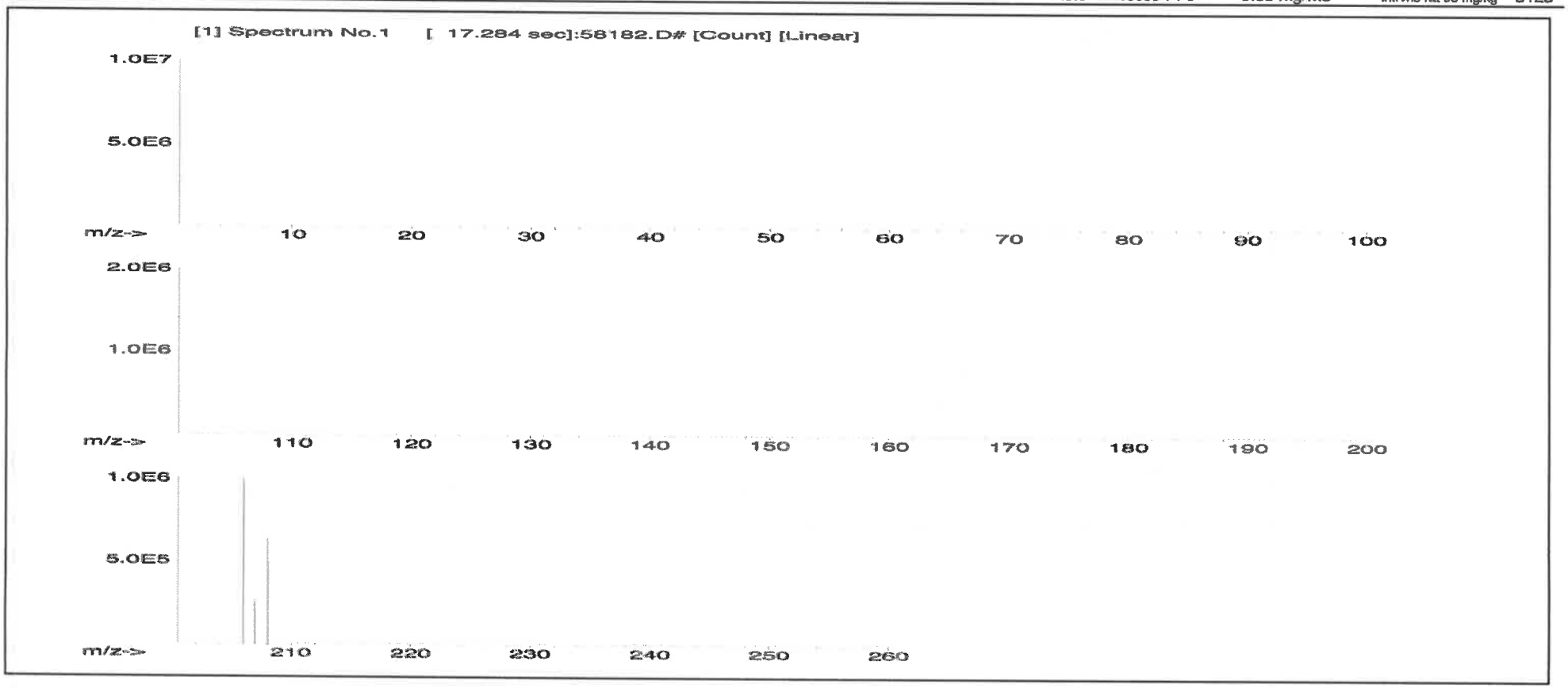
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

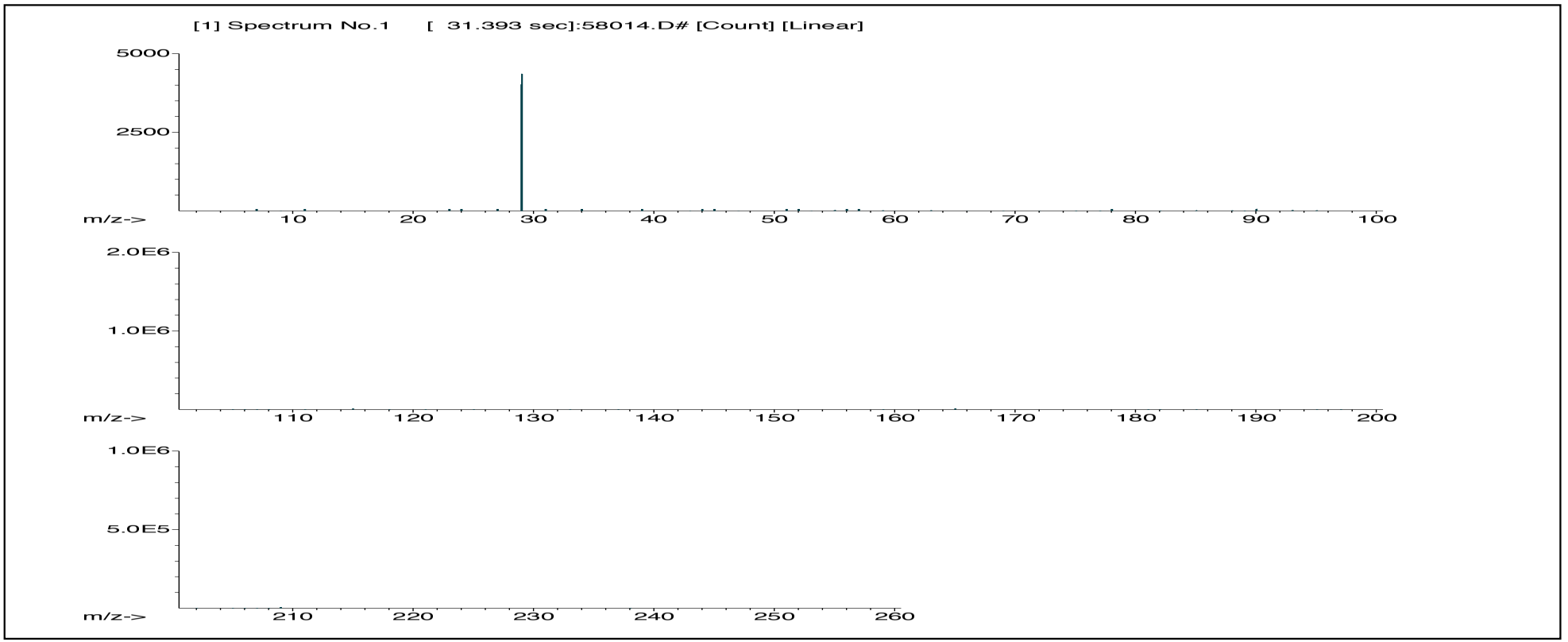
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

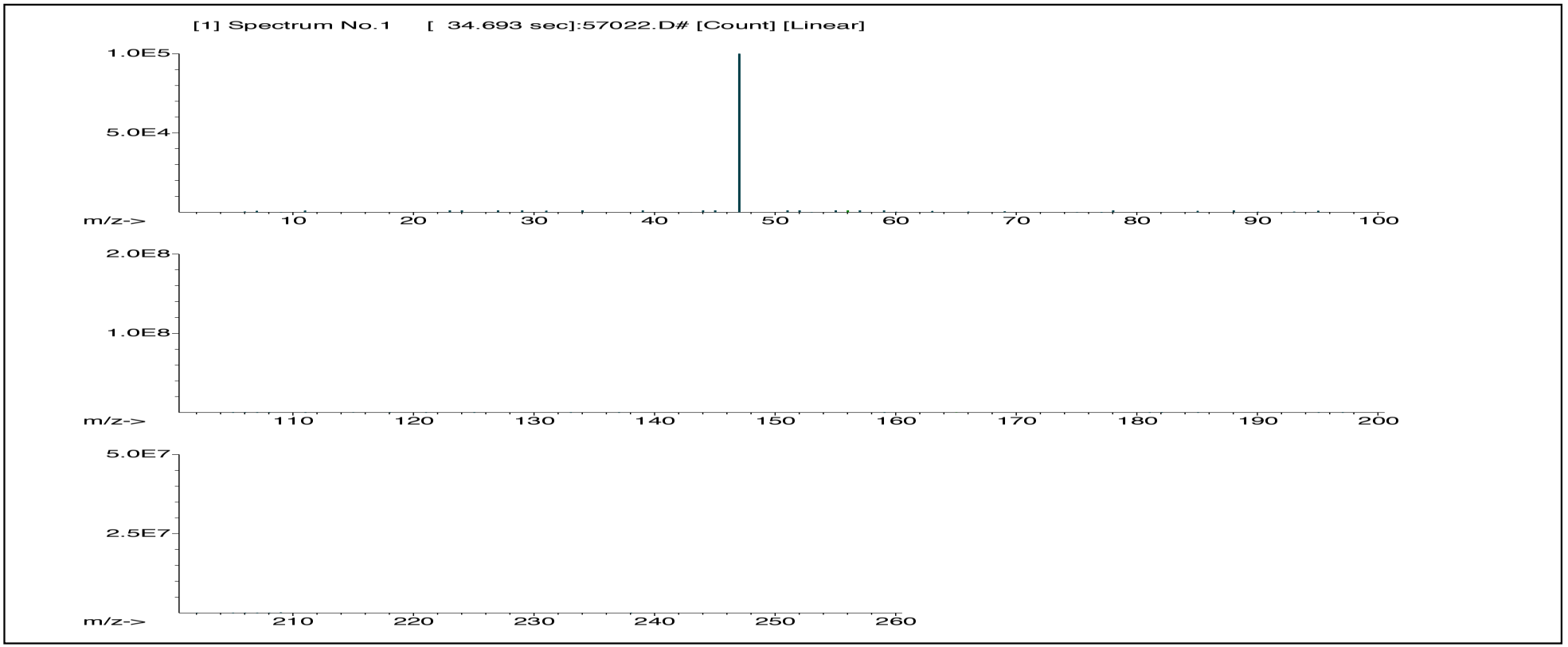
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57022**	20370011	Nitric Acid	
Lot Number:	**070721**			
Description:	**Titanium (Ti)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	070724			
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

	Part	Lot	Dilution	Initial	Uncertainty	Nominal	Initial	**Final**	Expanded Uncertainty	**SDS Information** (Solvent Safety Info. On Attached pg.)			NIST
Compound	Number	Number	Factor	Vol. (mL)	Pipette	Conc. (µg/mL)	Conc. (µg/mL)	**Conc. (µg/mL)**	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\,(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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:

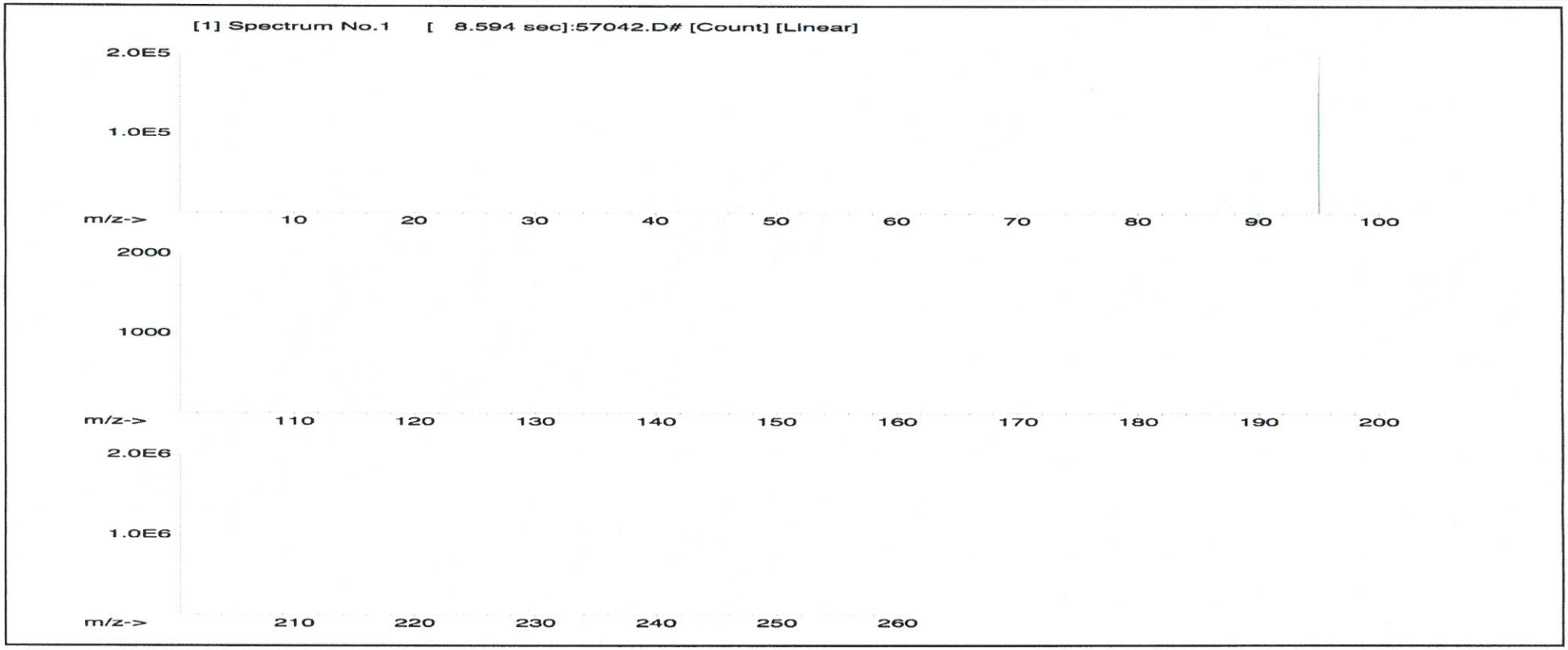
Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)
Expiration Date: 051725
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 3000.41

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

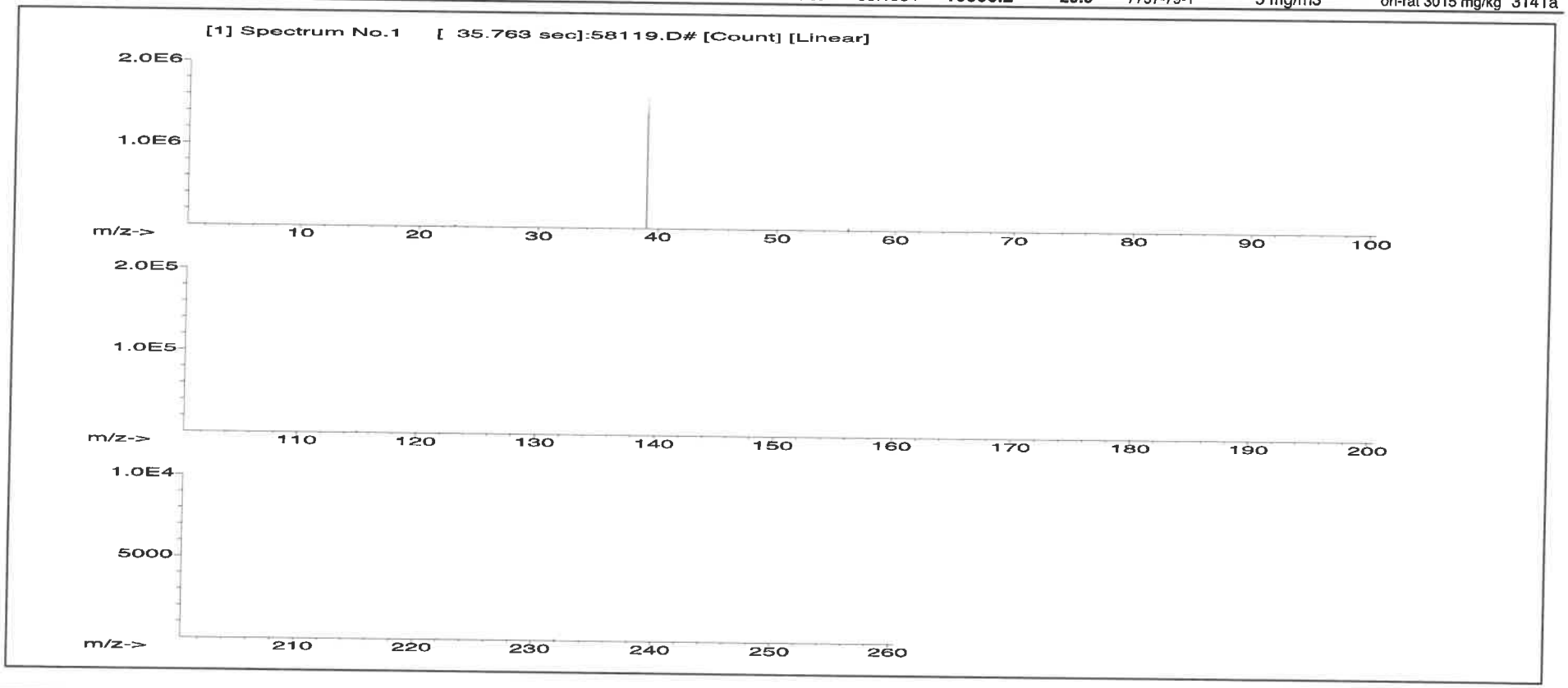
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver,	Aluminum,
Arsenic,	Barium,
Beryllium,	Calcium,
Cadmium,	Cobalt,
Chromium,	Copper,
Iron,	Potassium,
Magnesium,	Manganese,
Sodium,	Nickel,
Lead,	Antimony,
Selenium,	Thallium,
Vanadium,	Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5496 R 7/20/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

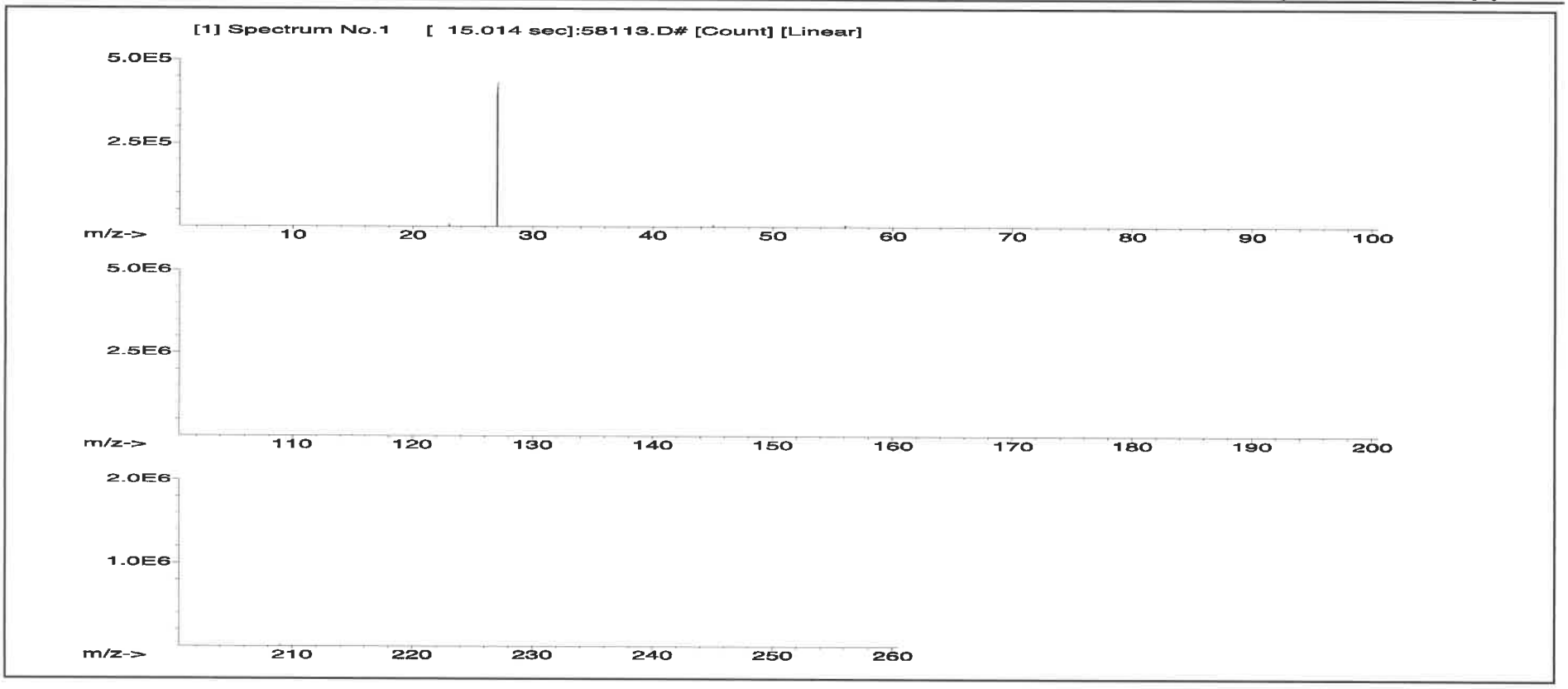
CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Lot #**	
Lot Number:	**011623**	**Solvent:**	20510011	Nitric Acid
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5497 - M5498 R: 03/17/23 (BP)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

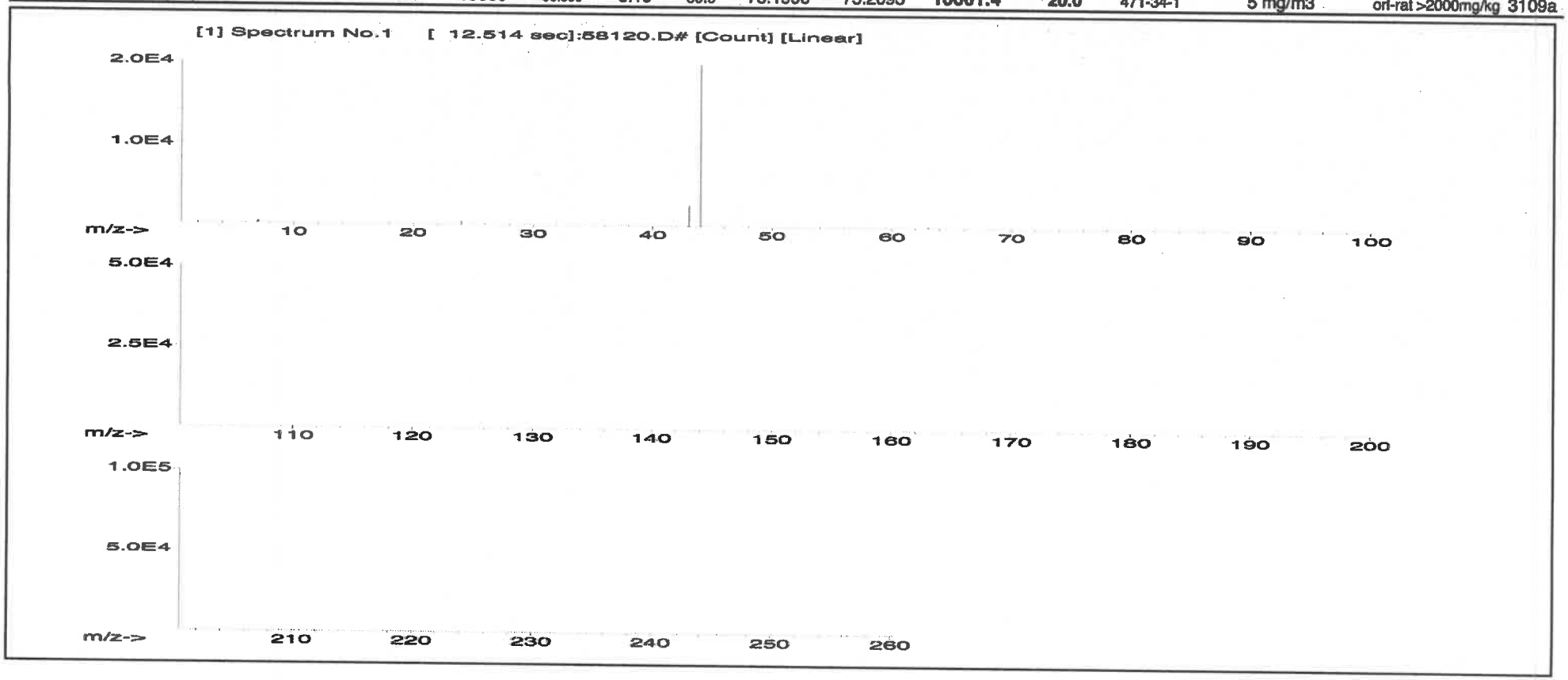
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	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

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

MS513 R:03/17/23 BE

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

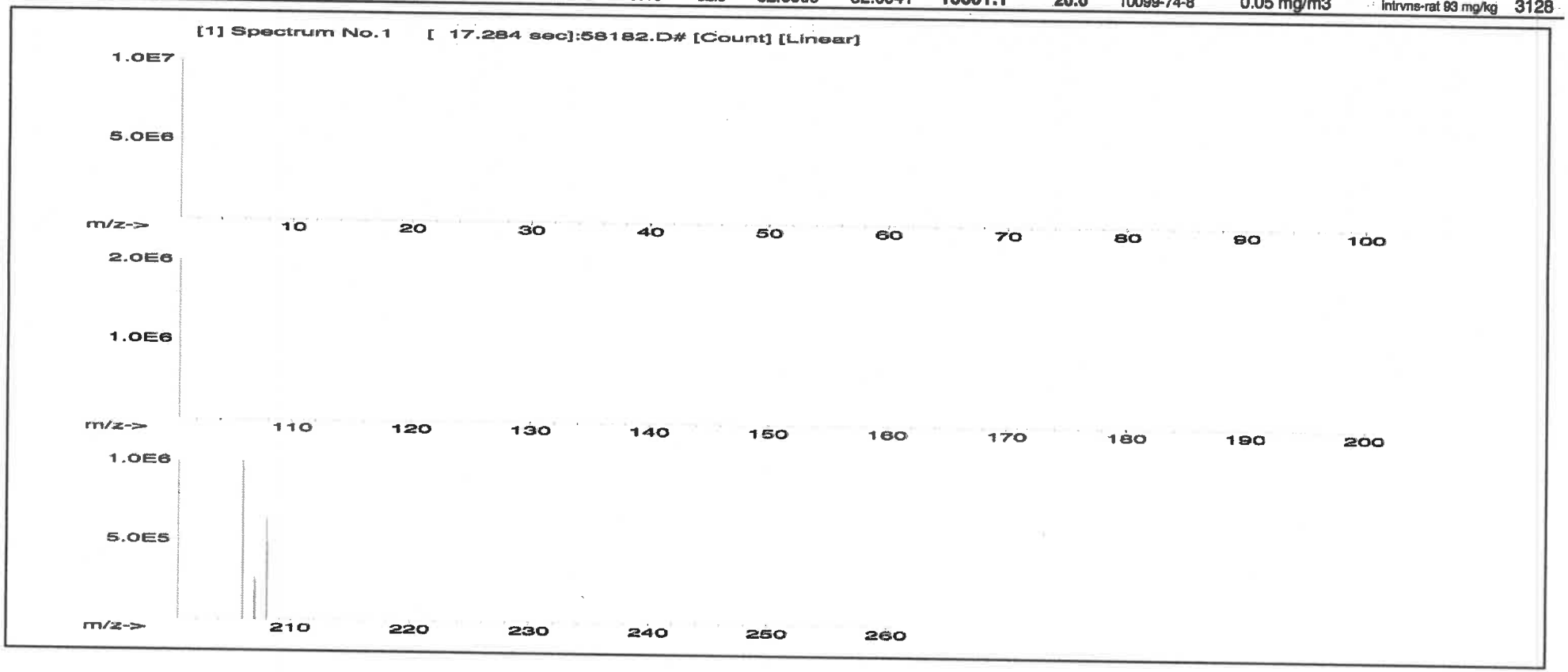
Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	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



QS1882-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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5519. M5520 (BH) R:03/17/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

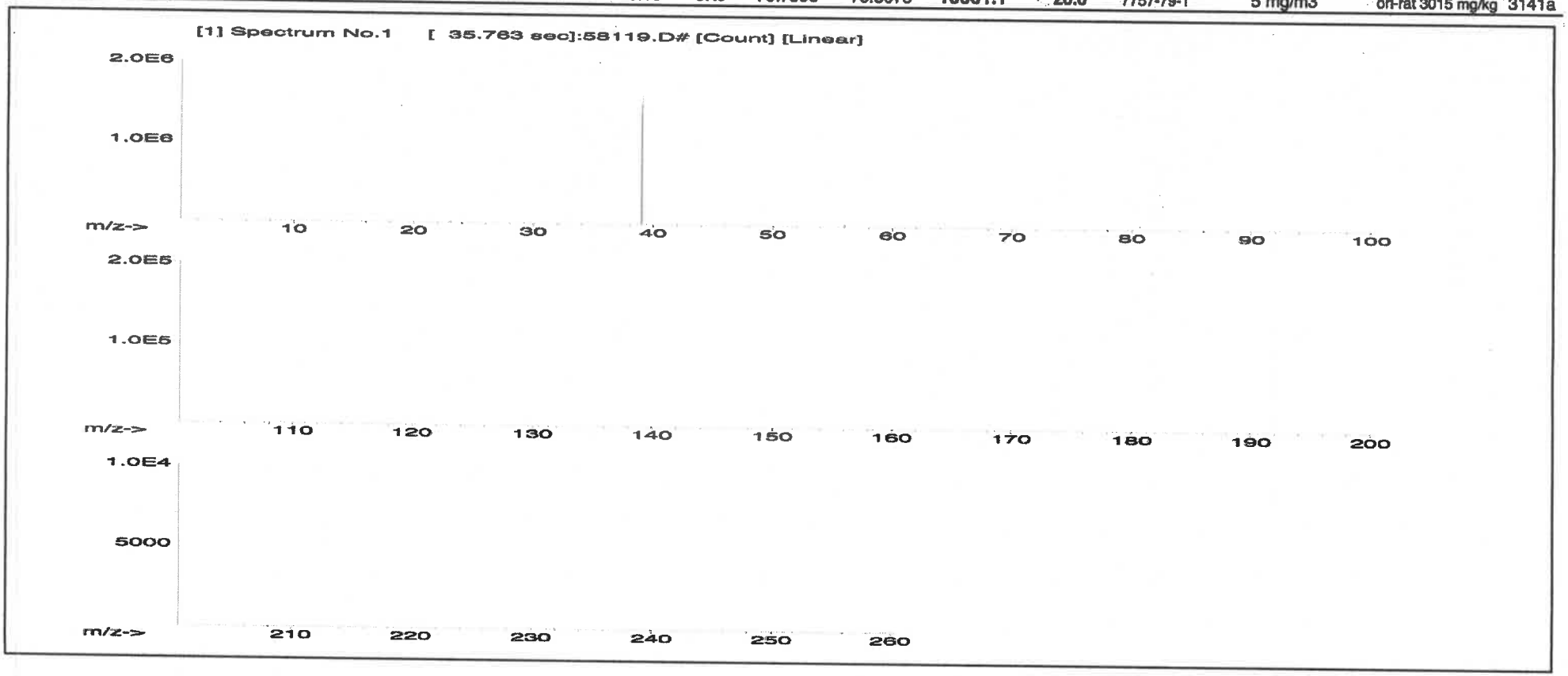
Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.06	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<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).

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

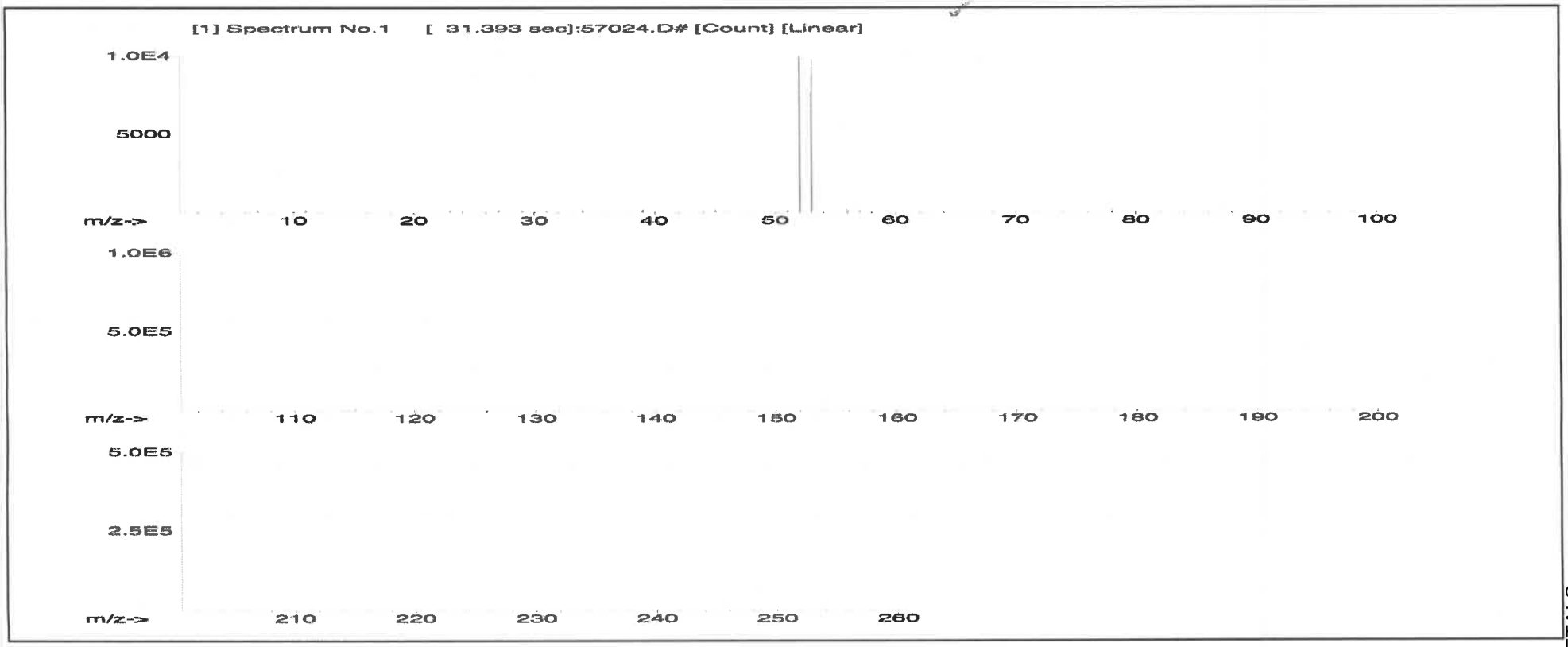
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/25/23 M5751

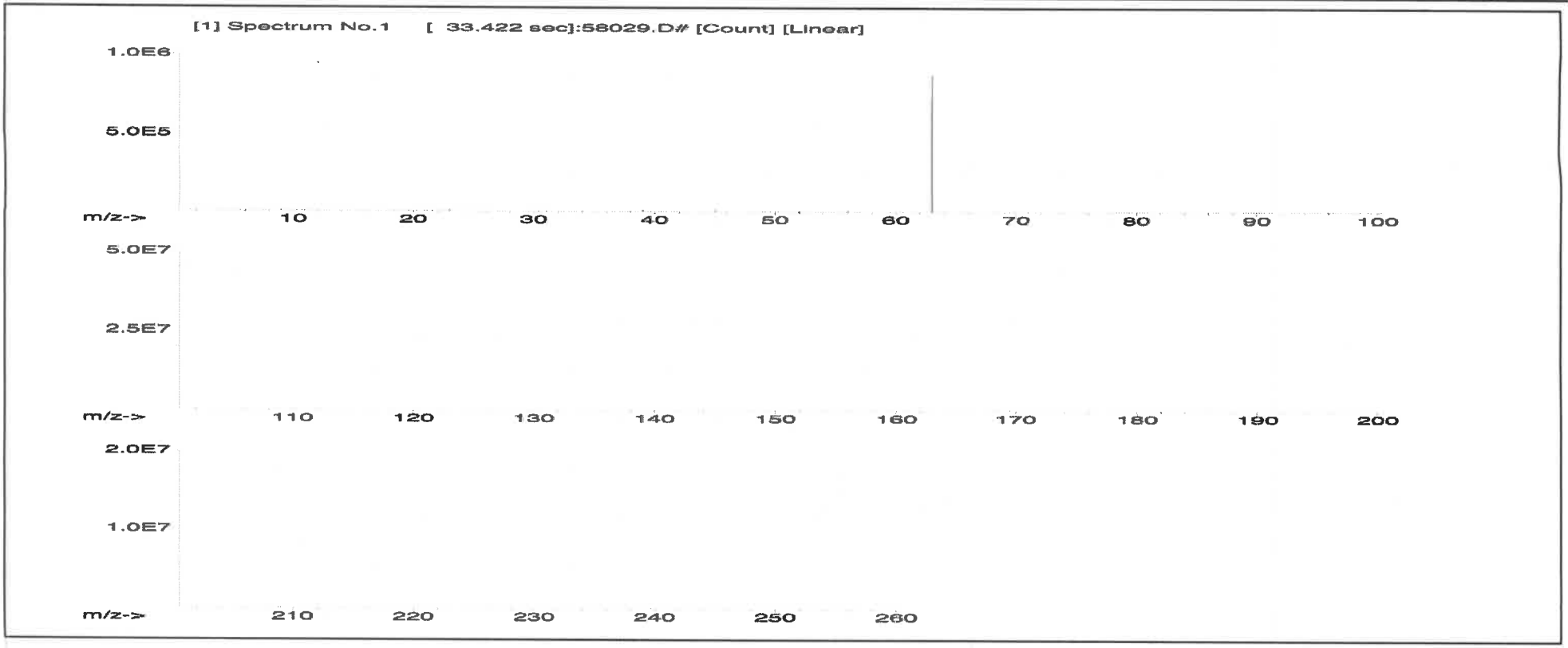
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5798

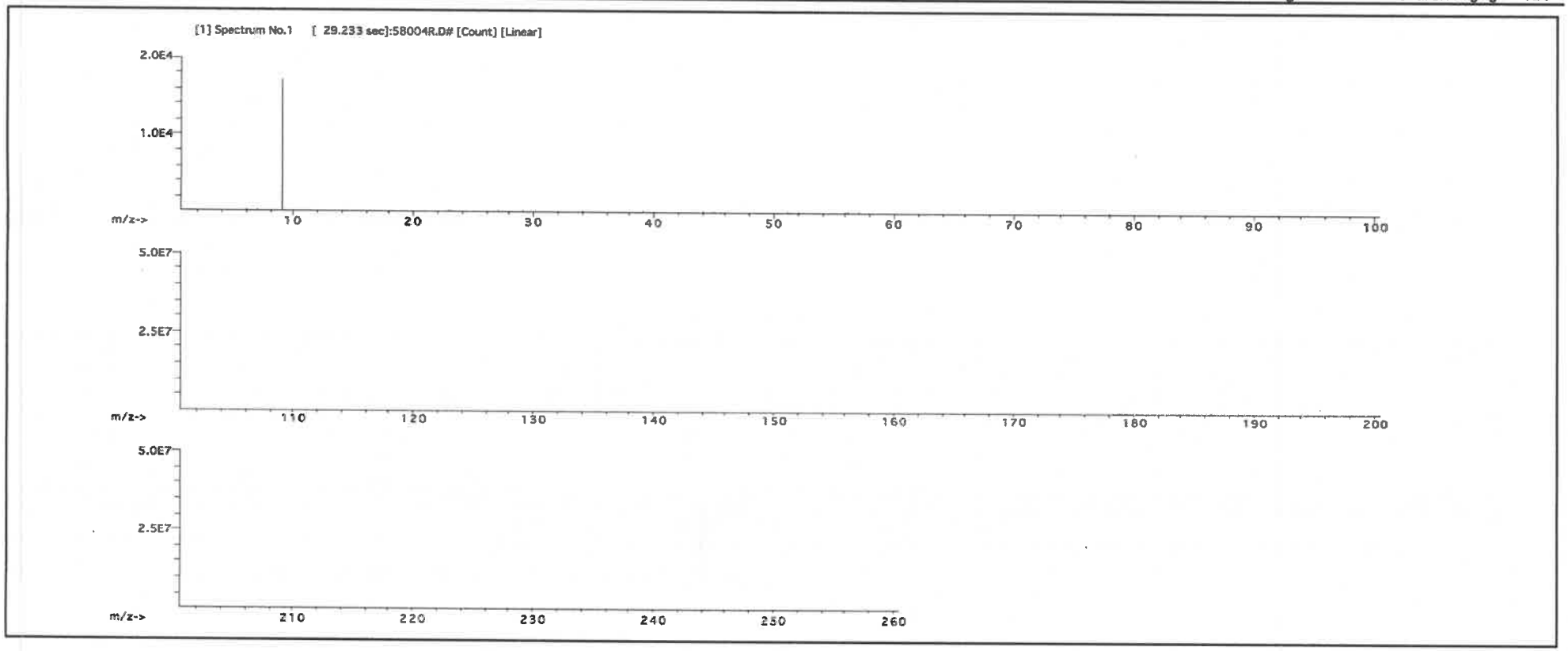
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57004**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R? 02/09/24 IV15799 BA

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

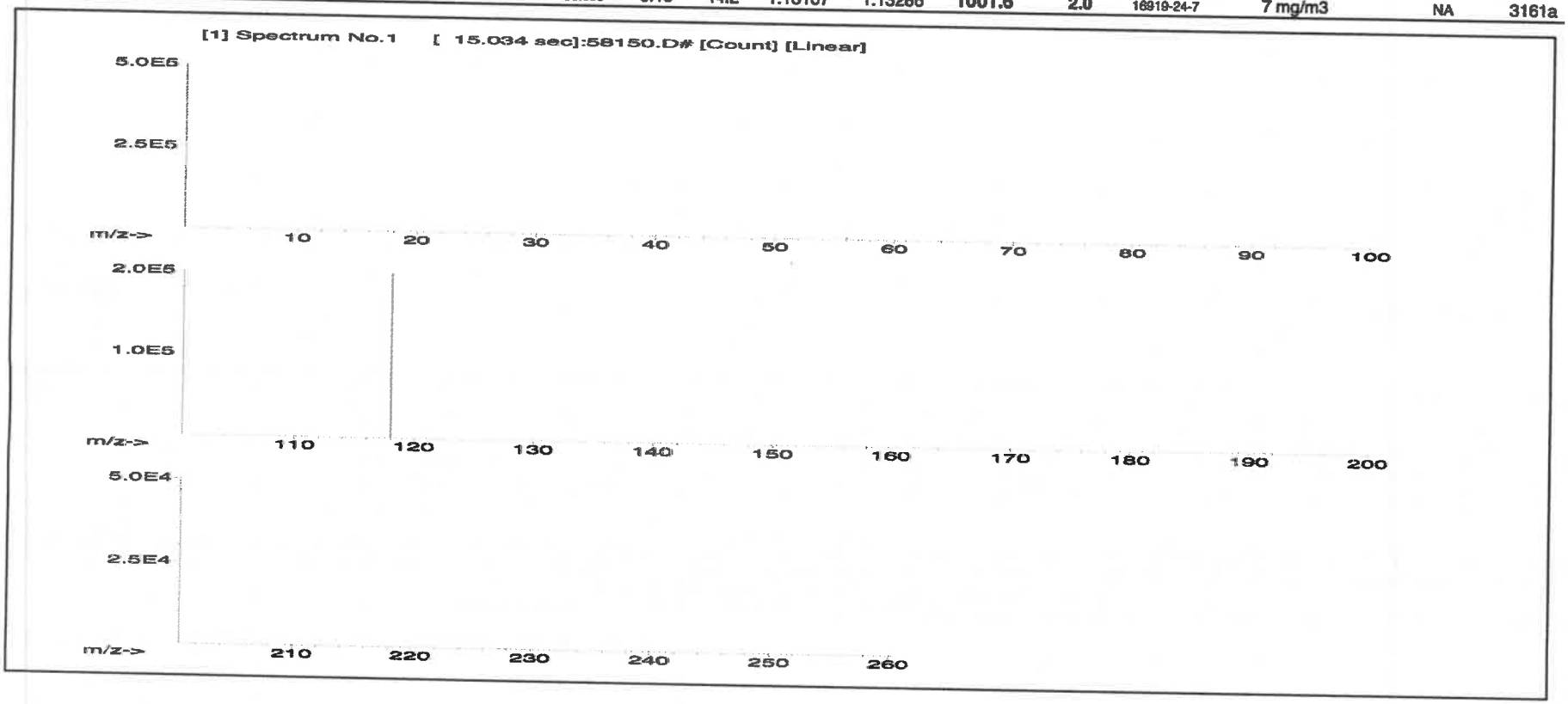
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<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.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 IM5800 BH

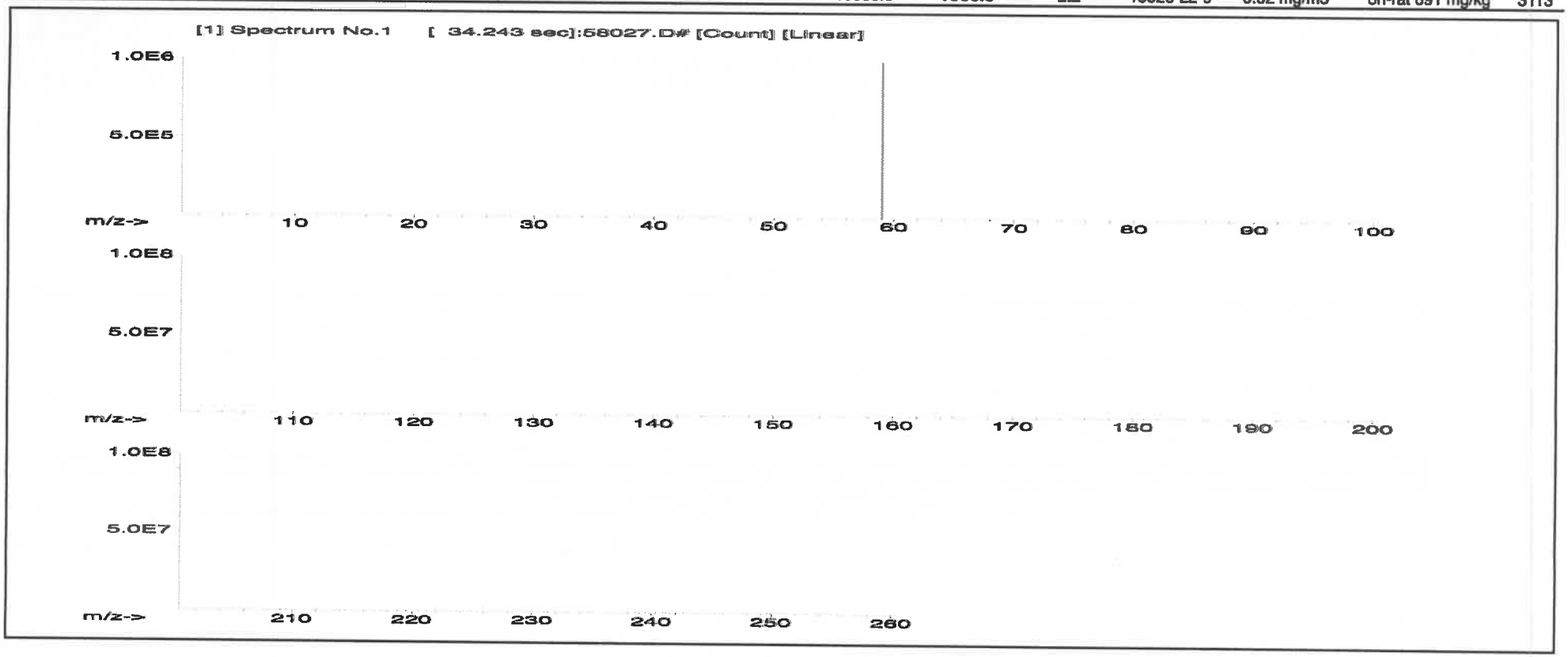
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5801 BH

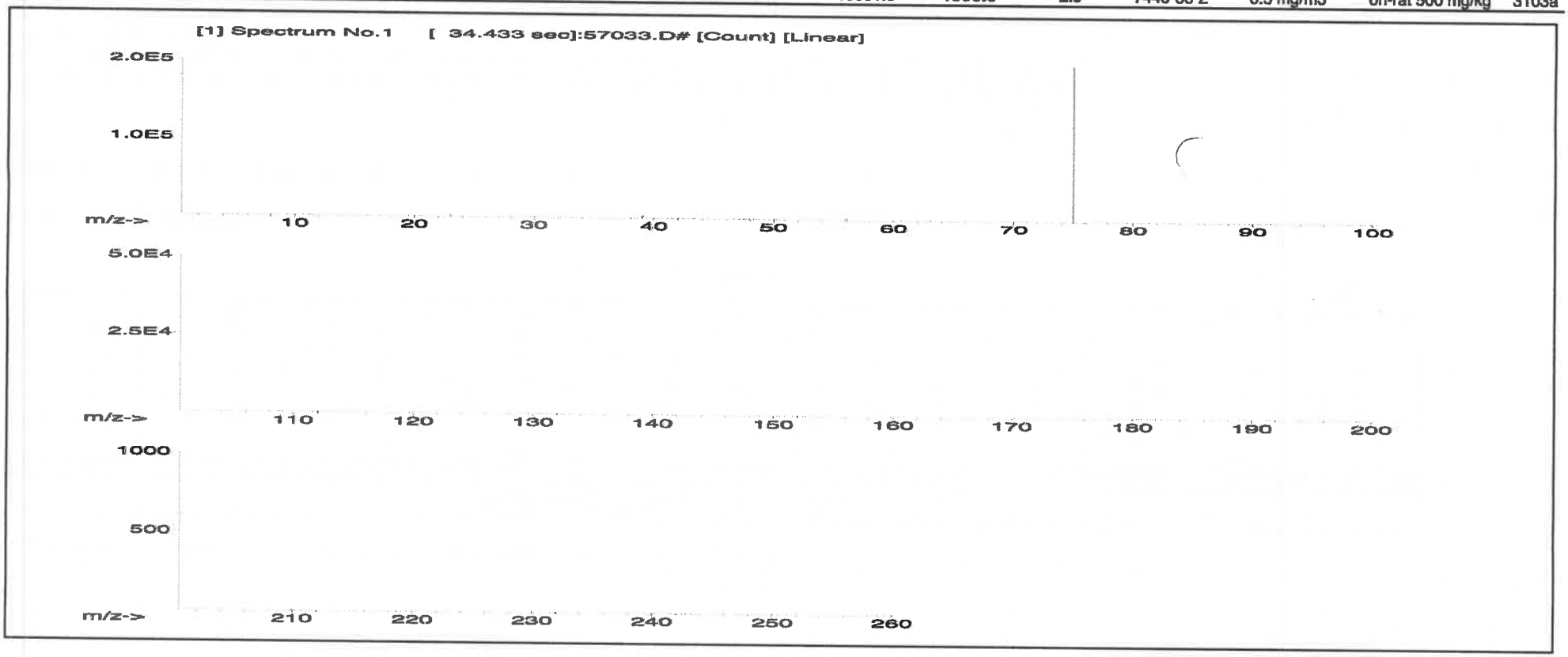
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R1 02/09/24. M5815

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

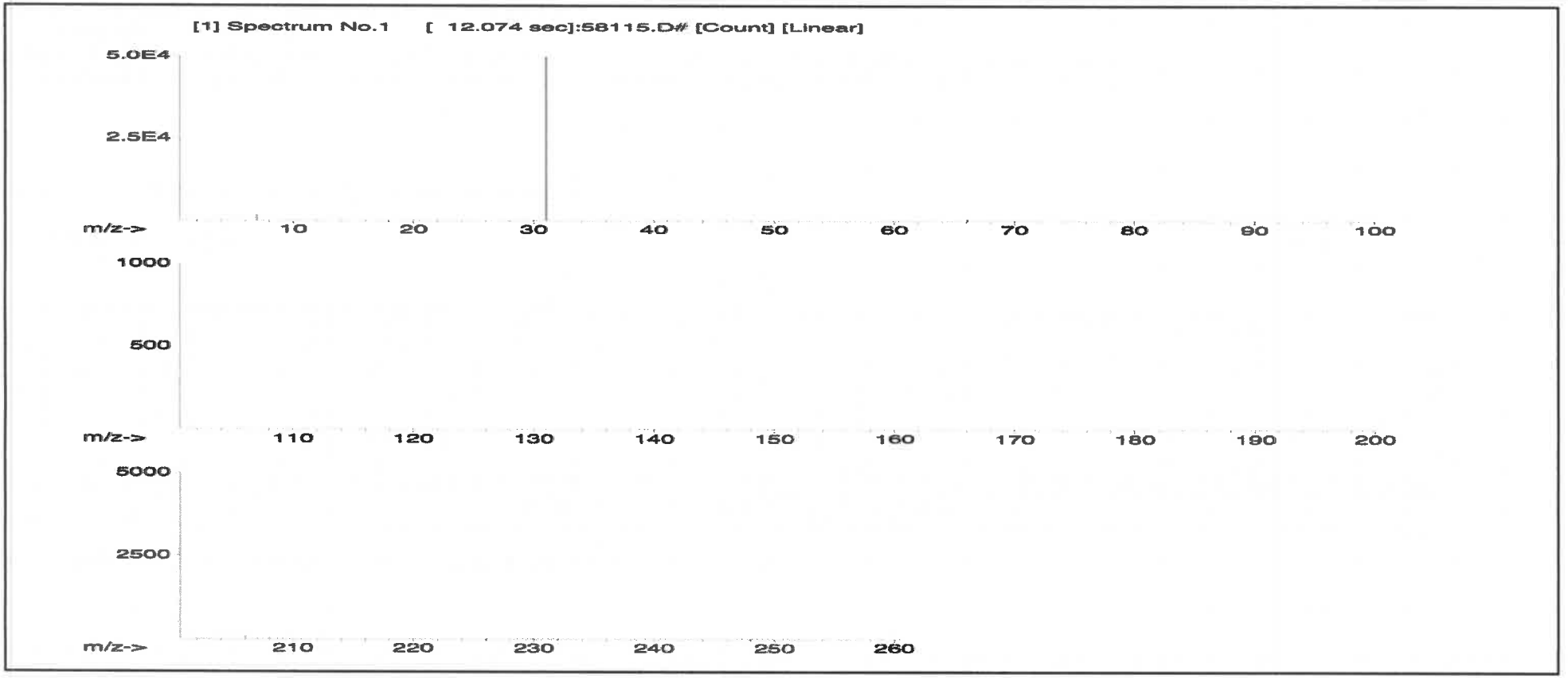
Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5817

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

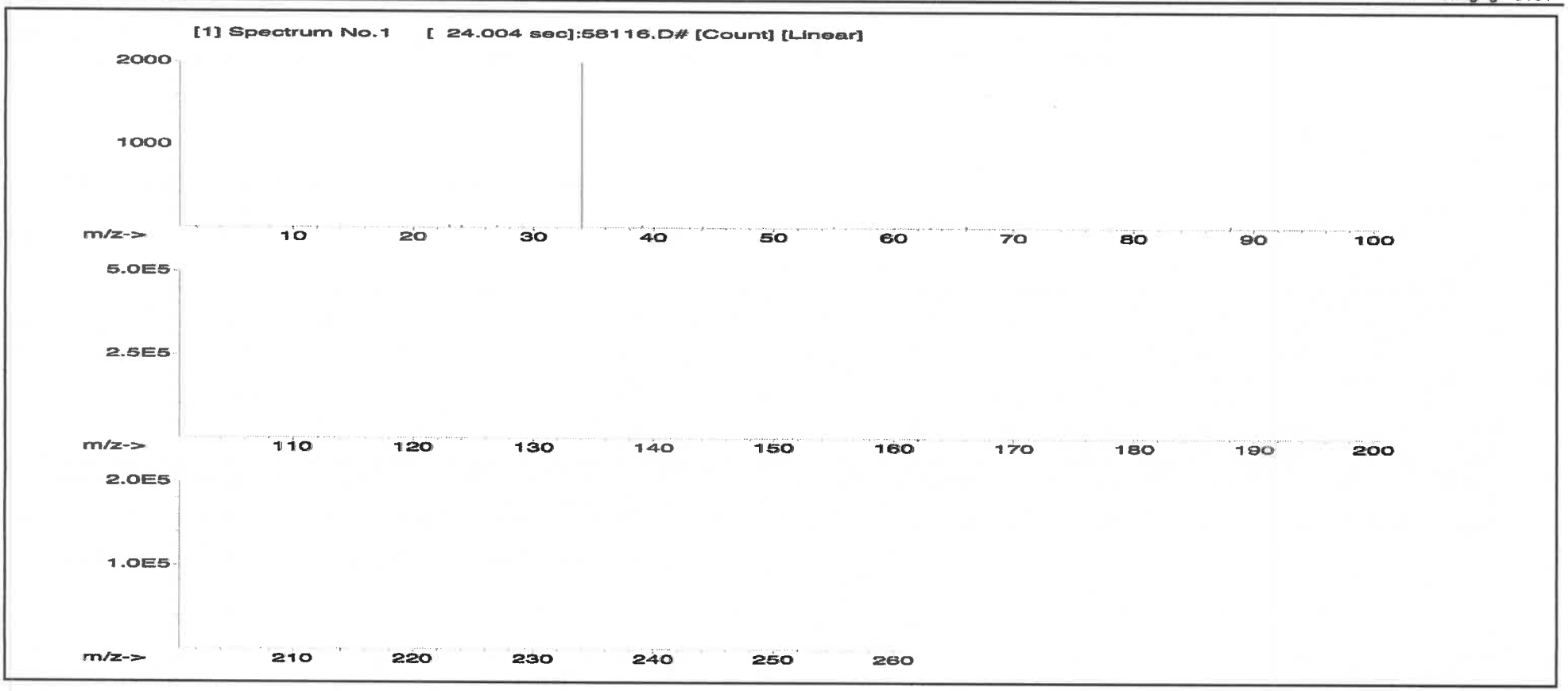
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5960 KK R. 6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

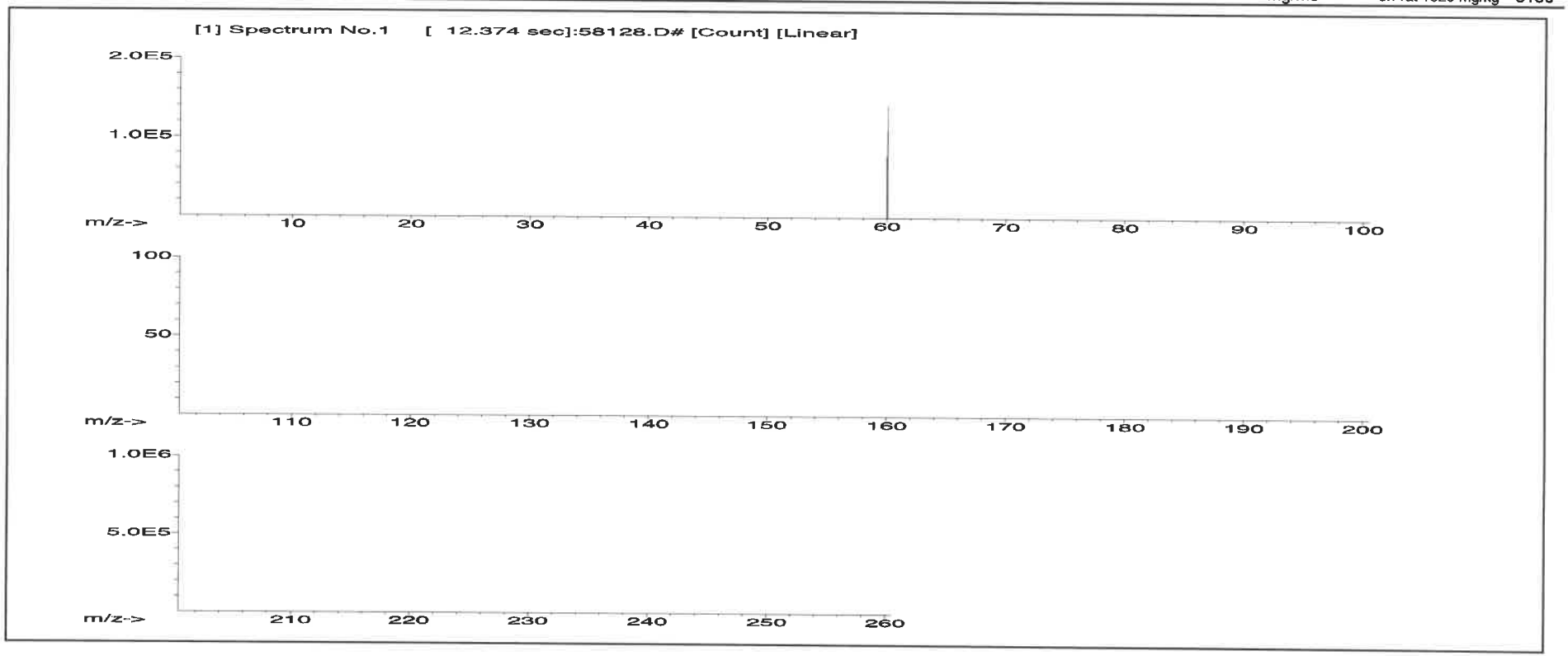
Part Number: 57028
Lot Number: 041124
Description: Nickel (Ni)

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

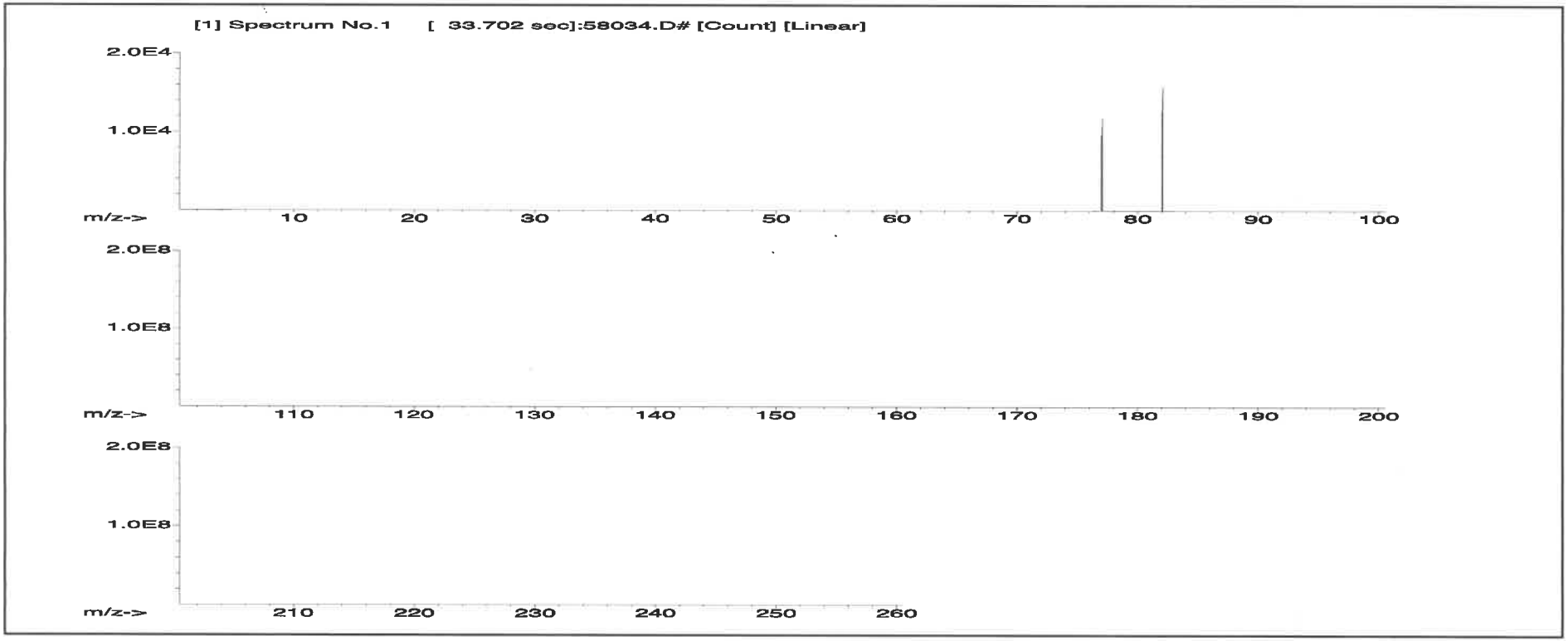
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5976, M5977
R: 02/22/24

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



MS978, MS979

Certificate of Analysis

INORGANIC VENTURES™

Refine your results. Redefine your industry.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 865.01 — ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	TI Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**1002 ± 4 µg/mL**
	ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/MM}$, 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 $u_{Cchar\,i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{Cchar\,i})^2 \,/\, (\Sigma(1/u_{Cchar\,i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Cchar} + u^2_{Lb} + u^2_{Its} + u^2_{Ts})^{½}$

k = coverage factor = 2

$u_{Cchar} = [\Sigma((w_i)^2\,(u_{Cchar\,i})^2)]^{½}$ where $u_{Cchar\,i}$ are the errors from each characterization method

u_{Lb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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:

$X_{CRM/RM} = (X_a)\,(u_{Cchar\,a})$

X_a = mean of Assay Method A with

$u_{Cchar\,a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Cchar\,a} + u^2_{Lb} + u^2_{Its} + u^2_{Ts})^{½}$

k = coverage factor = 2

$u_{Cchar\,a}$ = the errors from characterization

u_{Lb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.5798; 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		

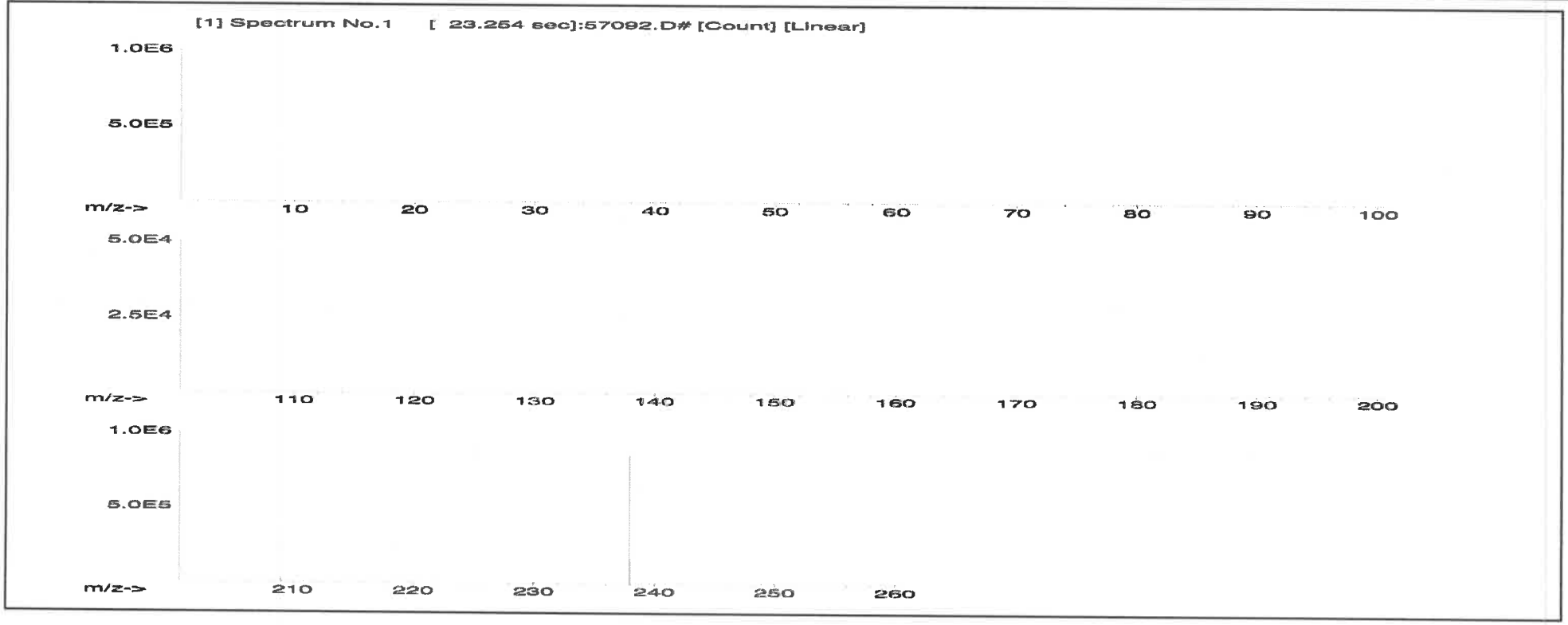
Giovanni Esposito

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	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**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R 18/19/24, M60055

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-STOCK-12
Lot Number:	U2-MEB734294
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6079 R: 9/30/24

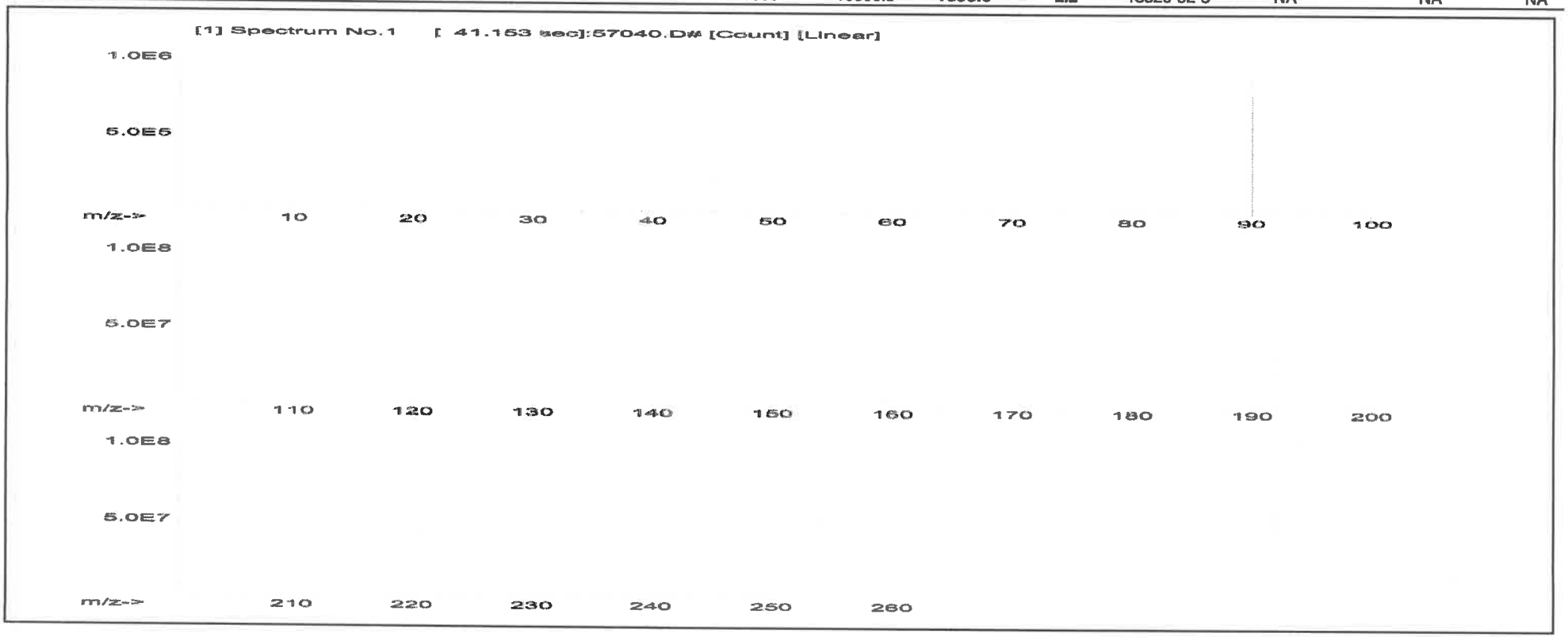
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57040**	21110221	Nitric Acid		
Lot Number:	**071423**				
Description:	**Zirconium (Zr)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	071426				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Rentas	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	<= 10	5
ACS – Residue after Ignition	<= 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	<= 0.005 %	< 0.005
ACS – Extractable Organic Substances	<= 5 ppm	1
ACS – Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities – Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities – Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	<= 1.0 ppb	< 0.2

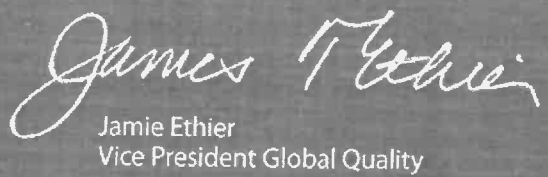
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

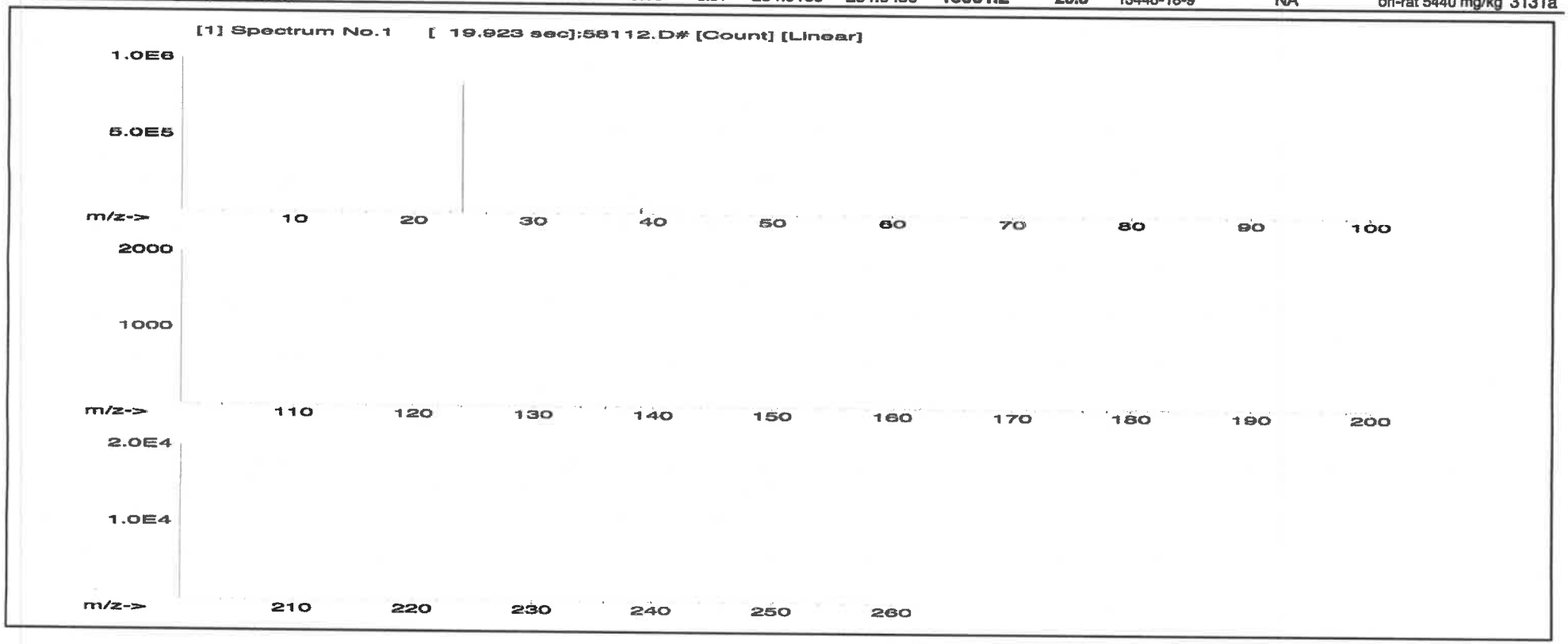
R→ 1/13/25
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	24012496	Nitric Acid
Lot Number:	**112124**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

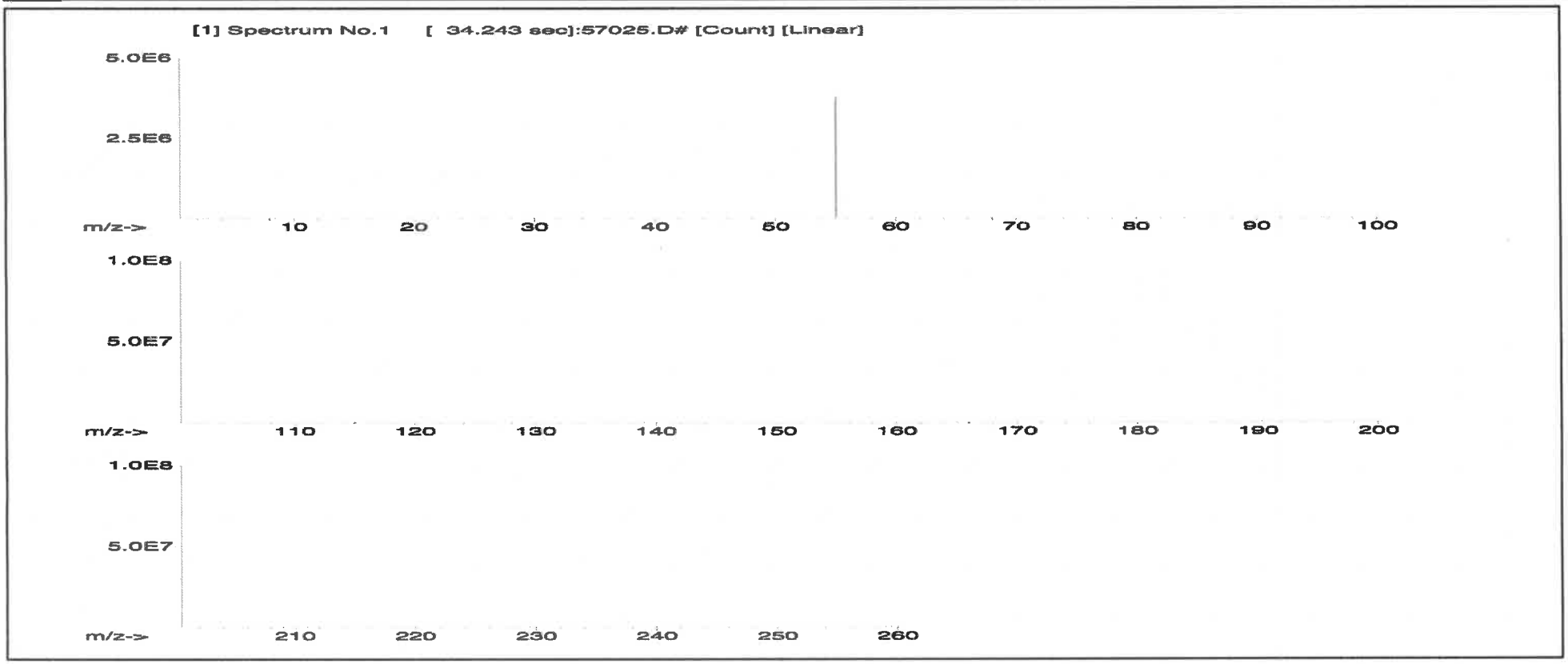
R->1/13/25
M6128

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
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

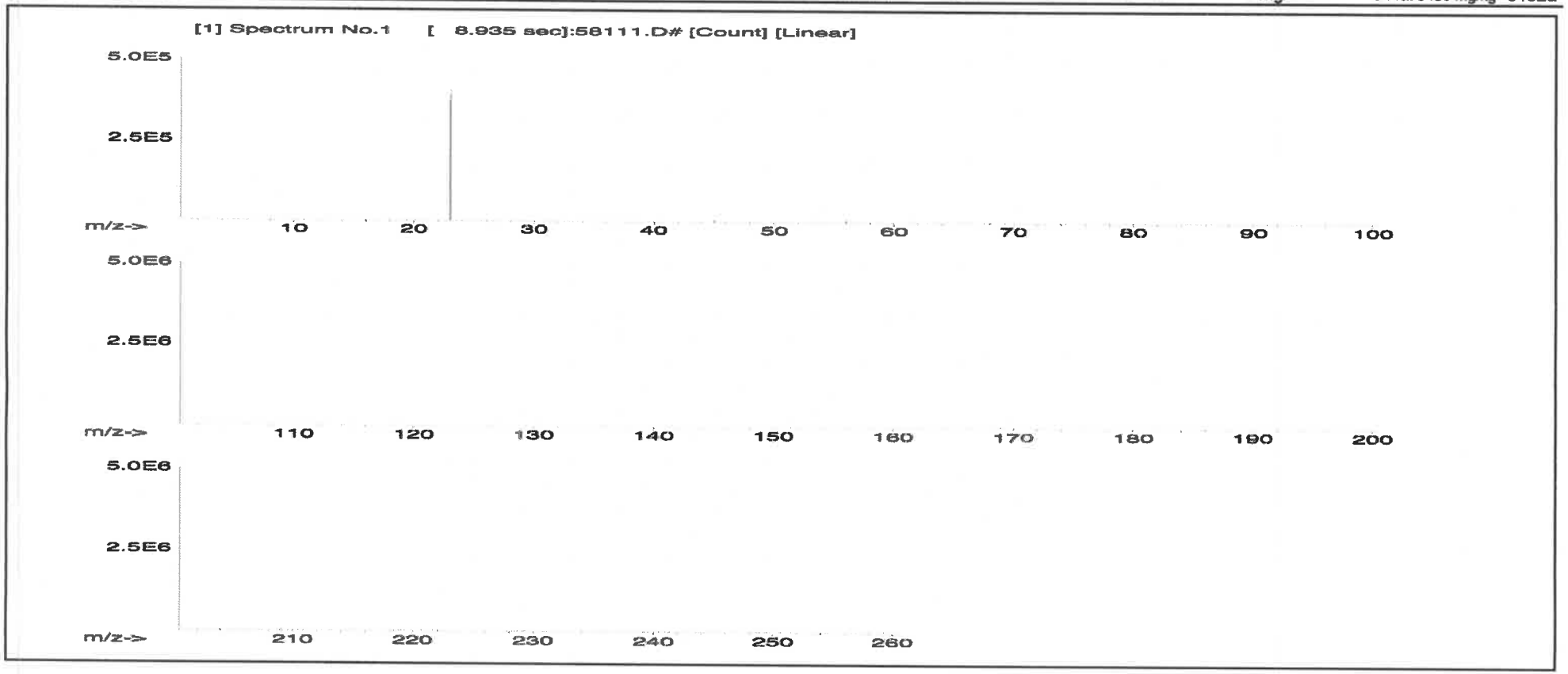
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

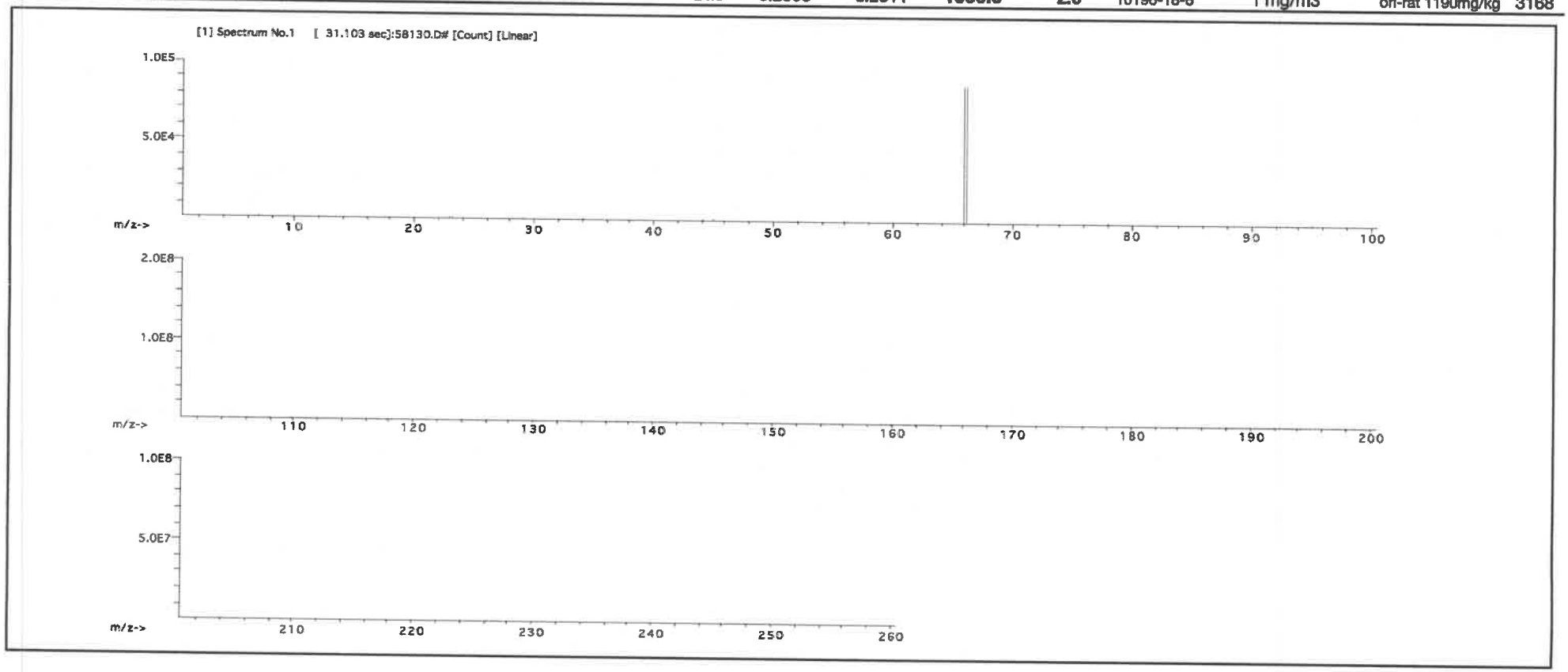
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

				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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

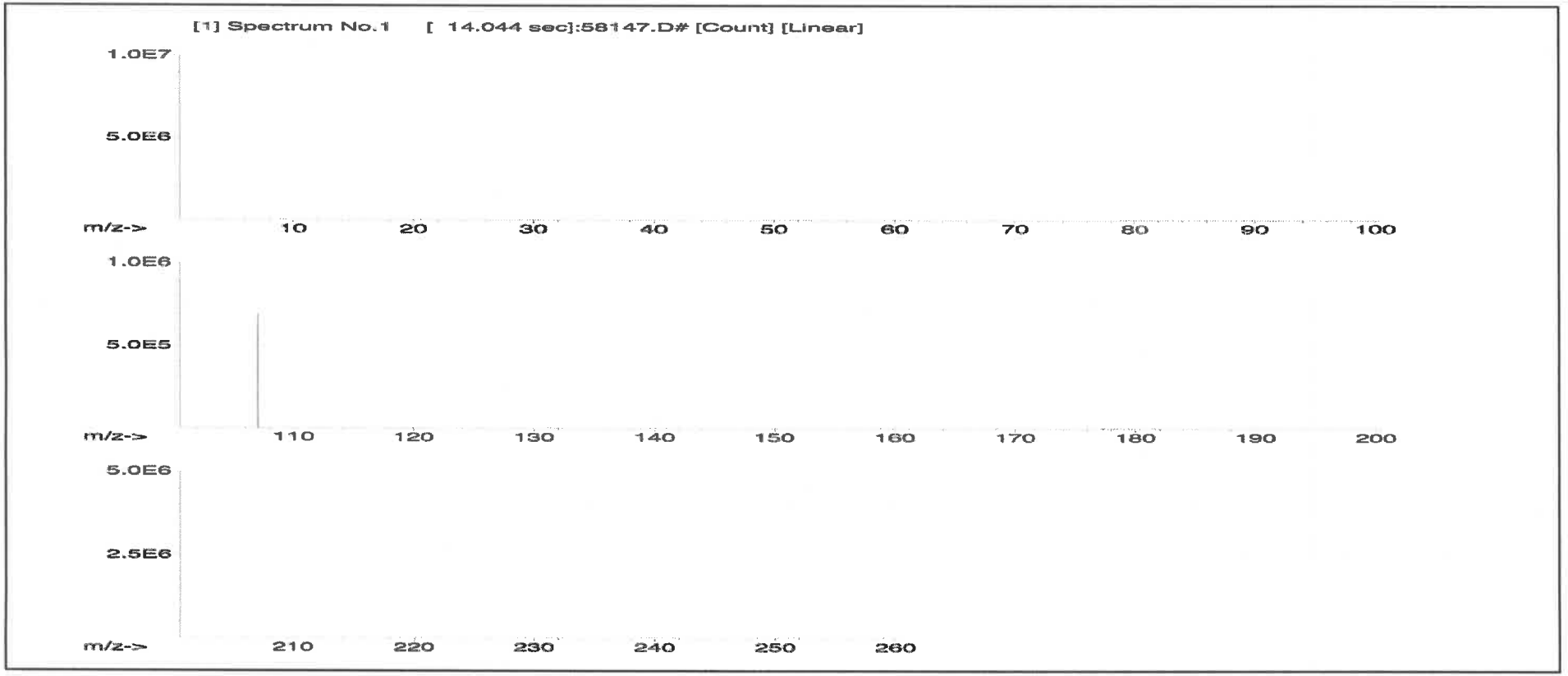
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

		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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

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

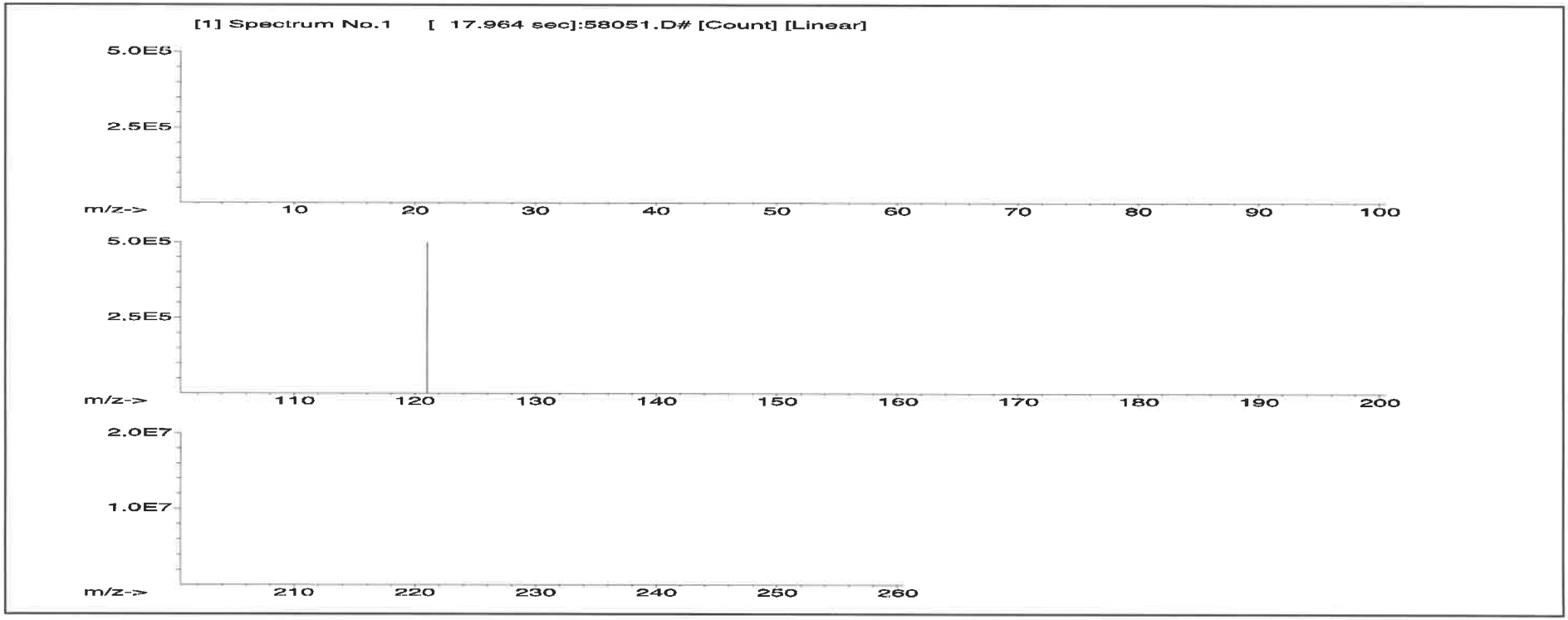
Giovanni Esposito

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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).

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**998 ± 4 µg/mL** ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	**1001 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**1001 ± 2 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

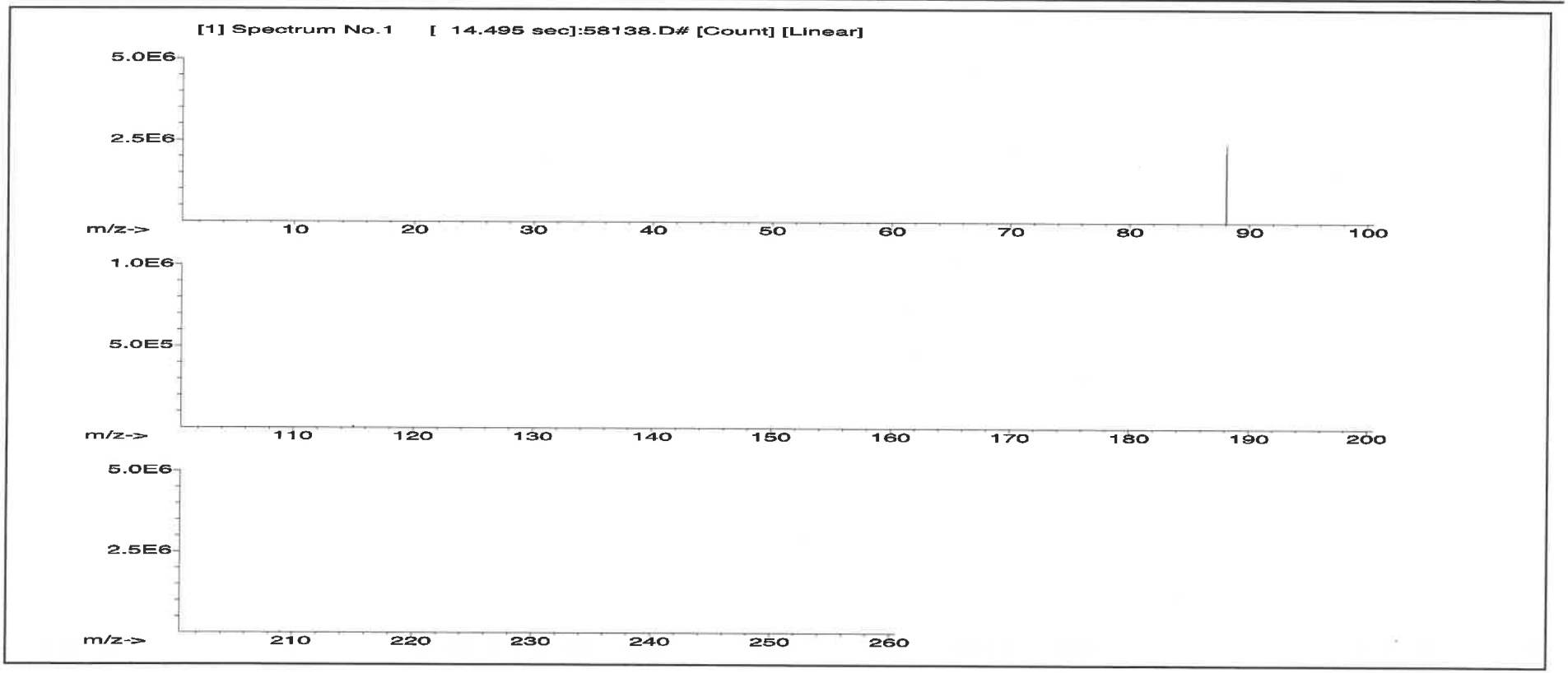
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6023

R ! 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

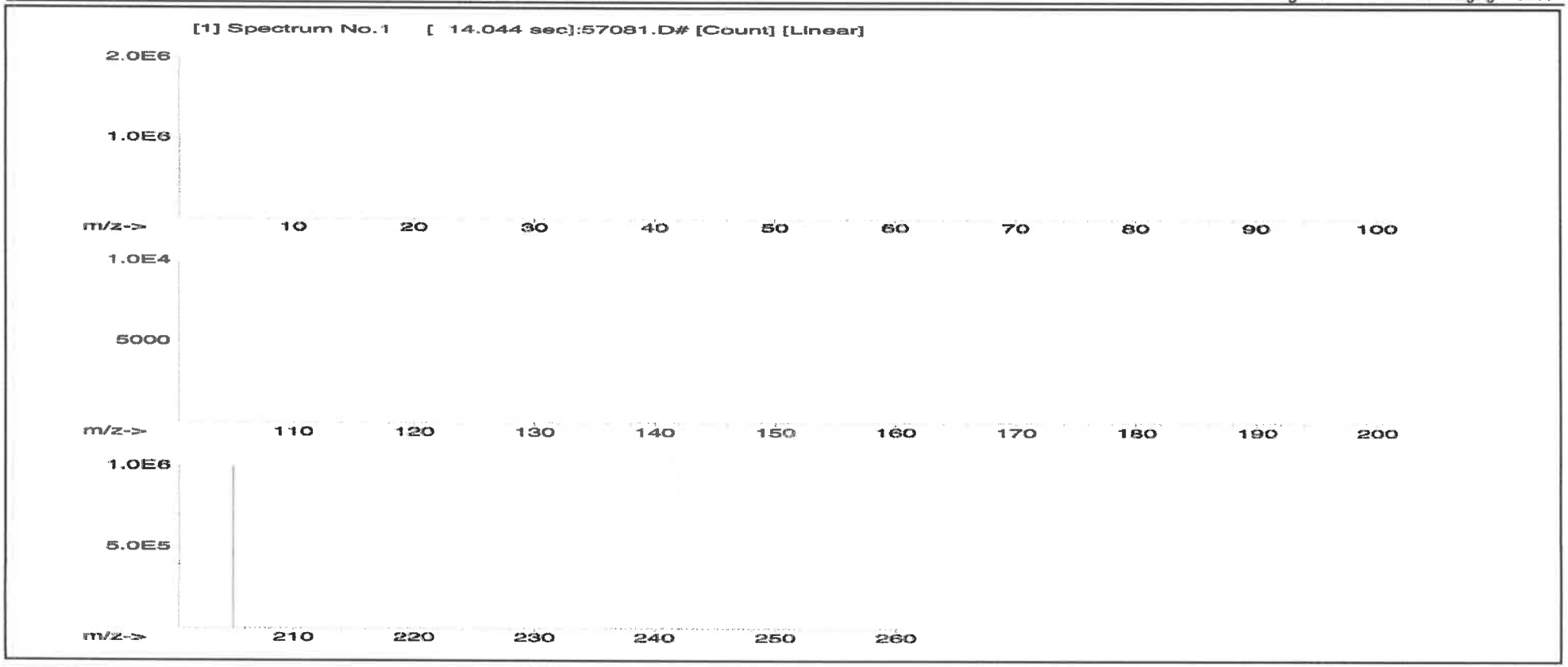
CERTIFIED WEIGHT REPORT:

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

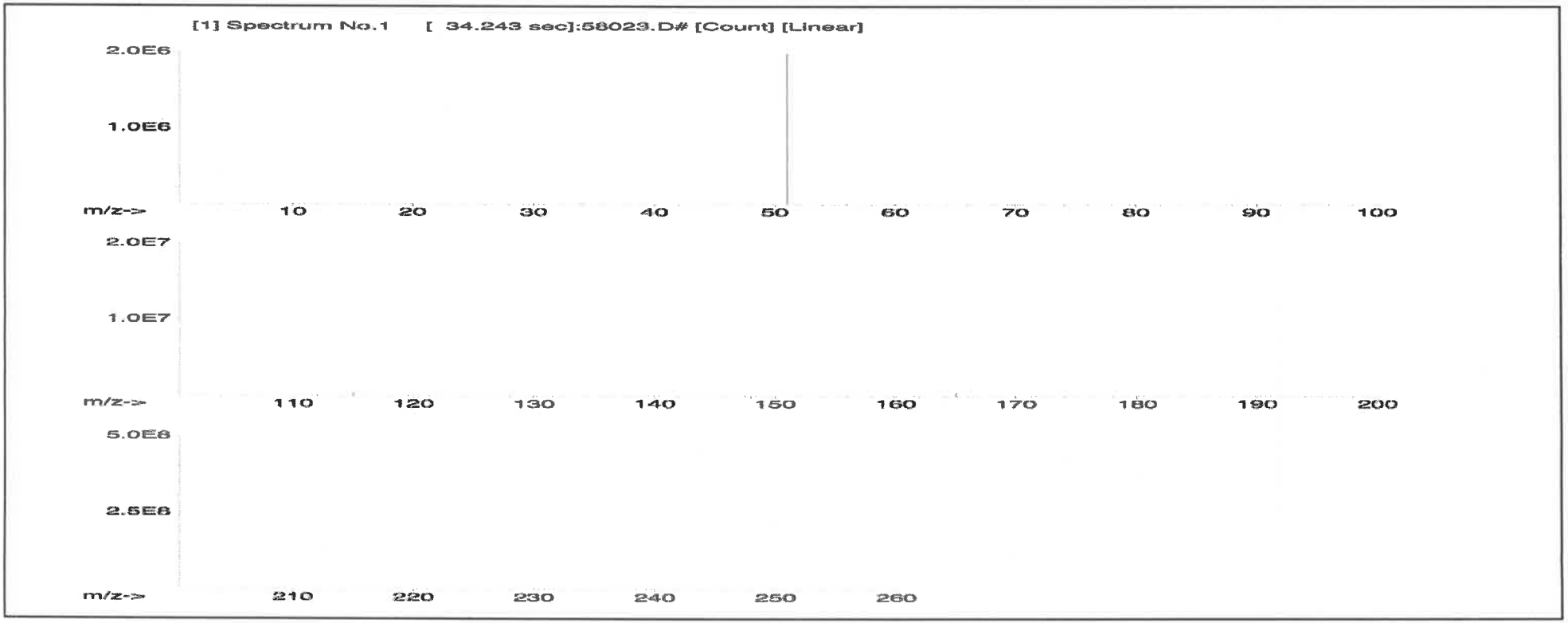
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Q1382

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

Page __1__ of __2__

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-01-021725	2/17/25	8:30	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-02-021725	2/17/25	8:35	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-03-021725	2/17/25	8:40	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-04-021725	2/17/25	8:45	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-05-021725	2/17/25	8:50	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-06-021725	2/17/25	8:55	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-07-021725	2/17/25	9:00	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-08-021725	2/17/25	9:05	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-09-021725	2/17/25	9:10	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	
	OU4-PCS-TC-10-021725	2/17/25	9:15	G	SO		3	2	1				X	X	X	X	X	X	X	X	X	

[2] Preservation Code

Courier 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)

Relinquished by: (signature)	Date/Time: 2/17/25 1200
Received by: (signature)	Date/Time: 2-18-25 1025
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:
If Cont 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.

503 of 506

Q1382-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 : Q1382 NOBI03
Client Name : Nobis Group
Client Contact : Adam Roy
Invoice Name : Nobis Group
Invoice Contact : Adam Roy

Order Date : 2/18/2025 10:57:00 AM
Project Name : Raymark Superfund Site
Receive DateTime : 2/18/2025 10:25:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1382-01	OU4-PCS-TC-01-021725	Solid	02/17/2025	08:30					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-03	OU4-PCS-TC-02-021725	Solid	02/17/2025	08:35					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-05	OU4-PCS-TC-03-021725	Solid	02/17/2025	08:40					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-07	OU4-PCS-TC-04-021725	Solid	02/17/2025	08:45					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-09	OU4-PCS-TC-05-021725	Solid	02/17/2025	08:50					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-11	OU4-PCS-TC-06-021725	Solid	02/17/2025	08:55					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-13	OU4-PCS-TC-07-021725	Solid	02/17/2025	09:00					
					VOCMS Group3		8260D		10 Bus. Days
Q1382-15	OU4-PCS-TC-08-021725	Solid	02/17/2025	09:05					

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1382 NOBI03
Client Name : Nobis Group
Client Contact : Adam Roy
Invoice Name : Nobis Group
Invoice Contact : Adam Roy

Order Date : 2/18/2025 10:57:00 AM
Project Name : Raymark Superfund Site
Receive DateTime : 2/18/2025 10:25:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOCMS Group3		8260D	10 Bus. Days	
Q1382-17	OU4-PCS-TC-09-021725	Solid	02/17/2025	09:10					
					VOCMS Group3		8260D	10 Bus. Days	
Q1382-19	OU4-PCS-TC-10-021725	Solid	02/17/2025	09:15					
					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