

## **DATA PACKAGE METALS**

**PROJECT NAME : NJ SOIL PT**

**CHEMTECH CONSULTING GROUP**

**284 Sheffield St,**

**Mountainside, NJ - 07092**

**Phone No: 908-789-8900**

**ORDER ID : P4495**

**ATTENTION : QA Officer**



**Laboratory Certification ID # 20012**



|                                                        |     |
|--------------------------------------------------------|-----|
| 1) METALS DATA                                         | 2   |
| 2) Signature Page                                      | 4   |
| 3) Case Narrative                                      | 5   |
| 4) Qualifier Page                                      | 6   |
| 5) Conformance/Non Conformance                         | 7   |
| 6) QA Checklist                                        | 8   |
| 7) Chronicle                                           | 9   |
| 8) Hit Summary                                         | 10  |
| 9) Sample Data                                         | 11  |
| 9.1) PT-MET-SOIL                                       | 12  |
| 10) METALS CALIBRATION DATA                            | 13  |
| 10.1) Initial and Continuing Calibration Verification  | 14  |
| 10.2) CRDL Standard For AA & ICP                       | 19  |
| 10.3) Initial and Continuing Calibration Blank Summary | 20  |
| 10.4) Preparation Blank Summary                        | 24  |
| 10.5) Interference Check Sample                        | 25  |
| 11) METALS QC DATA                                     | 27  |
| 11.1) Laboratory Control Sample Summary                | 28  |
| 11.2) Internal Standard Relative Intensity Summary8A   | 29  |
| 11.3) Internal Standard Relative Intensity Summary8B   | 31  |
| 12) METALS PREPARATION & INSTRUMENT DATA               | 33  |
| 13) PREPARATION & ANALYTICAL SUMMARY                   | 34  |
| 13.1) Sample Preparation Summary                       | 35  |
| 13.2) Analysis Run Log                                 | 36  |
| 14) METALS RAW DATA                                    | 37  |
| 14.1) METALS RAW DATA - ANALYTICAL                     | 38  |
| 14.2) LB133721                                         | 38  |
| 14.3) METALS RAW DATA - PREP                           | 281 |
| 14.3.1) PB165241                                       | 281 |
| 15) Percent Solid                                      | 284 |
| 16) Analytical Runlogs                                 | 291 |
| 17) Standard Prep Logs                                 | 293 |
| 18) Shipping Document                                  | 415 |
| 18.1) Chain Of Custody                                 | 416 |
| 18.2) Lab Certificate                                  | 418 |



Table Of Contents for P4495

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |

## Cover Page

**Order ID :** P4495

**Project ID :** NJ Soil PT

**Client :** Chemtech Consulting Group

### Lab Sample Number

P4495-01  
P4495-02  
P4495-03  
P4495-04  
P4495-05  
P4495-06  
P4495-07  
P4495-08  
P4495-09  
P4495-10  
P4495-11  
P4495-12  
P4495-13  
P4495-14  
P4495-15  
P4495-16  
P4495-17  
P4495-18  
P4495-19  
P4495-20  
P4495-21  
P4495-22  
P4495-23  
P4495-24  
P4495-25

### Client Sample Number

PT-AN-SOIL  
PT-CORR-SOIL  
PT-CN-SOIL  
PT-CN-SOIL  
PT-FP-SOIL  
PT-CR6-SOIL  
PT-NUT-SOIL  
PT-NUT-SOIL  
PT-OGR-SOIL  
PT-MET-SOIL  
PT-BNA-SOIL  
PT-TRIAZINE-SOIL  
PT-PAH-SOIL  
PT-DIES-SOIL  
PT-GAS-SOIL  
PT-NJEPH-SOIL  
PT-HERB-SOIL  
PT-PCB-SOIL  
PT-PCBO-SOIL  
PT-PEST-SOIL  
PT-CHLR-SOIL  
PT-TXP-SOIL  
PT-VOA-SOIL  
PT-SOL-SOIL  
PT-NO2-SOIL

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: 12/12/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

## **CASE NARRATIVE**

### **Chemtech Consulting Group**

**Project Name: NJ Soil PT**

**Project # N/A**

**Chemtech Project # P4495**

**Test Name: Metals Group3**

### **A. Number of Samples and Date of Receipt:**

25 Solid samples were received on 10/23/2024.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group1, Anions Group2, Corrosivity, Cyanide, Diesel Range Organics, EPH, Flash Point, Gasoline Range Organics, Herbicide Group1, Hexavalent Chromium, Mercury, Metals Group3, Metals ICP-Group1, Nitrite, Oil and Grease, PCB, PESTICIDE Group1, PESTICIDE Group2, PESTICIDE Group3, Phosphorus, Total, SVOCMS Group1, SVOCMS Group2, SVOCMS Group3, SVOCMS Group4, TKN, TOC, TS and VOCMS Group1. This data package contains results for Metals Group3.

### **C. Analytical Techniques:**

The analysis of Metals Group3 was based on method 6020B and digestion based on method 3050 (soils).

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

### **E. Additional Comments:**

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\_\_\_\_\_

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

**METALS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: P4495

MATRIX: Solid

METHOD: 6020B

|                                                                                                                                                                      | 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<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable range. |    |    | ✓   |
| 7. Sample Duplicate Analysis Met QC Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable range.                   |    |    | ✓   |
| 8. Digestion Holding Time Met<br><br>If not met, list number of days exceeded for each sample:                                                                       |    |    | ✓   |
| 9. Analysis Holding Time Met<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable range.                                   |    |    | ✓   |

ADDITIONAL COMMENTS: 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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4495

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 Custody

✓

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: 12/12/2024

### LAB CHRONICLE

|                 |                           |                   |                        |
|-----------------|---------------------------|-------------------|------------------------|
| <b>OrderID:</b> | P4495                     | <b>OrderDate:</b> | 10/23/2024 10:29:00 AM |
| <b>Client:</b>  | Chemtech Consulting Group | <b>Project:</b>   | NJ Soil PT             |
| <b>Contact:</b> | QA Officer                | <b>Location:</b>  | QA Office,VOA Lab      |

| LabID           | ClientID           | Matrix      | Test              | Method | Sample Date     | Prep Date | Anal Date | Received        |
|-----------------|--------------------|-------------|-------------------|--------|-----------------|-----------|-----------|-----------------|
| <b>P4495-10</b> | <b>PT-MET-SOIL</b> | <b>SOIL</b> |                   |        | <b>10/21/24</b> |           |           | <b>10/23/24</b> |
|                 |                    |             | Mercury           | 7471B  |                 | 10/30/24  | 10/31/24  |                 |
|                 |                    |             | Metals Group3     | 6020B  |                 | 11/26/24  | 12/03/24  |                 |
|                 |                    |             | Metals ICP-Group1 | 6010D  |                 | 11/26/24  | 11/27/24  |                 |
|                 |                    |             | Metals ICP-Group1 | 6010D  |                 | 11/26/24  | 12/04/24  |                 |

### Hit Summary Sheet SW-846

**SDG No.:** P4495 **Order ID:** P4495  
**Client:** Chemtech Consulting Group **Project ID:** NJ Soil PT

| Sample ID                      | Client ID   | Matrix | Parameter  | Concentration | C | MDL   | RDL  | Units |
|--------------------------------|-------------|--------|------------|---------------|---|-------|------|-------|
| <b>Client ID : PT-MET-SOIL</b> |             |        |            |               |   |       |      |       |
| P4495-10                       | PT-MET-SOIL | SOIL   | Aluminum   | 11100         | D | 2.22  | 7.94 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Antimony   | 48.4          | D | 0.040 | 0.79 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Arsenic    | 84.6          | D | 0.036 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Barium     | 300           | D | 0.15  | 3.97 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Beryllium  | 96.9          | D | 0.099 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Cadmium    | 73.2          | D | 0.11  | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Calcium    | 5810          | D | 26.8  | 198  | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Chromium   | 300           | D | 0.095 | 0.79 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Cobalt     | 101           | D | 0.032 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Copper     | 282           | D | 0.22  | 0.79 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Iron       | 12800         | D | 4.40  | 19.8 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Lead       | 184           | D | 0.060 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Magnesium  | 7300          | D | 10.7  | 198  | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Manganese  | 1070          | D | 0.14  | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Nickel     | 98.1          | D | 0.063 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Potassium  | 7960          | D | 15.8  | 198  | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Molybdenum | 129           | D | 0.37  | 1.98 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Tin        | 72.6          | D | 0.060 | 1.98 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Selenium   | 176           | D | 0.48  | 1.98 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Silver     | 30.8          | D | 0.10  | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Sodium     | 8760          | D | 24.2  | 198  | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Thallium   | 191           | D | 0.040 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Uranium    | 32.8          | D | 0.013 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Vanadium   | 250           | D | 0.032 | 1.98 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Zinc       | 333           | D | 0.52  | 1.98 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Strontium  | 253           | D | 0.16  | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Zirconium  | 10.6          | D | 0.051 | 0.40 | mg/Kg |
| P4495-10                       | PT-MET-SOIL | SOIL   | Titanium   | 383           | D | 0.29  | 1.98 | mg/Kg |



# SAMPLE DATA

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## Report of Analysis

|                   |                           |                 |          |
|-------------------|---------------------------|-----------------|----------|
| Client:           | Chemtech Consulting Group | Date Collected: | 10/21/24 |
| Project:          | NJ Soil PT                | Date Received:  | 10/23/24 |
| Client Sample ID: | PT-MET-SOIL               | SDG No.:        | P4495    |
| Lab Sample ID:    | P4495-10                  | Matrix:         | SOIL     |
| Level (low/med):  | low                       | % Solid:        | 100      |

| Cas       | Parameter  | Conc. | Qua. | DF | MDL   | LOQ / CRQL | Units(Dry Weight) | Prep Date      | Date Ana.      | Ana Met. | Prep Met. |
|-----------|------------|-------|------|----|-------|------------|-------------------|----------------|----------------|----------|-----------|
| 7429-90-5 | Aluminum   | 11100 | D    | 5  | 2.22  | 7.94       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-36-0 | Antimony   | 48.4  | D    | 5  | 0.040 | 0.79       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-38-2 | Arsenic    | 84.6  | D    | 5  | 0.036 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-39-3 | Barium     | 300   | D    | 5  | 0.15  | 3.97       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-41-7 | Beryllium  | 96.9  | D    | 5  | 0.099 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-43-9 | Cadmium    | 73.2  | D    | 5  | 0.11  | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-70-2 | Calcium    | 5810  | D    | 5  | 26.8  | 198        | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-47-3 | Chromium   | 300   | D    | 5  | 0.095 | 0.79       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-48-4 | Cobalt     | 101   | D    | 5  | 0.032 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-50-8 | Copper     | 282   | D    | 5  | 0.22  | 0.79       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7439-89-6 | Iron       | 12800 | D    | 5  | 4.40  | 19.8       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7439-92-1 | Lead       | 184   | D    | 5  | 0.060 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7439-95-4 | Magnesium  | 7300  | D    | 5  | 10.7  | 198        | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7439-96-5 | Manganese  | 1070  | D    | 5  | 0.14  | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7439-98-7 | Molybdenum | 129   | D    | 5  | 0.37  | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-02-0 | Nickel     | 98.1  | D    | 5  | 0.063 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-09-7 | Potassium  | 7960  | D    | 5  | 15.8  | 198        | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7782-49-2 | Selenium   | 176   | D    | 5  | 0.48  | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-22-4 | Silver     | 30.8  | D    | 5  | 0.10  | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-23-5 | Sodium     | 8760  | D    | 5  | 24.2  | 198        | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-24-6 | Strontium  | 253   | D    | 5  | 0.16  | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-28-0 | Thallium   | 191   | D    | 5  | 0.040 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-31-5 | Tin        | 72.6  | D    | 5  | 0.060 | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-32-6 | Titanium   | 383   | D    | 5  | 0.29  | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-61-1 | Uranium    | 32.8  | D    | 5  | 0.013 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-62-2 | Vanadium   | 250   | D    | 5  | 0.032 | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-66-6 | Zinc       | 333   | D    | 5  | 0.52  | 1.98       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |
| 7440-67-7 | Zirconium  | 10.6  | D    | 5  | 0.051 | 0.40       | mg/Kg             | 11/26/24 12:45 | 12/03/24 15:38 | SW6020   | SW3050    |

|               |               |                 |            |        |
|---------------|---------------|-----------------|------------|--------|
| Color Before: | Gray          | Clarity Before: | Texture:   | Medium |
| Color After:  | Light Gray    | Clarity After:  | Artifacts: |        |
| Comments:     | Metals Group3 |                 |            |        |

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

- 1
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- 4
- 5
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- 13
- 14
- 15
- 16
- 17
- 18

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495  
Initial Calibration Source: EPA  
Continuing Calibration Source: PLASMA-PURE

| Sample ID | Analyte    | Result<br>ug/L | True Value | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|------------|---------------|---------------------------|---|------------------|------------------|---------------|
| ICV01     | Aluminum   | 549            | 500        | 110           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Antimony   | 201            | 200        | 101           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Arsenic    | 202            | 200        | 101           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Barium     | 100            | 100        | 100           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Beryllium  | 97.9           | 100        | 98            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Cadmium    | 108            | 100        | 108           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Calcium    | 2090           | 2000       | 104           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Chromium   | 102            | 100        | 102           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Cobalt     | 103            | 100        | 103           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Copper     | 98.4           | 100        | 98            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Iron       | 2140           | 2000       | 107           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Lead       | 207            | 200        | 103           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Magnesium  | 1150           | 1200       | 96            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Manganese  | 100            | 100        | 100           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Molybdenum | 5000           | 5000       | 100           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Nickel     | 104            | 110        | 95            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Potassium  | 1960           | 2000       | 98            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Selenium   | 211            | 200        | 105           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Silver     | 52.1           | 50.0       | 104           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Sodium     | 2060           | 2000       | 103           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Strontium  | 493            | 500        | 99            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Thallium   | 209            | 210        | 99            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Tin        | 504            | 500        | 101           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Titanium   | 5010           | 5000       | 100           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Uranium    | 495            | 500        | 99            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Vanadium   | 97.0           | 100        | 97            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Zinc       | 207            | 200        | 104           | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |
|           | Zirconium  | 481            | 500        | 96            | 90 - 110                  | P | 12/03/2024       | 13:47            | LB133721      |

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495  
Initial Calibration Source: EPA  
Continuing Calibration Source: PLASMA-PURE

| Sample ID | Analyte    | Result<br>ug/L | True Value | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|------------|---------------|---------------------------|---|------------------|------------------|---------------|
| LLICV     | Aluminum   | 20.0           | 20.0       | 100           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Antimony   | 2.11           | 2.0        | 106           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Arsenic    | 1.08           | 1.0        | 108           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Barium     | 10.0           | 10.0       | 100           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Beryllium  | 1.04           | 1.0        | 104           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Cadmium    | 1.15           | 1.0        | 115           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Calcium    | 525            | 500        | 105           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Chromium   | 2.02           | 2.0        | 101           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Cobalt     | 1.08           | 1.0        | 108           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Copper     | 1.99           | 2.0        | 100           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Iron       | 55.5           | 50.0       | 111           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Lead       | 1.03           | 1.0        | 103           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Magnesium  | 513            | 500        | 103           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Manganese  | 0.99           | 1.0        | 99            | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Molybdenum | 5.34           | 5.0        | 107           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Nickel     | 1.01           | 1.0        | 101           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Potassium  | 527            | 500        | 105           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Selenium   | 5.14           | 5.0        | 103           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Silver     | 1.06           | 1.0        | 106           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Sodium     | 518            | 500        | 104           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Strontium  | 1.05           | 1.0        | 105           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Thallium   | 0.99           | 1.0        | 99            | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Tin        | 5.13           | 5.0        | 103           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Titanium   | 5.94           | 5.0        | 119           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Uranium    | 0.95           | 1.0        | 95            | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Vanadium   | 5.07           | 5.0        | 101           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Zinc       | 5.19           | 5.0        | 104           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |
|           | Zirconium  | 1.02           | 1.0        | 102           | 80 - 120                  | P | 12/03/2024       | 13:51            | LB133721      |

# Metals

- 2a -

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495  
Initial Calibration Source: EPA  
Continuing Calibration Source: PLASMA-PURE

| Sample ID | Analyte    | Result<br>ug/L | True Value | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|------------|---------------|---------------------------|---|------------------|------------------|---------------|
| CCV01     | Aluminum   | 49800          | 50000      | 100           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Antimony   | 531            | 500        | 106           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Arsenic    | 531            | 500        | 106           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Barium     | 2540           | 2500       | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Beryllium  | 484            | 500        | 97            | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Cadmium    | 521            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Calcium    | 252000         | 250000     | 101           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Chromium   | 512            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Cobalt     | 538            | 500        | 108           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Copper     | 5190           | 5000       | 104           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Iron       | 128000         | 125000     | 103           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Lead       | 2560           | 2500       | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Magnesium  | 249000         | 250000     | 100           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Manganese  | 5080           | 5000       | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Molybdenum | 5090           | 5500       | 92            | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Nickel     | 528            | 500        | 106           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Potassium  | 126000         | 125000     | 101           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Selenium   | 508            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Silver     | 517            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Sodium     | 247000         | 250000     | 99            | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Strontium  | 503            | 500        | 101           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Thallium   | 517            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Tin        | 509            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Titanium   | 5010           | 5000       | 100           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Uranium    | 519            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Vanadium   | 513            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Zinc       | 5160           | 5000       | 103           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
|           | Zirconium  | 510            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 14:32            | LB133721      |
| CCV02     | Aluminum   | 49800          | 50000      | 100           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Antimony   | 523            | 500        | 105           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Arsenic    | 527            | 500        | 105           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Barium     | 2490           | 2500       | 100           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Beryllium  | 489            | 500        | 98            | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Cadmium    | 512            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495  
Initial Calibration Source: EPA  
Continuing Calibration Source: PLASMA-PURE

| Sample ID | Analyte    | Result<br>ug/L | True Value | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|------------|---------------|---------------------------|---|------------------|------------------|---------------|
| CCV02     | Calcium    | 248000         | 250000     | 99            | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Chromium   | 510            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Cobalt     | 536            | 500        | 107           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Copper     | 5140           | 5000       | 103           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Iron       | 128000         | 125000     | 103           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Lead       | 2560           | 2500       | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Magnesium  | 254000         | 250000     | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Manganese  | 5030           | 5000       | 101           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Molybdenum | 5100           | 5500       | 93            | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Nickel     | 531            | 500        | 106           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Potassium  | 125000         | 125000     | 100           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Selenium   | 513            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Silver     | 510            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Sodium     | 252000         | 250000     | 101           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Strontium  | 500            | 500        | 100           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Thallium   | 516            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Tin        | 503            | 500        | 101           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Titanium   | 4970           | 5000       | 100           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Uranium    | 519            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Vanadium   | 511            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
| CCV03     | Zinc       | 5110           | 5000       | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Zirconium  | 509            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:18            | LB133721      |
|           | Aluminum   | 48800          | 50000      | 98            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Antimony   | 515            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Arsenic    | 522            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Barium     | 2490           | 2500       | 100           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Beryllium  | 480            | 500        | 96            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Cadmium    | 512            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Calcium    | 248000         | 250000     | 99            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Chromium   | 510            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Cobalt     | 542            | 500        | 108           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Copper     | 5220           | 5000       | 104           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Iron       | 128000         | 125000     | 103           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Lead       | 2540           | 2500       | 102           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |

## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495  
Initial Calibration Source: EPA  
Continuing Calibration Source: PLASMA-PURE

| Sample ID | Analyte    | Result<br>ug/L | True Value | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|------------|---------------|---------------------------|---|------------------|------------------|---------------|
| CCV03     | Magnesium  | 249000         | 250000     | 100           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Manganese  | 5050           | 5000       | 101           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Molybdenum | 5060           | 5500       | 92            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Nickel     | 533            | 500        | 107           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Potassium  | 124000         | 125000     | 99            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Selenium   | 505            | 500        | 101           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Silver     | 507            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Sodium     | 246000         | 250000     | 98            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Strontium  | 498            | 500        | 100           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Thallium   | 515            | 500        | 103           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Tin        | 499            | 500        | 100           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Titanium   | 4940           | 5000       | 99            | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Uranium    | 519            | 500        | 104           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Vanadium   | 510            | 500        | 102           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Zinc       | 5180           | 5000       | 104           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |
|           | Zirconium  | 506            | 500        | 101           | 90 - 110                  | P | 12/03/2024       | 15:46            | LB133721      |

**Metals**

- 2b -

**CRDL STANDARD FOR AA & ICP**

**Client:** Chemtech Consulting Group **SDG No.:** P4495  
**Contract:** CHEM02 **Lab Code:** CHEM **Case No.:** P4495 **SAS No.:** P4495  
**Initial Calibration Source:** \_\_\_\_\_  
**Continuing Calibration Source:** \_\_\_\_\_

| Sample ID | Analyte    | Result<br>ug/L | True Value<br>ug/L | %<br>Recovery | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|--------------------|---------------|---------------------------|---|------------------|------------------|---------------|
| CRI       | Aluminum   | 21.4           | 20.0               | 107           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Antimony   | 2.14           | 2.0                | 107           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Arsenic    | 1.09           | 1.0                | 109           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Barium     | 10.2           | 10.0               | 102           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Beryllium  | 1.10           | 1.0                | 110           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Cadmium    | 1.09           | 1.0                | 109           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Calcium    | 540            | 500                | 108           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Chromium   | 2.11           | 2.0                | 106           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Cobalt     | 1.10           | 1.0                | 110           | 50 - 150                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Copper     | 2.11           | 2.0                | 106           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Iron       | 59.8           | 50.0               | 120           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Lead       | 1.22           | 1.0                | 122           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Magnesium  | 501            | 500                | 100           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Manganese  | 1.04           | 1.0                | 104           | 50 - 150                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Molybdenum | 5.09           | 5.0                | 102           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Nickel     | 1.00           | 1.0                | 100           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Potassium  | 529            | 500                | 106           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Selenium   | 5.17           | 5.0                | 103           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Silver     | 1.07           | 1.0                | 107           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Sodium     | 513            | 500                | 103           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Strontium  | 1.02           | 1.0                | 102           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Thallium   | 1.12           | 1.0                | 112           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Tin        | 5.22           | 5.0                | 104           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Titanium   | 5.09           | 5.0                | 102           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Uranium    | 0.91           | 1.0                | 91            | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Vanadium   | 5.09           | 5.0                | 102           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Zinc       | 5.15           | 5.0                | 103           | 50 - 150                  | P | 12/03/2024       | 14:44            | LB133721      |
|           | Zirconium  | 1.00           | 1.0                | 100           | 70 - 130                  | P | 12/03/2024       | 14:44            | LB133721      |

**Metals**

- 3a -

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

| <b>Client:</b> Chemtech Consulting Group |                       | <b>SDG No.:</b> P4495  |                       |              |      |   |                  |                  |               |
|------------------------------------------|-----------------------|------------------------|-----------------------|--------------|------|---|------------------|------------------|---------------|
| <b>Contract:</b> CHEM02                  | <b>Lab Code:</b> CHEM | <b>Case No.:</b> P4495 | <b>SAS No.:</b> P4495 |              |      |   |                  |                  |               |
| Sample ID                                | Analyte               | Result<br>ug/L         | Acceptance<br>Limit   | Conc<br>Qual | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
| ICB01                                    | Aluminum              | 20.0                   | +/-20.0               | U            | 20.0 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Antimony              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Arsenic               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Barium                | 10.0                   | +/-10.0               | U            | 10.0 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Beryllium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Cadmium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Calcium               | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Chromium              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Cobalt                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Copper                | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Iron                  | 50.0                   | +/-50.0               | U            | 50.0 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Lead                  | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Magnesium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Manganese             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Nickel                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Potassium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Selenium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Molybdenum            | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Tin                   | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Silver                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Sodium                | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Thallium              | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Uranium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Vanadium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Zinc                  | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Strontium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Zirconium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 13:58            | LB133721      |
|                                          | Titanium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 13:58            | LB133721      |

## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

| <b>Client:</b> Chemtech Consulting Group |                       | <b>SDG No.:</b> P4495  |                       |              |      |   |                  |                  |               |
|------------------------------------------|-----------------------|------------------------|-----------------------|--------------|------|---|------------------|------------------|---------------|
| <b>Contract:</b> CHEM02                  | <b>Lab Code:</b> CHEM | <b>Case No.:</b> P4495 | <b>SAS No.:</b> P4495 |              |      |   |                  |                  |               |
| Sample ID                                | Analyte               | Result<br>ug/L         | Acceptance<br>Limit   | Conc<br>Qual | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
| CCB01                                    | Aluminum              | 7.18                   | +/-20.0               | J            | 20.0 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Antimony              | 0.11                   | +/-2.00               | J            | 2.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Arsenic               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Barium                | 10.0                   | +/-10.0               | U            | 10.0 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Beryllium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Cadmium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Calcium               | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Chromium              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Cobalt                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Copper                | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Iron                  | 10.9                   | +/-50.0               | J            | 50.0 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Lead                  | 0.65                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Magnesium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Manganese             | 0.24                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Nickel                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Potassium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Tin                   | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Selenium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Molybdenum            | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Silver                | 0.090                  | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Sodium                | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Thallium              | 0.15                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Vanadium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Uranium               | 0.030                  | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Zinc                  | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Strontium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Zirconium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 14:36            | LB133721      |
|                                          | Titanium              | 0.42                   | +/-5.00               | J            | 5.00 | P | 12/03/2024       | 14:36            | LB133721      |
| CCB02                                    | Aluminum              | 2.75                   | +/-20.0               | J            | 20.0 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Antimony              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Arsenic               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Barium                | 10.0                   | +/-10.0               | U            | 10.0 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Beryllium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Cadmium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Calcium               | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Chromium              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Cobalt                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Copper                | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Iron                  | 50.0                   | +/-50.0               | U            | 50.0 | P | 12/03/2024       | 15:27            | LB133721      |

## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

| <b>Client:</b> Chemtech Consulting Group |                       | <b>SDG No.:</b> P4495  |                       |              |      |   |                  |                  |               |
|------------------------------------------|-----------------------|------------------------|-----------------------|--------------|------|---|------------------|------------------|---------------|
| <b>Contract:</b> CHEM02                  | <b>Lab Code:</b> CHEM | <b>Case No.:</b> P4495 | <b>SAS No.:</b> P4495 |              |      |   |                  |                  |               |
| Sample ID                                | Analyte               | Result<br>ug/L         | Acceptance<br>Limit   | Conc<br>Qual | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
| CCB02                                    | Lead                  | 0.29                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Magnesium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Manganese             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Nickel                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Potassium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Tin                   | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Selenium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Molybdenum            | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Silver                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Sodium                | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Thallium              | 0.17                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Uranium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Vanadium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Zinc                  | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Strontium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Zirconium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:27            | LB133721      |
|                                          | Titanium              | 0.34                   | +/-5.00               | J            | 5.00 | P | 12/03/2024       | 15:27            | LB133721      |
| CCB03                                    | Aluminum              | 3.83                   | +/-20.0               | J            | 20.0 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Antimony              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Arsenic               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Barium                | 10.0                   | +/-10.0               | U            | 10.0 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Beryllium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Cadmium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Calcium               | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Chromium              | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Cobalt                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Copper                | 2.00                   | +/-2.00               | U            | 2.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Iron                  | 50.0                   | +/-50.0               | U            | 50.0 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Lead                  | 0.61                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Magnesium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Manganese             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Nickel                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Potassium             | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Tin                   | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Selenium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Molybdenum            | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Silver                | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Sodium                | 500                    | +/-500                | U            | 500  | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Thallium              | 0.15                   | +/-1.00               | J            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |

**Metals**

- 3a -

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

| <b>Client:</b> Chemtech Consulting Group |                       | <b>SDG No.:</b> P4495  |                       |              |      |   |                  |                  |               |
|------------------------------------------|-----------------------|------------------------|-----------------------|--------------|------|---|------------------|------------------|---------------|
| <b>Contract:</b> CHEM02                  | <b>Lab Code:</b> CHEM | <b>Case No.:</b> P4495 | <b>SAS No.:</b> P4495 |              |      |   |                  |                  |               |
| Sample ID                                | Analyte               | Result<br>ug/L         | Acceptance<br>Limit   | Conc<br>Qual | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
| CCB03                                    | Uranium               | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Vanadium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Zinc                  | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Strontium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Zirconium             | 1.00                   | +/-1.00               | U            | 1.00 | P | 12/03/2024       | 15:53            | LB133721      |
|                                          | Titanium              | 5.00                   | +/-5.00               | U            | 5.00 | P | 12/03/2024       | 15:53            | LB133721      |

**Metals**  
**- 3b -**  
**PREPARATION BLANK SUMMARY**

**Client:** Chemtech Consulting Group

**SDG No.:** P4495

**Instrument:** P7

| Sample ID         | Analyte      | Result<br>(mg/Kg) | Acceptance<br>Limit | Conc<br>Qual         | CRQL<br>mg/Kg   | M | Analysis<br>Date  | Analysis<br>Time  | Run      |
|-------------------|--------------|-------------------|---------------------|----------------------|-----------------|---|-------------------|-------------------|----------|
| <b>PB165241BL</b> | <b>SOLID</b> |                   |                     | <b>Batch Number:</b> | <b>PB165241</b> |   | <b>Prep Date:</b> | <b>11/26/2024</b> |          |
|                   | Aluminum     | 2.00              | <2.00               | U                    | 2.00            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Antimony     | 0.20              | <0.20               | U                    | 0.20            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Arsenic      | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Barium       | 1.00              | <1.00               | U                    | 1.00            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Beryllium    | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Cadmium      | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Calcium      | 50.0              | <50.0               | U                    | 50.0            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Chromium     | 0.20              | <0.20               | U                    | 0.20            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Cobalt       | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Copper       | 0.20              | <0.20               | U                    | 0.20            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Iron         | 5.00              | <5.00               | U                    | 5.00            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Lead         | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Magnesium    | 50.0              | <50.0               | U                    | 50.0            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Manganese    | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Nickel       | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Potassium    | 50.0              | <50.0               | U                    | 50.0            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Molybdenum   | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Tin          | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Selenium     | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Silver       | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Sodium       | 50.0              | <50.0               | U                    | 50.0            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Thallium     | 0.014             | <0.10               | J                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Uranium      | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Vanadium     | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Zinc         | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Strontium    | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Zirconium    | 0.10              | <0.10               | U                    | 0.10            | P | 12/03/2024        | 15:00             | LB133721 |
|                   | Titanium     | 0.50              | <0.50               | U                    | 0.50            | P | 12/03/2024        | 15:00             | LB133721 |

**Metals**  
**- 4 -**  
**INTERFERENCE CHECK SAMPLE**

**Client:** Chemtech Consulting Group **SDG No.:** P4495  
**Contract:** CHEM02 **Lab Code:** CHEM **Case No.:** P4495 **SAS No.:** P4495  
**ICS Source:** EPA **Instrument ID:** P7

| Sample ID | Analyte    | Result<br>ug/L | True Value<br>ug/L | %<br>Recovery | Low<br>Limit<br>(ug/L) | High<br>Limit<br>(ug/L) | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|--------------------|---------------|------------------------|-------------------------|------------------|------------------|---------------|
| ICSA01    | Aluminum   | 86000          | 100000             | 86            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Antimony   | 1.07           | 1.5                | 71            | -2.5                   | 5.5                     | 12/03/2024       | 14:26            | LB133721      |
|           | Arsenic    | 0.34           | 0.1                | 340           | -1.9                   | 2.1                     | 12/03/2024       | 14:26            | LB133721      |
|           | Barium     | 1.33           | 1.2                | 111           | -18.8                  | 21.2                    | 12/03/2024       | 14:26            | LB133721      |
|           | Beryllium  | 0.26           |                    |               | -2                     | 2                       | 12/03/2024       | 14:26            | LB133721      |
|           | Cadmium    | 0.31           | 0.7                | 44            | -1.3                   | 2.7                     | 12/03/2024       | 14:26            | LB133721      |
|           | Calcium    | 94100          | 100000             | 94            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Chromium   | 19.3           | 21.0               | 92            | 17                     | 25                      | 12/03/2024       | 14:26            | LB133721      |
|           | Cobalt     | 1.20           | 1.0                | 120           | -1                     | 3                       | 12/03/2024       | 14:26            | LB133721      |
|           | Copper     | 6.95           | 8.0                | 87            | 4                      | 12                      | 12/03/2024       | 14:26            | LB133721      |
|           | Iron       | 98700          | 100000             | 99            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Lead       | 5.47           | 4.0                | 137           | 2                      | 6                       | 12/03/2024       | 14:26            | LB133721      |
|           | Magnesium  | 89300          | 100000             | 89            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Manganese  | 7.52           | 7.0                | 107           | 5                      | 9                       | 12/03/2024       | 14:26            | LB133721      |
|           | Nickel     | 5.21           | 6.0                | 87            | 4                      | 8                       | 12/03/2024       | 14:26            | LB133721      |
|           | Potassium  | 93500          | 100000             | 94            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Tin        | 0.17           |                    |               | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Selenium   | 0              | 0.3                |               | -9.7                   | 10                      | 12/03/2024       | 14:26            | LB133721      |
|           | Molybdenum | 1800           | 2000               | 90            | 1600                   | 2400                    | 12/03/2024       | 14:26            | LB133721      |
|           | Silver     | 0.020          |                    |               | -2                     | 2                       | 12/03/2024       | 14:26            | LB133721      |
|           | Sodium     | 95200          | 100000             | 95            | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Thallium   | 0.080          |                    |               | -2                     | 2                       | 12/03/2024       | 14:26            | LB133721      |
|           | Vanadium   | 0.19           | 0.5                | 38            | -9.5                   | 10.5                    | 12/03/2024       | 14:26            | LB133721      |
|           | Uranium    | 0.010          |                    |               | 20                     | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Zinc       | 10.6           | 11.0               | 96            | 7                      | 15                      | 12/03/2024       | 14:26            | LB133721      |
|           | Strontium  | 32.1           |                    |               | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Zirconium  | 0.080          |                    |               | 0                      | 0                       | 12/03/2024       | 14:26            | LB133721      |
|           | Titanium   | 1850           | 2000               | 92            | 1600                   | 2400                    | 12/03/2024       | 14:26            | LB133721      |
| ICSAB01   | Aluminum   | 89400          | 100000             | 89            | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Antimony   | 20.7           | 22.0               | 94            | 18                     | 26                      | 12/03/2024       | 14:29            | LB133721      |
|           | Arsenic    | 19.8           | 19.0               | 104           | 16.2                   | 21.9                    | 12/03/2024       | 14:29            | LB133721      |
|           | Barium     | 20.8           | 22.0               | 94            | 2                      | 42                      | 12/03/2024       | 14:29            | LB133721      |
|           | Beryllium  | 19.1           | 19.0               | 100           | 16.2                   | 21.9                    | 12/03/2024       | 14:29            | LB133721      |
|           | Cadmium    | 19.8           | 20.0               | 99            | 17                     | 23                      | 12/03/2024       | 14:29            | LB133721      |
|           | Calcium    | 98300          | 100000             | 98            | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Chromium   | 39.8           | 40.0               | 100           | 34                     | 46                      | 12/03/2024       | 14:29            | LB133721      |
|           | Cobalt     | 21.1           | 20.0               | 106           | 17                     | 23                      | 12/03/2024       | 14:29            | LB133721      |
|           | Copper     | 25.8           | 25.0               | 103           | 21                     | 29                      | 12/03/2024       | 14:29            | LB133721      |
|           | Iron       | 102000         | 100000             | 102           | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Lead       | 24.5           | 25.0               | 98            | 21.3                   | 28.8                    | 12/03/2024       | 14:29            | LB133721      |
|           | Magnesium  | 93100          | 100000             | 93            | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Manganese  | 26.9           | 27.0               | 100           | 23                     | 31.1                    | 12/03/2024       | 14:29            | LB133721      |

**Metals**  
**- 4 -**  
**INTERFERENCE CHECK SAMPLE**

**Client:** Chemtech Consulting Group **SDG No.:** P4495  
**Contract:** CHEM02 **Lab Code:** CHEM **Case No.:** P4495 **SAS No.:** P4495  
**ICS Source:** EPA **Instrument ID:** P7

| Sample ID | Analyte    | Result<br>ug/L | True Value<br>ug/L | %<br>Recovery | Low<br>Limit<br>(ug/L) | High<br>Limit<br>(ug/L) | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|------------|----------------|--------------------|---------------|------------------------|-------------------------|------------------|------------------|---------------|
| ICSAB01   | Nickel     | 24.8           | 24.0               | 103           | 20.4                   | 27.6                    | 12/03/2024       | 14:29            | LB133721      |
|           | Potassium  | 97600          | 100000             | 98            | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Tin        | 0.12           |                    |               | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Selenium   | 19.2           | 19.0               | 101           | 9                      | 29                      | 12/03/2024       | 14:29            | LB133721      |
|           | Molybdenum | 1870           | 2000               | 94            | 1600                   | 2400                    | 12/03/2024       | 14:29            | LB133721      |
|           | Silver     | 18.5           | 18.0               | 103           | 15.3                   | 20.7                    | 12/03/2024       | 14:29            | LB133721      |
|           | Sodium     | 97700          | 100000             | 98            | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Thallium   | 19.9           | 21.0               | 95            | 17.9                   | 24.2                    | 12/03/2024       | 14:29            | LB133721      |
|           | Vanadium   | 19.5           | 19.0               | 103           | 9                      | 29                      | 12/03/2024       | 14:29            | LB133721      |
|           | Uranium    | 0.010          |                    |               | 20                     | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Zinc       | 30.7           | 29.0               | 106           | 25                     | 33                      | 12/03/2024       | 14:29            | LB133721      |
|           | Strontium  | 33.1           |                    |               | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Zirconium  | 0.020          |                    |               | 0                      | 0                       | 12/03/2024       | 14:29            | LB133721      |
|           | Titanium   | 1940           | 2000               | 97            | 1600                   | 2400                    | 12/03/2024       | 14:29            | LB133721      |



# METAL QC DATA

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## Metals

- 7 -

### LABORATORY CONTROL SAMPLE SUMMARY

Client: Chemtech Consulting Group SDG No.: P4495  
Contract: CHEM02 Lab Code: CHEM Case No.: P4495 SAS No.: P4495

| Analyte    | Units | True Value | Result | C | % Recovery | Acceptance Limits | M |
|------------|-------|------------|--------|---|------------|-------------------|---|
| PB165241BS |       |            |        |   |            |                   |   |
| Aluminum   | mg/Kg | 1000       | 992    |   | 99         | 80 - 120          | P |
| Antimony   | mg/Kg | 50.0       | 50.2   |   | 100        | 80 - 120          | P |
| Arsenic    | mg/Kg | 50.0       | 49.2   |   | 98         | 80 - 120          | P |
| Barium     | mg/Kg | 250        | 248    |   | 99         | 80 - 120          | P |
| Beryllium  | mg/Kg | 50.0       | 48.0   |   | 96         | 80 - 120          | P |
| Cadmium    | mg/Kg | 50.0       | 50.6   |   | 101        | 80 - 120          | P |
| Calcium    | mg/Kg | 5000       | 5000   |   | 100        | 80 - 120          | P |
| Chromium   | mg/Kg | 50.0       | 49.9   |   | 100        | 80 - 120          | P |
| Cobalt     | mg/Kg | 50.0       | 50.4   |   | 101        | 80 - 120          | P |
| Copper     | mg/Kg | 500        | 504    |   | 101        | 80 - 120          | P |
| Iron       | mg/Kg | 2500       | 2620   |   | 105        | 80 - 120          | P |
| Lead       | mg/Kg | 250        | 244    |   | 98         | 80 - 120          | P |
| Magnesium  | mg/Kg | 5000       | 5110   |   | 102        | 80 - 120          | P |
| Manganese  | mg/Kg | 500        | 499    |   | 100        | 80 - 120          | P |
| Nickel     | mg/Kg | 50.0       | 50.4   |   | 101        | 80 - 120          | P |
| Potassium  | mg/Kg | 2500       | 2510   |   | 100        | 80 - 120          | P |
| Selenium   | mg/Kg | 50.0       | 49.7   |   | 99         | 80 - 120          | P |
| Molybdenum | mg/Kg | 500        | 492    |   | 98         | 80 - 120          | P |
| Tin        | mg/Kg | 50.0       | 50.7   |   | 101        | 80 - 120          | P |
| Silver     | mg/Kg | 50.0       | 50.5   |   | 101        | 80 - 120          | P |
| Sodium     | mg/Kg | 5000       | 5160   |   | 103        | 80 - 120          | P |
| Thallium   | mg/Kg | 50.0       | 49.2   |   | 98         | 80 - 120          | P |
| Uranium    | mg/Kg | 50.0       | 47.6   |   | 95         | 80 - 120          | P |
| Vanadium   | mg/Kg | 50.0       | 49.4   |   | 99         | 80 - 120          | P |
| Zinc       | mg/Kg | 500        | 507    |   | 101        | 80 - 120          | P |
| Strontium  | mg/Kg | 50.0       | 48.8   |   | 98         | 80 - 120          | P |
| Zirconium  | mg/Kg | 50.0       | 49.0   |   | 98         | 80 - 120          | P |
| Titanium   | mg/Kg | 500        | 488    |   | 98         | 80 - 120          | P |

## FORM 8A

## ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P4495

Sas No.: P4495 SDG No.: P4495

Instrument ID: P7

Start Date : 12/03/2024

Run Number: LB133721

End Date : 12/03/2024

| Lab<br>SampleID | Client<br>SampleID | Time | Internal Standard %RI For: Non-Collision Cell |   |                 |   |                |   |                  |   |                  |   |
|-----------------|--------------------|------|-----------------------------------------------|---|-----------------|---|----------------|---|------------------|---|------------------|---|
|                 |                    |      | Element<br>6Li                                | Q | Element<br>45Sc | Q | Element<br>89Y | Q | Element<br>103Rh | Q | Element<br>159Tb | Q |
| S0              | S0                 | 1312 | 100                                           |   | 100             |   | 100            |   | 100              |   | 100              |   |
| S2              | S2                 | 1315 | 100                                           |   | 100             |   | 101            |   | 101              |   | 100              |   |
| S3              | S3                 | 1318 | 101                                           |   | 99              |   | 99             |   | 99               |   | 100              |   |
| S4              | S4                 | 1321 | 99                                            |   | 95              |   | 96             |   | 96               |   | 99               |   |
| S5              | S5                 | 1324 | 98                                            |   | 89              |   | 91             |   | 90               |   | 96               |   |
| S6              | S6                 | 1327 | 97                                            |   | 88              |   | 90             |   | 88               |   | 97               |   |
| S7              | S7                 | 1329 | 97                                            |   | 87              |   | 90             |   | 86               |   | 97               |   |
| S8              | S8                 | 1332 | 94                                            |   | 89              |   | 91             |   | 82               |   | 96               |   |
| ICV01           | ICV01              | 1347 | 105                                           |   | 94              |   | 95             |   | 95               |   | 99               |   |
| LLICV           | LLICV              | 1351 | 102                                           |   | 92              |   | 93             |   | 94               |   | 98               |   |
| ICB01           | ICB01              | 1358 | 104                                           |   | 95              |   | 96             |   | 96               |   | 99               |   |
| ICSA01          | ICSA01             | 1426 | 88                                            |   | 95              |   | 103            |   | 97               |   | 109              |   |
| ICSAB01         | ICSAB01            | 1429 | 85                                            |   | 95              |   | 104            |   | 98               |   | 112              |   |
| CCV01           | CCV01              | 1432 | 85                                            |   | 97              |   | 106            |   | 98               |   | 112              |   |
| CCB01           | CCB01              | 1436 | 92                                            |   | 98              |   | 105            |   | 105              |   | 111              |   |
| CRI             | CRI                | 1444 | 93                                            |   | 101             |   | 107            |   | 107              |   | 112              |   |
| ZZZZZZ          | ZZZZZZ             | 1447 |                                               |   |                 |   |                |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1450 |                                               |   |                 |   |                |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1454 |                                               |   |                 |   |                |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1457 |                                               |   |                 |   |                |   |                  |   |                  |   |
| PB165241BL      | PB165241BL         | 1500 | 94                                            |   | 100             |   | 105            |   | 105              |   | 110              |   |
| PB165241BS      | PB165241BS         | 1503 | 93                                            |   | 97              |   | 102            |   | 100              |   | 108              |   |
| ZZZZZZ          | ZZZZZZ             | 1509 |                                               |   |                 |   |                |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1512 |                                               |   |                 |   |                |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1515 |                                               |   |                 |   |                |   |                  |   |                  |   |
| CCV02           | CCV02              | 1518 | 90                                            |   | 96              |   | 103            |   | 96               |   | 111              |   |
| CCB02           | CCB02              | 1527 | 95                                            |   | 99              |   | 105            |   | 105              |   | 110              |   |
| P4495-10        | PT-MET-SOIL        | 1533 | 229                                           | * | 111             |   | 154            | * | 106              |   | 126              |   |
| P4495-10        | PT-MET-SOIL        | 1538 | 113                                           |   | 97              |   | 114            |   | 105              |   | 116              |   |
| P4495-10        | PT-MET-SOIL        | 1540 | 193                                           | * | 102             |   | 140            | * | 101              |   | 120              |   |
| P4495-10        | PT-MET-SOIL        | 1543 | 106                                           |   | 94              |   | 111            |   | 104              |   | 115              |   |
| CCV03           | CCV03              | 1546 | 81                                            |   | 93              |   | 104            |   | 96               |   | 113              |   |
| CCB03           | CCB03              | 1553 | 86                                            |   | 95              |   | 104            |   | 103              |   | 109              |   |

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P4495

Sas No.: P4495 SDG No.: P4495

Instrument ID: P7

Start Date : 12/03/2024

Run Number: LB133721

End Date : 12/03/2024

| Lab<br>SampleID | Client<br>SampleID | Time | Internal Standard %RI For: Collision Cell |   |                |   |                  |   |                  |   |                  |   |
|-----------------|--------------------|------|-------------------------------------------|---|----------------|---|------------------|---|------------------|---|------------------|---|
|                 |                    |      | Element<br>45Sc                           | Q | Element<br>89Y | Q | Element<br>103Rh | Q | Element<br>159Tb | Q | Element<br>165Ho | Q |
| S0              | S0                 | 1312 | 100                                       |   | 100            |   | 100              |   | 100              |   | 100              |   |
| S2              | S2                 | 1315 | 100                                       |   | 101            |   | 101              |   | 100              |   | 101              |   |
| S3              | S3                 | 1318 | 98                                        |   | 98             |   | 97               |   | 99               |   | 100              |   |
| S4              | S4                 | 1321 | 94                                        |   | 95             |   | 95               |   | 99               |   | 100              |   |
| S5              | S5                 | 1324 | 91                                        |   | 92             |   | 91               |   | 99               |   | 99               |   |
| S6              | S6                 | 1327 | 90                                        |   | 92             |   | 91               |   | 99               |   | 100              |   |
| S7              | S7                 | 1329 | 91                                        |   | 91             |   | 89               |   | 98               |   | 100              |   |
| S8              | S8                 | 1332 | 94                                        |   | 95             |   | 85               |   | 98               |   | 99               |   |
| ICV01           | ICV01              | 1347 | 95                                        |   | 95             |   | 96               |   | 101              |   | 101              |   |
| LLICV           | LLICV              | 1351 | 95                                        |   | 95             |   | 96               |   | 100              |   | 100              |   |
| ICB01           | ICB01              | 1358 | 97                                        |   | 97             |   | 99               |   | 102              |   | 102              |   |
| ICSA01          | ICSA01             | 1426 | 98                                        |   | 99             |   | 97               |   | 104              |   | 106              |   |
| ICSAB01         | ICSAB01            | 1429 | 98                                        |   | 101            |   | 98               |   | 105              |   | 107              |   |
| CCV01           | CCV01              | 1432 | 100                                       |   | 102            |   | 95               |   | 104              |   | 106              |   |
| CCB01           | CCB01              | 1436 | 100                                       |   | 103            |   | 105              |   | 106              |   | 106              |   |
| CRI             | CRI                | 1444 | 103                                       |   | 106            |   | 107              |   | 108              |   | 108              |   |
| ZZZZZZ          | ZZZZZZ             | 1447 |                                           |   |                |   |                  |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1450 |                                           |   |                |   |                  |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1454 |                                           |   |                |   |                  |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1457 |                                           |   |                |   |                  |   |                  |   |                  |   |
| PB165241BL      | PB165241BL         | 1500 | 102                                       |   | 102            |   | 105              |   | 105              |   | 105              |   |
| PB165241BS      | PB165241BS         | 1503 | 97                                        |   | 99             |   | 98               |   | 104              |   | 104              |   |
| ZZZZZZ          | ZZZZZZ             | 1509 |                                           |   |                |   |                  |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1512 |                                           |   |                |   |                  |   |                  |   |                  |   |
| ZZZZZZ          | ZZZZZZ             | 1515 |                                           |   |                |   |                  |   |                  |   |                  |   |
| CCV02           | CCV02              | 1518 | 98                                        |   | 99             |   | 94               |   | 105              |   | 107              |   |
| CCB02           | CCB02              | 1527 | 100                                       |   | 102            |   | 105              |   | 107              |   | 106              |   |
| P4495-10        | PT-MET-SOIL        | 1533 | 113                                       |   | 138            | * | 102              |   | 113              |   | 114              |   |
| P4495-10        | PT-MET-SOIL        | 1538 | 101                                       |   | 108            |   | 103              |   | 108              |   | 109              |   |
| P4495-10        | PT-MET-SOIL        | 1540 | 107                                       |   | 130            |   | 100              |   | 110              |   | 111              |   |
| P4495-10        | PT-MET-SOIL        | 1543 | 100                                       |   | 107            |   | 104              |   | 108              |   | 109              |   |
| CCV03           | CCV03              | 1546 | 96                                        |   | 100            |   | 96               |   | 107              |   | 107              |   |
| CCB03           | CCB03              | 1553 | 98                                        |   | 100            |   | 104              |   | 106              |   | 106              |   |

Internal Standard %RI Limit: 70 - 130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group  
Lab Code: CHEM Case no.: P4495  
Instrument ID: P7  
Run Number: LB133721

Contract: CHEM02  
Sas No.: P4495 SDG No.: P4495  
Start Date : 12/03/2024  
End Date : 12/03/2024

| 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              | 1312 | 100                                           |   | 100           |   |         |   |         |   |         |   |
| S2           | S2              | 1315 | 101                                           |   | 101           |   |         |   |         |   |         |   |
| S3           | S3              | 1318 | 100                                           |   | 100           |   |         |   |         |   |         |   |
| S4           | S4              | 1321 | 100                                           |   | 102           |   |         |   |         |   |         |   |
| S5           | S5              | 1324 | 98                                            |   | 100           |   |         |   |         |   |         |   |
| S6           | S6              | 1327 | 99                                            |   | 99            |   |         |   |         |   |         |   |
| S7           | S7              | 1329 | 99                                            |   | 97            |   |         |   |         |   |         |   |
| S8           | S8              | 1332 | 98                                            |   | 89            |   |         |   |         |   |         |   |
| ICV01        | ICV01           | 1347 | 99                                            |   | 103           |   |         |   |         |   |         |   |
| LLICV        | LLICV           | 1351 | 99                                            |   | 102           |   |         |   |         |   |         |   |
| ICB01        | ICB01           | 1358 | 101                                           |   | 103           |   |         |   |         |   |         |   |
| ICSA01       | ICSA01          | 1426 | 110                                           |   | 106           |   |         |   |         |   |         |   |
| ICSAB01      | ICSAB01         | 1429 | 113                                           |   | 107           |   |         |   |         |   |         |   |
| CCV01        | CCV01           | 1432 | 115                                           |   | 106           |   |         |   |         |   |         |   |
| CCB01        | CCB01           | 1436 | 112                                           |   | 114           |   |         |   |         |   |         |   |
| CRI          | CRI             | 1444 | 114                                           |   | 115           |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1447 |                                               |   |               |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1450 |                                               |   |               |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1454 |                                               |   |               |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1457 |                                               |   |               |   |         |   |         |   |         |   |
| PB165241BL   | PB165241BL      | 1500 | 110                                           |   | 112           |   |         |   |         |   |         |   |
| PB165241BS   | PB165241BS      | 1503 | 110                                           |   | 109           |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1509 |                                               |   |               |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1512 |                                               |   |               |   |         |   |         |   |         |   |
| ZZZZZZ       | ZZZZZZ          | 1515 |                                               |   |               |   |         |   |         |   |         |   |
| CCV02        | CCV02           | 1518 | 113                                           |   | 107           |   |         |   |         |   |         |   |
| CCB02        | CCB02           | 1527 | 111                                           |   | 113           |   |         |   |         |   |         |   |
| P4495-10     | PT-MET-SOIL     | 1533 | 129                                           |   | 123           |   |         |   |         |   |         |   |
| P4495-10     | PT-MET-SOIL     | 1538 | 117                                           |   | 117           |   |         |   |         |   |         |   |
| P4495-10     | PT-MET-SOIL     | 1540 | 122                                           |   | 117           |   |         |   |         |   |         |   |
| P4495-10     | PT-MET-SOIL     | 1543 | 116                                           |   | 117           |   |         |   |         |   |         |   |
| CCV03        | CCV03           | 1546 | 115                                           |   | 109           |   |         |   |         |   |         |   |
| CCB03        | CCB03           | 1553 | 110                                           |   | 113           |   |         |   |         |   |         |   |

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group  
Lab Code: CHEM Case no.: P4495  
Instrument ID: P7  
Run Number: LB133721

Contract: CHEM02  
Sas No.: P4495 SDG No.: P4495  
Start Date : 12/03/2024  
End Date : 12/03/2024

| Lab<br>SampleID | Client<br>SampleID | Time | Internal Standard %RI For: Collision Cell |   |         |   |         |   |         |   |         |   |
|-----------------|--------------------|------|-------------------------------------------|---|---------|---|---------|---|---------|---|---------|---|
|                 |                    |      | Element<br>209Bi                          | Q | Element | Q | Element | Q | Element | Q | Element | Q |
| S0              | S0                 | 1312 | 100                                       |   |         |   |         |   |         |   |         |   |
| S2              | S2                 | 1315 | 101                                       |   |         |   |         |   |         |   |         |   |
| S3              | S3                 | 1318 | 100                                       |   |         |   |         |   |         |   |         |   |
| S4              | S4                 | 1321 | 101                                       |   |         |   |         |   |         |   |         |   |
| S5              | S5                 | 1324 | 100                                       |   |         |   |         |   |         |   |         |   |
| S6              | S6                 | 1327 | 100                                       |   |         |   |         |   |         |   |         |   |
| S7              | S7                 | 1329 | 98                                        |   |         |   |         |   |         |   |         |   |
| S8              | S8                 | 1332 | 90                                        |   |         |   |         |   |         |   |         |   |
| ICV01           | ICV01              | 1347 | 103                                       |   |         |   |         |   |         |   |         |   |
| LLICV           | LLICV              | 1351 | 104                                       |   |         |   |         |   |         |   |         |   |
| ICB01           | ICB01              | 1358 | 105                                       |   |         |   |         |   |         |   |         |   |
| ICSA01          | ICSA01             | 1426 | 101                                       |   |         |   |         |   |         |   |         |   |
| ICSAB01         | ICSAB01            | 1429 | 103                                       |   |         |   |         |   |         |   |         |   |
| CCV01           | CCV01              | 1432 | 98                                        |   |         |   |         |   |         |   |         |   |
| CCB01           | CCB01              | 1436 | 109                                       |   |         |   |         |   |         |   |         |   |
| CRI             | CRI                | 1444 | 110                                       |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1447 |                                           |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1450 |                                           |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1454 |                                           |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1457 |                                           |   |         |   |         |   |         |   |         |   |
| PB165241BL      | PB165241BL         | 1500 | 107                                       |   |         |   |         |   |         |   |         |   |
| PB165241BS      | PB165241BS         | 1503 | 103                                       |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1509 |                                           |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1512 |                                           |   |         |   |         |   |         |   |         |   |
| ZZZZZZ          | ZZZZZZ             | 1515 |                                           |   |         |   |         |   |         |   |         |   |
| CCV02           | CCV02              | 1518 | 101                                       |   |         |   |         |   |         |   |         |   |
| CCB02           | CCB02              | 1527 | 109                                       |   |         |   |         |   |         |   |         |   |
| P4495-10        | PT-MET-SOIL        | 1533 | 107                                       |   |         |   |         |   |         |   |         |   |
| P4495-10        | PT-MET-SOIL        | 1538 | 108                                       |   |         |   |         |   |         |   |         |   |
| P4495-10        | PT-MET-SOIL        | 1540 | 106                                       |   |         |   |         |   |         |   |         |   |
| P4495-10        | PT-MET-SOIL        | 1543 | 109                                       |   |         |   |         |   |         |   |         |   |
| CCV03           | CCV03              | 1546 | 101                                       |   |         |   |         |   |         |   |         |   |
| CCB03           | CCB03              | 1553 | 110                                       |   |         |   |         |   |         |   |         |   |

Internal Standard %RI Limit: 70 -130



# METAL PREPARATION & INSTRUMENT DATA

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# METAL PREPARATION & ANALYICAL SUMMARY

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**Metals**  
**- 13 -**

**SAMPLE PREPARATION SUMMARY**

|                  |                                  |                  |              |
|------------------|----------------------------------|------------------|--------------|
| <b>Client:</b>   | <u>Chemtech Consulting Group</u> | <b>SDG No.:</b>  | <u>P4495</u> |
| <b>Contract:</b> | <u>CHEM02</u>                    | <b>Lab Code:</b> | <u>CHEM</u>  |
|                  |                                  | <b>Method:</b>   | <u></u>      |
|                  |                                  | <b>Case No.:</b> | <u>P4495</u> |
|                  |                                  | <b>SAS No.:</b>  | <u>P4495</u> |

| Sample ID                     | Client ID   | Sample Type | Matrix | Prep Date  | Initial Sample Size(g) | Final Sample Volume (mL) | Percent Solids |
|-------------------------------|-------------|-------------|--------|------------|------------------------|--------------------------|----------------|
| <b>Batch Number: PB165241</b> |             |             |        |            |                        |                          |                |
| P4495-10                      | PT-MET-SOIL | SAM         | SOLID  | 11/26/2024 | 1.26                   | 100.0                    | 100.00         |
| PB165241BL                    | PB165241BL  | MB          | SOLID  | 11/26/2024 | 1.00                   | 100.0                    | 100.00         |
| PB165241BS                    | PB165241BS  | LCS         | SOLID  | 11/26/2024 | 1.00                   | 100.0                    | 100.00         |

**metals**  
**- 14 -**  
**ANALYSIS RUN LOG**

**Client:** Chemtech Consulting Group **Contract:** CHEM02

**Lab code:** CHEM **Case no.:** P4495 **Sas no.:** P4495 **Sdg no.:** P4495

**Instrument id number:** **Method:** **Run number:** LB133721

**Start date:** 12/03/2024 **End date:** 12/03/2024

| Lab sample id. | Client Sample Id | d/f | Time | Parameter list                                                           |
|----------------|------------------|-----|------|--------------------------------------------------------------------------|
| S0             | S0               | 1   | 1312 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S2             | S2               | 1   | 1315 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S3             | S3               | 1   | 1318 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S4             | S4               | 1   | 1321 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S5             | S5               | 1   | 1324 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S6             | S6               | 1   | 1327 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S7             | S7               | 1   | 1329 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| S8             | S8               | 1   | 1332 | Al,Ca,Fe,K,Mg,Na                                                         |
| ICV01          | ICV01            | 1   | 1347 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| LLICV          | LLICV            | 1   | 1351 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| ICB01          | ICB01            | 1   | 1358 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| ICSA01         | ICSA01           | 1   | 1426 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| ICSAB01        | ICSAB01          | 1   | 1429 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCV01          | CCV01            | 1   | 1432 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCB01          | CCB01            | 1   | 1436 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CRI            | CRI              | 1   | 1444 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| PB165241BL     | PB165241BL       | 1   | 1500 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| PB165241BS     | PB165241BS       | 1   | 1503 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCV02          | CCV02            | 1   | 1518 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCB02          | CCB02            | 1   | 1527 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| P4495-10       | PT-MET-SOIL      | 5   | 1538 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCV03          | CCV03            | 1   | 1546 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |
| CCB03          | CCB03            | 1   | 1553 | Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V |



# METAL RAW DATA

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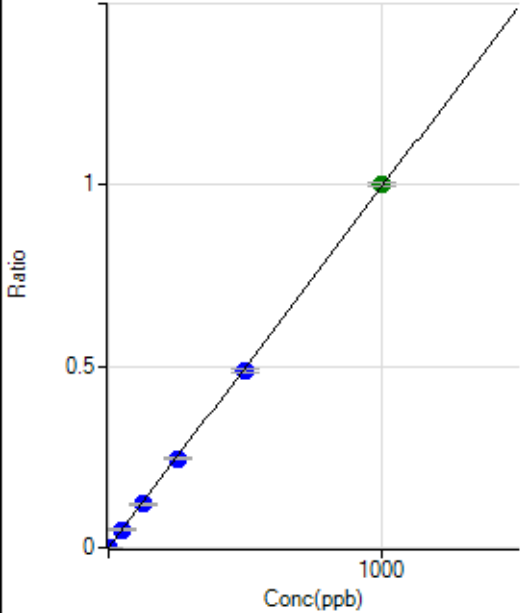
Calibration for 005CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7120324 MS.b\  
Analysis File: P7120324 MS.batch.bin  
DA Date-Time: 2024-12-03 23:51:03  
Calibration Title:  
Calibration Method: External Calibration  
VIS Interpolation Fit:

| Level | Standard Data File | Sample Name | Acq. Date-Time      |
|-------|--------------------|-------------|---------------------|
| 1     | 004CALB.d          | S00         | 2024-12-03 13:12:15 |
| 2     | 005CALS.d          | S02         | 2024-12-03 13:15:31 |
| 3     | 006CALS.d          | S03         | 2024-12-03 13:18:47 |
| 4     | 007CALS.d          | S04         | 2024-12-03 13:21:42 |
| 5     | 008CALS.d          | S05         | 2024-12-03 13:24:30 |
| 6     | 009CALS.d          | S06         | 2024-12-03 13:27:14 |
| 7     | 010CALS.d          | S07         | 2024-12-03 13:29:59 |
| 8     | 011CALS.d          | S08         | 2024-12-03 13:32:43 |

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9 Be [No Gas] ISTD:6 Li [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 178.89     | 0.0001 | P   | 16.1 |
| 2 | <input type="checkbox"/> | 1.000    | 1.045      | 2092.39    | 0.0011 | P   | 2.0  |
| 3 | <input type="checkbox"/> | 50.000   | 50.267     | 92843.84   | 0.0500 | P   | 1.7  |
| 4 | <input type="checkbox"/> | 125.000  | 121.495    | 221454.79  | 0.1208 | P   | 3.5  |
| 5 | <input type="checkbox"/> | 250.000  | 247.679    | 444451.27  | 0.2462 | P   | 1.5  |
| 6 | <input type="checkbox"/> | 500.000  | 488.618    | 871052.78  | 0.4856 | P   | 2.1  |
| 7 | <input type="checkbox"/> | 1000.000 | 1006.696   | 1785180.65 | 1.0003 | A   | 1.2  |
| 8 | <input type="checkbox"/> |          |            | 502.24     | 0.0003 | P   | 7.6  |

$y = 9.9358E-004 * x + 9.7081E-005$

$R = 0.9999$

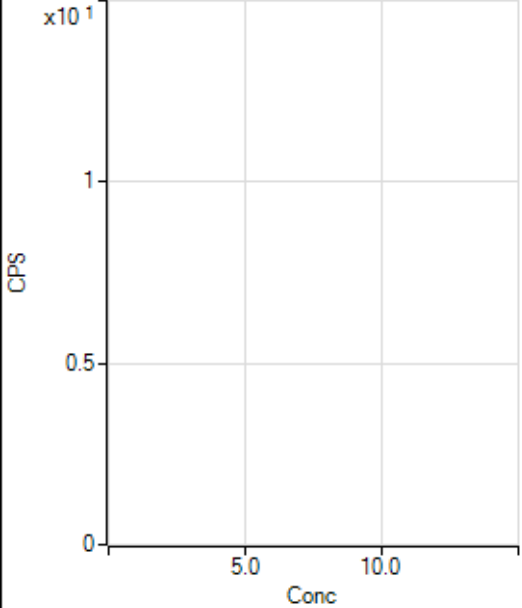
$DL = 0.04706$

$BEC = 0.09771$

Weight: <None>

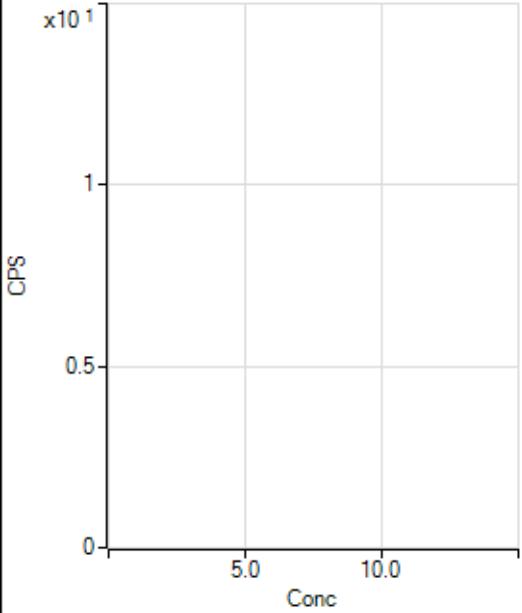
Min Conc: 0

12 C [No Gas] No available calibration points



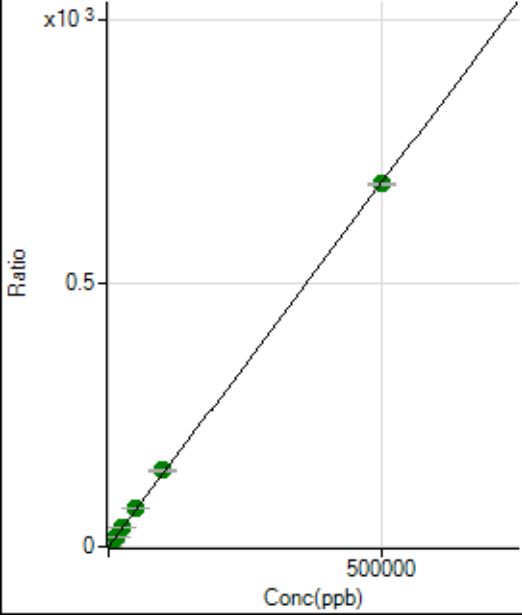
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

12 C [He] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

23 Na [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 23018.37     | 0.0286   | P   | 1.1 |
| 2 | <input type="checkbox"/> | 500.000   | 487.613    | 565660.02    | 0.7012   | P   | 0.5 |
| 3 | <input type="checkbox"/> | 5000.000  | 5293.689   | 5771862.35   | 7.3302   | A   | 1.1 |
| 4 | <input type="checkbox"/> | 12500.000 | 12926.411  | 13486095.35  | 17.8579  | A   | 1.4 |
| 5 | <input type="checkbox"/> | 25000.000 | 26194.691  | 26415927.38  | 36.1587  | A   | 0.7 |
| 6 | <input type="checkbox"/> | 50000.000 | 52831.301  | 52933775.88  | 72.8984  | A   | 0.9 |
| 7 | <input type="checkbox"/> | 100000.00 | 104786.54  | 105990786.20 | 144.5598 | A   | 1.1 |
| 8 | <input type="checkbox"/> | 500000.00 | 498686.24  | 520590063.36 | 687.8622 | A   | 0.8 |

$y = 0.0014 * x + 0.0286$

$R = 0.9999$

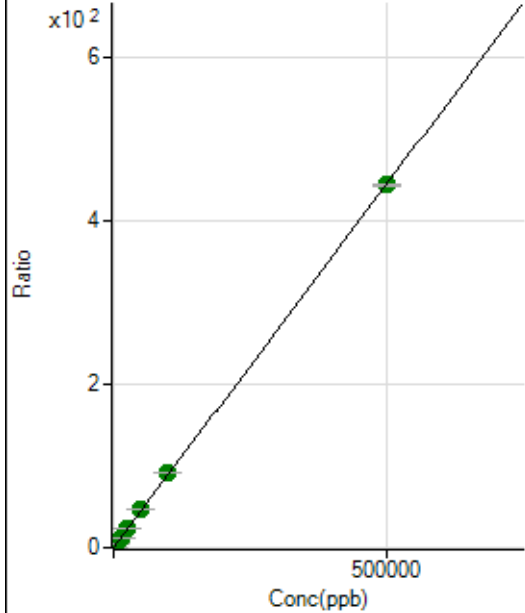
$DL = 0.712$

$BEC = 20.76$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 3454.87      | 0.0043   | P   | 1.7 |
| 2 | <input type="checkbox"/> | 500.000   | 499.811    | 362141.38    | 0.4489   | P   | 1.3 |
| 3 | <input type="checkbox"/> | 5000.000  | 5267.411   | 3693167.48   | 4.6901   | A   | 0.7 |
| 4 | <input type="checkbox"/> | 12500.000 | 12908.524  | 8675628.21   | 11.4876  | A   | 0.7 |
| 5 | <input type="checkbox"/> | 25000.000 | 26042.345  | 16928195.03  | 23.1713  | A   | 0.3 |
| 6 | <input type="checkbox"/> | 50000.000 | 52157.423  | 33695133.39  | 46.4030  | A   | 0.4 |
| 7 | <input type="checkbox"/> | 100000.00 | 102613.80  | 66933603.45  | 91.2884  | A   | 0.6 |
| 8 | <input type="checkbox"/> | 500000.00 | 499196.49  | 336099190.55 | 444.0841 | A   | 0.2 |

$$y = 8.8959E-004 * x + 0.0043$$

R = 1.0000

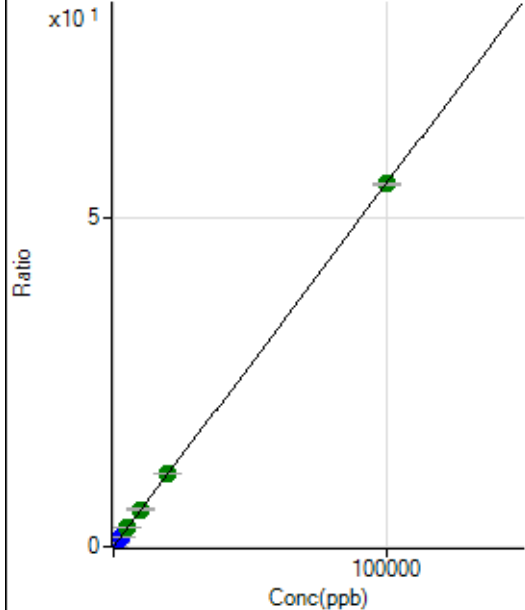
DL = 0.2397

BEC = 4.832

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|---------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 205.56      | 0.0003  | P   | 15.7 |
| 2 | <input type="checkbox"/> | 20.000    | 19.170     | 8758.13     | 0.0109  | P   | 3.2  |
| 3 | <input type="checkbox"/> | 1000.000  | 1034.081   | 450499.94   | 0.5721  | P   | 1.1  |
| 4 | <input type="checkbox"/> | 2500.000  | 2520.839   | 1052990.64  | 1.3943  | P   | 1.8  |
| 5 | <input type="checkbox"/> | 5000.000  | 5124.014   | 2070294.59  | 2.8339  | A   | 1.6  |
| 6 | <input type="checkbox"/> | 10000.000 | 10318.133  | 4143662.27  | 5.7064  | A   | 0.5  |
| 7 | <input type="checkbox"/> | 20000.000 | 20355.017  | 8253869.67  | 11.2570 | A   | 0.2  |
| 8 | <input type="checkbox"/> | 100000.00 | 99890.121  | 41808476.60 | 55.2417 | A   | 0.8  |

$$y = 5.5302E-004 * x + 2.5574E-004$$

R = 1.0000

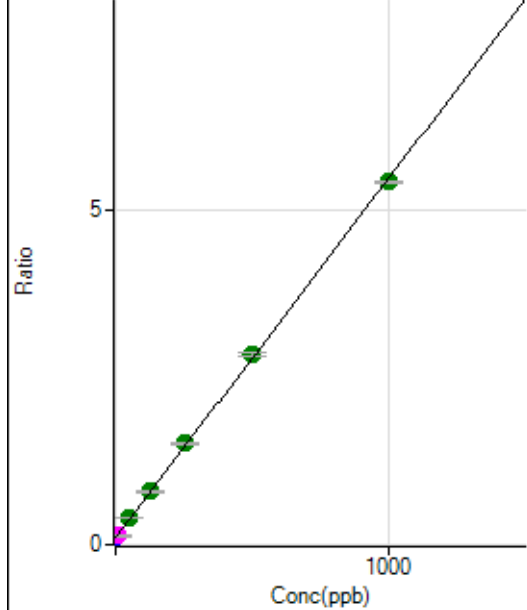
DL = 0.2179

BEC = 0.4624

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD : 45 Sc [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 865919.26   | 0.1021 | P   | 0.8  |
| 2 | <input type="checkbox"/> | 10.000   | 5.259      | 1103785.29  | 0.1304 | M   | 15.1 |
| 3 | <input type="checkbox"/> | 50.000   | 57.964     | 3472110.47  | 0.4139 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 125.000  | 130.314    | 6500309.83  | 0.8032 | A   | 3.4  |
| 5 | <input type="checkbox"/> | 250.000  | 262.052    | 11469674.97 | 1.5120 | A   | 0.9  |
| 6 | <input type="checkbox"/> | 500.000  | 510.153    | 21156119.27 | 2.8470 | A   | 1.4  |
| 7 | <input type="checkbox"/> | 1000.000 | 990.896    | 40048530.52 | 5.4336 | A   | 0.7  |
| 8 | <input type="checkbox"/> |          |            | 838636.56   | 0.1111 | P   | 1.4  |

$$y = 0.0054 * x + 0.1021$$

$$R = 0.9998$$

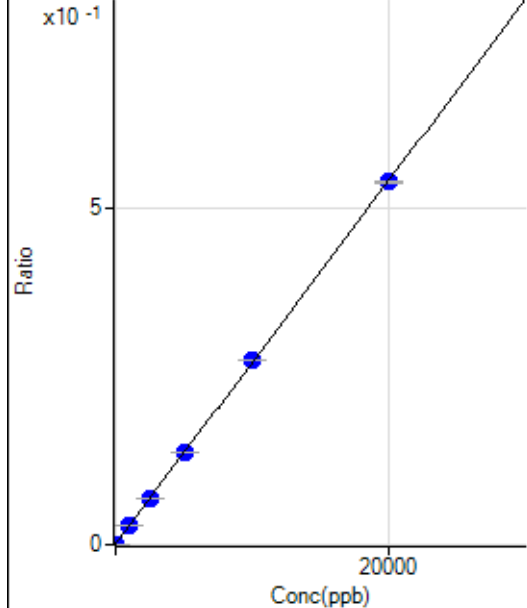
$$DL = 0.4342$$

$$BEC = 18.97$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD : 45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS       | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | -16.564    | 400.01    | 0.0005 | P   | 7.8 |
| 2 | <input type="checkbox"/> | 0.000     | 16.564     | 1121.16   | 0.0014 | P   | 1.7 |
| 3 | <input type="checkbox"/> | 1000.000  | 1036.924   | 22726.96  | 0.0289 | P   | 2.5 |
| 4 | <input type="checkbox"/> | 2500.000  | 2497.893   | 51511.93  | 0.0682 | P   | 0.8 |
| 5 | <input type="checkbox"/> | 5000.000  | 5023.417   | 99511.70  | 0.1362 | P   | 0.4 |
| 6 | <input type="checkbox"/> | 10000.000 | 10088.877  | 197957.09 | 0.2726 | P   | 0.2 |
| 7 | <input type="checkbox"/> | 20000.000 | 19948.125  | 394543.37 | 0.5381 | P   | 0.3 |
| 8 | <input type="checkbox"/> |           |            | 561.13    | 0.0007 | P   | 2.7 |

$$y = 2.6928E-005 * x + 9.4366E-004$$

$$R = 1.0000$$

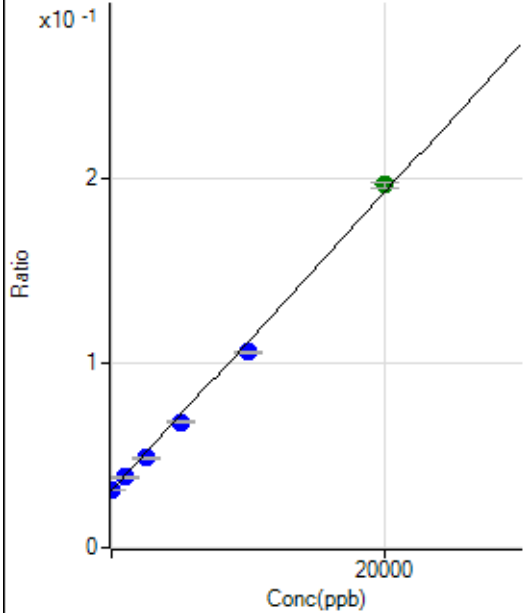
$$DL = 3.481$$

$$BEC = 35.04$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | -13.968    | 262498.54  | 0.0309 | P   | 1.1 |
| 2 | <input type="checkbox"/> | 0.000     | 13.968     | 263683.33  | 0.0312 | P   | 1.0 |
| 3 | <input type="checkbox"/> | 1000.000  | 878.439    | 319815.61  | 0.0381 | P   | 1.1 |
| 4 | <input type="checkbox"/> | 2500.000  | 2173.662   | 393099.33  | 0.0486 | P   | 1.9 |
| 5 | <input type="checkbox"/> | 5000.000  | 4600.676   | 516707.78  | 0.0681 | P   | 0.2 |
| 6 | <input type="checkbox"/> | 10000.000 | 9285.082   | 786616.90  | 0.1059 | P   | 1.3 |
| 7 | <input type="checkbox"/> | 20000.000 | 20504.160  | 1446346.12 | 0.1962 | A   | 1.3 |
| 8 | <input type="checkbox"/> |           |            | 209333.71  | 0.0277 | P   | 3.7 |

$y = 8.0562E-006 * x + 0.0311$

R = 0.9988

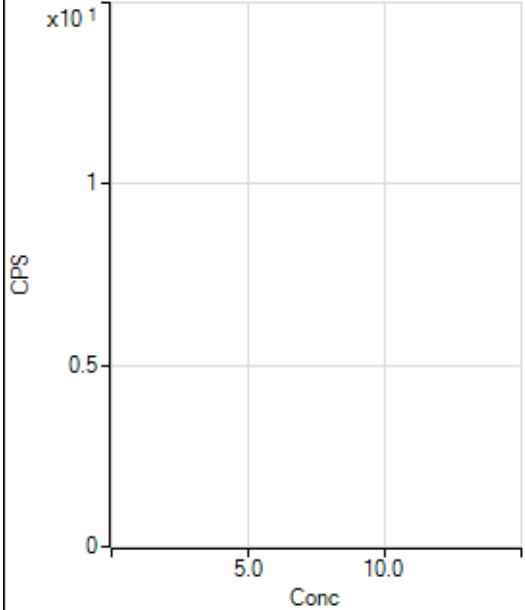
DL = 120.3

BEC = 3854

Weight: <None>

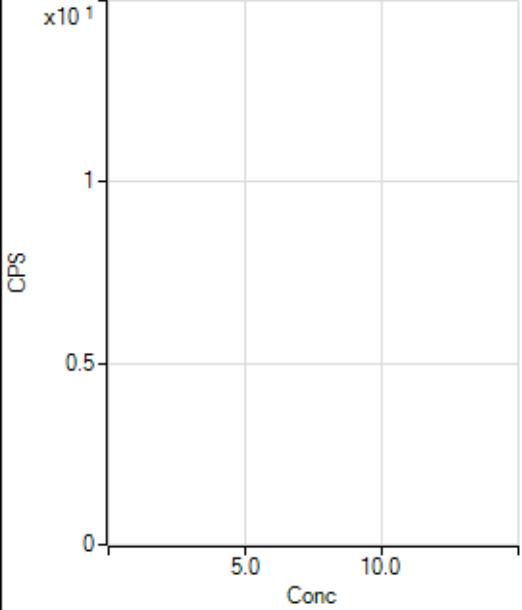
Min Conc: 0

35 Cl [No Gas] No available calibration points



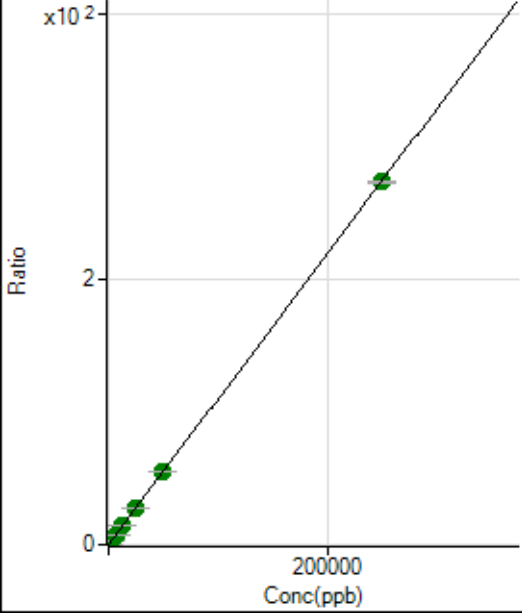
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

35 Cl [He] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

39 K [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 76104.32     | 0.0947   | P   | 1.4 |
| 2 | <input type="checkbox"/> | 500.000   | 532.606    | 546620.50    | 0.6776   | P   | 0.3 |
| 3 | <input type="checkbox"/> | 2500.000  | 2660.133   | 2367099.34   | 3.0060   | A   | 0.8 |
| 4 | <input type="checkbox"/> | 6250.000  | 6343.206   | 5314466.10   | 7.0368   | A   | 0.7 |
| 5 | <input type="checkbox"/> | 12500.000 | 12824.132  | 10323085.75  | 14.1297  | A   | 1.1 |
| 6 | <input type="checkbox"/> | 25000.000 | 25440.914  | 20286530.53  | 27.9378  | A   | 0.9 |
| 7 | <input type="checkbox"/> | 50000.000 | 50635.104  | 40701289.95  | 55.5110  | A   | 0.5 |
| 8 | <input type="checkbox"/> | 250000.00 | 249808.68  | 206985414.69 | 273.4914 | A   | 0.5 |

$y = 0.0011 * x + 0.0947$

$R = 1.0000$

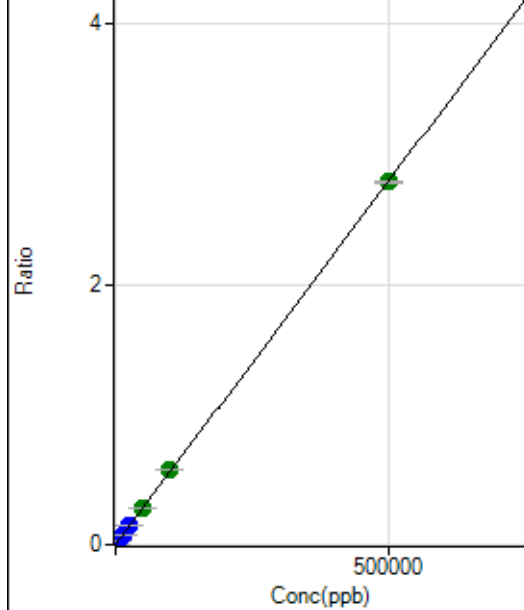
$DL = 3.542$

$BEC = 86.52$

Weight: <None>

Min Conc: 0

**43 Ca [No Gas] ISTD : 45 Sc [No Gas]**



|   | R <sub>j</sub><br>ct     | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 958.93      | 0.0001 | P   | 2.1 |
| 2 | <input type="checkbox"/> | 500.000   | 524.722    | 25734.08    | 0.0030 | P   | 2.1 |
| 3 | <input type="checkbox"/> | 5000.000  | 5488.276   | 257871.97   | 0.0307 | P   | 1.5 |
| 4 | <input type="checkbox"/> | 12500.000 | 13131.773  | 594098.92   | 0.0734 | P   | 2.9 |
| 5 | <input type="checkbox"/> | 25000.000 | 26553.845  | 1125077.62  | 0.1483 | P   | 0.3 |
| 6 | <input type="checkbox"/> | 50000.000 | 50397.976  | 2091137.42  | 0.2814 | A   | 1.3 |
| 7 | <input type="checkbox"/> | 100000.00 | 103777.16  | 4269887.75  | 0.5793 | A   | 0.4 |
| 8 | <input type="checkbox"/> | 500000.00 | 499106.37  | 21034698.02 | 2.7857 | A   | 0.7 |

$$y = 5.5812E-006 * x + 1.1301E-004$$

$$R = 1.0000$$

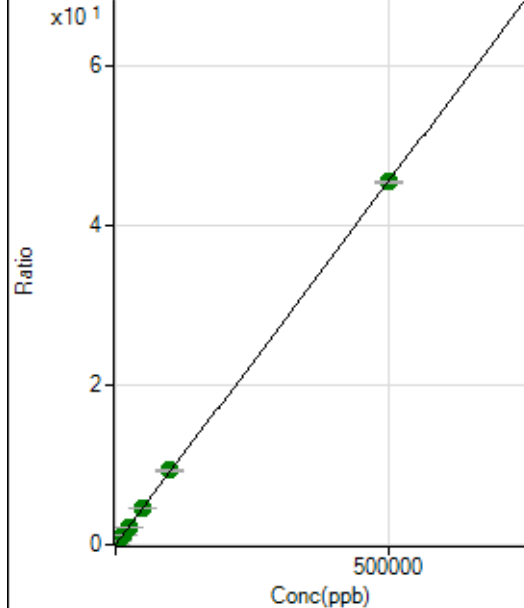
$$DL = 1.3$$

$$BEC = 20.25$$

Weight: <None>

Min Conc: 0

**44 Ca [No Gas] ISTD : 45 Sc [No Gas]**



|   | R <sub>j</sub><br>ct     | Conc.     | Calc Conc. | CPS          | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|--------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 25900.29     | 0.0031  | P   | 3.1 |
| 2 | <input type="checkbox"/> | 500.000   | 523.455    | 429218.06    | 0.0507  | P   | 1.3 |
| 3 | <input type="checkbox"/> | 5000.000  | 5144.302   | 3955849.25   | 0.4716  | A   | 1.0 |
| 4 | <input type="checkbox"/> | 12500.000 | 12427.739  | 9185818.06   | 1.1350  | A   | 3.1 |
| 5 | <input type="checkbox"/> | 25000.000 | 25002.924  | 17299195.58  | 2.2804  | A   | 0.9 |
| 6 | <input type="checkbox"/> | 50000.000 | 50087.622  | 33923818.11  | 4.5652  | A   | 1.8 |
| 7 | <input type="checkbox"/> | 100000.00 | 102428.30  | 68783151.75  | 9.3325  | A   | 1.3 |
| 8 | <input type="checkbox"/> | 500000.00 | 499505.77  | 343562119.32 | 45.4993 | A   | 0.5 |

$$y = 9.1083E-005 * x + 0.0031$$

$$R = 1.0000$$

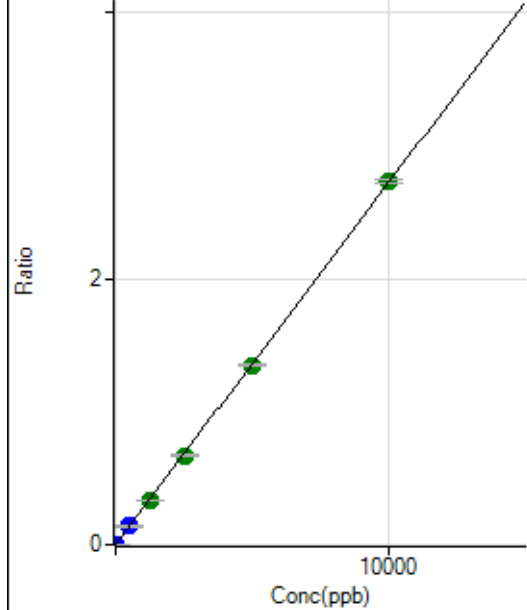
$$DL = 3.075$$

$$BEC = 33.51$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD :45 Sc [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 132.23      | 0.0000 | P   | 18.3 |
| 2 | <input type="checkbox"/> | 5.000     | 5.064      | 11780.24    | 0.0014 | P   | 1.6  |
| 3 | <input type="checkbox"/> | 500.000   | 505.793    | 1153271.24  | 0.1375 | P   | 1.6  |
| 4 | <input type="checkbox"/> | 1250.000  | 1224.828   | 2694583.57  | 0.3329 | A   | 3.2  |
| 5 | <input type="checkbox"/> | 2500.000  | 2466.868   | 5086500.79  | 0.6706 | A   | 0.8  |
| 6 | <input type="checkbox"/> | 5000.000  | 4960.063   | 10019326.10 | 1.3483 | A   | 1.1  |
| 7 | <input type="checkbox"/> | 10000.000 | 10031.109  | 20095824.70 | 2.7267 | A   | 1.2  |
| 8 | <input type="checkbox"/> |           |            | 3570.46     | 0.0005 | P   | 2.8  |

$$y = 2.7182E-004 * x + 1.5572E-005$$

$$R = 1.0000$$

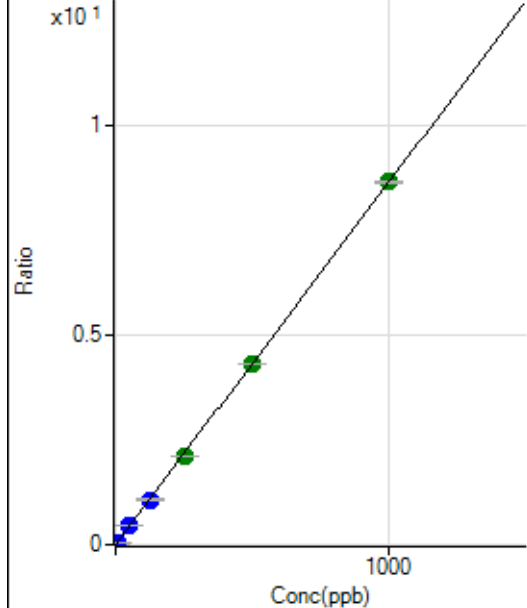
$$DL = 0.03148$$

$$BEC = 0.05729$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD :45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 31.11      | 0.0000 | P   | 26.8 |
| 2 | <input type="checkbox"/> | 5.000    | 5.107      | 35651.09   | 0.0442 | P   | 0.7  |
| 3 | <input type="checkbox"/> | 50.000   | 51.289     | 349187.46  | 0.4435 | P   | 0.8  |
| 4 | <input type="checkbox"/> | 125.000  | 124.692    | 814178.37  | 1.0781 | P   | 0.3  |
| 5 | <input type="checkbox"/> | 250.000  | 245.792    | 1552481.76 | 2.1250 | A   | 0.4  |
| 6 | <input type="checkbox"/> | 500.000  | 498.028    | 3126619.50 | 4.3058 | A   | 0.1  |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.012   | 6351793.38 | 8.6630 | A   | 0.5  |
| 8 | <input type="checkbox"/> |          |            | 2200.19    | 0.0029 | P   | 1.1  |

$$y = 0.0086 * x + 3.8697E-005$$

$$R = 1.0000$$

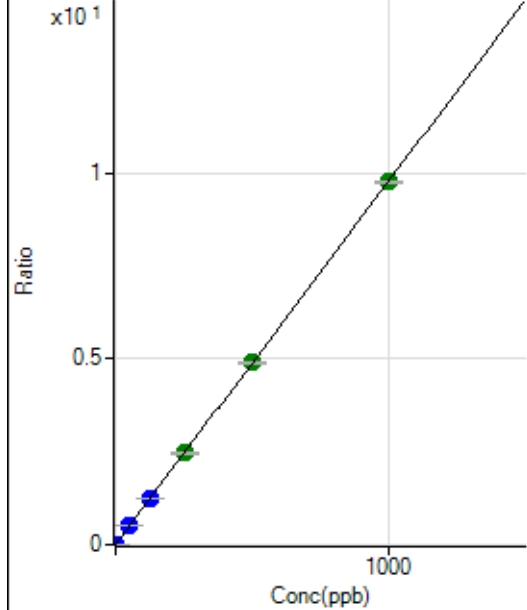
$$DL = 0.003598$$

$$BEC = 0.004476$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 2732.49    | 0.0034 | P   | 2.1 |
| 2 | <input type="checkbox"/> | 2.000    | 2.120      | 19463.75   | 0.0241 | P   | 1.7 |
| 3 | <input type="checkbox"/> | 50.000   | 52.086     | 403660.31  | 0.5126 | P   | 0.6 |
| 4 | <input type="checkbox"/> | 125.000  | 127.891    | 946867.02  | 1.2538 | P   | 0.3 |
| 5 | <input type="checkbox"/> | 250.000  | 252.174    | 1803725.11 | 2.4688 | A   | 0.8 |
| 6 | <input type="checkbox"/> | 500.000  | 500.459    | 3555375.71 | 4.8963 | A   | 0.5 |
| 7 | <input type="checkbox"/> | 1000.000 | 998.761    | 7161981.63 | 9.7681 | A   | 0.9 |
| 8 | <input type="checkbox"/> |          |            | 13220.78   | 0.0175 | P   | 6.8 |

$$y = 0.0098 * x + 0.0034$$

$$R = 1.0000$$

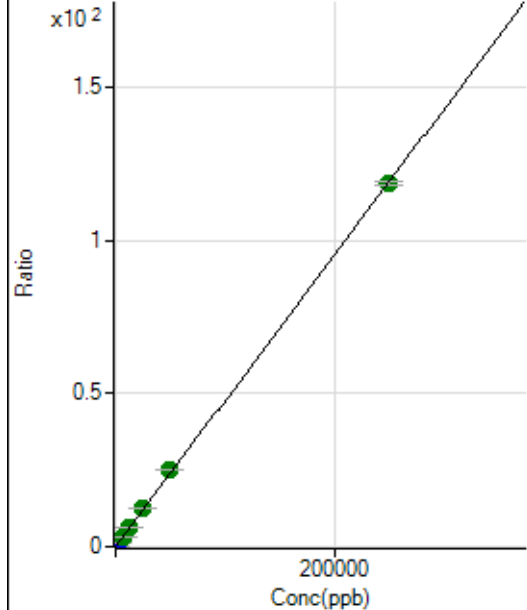
$$DL = 0.02173$$

$$BEC = 0.3477$$

Weight: <None>

Min Conc: 0

54 Fe [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|-------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 3673.82     | 0.0046   | P   | 1.5 |
| 2 | <input type="checkbox"/> | 50.000    | 56.638     | 25440.47    | 0.0315   | P   | 2.4 |
| 3 | <input type="checkbox"/> | 2500.000  | 2894.288   | 1088532.72  | 1.3824   | P   | 0.5 |
| 4 | <input type="checkbox"/> | 6250.000  | 6847.560   | 2465256.46  | 3.2643   | A   | 1.1 |
| 5 | <input type="checkbox"/> | 12500.000 | 13356.318  | 4648428.44  | 6.3628   | A   | 1.7 |
| 6 | <input type="checkbox"/> | 25000.000 | 26579.721  | 9191248.27  | 12.6577  | A   | 0.6 |
| 7 | <input type="checkbox"/> | 50000.000 | 52792.514  | 18429631.11 | 25.1361  | A   | 1.2 |
| 8 | <input type="checkbox"/> | 250000.00 | 249221.82  | 89791664.22 | 118.6449 | A   | 1.0 |

$$y = 4.7604E-004 * x + 0.0046$$

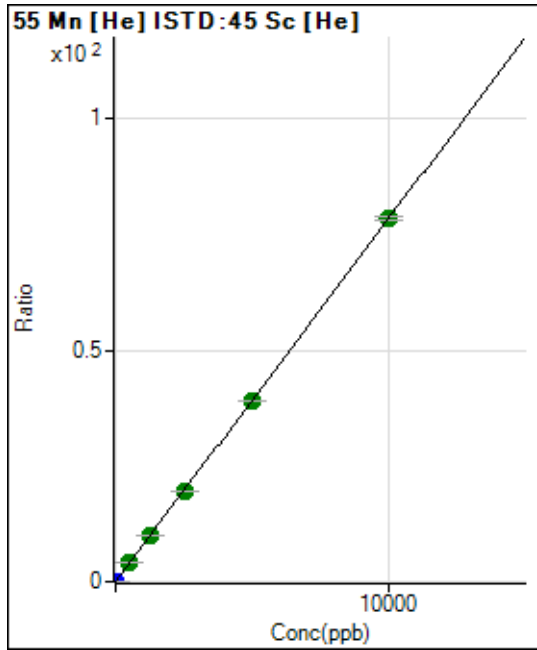
$$R = 0.9999$$

$$DL = 0.4297$$

$$BEC = 9.602$$

Weight: <None>

Min Conc: 0



|   | R <sub>j</sub><br>ct     | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|-------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 1091.16     | 0.0014  | P   | 5.7 |
| 2 | <input type="checkbox"/> | 1.000     | 1.039      | 7672.02     | 0.0095  | P   | 1.2 |
| 3 | <input type="checkbox"/> | 500.000   | 519.840    | 3213138.67  | 4.0805  | A   | 0.4 |
| 4 | <input type="checkbox"/> | 1250.000  | 1273.220   | 7546167.25  | 9.9922  | A   | 0.7 |
| 5 | <input type="checkbox"/> | 2500.000  | 2501.167   | 14339522.98 | 19.6277 | A   | 1.1 |
| 6 | <input type="checkbox"/> | 5000.000  | 4999.154   | 28485990.41 | 39.2291 | A   | 0.2 |
| 7 | <input type="checkbox"/> | 10000.000 | 9996.236   | 57512733.59 | 78.4407 | A   | 0.9 |
| 8 | <input type="checkbox"/> |           |            | 34546.25    | 0.0456  | P   | 1.1 |

$$y = 0.0078 * x + 0.0014$$

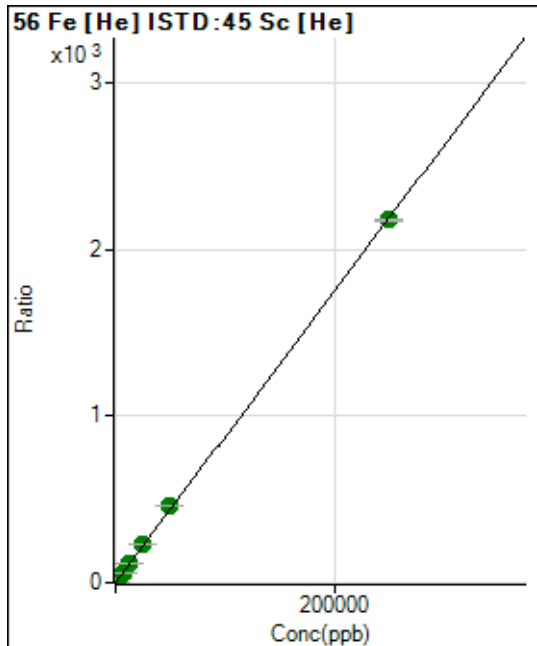
$$R = 1.0000$$

$$DL = 0.02972$$

$$BEC = 0.173$$

Weight: <None>

Min Conc: 0



|   | R <sub>j</sub><br>ct     | Conc.     | Calc Conc. | CPS          | Ratio     | Det | RSD |
|---|--------------------------|-----------|------------|--------------|-----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 30003.26     | 0.0373    | P   | 1.3 |
| 2 | <input type="checkbox"/> | 50.000    | 55.903     | 423983.66    | 0.5256    | P   | 0.5 |
| 3 | <input type="checkbox"/> | 2500.000  | 2725.333   | 18772761.66  | 23.8400   | A   | 0.3 |
| 4 | <input type="checkbox"/> | 6250.000  | 6708.126   | 44275161.01  | 58.6252   | A   | 0.5 |
| 5 | <input type="checkbox"/> | 12500.000 | 13147.969  | 83920399.86  | 114.8699  | A   | 1.0 |
| 6 | <input type="checkbox"/> | 25000.000 | 26261.390  | 166579496.41 | 229.4007  | A   | 0.3 |
| 7 | <input type="checkbox"/> | 50000.000 | 52403.068  | 335605912.78 | 457.7185  | A   | 0.5 |
| 8 | <input type="checkbox"/> | 250000.00 | 249347.14  | 1648217682.1 | 2,177.801 | A   | 0.7 |

$$y = 0.0087 * x + 0.0373$$

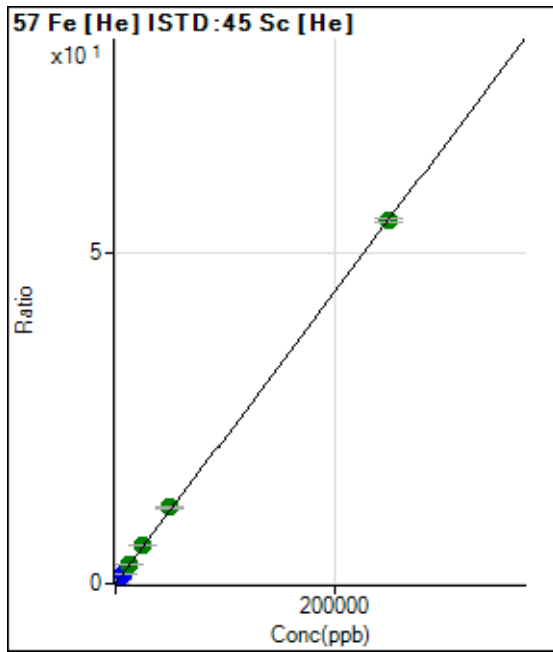
$$R = 0.9999$$

$$DL = 0.1614$$

$$BEC = 4.274$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|-------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 1773.45     | 0.0022  | P   | 6.0 |
| 2 | <input type="checkbox"/> | 50.000    | 58.491     | 12134.97    | 0.0150  | P   | 0.5 |
| 3 | <input type="checkbox"/> | 2500.000  | 2815.831   | 488323.11   | 0.6202  | P   | 1.0 |
| 4 | <input type="checkbox"/> | 6250.000  | 6964.319   | 1155903.22  | 1.5306  | P   | 0.8 |
| 5 | <input type="checkbox"/> | 12500.000 | 13160.588  | 2111563.29  | 2.8904  | A   | 1.0 |
| 6 | <input type="checkbox"/> | 25000.000 | 26383.865  | 4205988.34  | 5.7923  | A   | 1.0 |
| 7 | <input type="checkbox"/> | 50000.000 | 52204.505  | 8401539.32  | 11.4588 | A   | 1.4 |
| 8 | <input type="checkbox"/> | 250000.00 | 249366.66  | 41417986.88 | 54.7273 | A   | 1.2 |

$$y = 2.1946E-004 * x + 0.0022$$

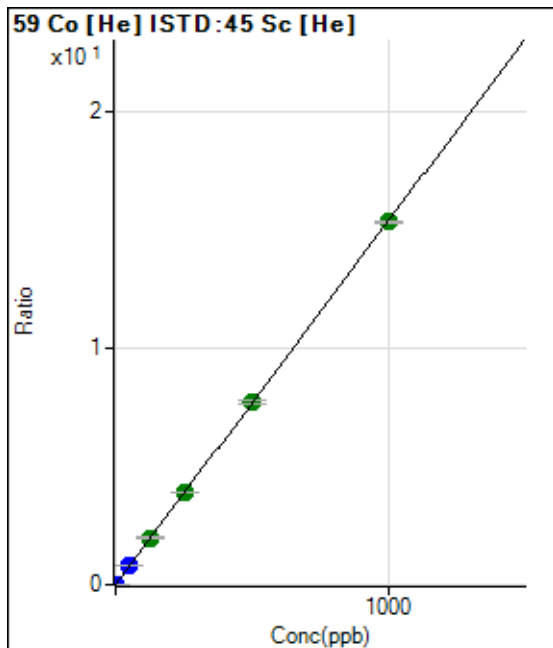
R = 1.0000

DL = 1.811

BEC = 10.05

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio   | Det | RSD  |
|---|--------------------------|----------|------------|-------------|---------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 574.46      | 0.0007  | P   | 10.9 |
| 2 | <input type="checkbox"/> | 1.000    | 1.087      | 14040.00    | 0.0174  | P   | 1.3  |
| 3 | <input type="checkbox"/> | 50.000   | 52.962     | 641024.62   | 0.8141  | P   | 0.5  |
| 4 | <input type="checkbox"/> | 125.000  | 128.579    | 1491743.86  | 1.9753  | A   | 1.4  |
| 5 | <input type="checkbox"/> | 250.000  | 254.548    | 2856394.09  | 3.9098  | A   | 0.9  |
| 6 | <input type="checkbox"/> | 500.000  | 502.702    | 5606224.50  | 7.7207  | A   | 1.5  |
| 7 | <input type="checkbox"/> | 1000.000 | 996.917    | 11225772.75 | 15.3104 | A   | 0.5  |
| 8 | <input type="checkbox"/> |          |            | 31006.50    | 0.0410  | P   | 0.5  |

$$y = 0.0154 * x + 7.1458E-004$$

R = 1.0000

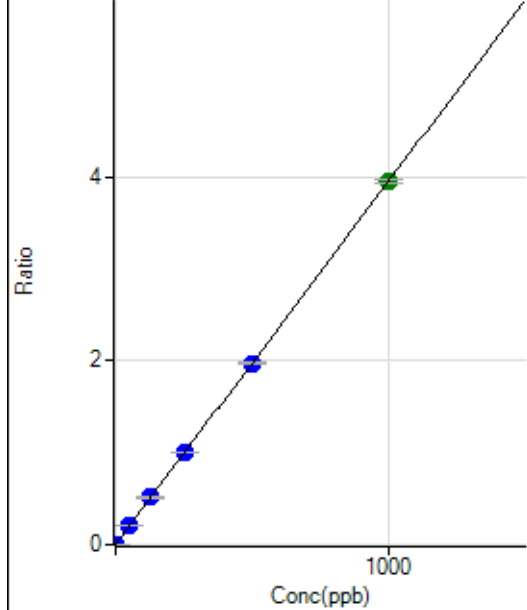
DL = 0.01515

BEC = 0.04653

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1106.72    | 0.0014 | P   | 6.6 |
| 2 | <input type="checkbox"/> | 1.000    | 1.061      | 4488.50    | 0.0056 | P   | 1.6 |
| 3 | <input type="checkbox"/> | 50.000   | 53.487     | 167260.01  | 0.2124 | P   | 0.8 |
| 4 | <input type="checkbox"/> | 125.000  | 129.864    | 388003.94  | 0.5138 | P   | 0.9 |
| 5 | <input type="checkbox"/> | 250.000  | 254.222    | 733814.89  | 1.0044 | P   | 0.5 |
| 6 | <input type="checkbox"/> | 500.000  | 498.963    | 1430565.64 | 1.9701 | P   | 0.6 |
| 7 | <input type="checkbox"/> | 1000.000 | 998.681    | 2890183.85 | 3.9418 | A   | 1.0 |
| 8 | <input type="checkbox"/> |          |            | 9266.27    | 0.0122 | P   | 1.0 |

$$y = 0.0039 * x + 0.0014$$

$$R = 1.0000$$

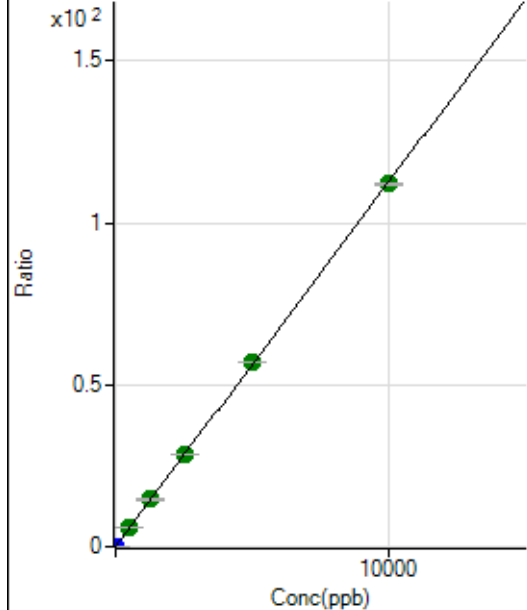
$$DL = 0.06938$$

$$BEC = 0.3489$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|-------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 1565.65     | 0.0019   | P   | 1.7 |
| 2 | <input type="checkbox"/> | 2.000     | 2.006      | 19784.29    | 0.0245   | P   | 1.2 |
| 3 | <input type="checkbox"/> | 500.000   | 528.474    | 4684918.61  | 5.9494   | A   | 0.1 |
| 4 | <input type="checkbox"/> | 1250.000  | 1298.652   | 11038202.61 | 14.6169  | A   | 2.0 |
| 5 | <input type="checkbox"/> | 2500.000  | 2543.583   | 20914177.74 | 28.6272  | A   | 0.4 |
| 6 | <input type="checkbox"/> | 5000.000  | 5052.034   | 41286219.11 | 56.8572  | A   | 0.4 |
| 7 | <input type="checkbox"/> | 10000.000 | 9955.582   | 82151527.66 | 112.0413 | A   | 0.5 |
| 8 | <input type="checkbox"/> |           |            | 19836.58    | 0.0262   | P   | 2.0 |

$$y = 0.0113 * x + 0.0019$$

$$R = 1.0000$$

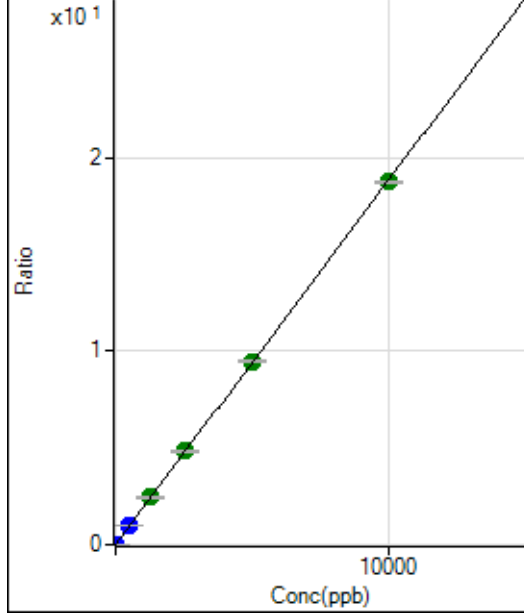
$$DL = 0.008824$$

$$BEC = 0.1731$$

Weight: <None>

Min Conc: 0

**66 Zn [He] ISTD:45 Sc [He]**



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|-------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 1110.05     | 0.0014  | P   | 0.4 |
| 2 | <input type="checkbox"/> | 2.000     | 4.970      | 8661.46     | 0.0107  | P   | 2.1 |
| 3 | <input type="checkbox"/> | 500.000   | 538.721    | 799673.54   | 1.0156  | P   | 0.6 |
| 4 | <input type="checkbox"/> | 1250.000  | 1301.877   | 1851880.06  | 2.4522  | A   | 1.6 |
| 5 | <input type="checkbox"/> | 2500.000  | 2560.844   | 3522989.19  | 4.8223  | A   | 0.6 |
| 6 | <input type="checkbox"/> | 5000.000  | 5038.399   | 6888452.81  | 9.4864  | A   | 0.6 |
| 7 | <input type="checkbox"/> | 10000.000 | 9957.168   | 13744946.32 | 18.7463 | A   | 0.7 |
| 8 | <input type="checkbox"/> |           |            | 5117.60     | 0.0068  | P   | 2.1 |

$$y = 0.0019 * x + 0.0014$$

$$R = 1.0000$$

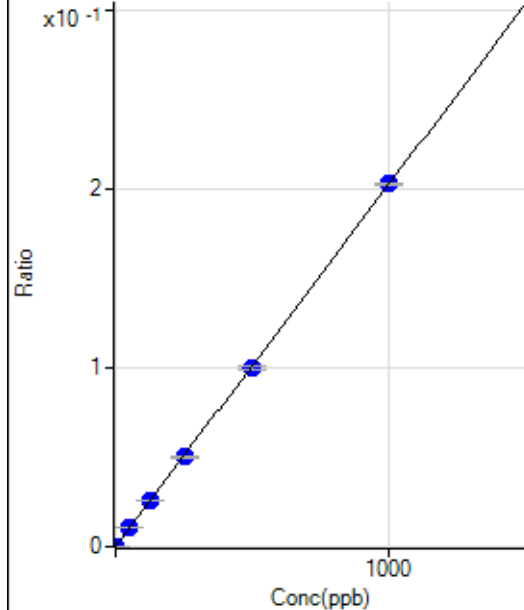
$$DL = 0.007831$$

$$BEC = 0.7336$$

Weight: <None>

Min Conc: 0

**75 As [He] ISTD:89 Y [He]**



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 45.56     | 0.0000 | P   | 39.9 |
| 2 | <input type="checkbox"/> | 1.000    | 1.081      | 1200.06   | 0.0002 | P   | 8.0  |
| 3 | <input type="checkbox"/> | 50.000   | 51.903     | 54190.54  | 0.0105 | P   | 1.2  |
| 4 | <input type="checkbox"/> | 125.000  | 125.823    | 127381.75 | 0.0255 | P   | 0.7  |
| 5 | <input type="checkbox"/> | 250.000  | 247.241    | 242319.58 | 0.0501 | P   | 0.7  |
| 6 | <input type="checkbox"/> | 500.000  | 495.537    | 482294.50 | 0.1003 | P   | 1.8  |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.723   | 969545.46 | 0.2030 | P   | 0.3  |
| 8 | <input type="checkbox"/> |          |            | 612.24    | 0.0001 | P   | 11.3 |

$$y = 2.0246E-004 * x + 8.6872E-006$$

$$R = 1.0000$$

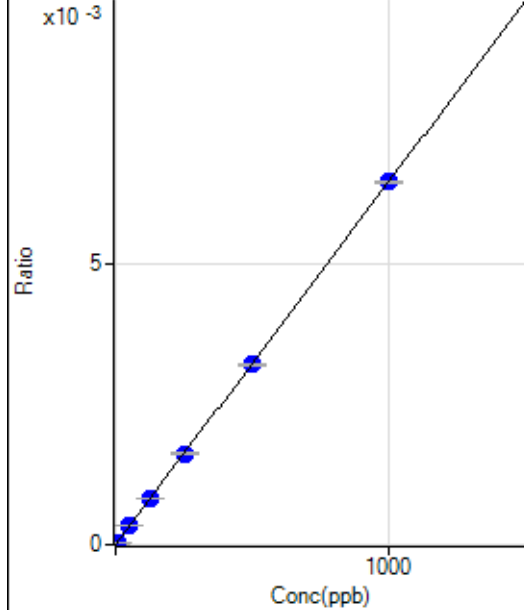
$$DL = 0.05142$$

$$BEC = 0.04291$$

Weight: <None>

Min Conc: 0

77 Se [He] ISTD:89 Y [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS      | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1.11     | 0.0000 | P   | 173. |
| 2 | <input type="checkbox"/> | 5.000    | 5.341      | 183.34   | 0.0000 | P   | 23.9 |
| 3 | <input type="checkbox"/> | 50.000   | 52.321     | 1744.56  | 0.0003 | P   | 2.7  |
| 4 | <input type="checkbox"/> | 125.000  | 126.630    | 4095.05  | 0.0008 | P   | 2.3  |
| 5 | <input type="checkbox"/> | 250.000  | 251.262    | 7866.60  | 0.0016 | P   | 1.1  |
| 6 | <input type="checkbox"/> | 500.000  | 497.286    | 15464.82 | 0.0032 | P   | 1.4  |
| 7 | <input type="checkbox"/> | 1000.000 | 1000.720   | 30911.15 | 0.0065 | P   | 0.9  |
| 8 | <input type="checkbox"/> |          |            | 7.78     | 0.0000 | P   | 24.0 |

$$y = 6.4677\text{E-}006 * x + 2.1352\text{E-}007$$

$$R = 1.0000$$

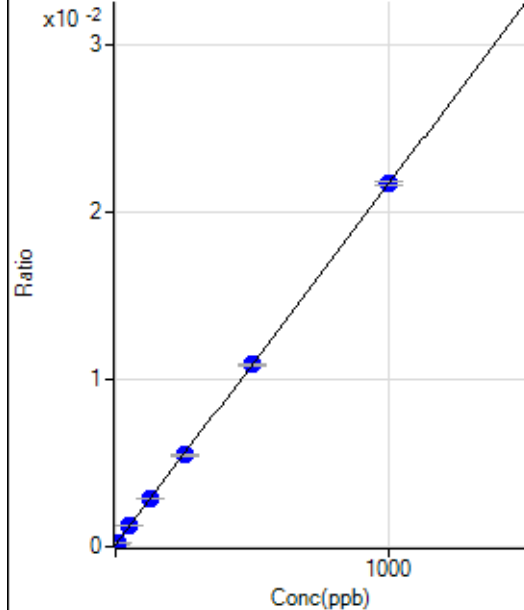
$$DL = 0.1715$$

$$BEC = 0.03301$$

Weight: <None>

Min Conc: 0

78 Se [He] ISTD:89 Y [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 603.35    | 0.0001 | P   | 3.7 |
| 2 | <input type="checkbox"/> | 5.000    | 4.941      | 1170.06   | 0.0002 | P   | 2.3 |
| 3 | <input type="checkbox"/> | 50.000   | 52.176     | 6396.99   | 0.0012 | P   | 1.7 |
| 4 | <input type="checkbox"/> | 125.000  | 127.411    | 14324.83  | 0.0029 | P   | 2.1 |
| 5 | <input type="checkbox"/> | 250.000  | 249.295    | 26606.16  | 0.0055 | P   | 1.9 |
| 6 | <input type="checkbox"/> | 500.000  | 499.849    | 52425.66  | 0.0109 | P   | 1.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 999.842    | 103630.34 | 0.0217 | P   | 0.9 |
| 8 | <input type="checkbox"/> |          |            | 588.91    | 0.0001 | P   | 5.1 |

$$y = 2.1588\text{E-}005 * x + 1.1515\text{E-}004$$

$$R = 1.0000$$

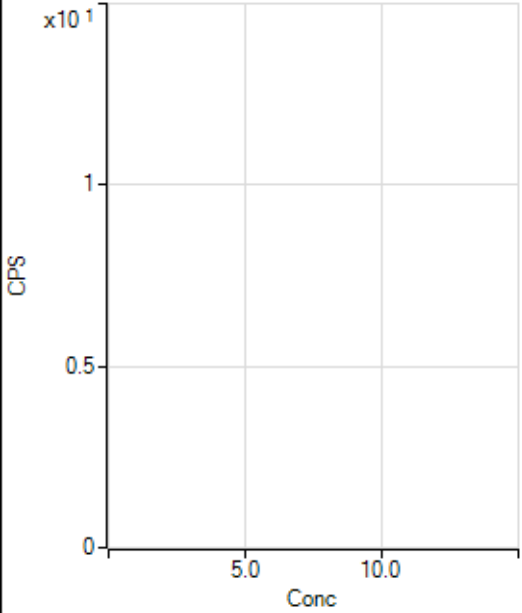
$$DL = 0.5922$$

$$BEC = 5.334$$

Weight: <None>

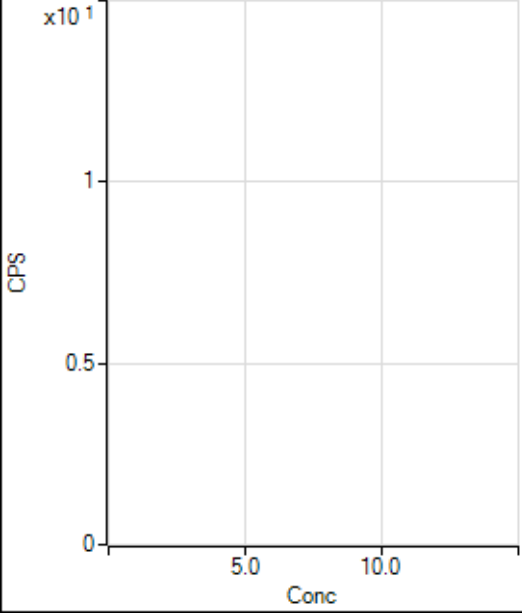
Min Conc: 0

81 Br [ No Gas ] No available calibration points



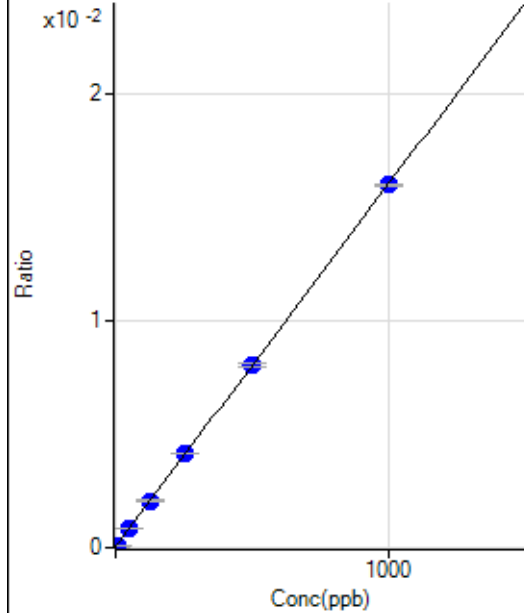
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS      | Ratio | Det<br>. | RSD |
|---|--------------------------|-------|------------|----------|-------|----------|-----|
| 1 | <input type="checkbox"/> |       |            | 16222.34 |       | P        | 2.0 |
| 2 | <input type="checkbox"/> |       |            | 15439.27 |       | P        | 3.7 |
| 3 | <input type="checkbox"/> |       |            | 14479.42 |       | P        | 1.8 |
| 4 | <input type="checkbox"/> |       |            | 13614.15 |       | P        | 1.3 |
| 5 | <input type="checkbox"/> |       |            | 12832.37 |       | P        | 3.5 |
| 6 | <input type="checkbox"/> |       |            | 12434.21 |       | P        | 1.6 |
| 7 | <input type="checkbox"/> |       |            | 12870.16 |       | P        | 2.0 |
| 8 | <input type="checkbox"/> |       |            | 14714.08 |       | P        | 3.4 |

81 Br [ He ] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 218.89 |       | P        | 6.9  |
| 2 | <input type="checkbox"/> |       |            | 104.45 |       | P        | 28.8 |
| 3 | <input type="checkbox"/> |       |            | 98.89  |       | P        | 10.3 |
| 4 | <input type="checkbox"/> |       |            | 91.11  |       | P        | 9.2  |
| 5 | <input type="checkbox"/> |       |            | 84.44  |       | P        | 28.0 |
| 6 | <input type="checkbox"/> |       |            | 82.22  |       | P        | 9.4  |
| 7 | <input type="checkbox"/> |       |            | 122.22 |       | P        | 20.1 |
| 8 | <input type="checkbox"/> |       |            | 153.34 |       | P        | 3.8  |

82 Se [No Gas] ISTD: 89 Y [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det. | RSD |
|---|--------------------------|----------|------------|-----------|--------|------|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 710.82    | 0.0000 | P    | 8.1 |
| 2 | <input type="checkbox"/> | 5.000    | 5.277      | 2256.36   | 0.0001 | P    | 2.2 |
| 3 | <input type="checkbox"/> | 50.000   | 52.626     | 15915.41  | 0.0009 | P    | 0.5 |
| 4 | <input type="checkbox"/> | 125.000  | 126.965    | 36189.29  | 0.0021 | P    | 3.1 |
| 5 | <input type="checkbox"/> | 250.000  | 255.908    | 68171.08  | 0.0041 | P    | 0.6 |
| 6 | <input type="checkbox"/> | 500.000  | 501.201    | 131571.47 | 0.0080 | P    | 2.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 997.544    | 261227.62 | 0.0160 | P    | 0.4 |
| 8 | <input type="checkbox"/> |          |            | 867.26    | 0.0001 | P    | 8.8 |

$y = 1.5974E-005 * x + 3.9077E-005$

R = 1.0000

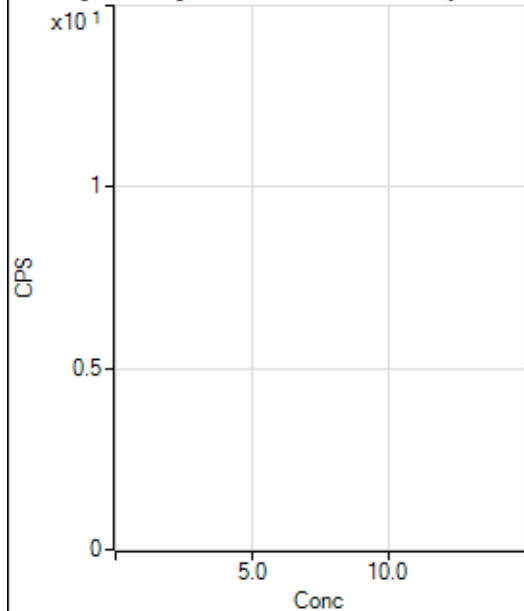
DL = 0.5916

BEC = 2.446

Weight: <None>

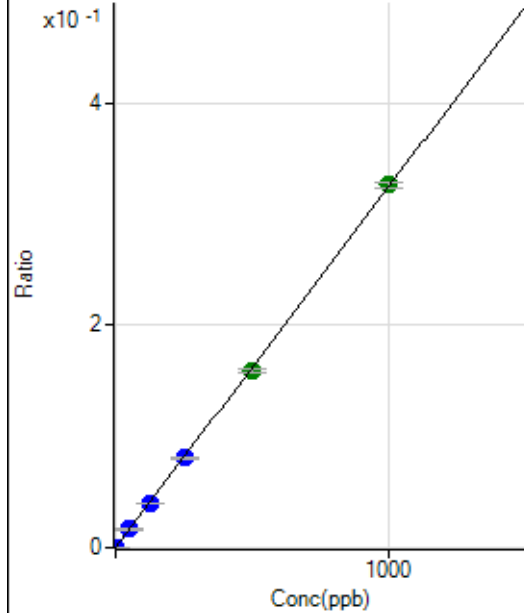
Min Conc: 0

83 Kr [No Gas] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det. | RSD  |
|---|--------------------------|-------|------------|--------|-------|------|------|
| 1 | <input type="checkbox"/> |       |            | 293.34 |       | P    | 9.8  |
| 2 | <input type="checkbox"/> |       |            | 275.56 |       | P    | 6.0  |
| 3 | <input type="checkbox"/> |       |            | 281.11 |       | P    | 8.4  |
| 4 | <input type="checkbox"/> |       |            | 272.23 |       | P    | 6.7  |
| 5 | <input type="checkbox"/> |       |            | 222.23 |       | P    | 6.8  |
| 6 | <input type="checkbox"/> |       |            | 260.01 |       | P    | 6.8  |
| 7 | <input type="checkbox"/> |       |            | 276.67 |       | P    | 27.7 |
| 8 | <input type="checkbox"/> |       |            | 334.45 |       | P    | 12.1 |

86 Sr [No Gas] ISTD : 89 Y [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 505.57     | 0.0000 | P   | 4.1 |
| 2 | <input type="checkbox"/> | 1.000    | 1.018      | 6551.51    | 0.0004 | P   | 2.4 |
| 3 | <input type="checkbox"/> | 50.000   | 50.628     | 297746.88  | 0.0165 | P   | 0.8 |
| 4 | <input type="checkbox"/> | 125.000  | 122.899    | 698786.33  | 0.0399 | P   | 2.4 |
| 5 | <input type="checkbox"/> | 250.000  | 248.154    | 1330751.48 | 0.0806 | P   | 0.4 |
| 6 | <input type="checkbox"/> | 500.000  | 490.552    | 2603821.06 | 0.1592 | A   | 2.9 |
| 7 | <input type="checkbox"/> | 1000.000 | 1005.417   | 5336423.81 | 0.3263 | A   | 1.4 |
| 8 | <input type="checkbox"/> |          |            | 18790.95   | 0.0011 | P   | 0.7 |

$$y = 3.2453E-004 * x + 2.7802E-005$$

$$R = 0.9999$$

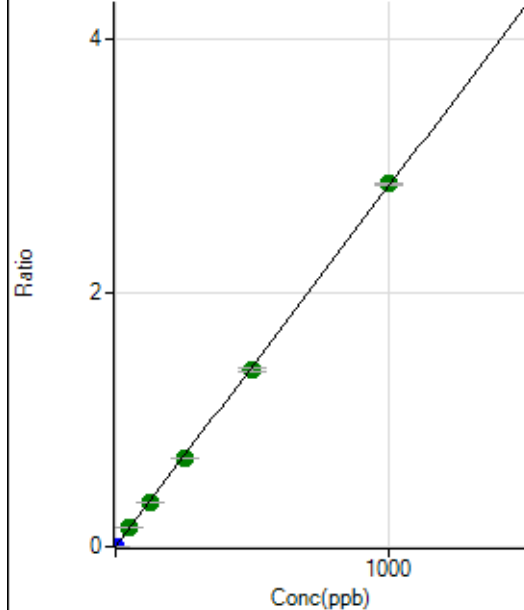
$$DL = 0.01046$$

$$BEC = 0.08567$$

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD : 89 Y [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 864.48      | 0.0000 | P   | 16.6 |
| 2 | <input type="checkbox"/> | 1.000    | 0.995      | 52596.93    | 0.0029 | P   | 2.0  |
| 3 | <input type="checkbox"/> | 50.000   | 50.787     | 2613818.92  | 0.1445 | A   | 0.3  |
| 4 | <input type="checkbox"/> | 125.000  | 121.641    | 6057217.48  | 0.3460 | A   | 2.4  |
| 5 | <input type="checkbox"/> | 250.000  | 245.891    | 11551488.44 | 0.6993 | A   | 0.4  |
| 6 | <input type="checkbox"/> | 500.000  | 489.138    | 22749259.38 | 1.3911 | A   | 2.5  |
| 7 | <input type="checkbox"/> | 1000.000 | 1006.839   | 46825604.30 | 2.8633 | A   | 0.8  |
| 8 | <input type="checkbox"/> |          |            | 160982.04   | 0.0097 | P   | 1.2  |

$$y = 0.0028 * x + 4.7506E-005$$

$$R = 0.9999$$

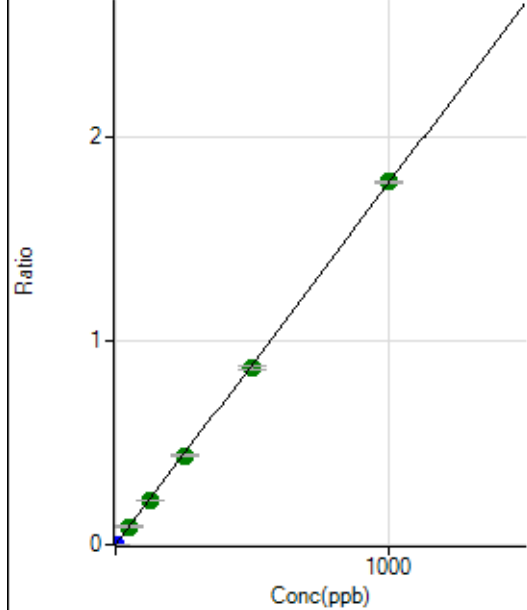
$$DL = 0.008341$$

$$BEC = 0.01671$$

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD : 89 Y [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 934.48      | 0.0001 | P   | 7.2 |
| 2 | <input type="checkbox"/> | 1.000    | 0.966      | 32289.91    | 0.0018 | P   | 2.2 |
| 3 | <input type="checkbox"/> | 50.000   | 50.553     | 1624360.74  | 0.0898 | A   | 0.9 |
| 4 | <input type="checkbox"/> | 125.000  | 121.829    | 3786665.05  | 0.2163 | A   | 3.1 |
| 5 | <input type="checkbox"/> | 250.000  | 247.570    | 7259929.61  | 0.4395 | A   | 0.4 |
| 6 | <input type="checkbox"/> | 500.000  | 492.164    | 14288351.03 | 0.8737 | A   | 2.2 |
| 7 | <input type="checkbox"/> | 1000.000 | 1004.894   | 29172979.01 | 1.7838 | A   | 0.3 |
| 8 | <input type="checkbox"/> |          |            | 18715.38    | 0.0011 | P   | 2.1 |

$$y = 0.0018 * x + 5.1382E-005$$

$$R = 0.9999$$

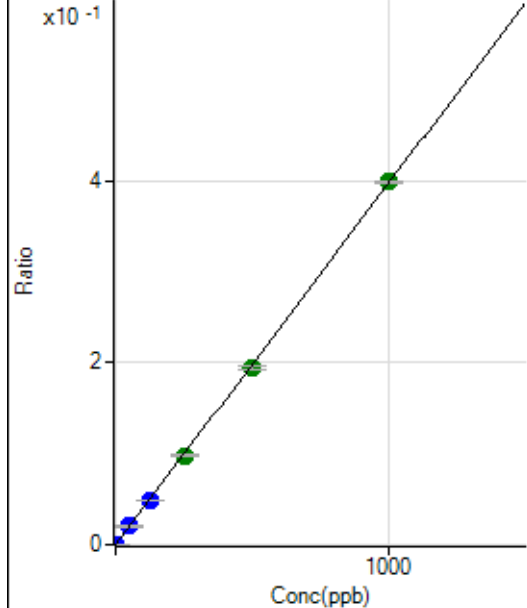
$$DL = 0.006269$$

$$BEC = 0.02895$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD : 89 Y [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 172.23     | 0.0000 | P   | 18.6 |
| 2 | <input type="checkbox"/> | 1.000    | 0.969      | 7208.49    | 0.0004 | P   | 1.8  |
| 3 | <input type="checkbox"/> | 50.000   | 50.702     | 364355.35  | 0.0201 | P   | 1.2  |
| 4 | <input type="checkbox"/> | 125.000  | 123.107    | 855850.61  | 0.0489 | P   | 2.9  |
| 5 | <input type="checkbox"/> | 250.000  | 247.606    | 1624067.37 | 0.0983 | A   | 0.4  |
| 6 | <input type="checkbox"/> | 500.000  | 491.927    | 3194336.24 | 0.1953 | A   | 2.3  |
| 7 | <input type="checkbox"/> | 1000.000 | 1004.837   | 6524563.38 | 0.3990 | A   | 0.4  |
| 8 | <input type="checkbox"/> |          |            | 3879.44    | 0.0002 | P   | 3.0  |

$$y = 3.9704E-004 * x + 9.4697E-006$$

$$R = 0.9999$$

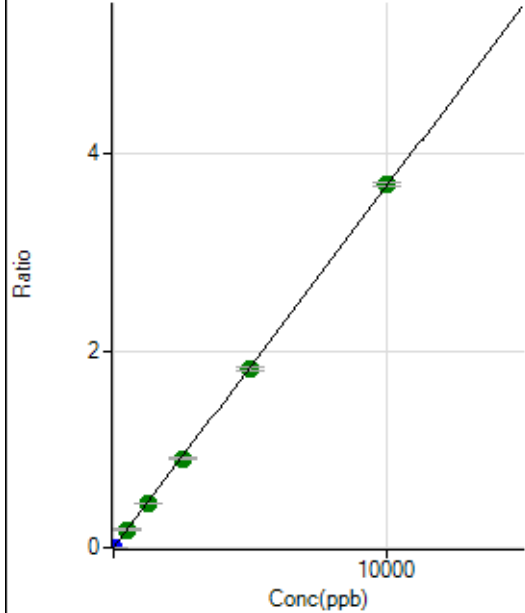
$$DL = 0.01333$$

$$BEC = 0.02385$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD:89 Y [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 475.57      | 0.0000 | P   | 5.9 |
| 2 | <input type="checkbox"/> | 5.000     | 5.746      | 39053.16    | 0.0021 | P   | 1.8 |
| 3 | <input type="checkbox"/> | 500.000   | 504.735    | 3353455.61  | 0.1854 | A   | 0.5 |
| 4 | <input type="checkbox"/> | 1250.000  | 1215.086   | 7811801.13  | 0.4462 | A   | 2.4 |
| 5 | <input type="checkbox"/> | 2500.000  | 2473.025   | 14999911.03 | 0.9081 | A   | 1.0 |
| 6 | <input type="checkbox"/> | 5000.000  | 4945.544   | 29697627.06 | 1.8160 | A   | 2.6 |
| 7 | <input type="checkbox"/> | 10000.000 | 10038.099  | 60275576.32 | 3.6859 | A   | 1.1 |
| 8 | <input type="checkbox"/> |           |            | 18491.76    | 0.0011 | P   | 2.2 |

$$y = 3.6719E-004 * x + 2.6151E-005$$

$$R = 1.0000$$

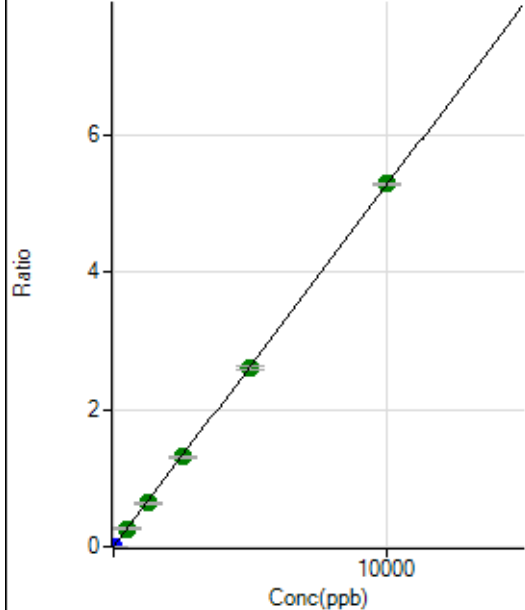
$$DL = 0.01254$$

$$BEC = 0.07122$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 273.34      | 0.0000 | P   | 5.0 |
| 2 | <input type="checkbox"/> | 5.000     | 4.854      | 47050.96    | 0.0026 | P   | 2.7 |
| 3 | <input type="checkbox"/> | 500.000   | 503.228    | 4798756.98  | 0.2653 | A   | 1.2 |
| 4 | <input type="checkbox"/> | 1250.000  | 1214.885   | 11210306.22 | 0.6403 | A   | 2.9 |
| 5 | <input type="checkbox"/> | 2500.000  | 2481.582   | 21606073.71 | 1.3080 | A   | 1.0 |
| 6 | <input type="checkbox"/> | 5000.000  | 4935.206   | 42539914.09 | 2.6012 | A   | 2.5 |
| 7 | <input type="checkbox"/> | 10000.000 | 10041.229  | 86548647.60 | 5.2925 | A   | 0.9 |
| 8 | <input type="checkbox"/> |           |            | 19827.98    | 0.0012 | P   | 1.2 |

$$y = 5.2707E-004 * x + 1.5028E-005$$

$$R = 1.0000$$

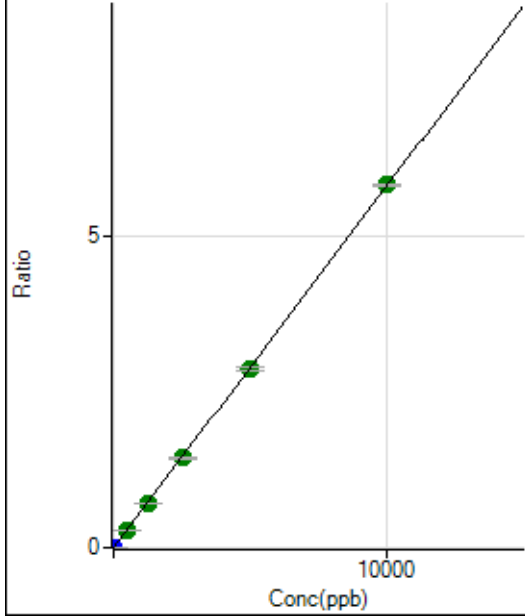
$$DL = 0.00431$$

$$BEC = 0.02851$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 450.01      | 0.0000 | P   | 4.9 |
| 2 | <input type="checkbox"/> | 5.000     | 4.955      | 52960.96    | 0.0029 | P   | 2.6 |
| 3 | <input type="checkbox"/> | 500.000   | 501.790    | 5263153.29  | 0.2909 | A   | 0.6 |
| 4 | <input type="checkbox"/> | 1250.000  | 1214.147   | 12323004.68 | 0.7039 | A   | 2.6 |
| 5 | <input type="checkbox"/> | 2500.000  | 2477.769   | 23727222.15 | 1.4364 | A   | 0.6 |
| 6 | <input type="checkbox"/> | 5000.000  | 4934.324   | 46781974.31 | 2.8605 | A   | 2.1 |
| 7 | <input type="checkbox"/> | 10000.000 | 10042.788  | 95209656.36 | 5.8220 | A   | 0.6 |
| 8 | <input type="checkbox"/> |           |            | 34646.53    | 0.0021 | P   | 2.5 |

$$y = 5.7971\text{E-}004 * x + 2.4742\text{E-}005$$

$$R = 1.0000$$

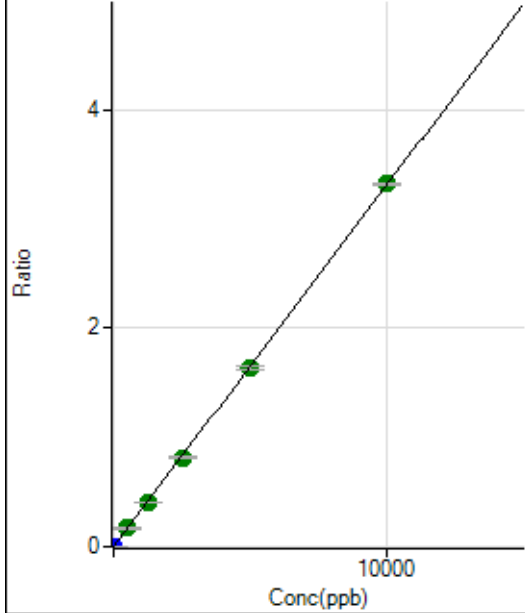
$$DL = 0.006302$$

$$BEC = 0.04268$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 213.34      | 0.0000 | P   | 8.0 |
| 2 | <input type="checkbox"/> | 5.000     | 4.849      | 29503.13    | 0.0016 | P   | 2.3 |
| 3 | <input type="checkbox"/> | 500.000   | 506.234    | 3026274.29  | 0.1673 | A   | 1.6 |
| 4 | <input type="checkbox"/> | 1250.000  | 1214.994   | 7028613.99  | 0.4015 | A   | 2.5 |
| 5 | <input type="checkbox"/> | 2500.000  | 2471.439   | 13489033.55 | 0.8166 | A   | 0.8 |
| 6 | <input type="checkbox"/> | 5000.000  | 4941.946   | 26704785.43 | 1.6329 | A   | 2.3 |
| 7 | <input type="checkbox"/> | 10000.000 | 10040.231  | 54251029.75 | 3.3174 | A   | 0.8 |
| 8 | <input type="checkbox"/> |           |            | 12382.00    | 0.0007 | P   | 1.2 |

$$y = 3.3041\text{E-}004 * x + 1.1729\text{E-}005$$

$$R = 1.0000$$

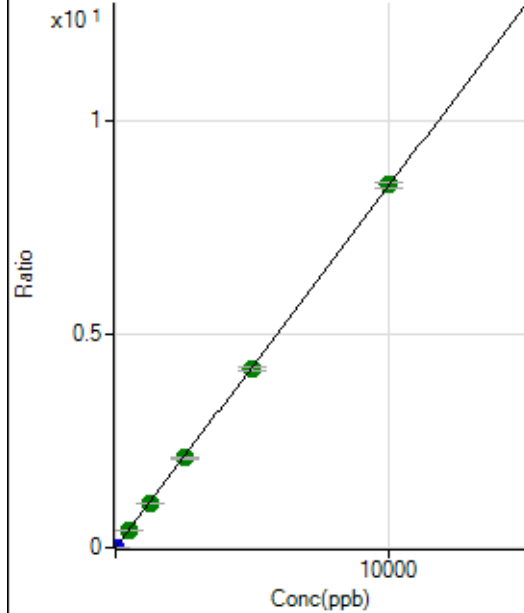
$$DL = 0.008532$$

$$BEC = 0.0355$$

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|--------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 483.35       | 0.0000 | P   | 8.1 |
| 2 | <input type="checkbox"/> | 5.000     | 4.919      | 76830.50     | 0.0042 | P   | 1.7 |
| 3 | <input type="checkbox"/> | 500.000   | 500.295    | 7682867.52   | 0.4247 | A   | 1.2 |
| 4 | <input type="checkbox"/> | 1250.000  | 1219.844   | 18126806.12  | 1.0354 | A   | 2.9 |
| 5 | <input type="checkbox"/> | 2500.000  | 2475.132   | 34703861.70  | 2.1009 | A   | 1.1 |
| 6 | <input type="checkbox"/> | 5000.000  | 4950.770   | 68722277.31  | 4.2023 | A   | 2.5 |
| 7 | <input type="checkbox"/> | 10000.000 | 10034.587  | 139283906.81 | 8.5174 | A   | 1.5 |
| 8 | <input type="checkbox"/> |           |            | 30554.25     | 0.0018 | P   | 2.5 |

$$y = 8.4880E-004 * x + 2.6578E-005$$

$$R = 1.0000$$

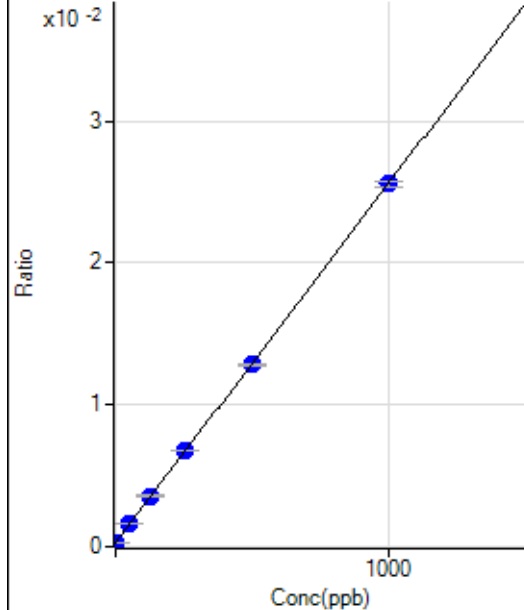
$$DL = 0.007573$$

$$BEC = 0.03131$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD:159 Tb [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 5092.05   | 0.0003 | P   | 4.9 |
| 2 | <input type="checkbox"/> | 1.000    | 1.318      | 5747.85   | 0.0003 | P   | 0.5 |
| 3 | <input type="checkbox"/> | 50.000   | 54.898     | 31417.31  | 0.0017 | P   | 0.8 |
| 4 | <input type="checkbox"/> | 125.000  | 129.391    | 67019.05  | 0.0035 | P   | 3.1 |
| 5 | <input type="checkbox"/> | 250.000  | 257.841    | 124780.13 | 0.0068 | P   | 0.7 |
| 6 | <input type="checkbox"/> | 500.000  | 496.081    | 236788.60 | 0.0128 | P   | 1.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 999.205    | 469737.13 | 0.0256 | P   | 1.3 |
| 8 | <input type="checkbox"/> |          |            | 4926.44   | 0.0003 | P   | 0.9 |

$$y = 2.5326E-005 * x + 2.6776E-004$$

$$R = 0.9999$$

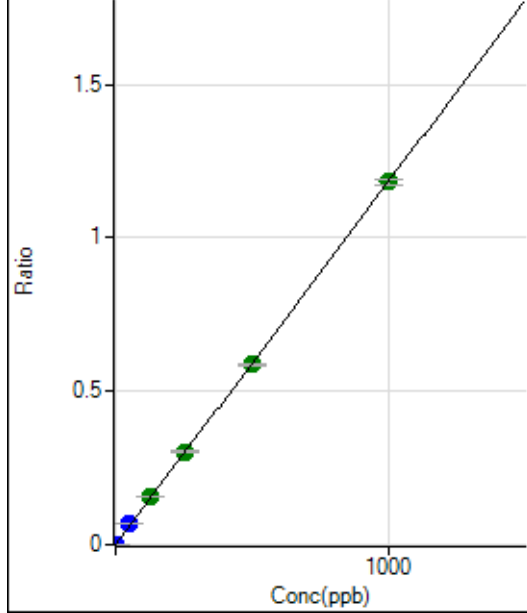
$$DL = 1.565$$

$$BEC = 10.57$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD : 159 Tb [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 111.11      | 0.0000 | P   | 5.3 |
| 2 | <input type="checkbox"/> | 1.000    | 1.062      | 24087.83    | 0.0013 | P   | 1.9 |
| 3 | <input type="checkbox"/> | 50.000   | 56.822     | 1274127.20  | 0.0673 | P   | 1.4 |
| 4 | <input type="checkbox"/> | 125.000  | 132.931    | 2974390.65  | 0.1573 | A   | 3.1 |
| 5 | <input type="checkbox"/> | 250.000  | 256.552    | 5573292.21  | 0.3036 | A   | 1.0 |
| 6 | <input type="checkbox"/> | 500.000  | 495.480    | 10820732.06 | 0.5864 | A   | 1.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 999.290    | 21721833.84 | 1.1826 | A   | 1.5 |
| 8 | <input type="checkbox"/> |          |            | 6442.61     | 0.0004 | P   | 9.2 |

$$y = 0.0012 * x + 5.8426E-006$$

$$R = 0.9999$$

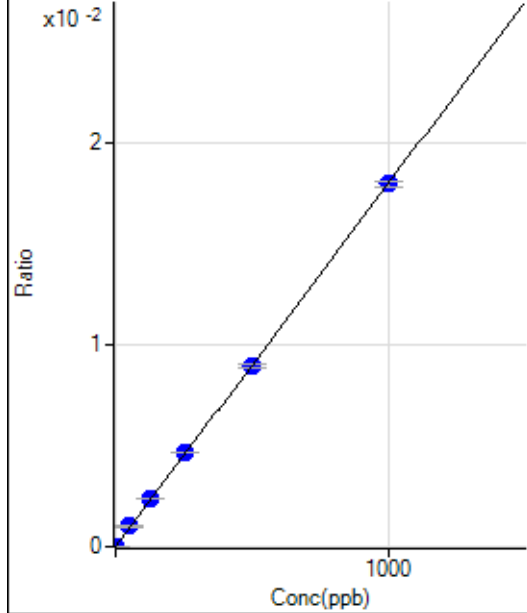
$$DL = 0.0007788$$

$$BEC = 0.004937$$

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD : 159 Tb [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 26.67     | 0.0000 | P   | 45.6 |
| 2 | <input type="checkbox"/> | 1.000    | 0.859      | 321.12    | 0.0000 | P   | 11.6 |
| 3 | <input type="checkbox"/> | 50.000   | 55.742     | 19004.76  | 0.0010 | P   | 2.3  |
| 4 | <input type="checkbox"/> | 125.000  | 131.663    | 44764.41  | 0.0024 | P   | 3.1  |
| 5 | <input type="checkbox"/> | 250.000  | 257.567    | 84993.63  | 0.0046 | P   | 0.7  |
| 6 | <input type="checkbox"/> | 500.000  | 497.550    | 165031.16 | 0.0089 | P   | 2.0  |
| 7 | <input type="checkbox"/> | 1000.000 | 998.214    | 329541.74 | 0.0179 | P   | 1.4  |
| 8 | <input type="checkbox"/> |          |            | 173.34    | 0.0000 | P   | 4.5  |

$$y = 1.7972E-005 * x + 1.4053E-006$$

$$R = 0.9999$$

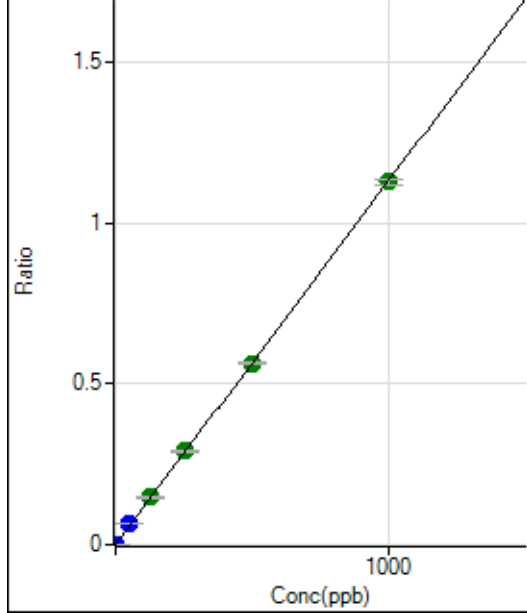
$$DL = 0.107$$

$$BEC = 0.0782$$

Weight: <None>

Min Conc: 0

109 Ag [No Gas] ISTD : 159 Tb [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 60.00       | 0.0000 | P   | 6.3  |
| 2 | <input type="checkbox"/> | 1.000    | 1.048      | 22710.09    | 0.0012 | P   | 4.1  |
| 3 | <input type="checkbox"/> | 50.000   | 56.615     | 1214534.88  | 0.0641 | P   | 1.9  |
| 4 | <input type="checkbox"/> | 125.000  | 131.497    | 2815058.36  | 0.1489 | A   | 3.2  |
| 5 | <input type="checkbox"/> | 250.000  | 256.643    | 5334214.92  | 0.2906 | A   | 0.4  |
| 6 | <input type="checkbox"/> | 500.000  | 499.453    | 10436000.68 | 0.5655 | A   | 1.8  |
| 7 | <input type="checkbox"/> | 1000.000 | 997.470    | 20745339.41 | 1.1294 | A   | 1.5  |
| 8 | <input type="checkbox"/> |          |            | 5822.34     | 0.0003 | P   | 10.7 |

$$y = 0.0011 * x + 3.1552E-006$$

$$R = 1.0000$$

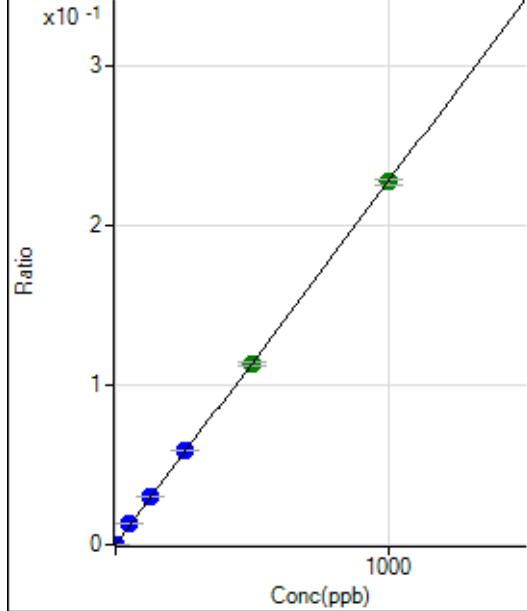
$$DL = 0.0005245$$

$$BEC = 0.002786$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD : 159 Tb [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1060.86    | 0.0001 | P   | 5.5 |
| 2 | <input type="checkbox"/> | 1.000    | 1.173      | 6170.23    | 0.0003 | P   | 3.1 |
| 3 | <input type="checkbox"/> | 50.000   | 56.013     | 242979.97  | 0.0128 | P   | 1.6 |
| 4 | <input type="checkbox"/> | 125.000  | 132.220    | 570901.10  | 0.0302 | P   | 3.4 |
| 5 | <input type="checkbox"/> | 250.000  | 259.948    | 1088803.04 | 0.0593 | P   | 0.5 |
| 6 | <input type="checkbox"/> | 500.000  | 496.473    | 2089585.23 | 0.1132 | A   | 1.7 |
| 7 | <input type="checkbox"/> | 1000.000 | 998.073    | 4180186.85 | 0.2276 | A   | 1.8 |
| 8 | <input type="checkbox"/> |          |            | 2109.58    | 0.0001 | P   | 4.5 |

$$y = 2.2797E-004 * x + 5.5784E-005$$

$$R = 0.9999$$

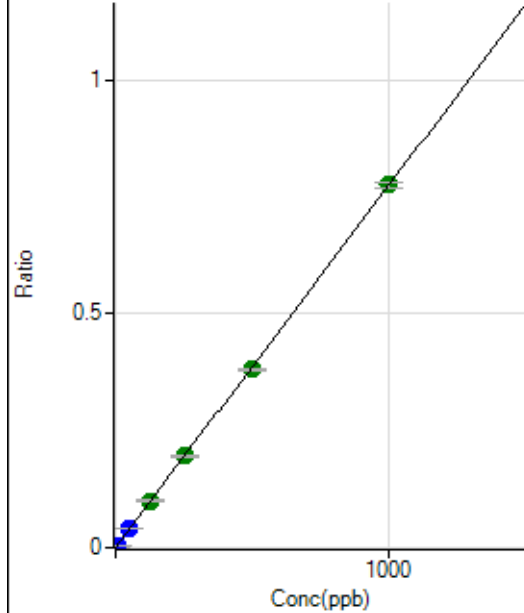
$$DL = 0.04002$$

$$BEC = 0.2447$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD : 159 Tb [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 3491.68     | 0.0002 | P   | 8.0 |
| 2 | <input type="checkbox"/> | 5.000    | 5.372      | 82752.38    | 0.0043 | P   | 2.2 |
| 3 | <input type="checkbox"/> | 50.000   | 54.377     | 799834.66   | 0.0422 | P   | 1.8 |
| 4 | <input type="checkbox"/> | 125.000  | 128.036    | 1874619.52  | 0.0992 | A   | 3.4 |
| 5 | <input type="checkbox"/> | 250.000  | 253.106    | 3594700.12  | 0.1958 | A   | 1.1 |
| 6 | <input type="checkbox"/> | 500.000  | 492.504    | 7028913.09  | 0.3809 | A   | 1.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.371   | 14235453.26 | 0.7750 | A   | 1.7 |
| 8 | <input type="checkbox"/> |          |            | 7207.42     | 0.0004 | P   | 1.7 |

$$y = 7.7301E-004 * x + 1.8361E-004$$

R = 0.9999

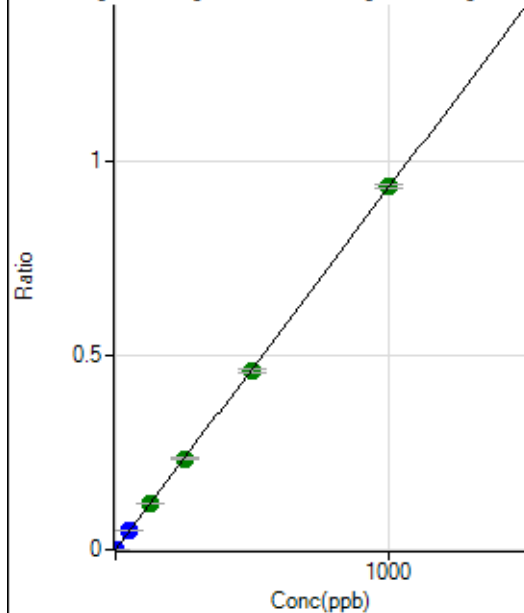
DL = 0.05711

BEC = 0.2375

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 25.56       | 0.0000 | P   | 70.9 |
| 2 | <input type="checkbox"/> | 2.000    | 2.113      | 37538.95    | 0.0020 | P   | 1.6  |
| 3 | <input type="checkbox"/> | 50.000   | 53.627     | 945044.36   | 0.0499 | P   | 1.8  |
| 4 | <input type="checkbox"/> | 125.000  | 127.944    | 2250196.69  | 0.1190 | A   | 2.5  |
| 5 | <input type="checkbox"/> | 250.000  | 251.504    | 4294130.46  | 0.2339 | A   | 0.8  |
| 6 | <input type="checkbox"/> | 500.000  | 492.491    | 8453201.40  | 0.4581 | A   | 2.0  |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.829   | 17133690.02 | 0.9328 | A   | 1.2  |
| 8 | <input type="checkbox"/> |          |            | 8867.25     | 0.0005 | P   | 4.2  |

$$y = 9.3015E-004 * x + 1.3381E-006$$

R = 0.9999

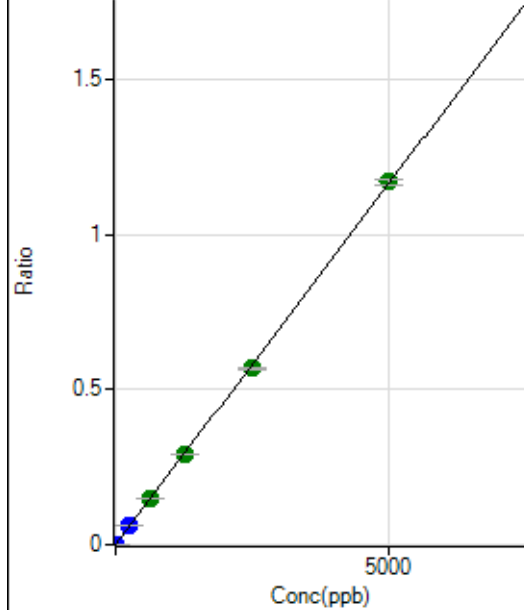
DL = 0.003062

BEC = 0.001439

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD : 159 Tb [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 166.67      | 0.0000 | P   | 25.1 |
| 2 | <input type="checkbox"/> | 10.000   | 10.248     | 45618.34    | 0.0024 | P   | 2.6  |
| 3 | <input type="checkbox"/> | 250.000  | 263.398    | 1159951.50  | 0.0612 | P   | 1.6  |
| 4 | <input type="checkbox"/> | 625.000  | 635.057    | 2790889.92  | 0.1476 | A   | 2.5  |
| 5 | <input type="checkbox"/> | 1250.000 | 1247.570   | 5322312.94  | 0.2900 | A   | 0.8  |
| 6 | <input type="checkbox"/> | 2500.000 | 2443.973   | 10482172.62 | 0.5680 | A   | 0.9  |
| 7 | <input type="checkbox"/> | 5000.000 | 5026.694   | 21457889.40 | 1.1683 | A   | 1.9  |
| 8 | <input type="checkbox"/> |          |            | 9966.90     | 0.0005 | P   | 2.2  |

$$y = 2.3241E-004 * x + 8.7697E-006$$

$$R = 0.9999$$

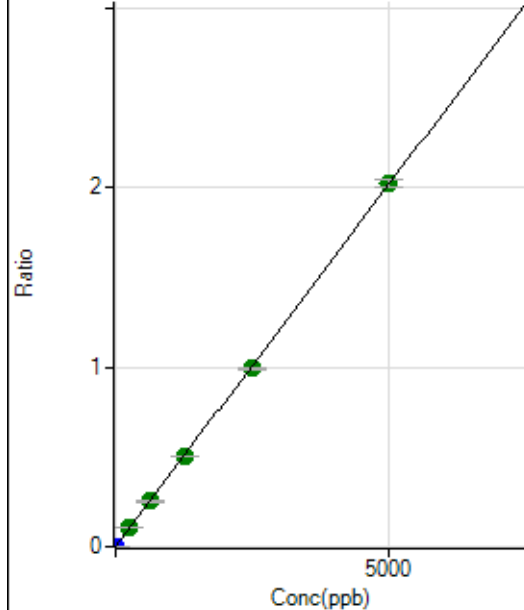
$$DL = 0.02842$$

$$BEC = 0.03773$$

Weight: <None>

Min Conc: 0

137 Ba [No Gas] ISTD : 159 Tb [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 288.89      | 0.0000 | P   | 21.0 |
| 2 | <input type="checkbox"/> | 10.000   | 10.244     | 79019.98    | 0.0041 | P   | 2.2  |
| 3 | <input type="checkbox"/> | 250.000  | 264.053    | 2014955.74  | 0.1064 | A   | 2.0  |
| 4 | <input type="checkbox"/> | 625.000  | 630.521    | 4801266.25  | 0.2539 | A   | 3.0  |
| 5 | <input type="checkbox"/> | 1250.000 | 1253.594   | 9267891.46  | 0.5049 | A   | 0.5  |
| 6 | <input type="checkbox"/> | 2500.000 | 2466.117   | 18328452.78 | 0.9932 | A   | 1.2  |
| 7 | <input type="checkbox"/> | 5000.000 | 5014.650   | 37095039.72 | 2.0196 | A   | 1.9  |
| 8 | <input type="checkbox"/> |          |            | 17786.77    | 0.0010 | P   | 1.9  |

$$y = 4.0274E-004 * x + 1.5204E-005$$

$$R = 1.0000$$

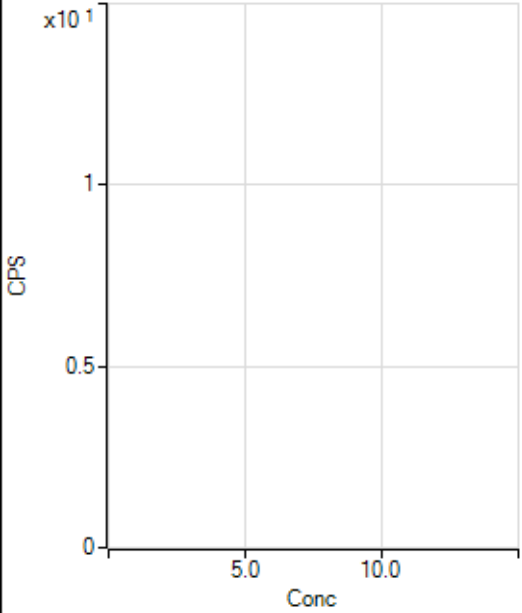
$$DL = 0.02382$$

$$BEC = 0.03775$$

Weight: <None>

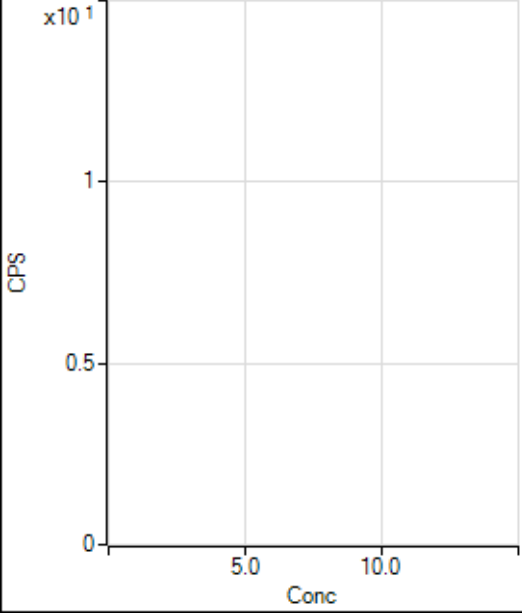
Min Conc: 0

150 Nd [ No Gas ] No available calibration points



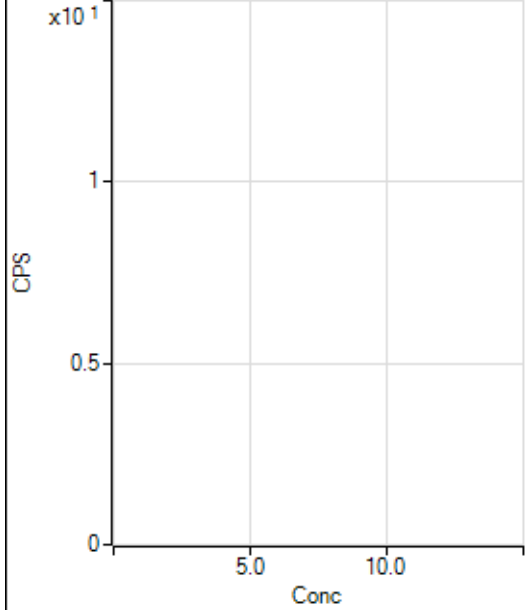
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS     | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|---------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 8.89    |       | P        | 43.3 |
| 2 | <input type="checkbox"/> |       |            | 6.67    |       | P        | 50.0 |
| 3 | <input type="checkbox"/> |       |            | 70.00   |       | P        | 12.6 |
| 4 | <input type="checkbox"/> |       |            | 150.00  |       | P        | 8.0  |
| 5 | <input type="checkbox"/> |       |            | 308.89  |       | P        | 1.2  |
| 6 | <input type="checkbox"/> |       |            | 534.46  |       | P        | 8.1  |
| 7 | <input type="checkbox"/> |       |            | 1090.05 |       | P        | 2.9  |
| 8 | <input type="checkbox"/> |       |            | 347.79  |       | P        | 11.4 |

150 Nd [ He ] No available calibration points



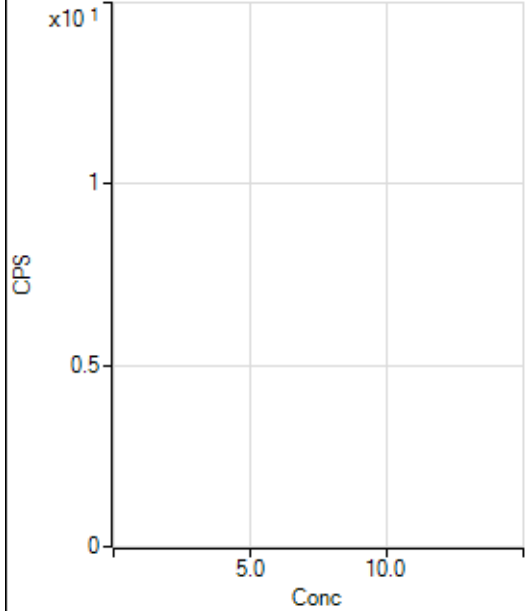
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 4.44   |       | P        | 43.4 |
| 2 | <input type="checkbox"/> |       |            | 6.67   |       | P        | 173. |
| 3 | <input type="checkbox"/> |       |            | 21.11  |       | P        | 48.2 |
| 4 | <input type="checkbox"/> |       |            | 41.11  |       | P        | 16.9 |
| 5 | <input type="checkbox"/> |       |            | 84.44  |       | P        | 6.0  |
| 6 | <input type="checkbox"/> |       |            | 132.22 |       | P        | 10.2 |
| 7 | <input type="checkbox"/> |       |            | 313.34 |       | P        | 6.4  |
| 8 | <input type="checkbox"/> |       |            | 234.45 |       | P        | 14.9 |

156 Dy [ No Gas ] No available calibration points



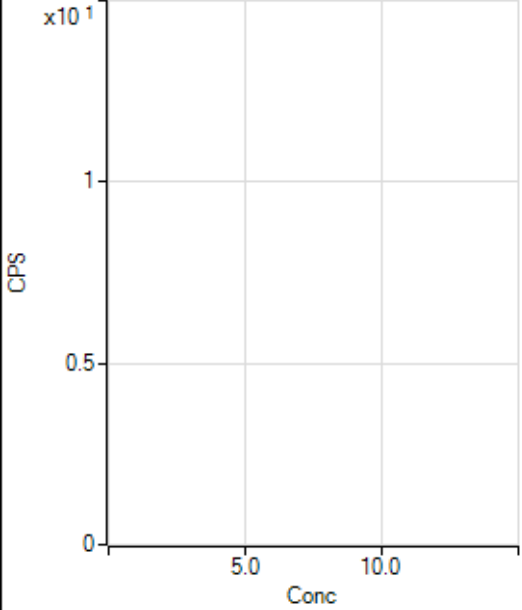
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 17.78  |       | P        | 21.7 |
| 2 | <input type="checkbox"/> |       |            | 17.78  |       | P        | 28.6 |
| 3 | <input type="checkbox"/> |       |            | 48.89  |       | P        | 20.8 |
| 4 | <input type="checkbox"/> |       |            | 78.89  |       | P        | 23.3 |
| 5 | <input type="checkbox"/> |       |            | 107.78 |       | P        | 28.7 |
| 6 | <input type="checkbox"/> |       |            | 194.45 |       | P        | 4.9  |
| 7 | <input type="checkbox"/> |       |            | 387.79 |       | P        | 9.5  |
| 8 | <input type="checkbox"/> |       |            | 734.47 |       | P        | 3.5  |

156 Dy [ He ] No available calibration points



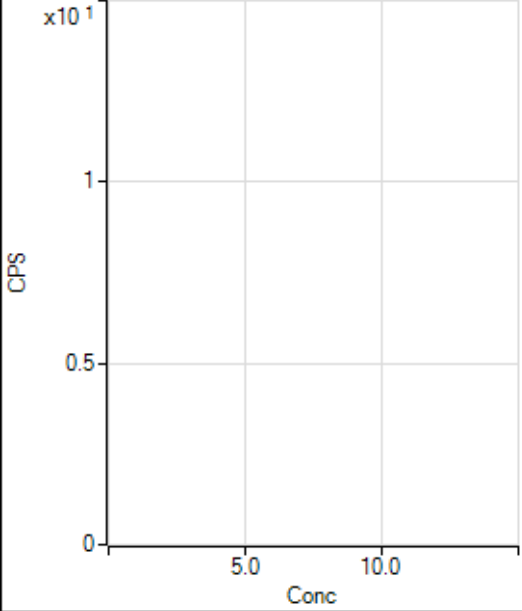
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS     | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|---------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 11.11   |       | P        | 34.6 |
| 2 | <input type="checkbox"/> |       |            | 11.11   |       | P        | 17.3 |
| 3 | <input type="checkbox"/> |       |            | 75.56   |       | P        | 11.1 |
| 4 | <input type="checkbox"/> |       |            | 142.22  |       | P        | 32.0 |
| 5 | <input type="checkbox"/> |       |            | 295.56  |       | P        | 4.3  |
| 6 | <input type="checkbox"/> |       |            | 622.25  |       | P        | 12.1 |
| 7 | <input type="checkbox"/> |       |            | 1225.62 |       | P        | 5.8  |
| 8 | <input type="checkbox"/> |       |            | 630.02  |       | P        | 4.5  |

160 Gd [ No Gas ] Noavailable calibration poin...



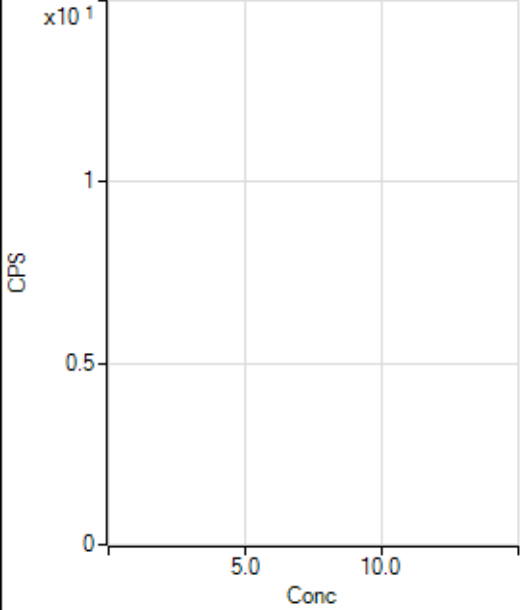
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 72.22  |       | P        | 11.6 |
| 2 | <input type="checkbox"/> |       |            | 74.44  |       | P        | 6.8  |
| 3 | <input type="checkbox"/> |       |            | 97.78  |       | P        | 17.5 |
| 4 | <input type="checkbox"/> |       |            | 104.45 |       | P        | 15.1 |
| 5 | <input type="checkbox"/> |       |            | 115.56 |       | P        | 9.3  |
| 6 | <input type="checkbox"/> |       |            | 163.34 |       | P        | 23.2 |
| 7 | <input type="checkbox"/> |       |            | 276.67 |       | P        | 7.3  |
| 8 | <input type="checkbox"/> |       |            | 726.69 |       | P        | 5.3  |

160 Gd [ He ] No available calibration points



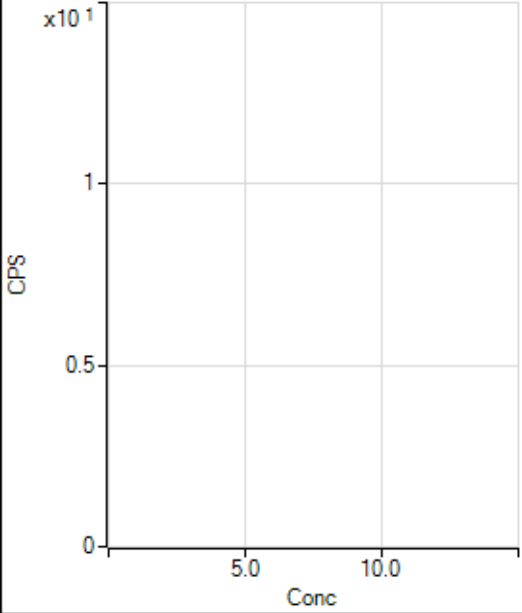
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS     | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|---------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 795.59  |       | P        | 5.1  |
| 2 | <input type="checkbox"/> |       |            | 808.92  |       | P        | 3.5  |
| 3 | <input type="checkbox"/> |       |            | 836.70  |       | P        | 13.4 |
| 4 | <input type="checkbox"/> |       |            | 808.92  |       | P        | 2.3  |
| 5 | <input type="checkbox"/> |       |            | 786.70  |       | P        | 4.9  |
| 6 | <input type="checkbox"/> |       |            | 884.48  |       | P        | 4.0  |
| 7 | <input type="checkbox"/> |       |            | 855.59  |       | P        | 10.3 |
| 8 | <input type="checkbox"/> |       |            | 1193.40 |       | P        | 6.9  |

164 Er [ No Gas ] No available calibration points



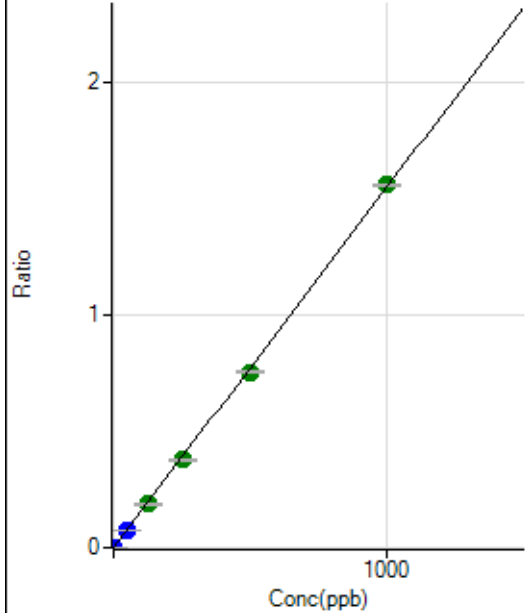
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 71.11  |       | P        | 33.3 |
| 2 | <input type="checkbox"/> |       |            | 85.56  |       | P        | 9.0  |
| 3 | <input type="checkbox"/> |       |            | 85.55  |       | P        | 12.5 |
| 4 | <input type="checkbox"/> |       |            | 101.11 |       | P        | 24.7 |
| 5 | <input type="checkbox"/> |       |            | 185.56 |       | P        | 8.5  |
| 6 | <input type="checkbox"/> |       |            | 184.45 |       | P        | 1.0  |
| 7 | <input type="checkbox"/> |       |            | 324.45 |       | P        | 4.2  |
| 8 | <input type="checkbox"/> |       |            | 812.26 |       | P        | 4.2  |

164 Er [ He ] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 54.45  |       | P        | 12.7 |
| 2 | <input type="checkbox"/> |       |            | 38.89  |       | P        | 44.0 |
| 3 | <input type="checkbox"/> |       |            | 56.67  |       | P        | 50.3 |
| 4 | <input type="checkbox"/> |       |            | 61.11  |       | P        | 28.0 |
| 5 | <input type="checkbox"/> |       |            | 96.67  |       | P        | 39.8 |
| 6 | <input type="checkbox"/> |       |            | 151.12 |       | P        | 22.1 |
| 7 | <input type="checkbox"/> |       |            | 233.34 |       | P        | 2.5  |
| 8 | <input type="checkbox"/> |       |            | 557.80 |       | P        | 5.9  |

203 Tl [No Gas] ISTD : 209 Bi [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 544.46      | 0.0000 | P   | 5.0  |
| 2 | <input type="checkbox"/> | 1.000    | 0.974      | 17563.66    | 0.0016 | P   | 1.7  |
| 3 | <input type="checkbox"/> | 50.000   | 50.296     | 873196.07   | 0.0779 | P   | 1.4  |
| 4 | <input type="checkbox"/> | 125.000  | 121.176    | 2137187.92  | 0.1876 | A   | 2.5  |
| 5 | <input type="checkbox"/> | 250.000  | 243.337    | 4206162.68  | 0.3767 | A   | 0.8  |
| 6 | <input type="checkbox"/> | 500.000  | 488.017    | 8361447.72  | 0.7555 | A   | 1.6  |
| 7 | <input type="checkbox"/> | 1000.000 | 1008.121   | 16900286.56 | 1.5607 | A   | 0.2  |
| 8 | <input type="checkbox"/> |          |            | 2905.90     | 0.0003 | P   | 14.3 |

$$y = 0.0015 * x + 4.8545E-005$$

$$R = 0.9999$$

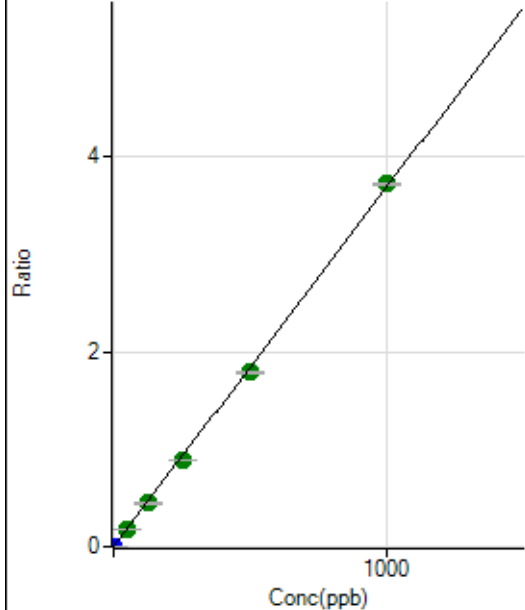
$$DL = 0.004711$$

$$BEC = 0.03136$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD : 209 Bi [No Gas]



|   | R <sub>j</sub><br>ct     | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1246.74     | 0.0001 | P   | 7.3  |
| 2 | <input type="checkbox"/> | 1.000    | 0.960      | 41150.90    | 0.0036 | P   | 1.0  |
| 3 | <input type="checkbox"/> | 50.000   | 49.561     | 2046703.44  | 0.1826 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 125.000  | 120.513    | 5055875.62  | 0.4439 | A   | 2.2  |
| 5 | <input type="checkbox"/> | 250.000  | 241.392    | 9925014.30  | 0.8890 | A   | 0.5  |
| 6 | <input type="checkbox"/> | 500.000  | 485.934    | 19804563.32 | 1.7894 | A   | 1.1  |
| 7 | <input type="checkbox"/> | 1000.000 | 1009.768   | 40264955.23 | 3.7183 | A   | 0.3  |
| 8 | <input type="checkbox"/> |          |            | 6950.75     | 0.0007 | P   | 13.3 |

$$y = 0.0037 * x + 1.1118E-004$$

$$R = 0.9998$$

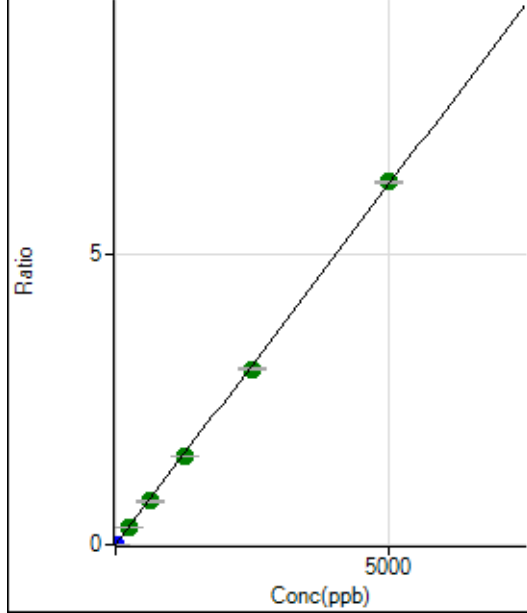
$$DL = 0.006567$$

$$BEC = 0.03019$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD : 209 Bi [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1315.63     | 0.0001 | P   | 2.0 |
| 2 | <input type="checkbox"/> | 1.000    | 0.970      | 14871.56    | 0.0013 | P   | 1.2 |
| 3 | <input type="checkbox"/> | 250.000  | 251.537    | 3491032.34  | 0.3115 | A   | 1.0 |
| 4 | <input type="checkbox"/> | 625.000  | 604.061    | 8518206.82  | 0.7478 | A   | 1.8 |
| 5 | <input type="checkbox"/> | 1250.000 | 1220.373   | 16866419.06 | 1.5107 | A   | 0.6 |
| 6 | <input type="checkbox"/> | 2500.000 | 2437.716   | 33396469.51 | 3.0175 | A   | 1.1 |
| 7 | <input type="checkbox"/> | 5000.000 | 5041.089   | 67571862.88 | 6.2400 | A   | 0.4 |
| 8 | <input type="checkbox"/> |          |            | 14740.30    | 0.0015 | P   | 2.0 |

$$y = 0.0012 * x + 1.1732E-004$$

R = 0.9999

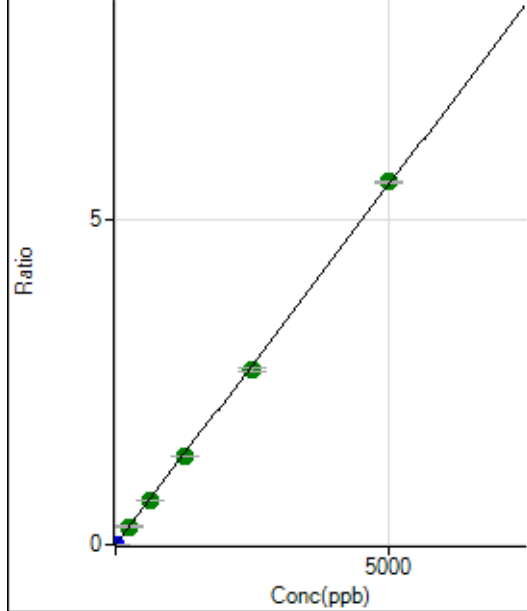
DL = 0.005728

BEC = 0.09478

Weight: <None>

Min Conc: 0

207 [Pb] [No Gas] ISTD : 209 Bi [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1111.17     | 0.0001 | P   | 3.6 |
| 2 | <input type="checkbox"/> | 1.000    | 0.969      | 13184.26    | 0.0012 | P   | 0.9 |
| 3 | <input type="checkbox"/> | 250.000  | 253.145    | 3133025.61  | 0.2795 | A   | 0.8 |
| 4 | <input type="checkbox"/> | 625.000  | 609.403    | 7663208.29  | 0.6728 | A   | 2.0 |
| 5 | <input type="checkbox"/> | 1250.000 | 1221.008   | 15048668.53 | 1.3479 | A   | 0.6 |
| 6 | <input type="checkbox"/> | 2500.000 | 2431.592   | 29705281.50 | 2.6841 | A   | 1.8 |
| 7 | <input type="checkbox"/> | 5000.000 | 5043.245   | 60282830.77 | 5.5669 | A   | 0.6 |
| 8 | <input type="checkbox"/> |          |            | 12767.20    | 0.0013 | P   | 0.8 |

$$y = 0.0011 * x + 9.9066E-005$$

R = 0.9998

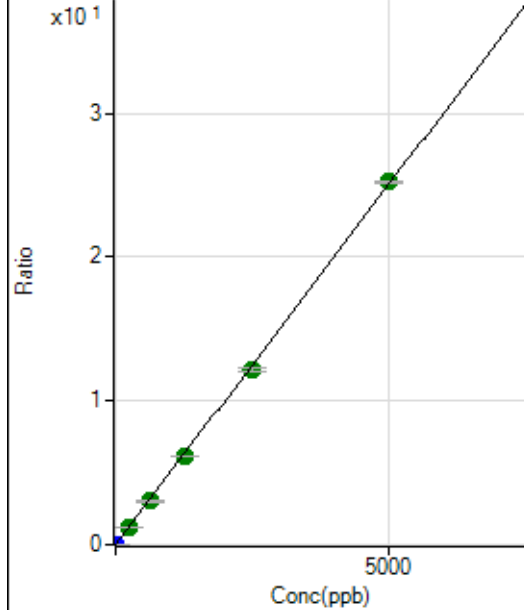
DL = 0.009562

BEC = 0.08975

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD :209 Bi [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS          | Ratio   | Det | RSD |
|---|--------------------------|----------|------------|--------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 4998.18      | 0.0004  | P   | 1.0 |
| 2 | <input type="checkbox"/> | 1.000    | 0.969      | 59758.32     | 0.0053  | P   | 1.0 |
| 3 | <input type="checkbox"/> | 250.000  | 251.145    | 14091234.72  | 1.2572  | A   | 0.6 |
| 4 | <input type="checkbox"/> | 625.000  | 604.360    | 34452890.94  | 3.0247  | A   | 2.1 |
| 5 | <input type="checkbox"/> | 1250.000 | 1217.634   | 68032911.49  | 6.0936  | A   | 0.2 |
| 6 | <input type="checkbox"/> | 2500.000 | 2436.812   | 134956336.60 | 12.1944 | A   | 1.7 |
| 7 | <input type="checkbox"/> | 5000.000 | 5042.208   | 273236795.93 | 25.2319 | A   | 0.5 |
| 8 | <input type="checkbox"/> |          |            | 58428.25     | 0.0058  | P   | 0.9 |

$$y = 0.0050 * x + 4.4566E-004$$

R = 0.9999

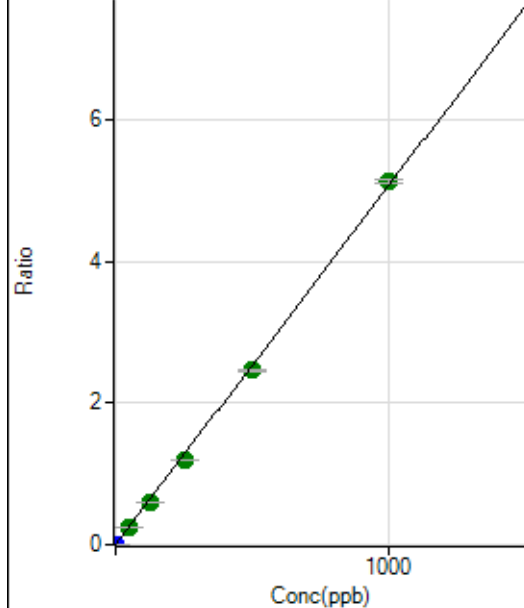
DL = 0.0028

BEC = 0.08906

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 128.89      | 0.0000 | P   | 30.8 |
| 2 | <input type="checkbox"/> | 1.000    | 0.900      | 51582.78    | 0.0046 | P   | 2.6  |
| 3 | <input type="checkbox"/> | 50.000   | 48.124     | 2733601.21  | 0.2439 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 125.000  | 116.304    | 6713753.86  | 0.5894 | A   | 1.5  |
| 5 | <input type="checkbox"/> | 250.000  | 238.092    | 13471044.80 | 1.2066 | A   | 0.1  |
| 6 | <input type="checkbox"/> | 500.000  | 486.210    | 27269854.59 | 2.4640 | A   | 1.3  |
| 7 | <input type="checkbox"/> | 1000.000 | 1011.053   | 55480828.62 | 5.1237 | A   | 1.1  |
| 8 | <input type="checkbox"/> |          |            | 7531.09     | 0.0008 | P   | 3.7  |

$$y = 0.0051 * x + 1.1499E-005$$

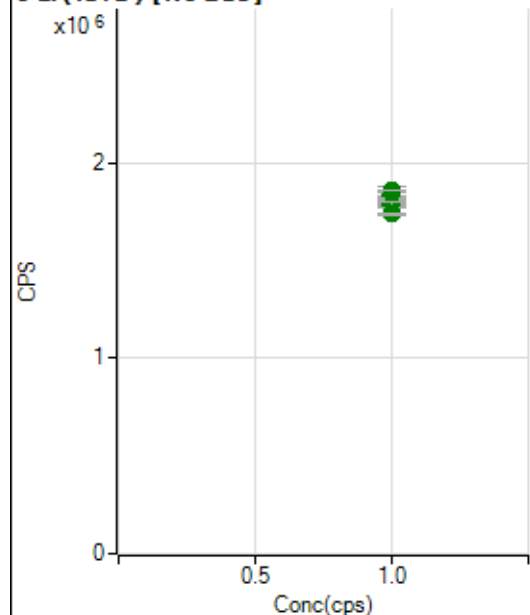
R = 0.9998

DL = 0.002098

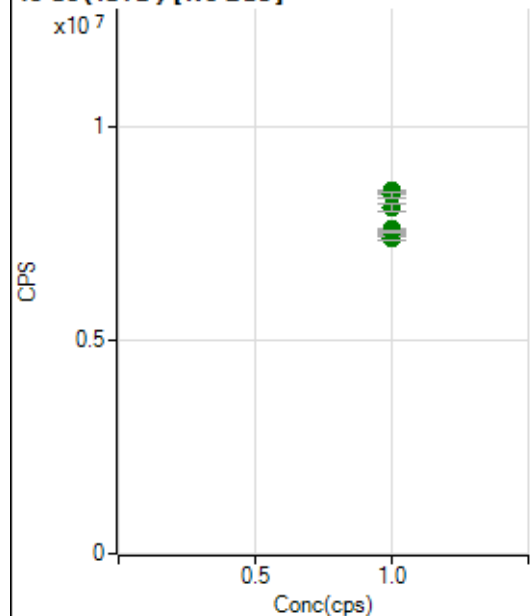
BEC = 0.002269

Weight: <None>

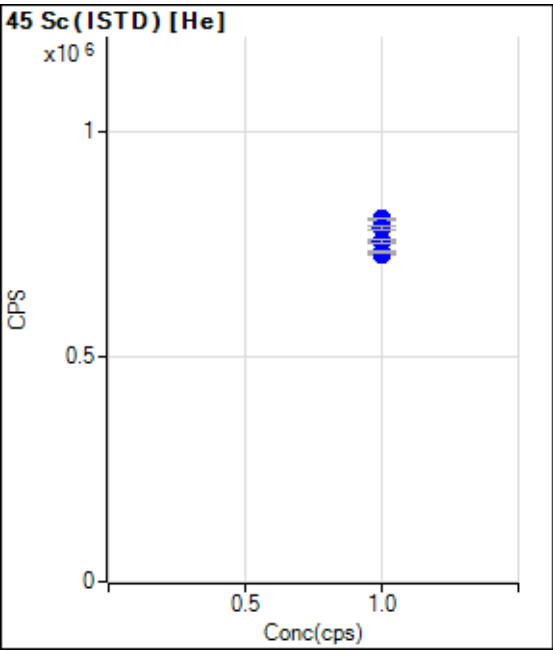
Min Conc: 0

**6 Li (ISTD) [No Gas]**

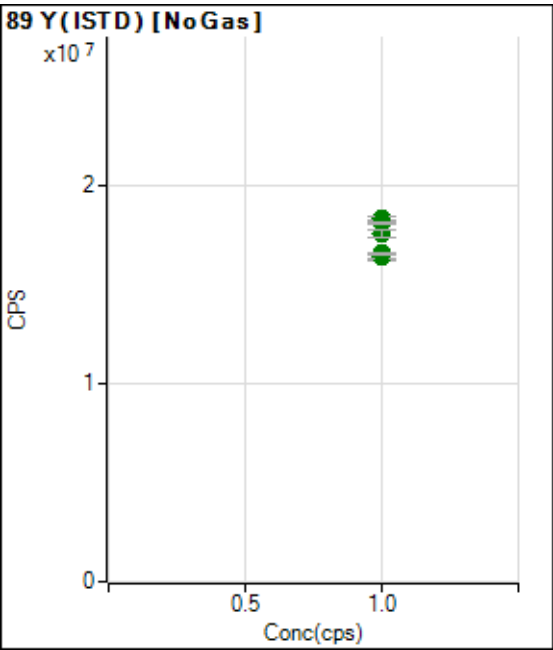
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det | RSD |
|---|--------------------------|-------|------------|------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 1845165.04 |       | A   | 3.1 |
| 2 | <input type="checkbox"/> | 1.000 |            | 1843204.36 |       | A   | 1.1 |
| 3 | <input type="checkbox"/> | 1.000 |            | 1855446.92 |       | A   | 0.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 1834101.08 |       | A   | 2.5 |
| 5 | <input type="checkbox"/> | 1.000 |            | 1805605.41 |       | A   | 1.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 1794248.55 |       | A   | 1.6 |
| 7 | <input type="checkbox"/> | 1.000 |            | 1784791.66 |       | A   | 1.4 |
| 8 | <input type="checkbox"/> | 1.000 |            | 1736692.92 |       | A   | 0.5 |

**45 Sc (ISTD) [No Gas]**

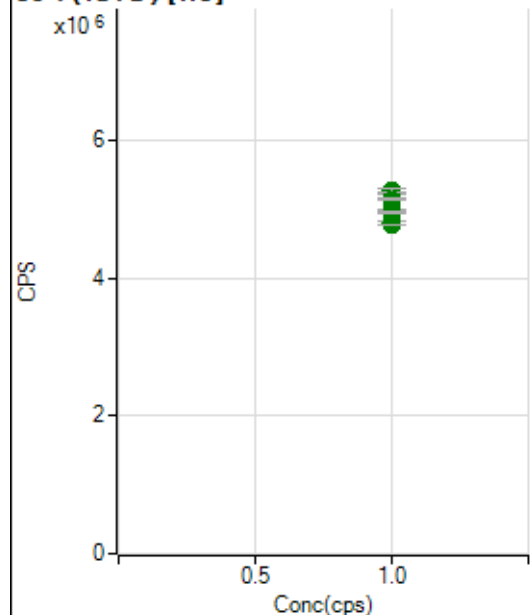
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det | RSD |
|---|--------------------------|-------|------------|------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 8484832.09 |       | A   | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 8461587.58 |       | A   | 1.0 |
| 3 | <input type="checkbox"/> | 1.000 |            | 8388798.97 |       | A   | 1.5 |
| 4 | <input type="checkbox"/> | 1.000 |            | 8096873.35 |       | A   | 2.2 |
| 5 | <input type="checkbox"/> | 1.000 |            | 7585782.80 |       | A   | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 7431642.88 |       | A   | 0.7 |
| 7 | <input type="checkbox"/> | 1.000 |            | 7370569.82 |       | A   | 0.8 |
| 8 | <input type="checkbox"/> | 1.000 |            | 7551070.03 |       | A   | 0.6 |



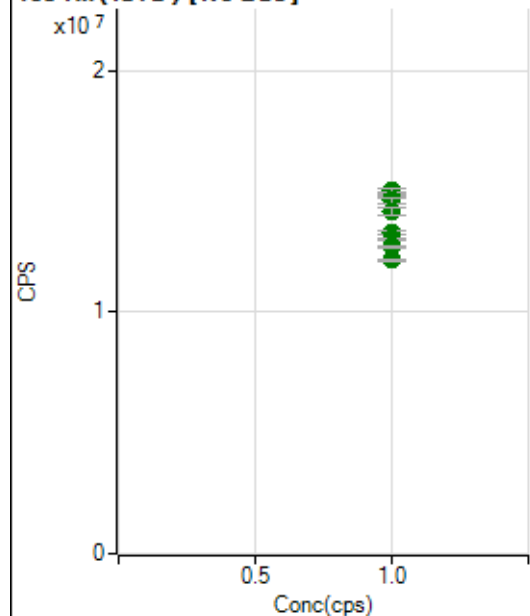
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS       | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 803759.01 |       | P   | 0.3 |
| 2 | <input type="checkbox"/> | 1.000 |            | 806717.15 |       | P   | 0.6 |
| 3 | <input type="checkbox"/> | 1.000 |            | 787463.84 |       | P   | 1.1 |
| 4 | <input type="checkbox"/> | 1.000 |            | 755228.11 |       | P   | 0.6 |
| 5 | <input type="checkbox"/> | 1.000 |            | 730574.16 |       | P   | 0.6 |
| 6 | <input type="checkbox"/> | 1.000 |            | 726146.26 |       | P   | 0.4 |
| 7 | <input type="checkbox"/> | 1.000 |            | 733224.29 |       | P   | 0.5 |
| 8 | <input type="checkbox"/> | 1.000 |            | 756843.20 |       | P   | 0.7 |



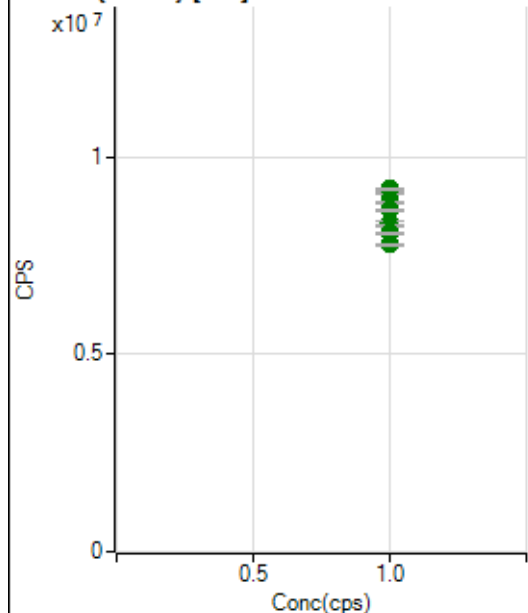
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 18186945.43 |       | A   | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 18286214.03 |       | A   | 1.5 |
| 3 | <input type="checkbox"/> | 1.000 |            | 18092095.29 |       | A   | 0.9 |
| 4 | <input type="checkbox"/> | 1.000 |            | 17513499.32 |       | A   | 2.1 |
| 5 | <input type="checkbox"/> | 1.000 |            | 16518528.23 |       | A   | 0.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 16358486.42 |       | A   | 1.8 |
| 7 | <input type="checkbox"/> | 1.000 |            | 16354122.67 |       | A   | 1.1 |
| 8 | <input type="checkbox"/> | 1.000 |            | 16550268.23 |       | A   | 0.6 |

**89 Y (ISTD) [He]**

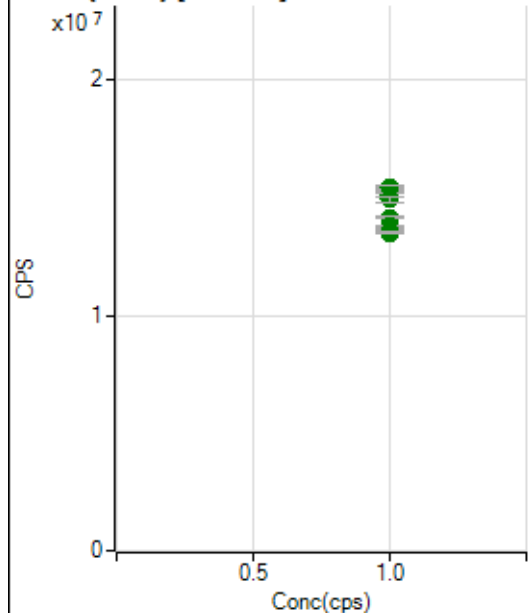
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det | RSD |
|---|--------------------------|-------|------------|------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 5240185.41 |       | A   | 0.7 |
| 2 | <input type="checkbox"/> | 1.000 |            | 5273783.81 |       | A   | 1.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 5152823.01 |       | A   | 0.9 |
| 4 | <input type="checkbox"/> | 1.000 |            | 4998834.37 |       | A   | 0.3 |
| 5 | <input type="checkbox"/> | 1.000 |            | 4840107.15 |       | A   | 0.2 |
| 6 | <input type="checkbox"/> | 1.000 |            | 4807497.78 |       | A   | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 4775676.32 |       | A   | 0.2 |
| 8 | <input type="checkbox"/> | 1.000 |            | 4965659.75 |       | A   | 0.7 |

**103 Rh (ISTD) [No Gas]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 14829367.14 |       | A   | 0.9 |
| 2 | <input type="checkbox"/> | 1.000 |            | 15010244.08 |       | A   | 1.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 14619049.51 |       | A   | 1.6 |
| 4 | <input type="checkbox"/> | 1.000 |            | 14189588.82 |       | A   | 2.2 |
| 5 | <input type="checkbox"/> | 1.000 |            | 13300776.61 |       | A   | 1.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 13014506.47 |       | A   | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 12715393.42 |       | A   | 0.6 |
| 8 | <input type="checkbox"/> | 1.000 |            | 12142777.32 |       | A   | 0.5 |

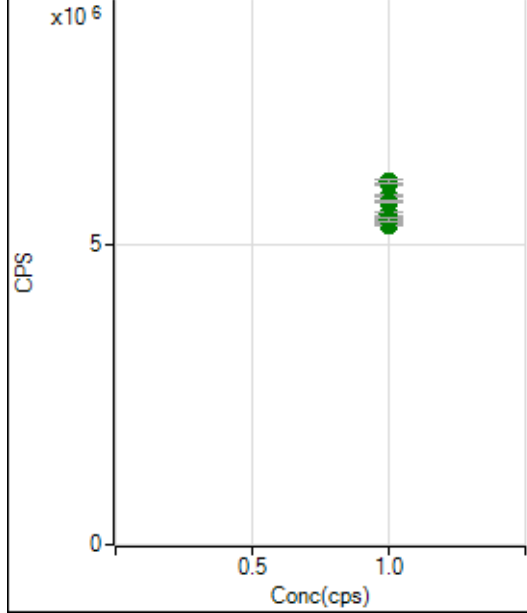
**103 Rh (ISTD) [He]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det | RSD |
|---|--------------------------|-------|------------|------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 9099749.17 |       | A   | 0.7 |
| 2 | <input type="checkbox"/> | 1.000 |            | 9191562.16 |       | A   | 0.3 |
| 3 | <input type="checkbox"/> | 1.000 |            | 8849077.99 |       | A   | 0.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 8653807.93 |       | A   | 0.6 |
| 5 | <input type="checkbox"/> | 1.000 |            | 8311323.70 |       | A   | 1.2 |
| 6 | <input type="checkbox"/> | 1.000 |            | 8244126.41 |       | A   | 0.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 8071507.03 |       | A   | 0.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 7774435.02 |       | A   | 0.4 |

**115 In (ISTD) [No Gas]**

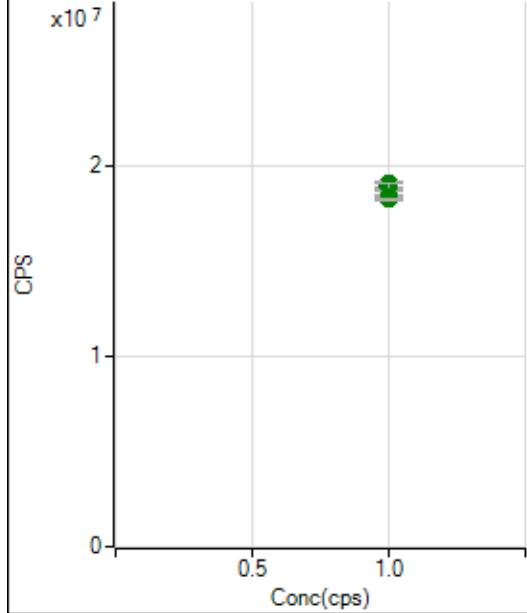
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 15407248.70 |       | A   | 0.3 |
| 2 | <input type="checkbox"/> | 1.000 |            | 15398929.67 |       | A   | 1.3 |
| 3 | <input type="checkbox"/> | 1.000 |            | 15127435.12 |       | A   | 1.3 |
| 4 | <input type="checkbox"/> | 1.000 |            | 14910645.78 |       | A   | 1.9 |
| 5 | <input type="checkbox"/> | 1.000 |            | 14165966.52 |       | A   | 0.9 |
| 6 | <input type="checkbox"/> | 1.000 |            | 13765992.79 |       | A   | 0.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 13551516.09 |       | A   | 1.0 |
| 8 | <input type="checkbox"/> | 1.000 |            | 13496385.14 |       | A   | 0.5 |

115 In (ISTD) [He]

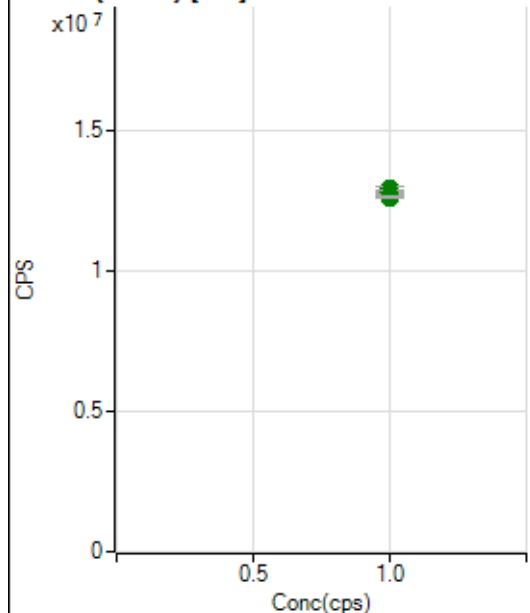


|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det | RSD |
|---|--------------------------|-------|------------|------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 6002530.89 |       | A   | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 6036327.63 |       | A   | 1.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 5805356.89 |       | A   | 0.6 |
| 4 | <input type="checkbox"/> | 1.000 |            | 5701175.46 |       | A   | 0.5 |
| 5 | <input type="checkbox"/> | 1.000 |            | 5503078.21 |       | A   | 1.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 5423025.40 |       | A   | 0.4 |
| 7 | <input type="checkbox"/> | 1.000 |            | 5317639.32 |       | A   | 0.6 |
| 8 | <input type="checkbox"/> | 1.000 |            | 5415549.26 |       | A   | 1.1 |

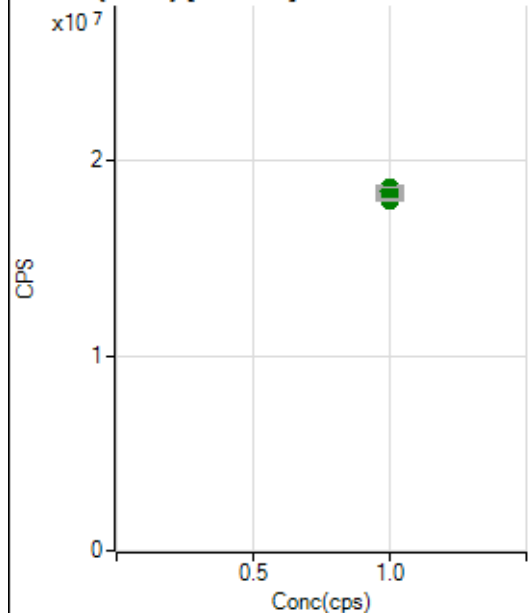
159 Tb (ISTD) [No Gas]



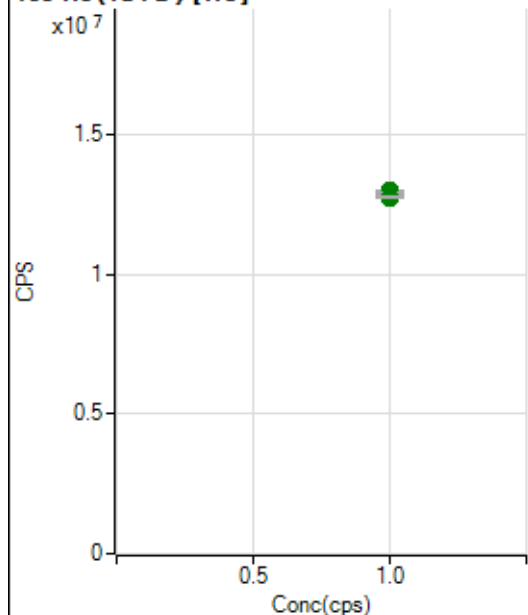
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 19022540.27 |       | A   | 0.9 |
| 2 | <input type="checkbox"/> | 1.000 |            | 19088134.72 |       | A   | 1.6 |
| 3 | <input type="checkbox"/> | 1.000 |            | 18948583.75 |       | A   | 1.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 18914491.38 |       | A   | 2.1 |
| 5 | <input type="checkbox"/> | 1.000 |            | 18356188.20 |       | A   | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 18455030.42 |       | A   | 0.9 |
| 7 | <input type="checkbox"/> | 1.000 |            | 18369557.51 |       | A   | 1.0 |
| 8 | <input type="checkbox"/> | 1.000 |            | 18264612.92 |       | A   | 0.6 |

**159 Tb (ISTD) [He]**

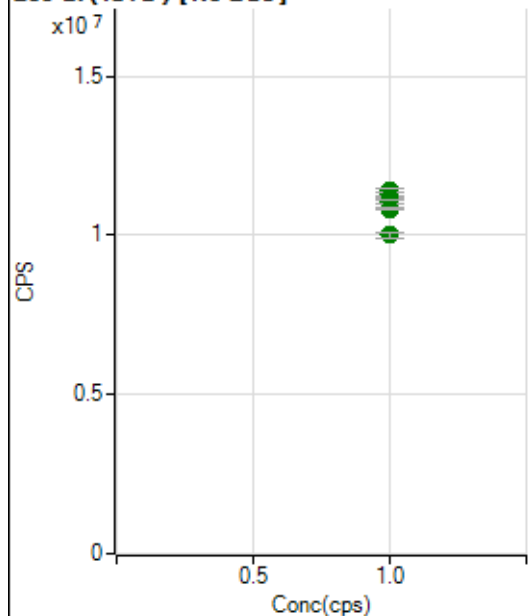
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 12945958.97 |       | A   | 1.0 |
| 2 | <input type="checkbox"/> | 1.000 |            | 12908598.97 |       | A   | 1.5 |
| 3 | <input type="checkbox"/> | 1.000 |            | 12821016.75 |       | A   | 1.1 |
| 4 | <input type="checkbox"/> | 1.000 |            | 12832571.06 |       | A   | 0.5 |
| 5 | <input type="checkbox"/> | 1.000 |            | 12772284.39 |       | A   | 0.2 |
| 6 | <input type="checkbox"/> | 1.000 |            | 12834655.23 |       | A   | 0.8 |
| 7 | <input type="checkbox"/> | 1.000 |            | 12706889.95 |       | A   | 0.5 |
| 8 | <input type="checkbox"/> | 1.000 |            | 12633866.48 |       | A   | 0.4 |

**165 Ho (ISTD) [No Gas]**

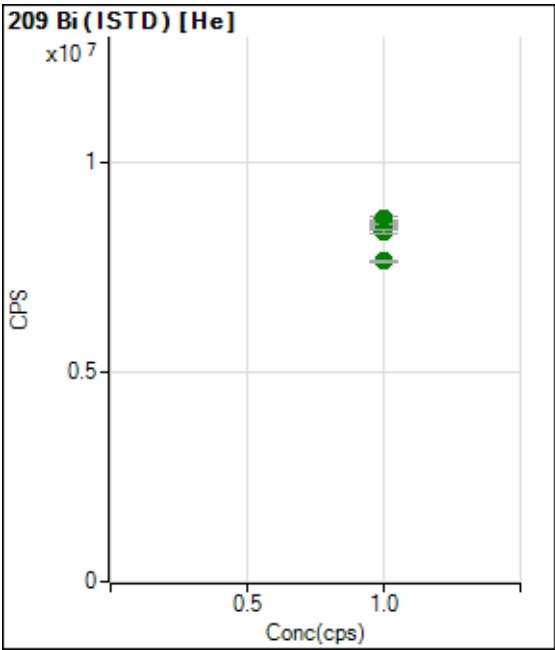
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 18379743.61 |       | A   | 0.2 |
| 2 | <input type="checkbox"/> | 1.000 |            | 18591298.33 |       | A   | 1.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 18399378.48 |       | A   | 1.2 |
| 4 | <input type="checkbox"/> | 1.000 |            | 18448294.17 |       | A   | 2.0 |
| 5 | <input type="checkbox"/> | 1.000 |            | 18019319.45 |       | A   | 0.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 18112670.98 |       | A   | 1.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 18109290.29 |       | A   | 0.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 17981326.95 |       | A   | 1.1 |

**165 Ho (ISTD) [He]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 12890667.17 |       | A   | 0.7 |
| 2 | <input type="checkbox"/> | 1.000 |            | 13004066.75 |       | A   | 0.8 |
| 3 | <input type="checkbox"/> | 1.000 |            | 12826609.11 |       | A   | 1.0 |
| 4 | <input type="checkbox"/> | 1.000 |            | 12917031.20 |       | A   | 1.4 |
| 5 | <input type="checkbox"/> | 1.000 |            | 12773957.31 |       | A   | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 12901634.81 |       | A   | 0.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 12929689.11 |       | A   | 0.8 |
| 8 | <input type="checkbox"/> | 1.000 |            | 12783577.73 |       | A   | 0.5 |

**209 Bi (ISTD) [No Gas]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-------------|-------|-----|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 11215108.03 |       | A   | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 11285653.58 |       | A   | 0.8 |
| 3 | <input type="checkbox"/> | 1.000 |            | 11208829.83 |       | A   | 0.8 |
| 4 | <input type="checkbox"/> | 1.000 |            | 11392003.03 |       | A   | 1.0 |
| 5 | <input type="checkbox"/> | 1.000 |            | 11164715.25 |       | A   | 0.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 11068452.75 |       | A   | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 10828878.87 |       | A   | 0.8 |
| 8 | <input type="checkbox"/> | 1.000 |            | 10002004.30 |       | A   | 2.1 |



|   | Rj<br>ct | Conc. | Calc Conc. | CPS        | Ratio | Det<br>. | RSD |
|---|----------|-------|------------|------------|-------|----------|-----|
| 1 |          | 1.000 |            | 8538213.14 |       | A        | 1.6 |
| 2 |          | 1.000 |            | 8662745.15 |       | A        | 1.1 |
| 3 |          | 1.000 |            | 8539142.65 |       | A        | 1.7 |
| 4 |          | 1.000 |            | 8611166.05 |       | A        | 0.1 |
| 5 |          | 1.000 |            | 8543825.36 |       | A        | 1.0 |
| 6 |          | 1.000 |            | 8535181.40 |       | A        | 0.3 |
| 7 |          | 1.000 |            | 8361817.51 |       | A        | 0.8 |
| 8 |          | 1.000 |            | 7652495.93 |       | A        | 0.5 |

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US EPA Tune Check Report

Reviewed By:Mohan  
On:12/11/2024 3:43:35  
AM  
Inst Id :P7  
LB :LB133721

Operator Name Jaswal

Acq/Data Batch D:\Agilent\ICPMH\1\DATA\IP7120324 MS.b

Acq. Date-Time 2024-12-03 12:30:55

Report Comment ---

Instrument Name G8403A JP14410463

[No Gas]

Sensitivity

| Mass | Conc. [ug/l] | Count  | CPS        | Resp (Required) [cps/ug/l] | Resp (Flag) | RSD%   | RSD% (Required) |
|------|--------------|--------|------------|----------------------------|-------------|--------|-----------------|
| 9    |              | 9785   | 97850.77   |                            |             | 0.375  | 5.000           |
| 24   |              | 85340  | 853395.43  |                            |             | 0.687  | 5.000           |
| 25   |              | 10401  | 104006.26  |                            |             | 0.255  | 5.000           |
| 26   |              | 11581  | 115814.04  |                            |             | 0.263  | 5.000           |
| 59   |              | 140436 | 1404358.17 |                            |             | 0.426  | 5.000           |
| 113  |              | 19379  | 193790.34  |                            |             | 0.528  | 5.000           |
| 115  |              | 232662 | 2326624.86 |                            |             | 0.633  | 5.000           |
| 206  |              | 49793  | 497933.32  |                            |             | 0.333  | 5.000           |
| 207  |              | 42746  | 427464.68  |                            |             | 0.209  | 5.000           |
| 208  |              | 104249 | 1042494.41 |                            |             | 0.857  | 5.000           |
| 220  |              | 0      | 2.10       |                            |             | 61.630 |                 |

| 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    | 9822        | 9818        | 9734        | 9785        | 9766        |
| 24   | 85551       | 85094       | 84441       | 85923       | 85690       |
| 25   | 10428       | 10357       | 10403       | 10401       | 10414       |
| 26   | 11541       | 11590       | 11592       | 11621       | 11563       |
| 59   | 140632      | 139643      | 140874      | 139986      | 141044      |
| 113  | 19489       | 19421       | 19409       | 19361       | 19215       |
| 115  | 234532      | 232553      | 231450      | 233720      | 231057      |
| 206  | 49828       | 49802       | 49942       | 49882       | 49513       |
| 207  | 42757       | 42597       | 42803       | 42825       | 42751       |
| 208  | 103221      | 103733      | 104415      | 105607      | 104271      |

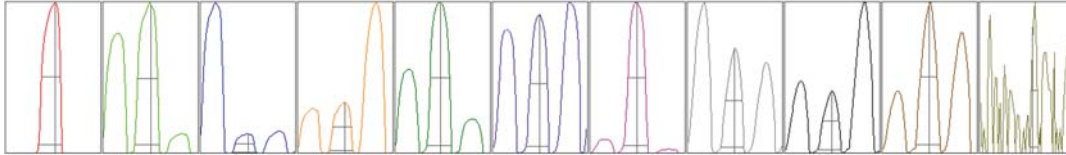
# US EPA Tune Check Report

Reviewed By: Mohan  
On: 12/11/2024 3:43:35 AM  
Inst Id : P7  
LB : LB133721

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

Integration Time [sec] 0.1

## Resolution/Axis



| Mass | Peak Height | Axis   | Axis (Required) | Axis (Flag) |
|------|-------------|--------|-----------------|-------------|
| 9    | 17312.01    | 9.10   | 8.90 - 9.10     |             |
| 24   | 140668.84   | 24.05  | 23.90 - 24.10   |             |
| 25   | 17551.11    | 25.05  | 24.90 - 25.10   |             |
| 26   | 20426.81    | 26.00  | 25.90 - 26.10   |             |
| 59   | 236950.10   | 58.95  | 58.90 - 59.10   |             |
| 113  | 36811.96    | 113.00 | 112.90 - 113.10 |             |
| 115  | 436700.41   | 115.00 | 114.90 - 115.10 |             |
| 206  | 98847.68    | 206.00 | 205.90 - 206.10 |             |
| 207  | 86053.09    | 207.00 | 206.90 - 207.10 |             |
| 208  | 206535.10   | 208.00 | 207.90 - 208.10 |             |
| 220  | 0.50        | 220.20 | -               |             |

| Mass | W-50% | W-5%  | W-5% (Required) | W-5% (Flag) |
|------|-------|-------|-----------------|-------------|
| 9    | 0.59  | 0.733 | 0.900           |             |
| 24   | 0.63  | 0.781 | 0.900           |             |
| 25   | 0.61  | 0.748 | 0.900           |             |
| 26   | 0.59  | 0.745 | 0.900           |             |
| 59   | 0.61  | 0.783 | 0.900           |             |
| 113  | 0.54  | 0.730 | 0.900           |             |
| 115  | 0.54  | 0.778 | 0.900           |             |
| 206  | 0.52  | 0.738 | 0.900           |             |
| 207  | 0.52  | 0.747 | 0.900           |             |
| 208  | 0.52  | 0.775 | 0.900           |             |
| 220  | 0.18  | 0.243 |                 |             |

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

## Tune Parameters

### Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.82 L/min Dilution Gas 0.40 L/min

# US EPA Tune Check Report

Reviewed By: Mohan  
On: 12/11/2024 3:43:35 AM  
Inst Id : P7  
LB : LB133721

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

## Lens Parameters

|            |          |               |       |            |        |
|------------|----------|---------------|-------|------------|--------|
| Extract 1  | 0.0 V    | Omega Lens    | 7.8 V | Deflect    | 16.2 V |
| Extract 2  | -130.0 V | Cell Entrance | -30 V | Plate Bias | -35 V  |
| Omega Bias | -60 V    | Cell Exit     | -50 V |            |        |

## Cell Parameters

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

## QP Parameters

|             |     |             |        |         |        |
|-------------|-----|-------------|--------|---------|--------|
| Mass Gain   | 136 | Axis Gain   | 0.9976 | QP Bias | -3.0 V |
| Mass Offset | 130 | Axis Offset | 0.12   |         |        |

## Hardware Settings

### Torch

|         |        |         |        |
|---------|--------|---------|--------|
| Torch H | 0.1 mm | Torch V | 0.4 mm |
|---------|--------|---------|--------|

### EM

|               |        |           |        |          |        |
|---------------|--------|-----------|--------|----------|--------|
| Discriminator | 4.8 mV | Analog HV | 2230 V | Pulse HV | 1000 V |
|---------------|--------|-----------|--------|----------|--------|

[He]

## Sensitivity

| Mass | Conc. [ug/l] | Count | CPS       | Resp (Required) [cps/ug/l] | Resp (Flag) | RSD%  | RSD% (Required) |
|------|--------------|-------|-----------|----------------------------|-------------|-------|-----------------|
| 59   |              | 49437 | 494366.05 |                            |             | 0.497 |                 |
| 89   |              | 56711 | 567109.93 |                            |             | 0.594 |                 |
| 205  |              | 50736 | 507356.40 |                            |             | 0.762 |                 |

| Mass | RSD% (Flag) |
|------|-------------|
| 59   |             |
| 89   |             |
| 205  |             |

| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 59   | 49816       | 49536       | 49349       | 49200       | 49281       |
| 89   | 57234       | 56722       | 56763       | 56369       | 56466       |
| 205  | 51279       | 50958       | 50593       | 50285       | 50564       |

Integration Time [sec] 0.1

## Tune Parameters

### Plasma Parameters

|              |        |                |            |               |            |
|--------------|--------|----------------|------------|---------------|------------|
| Plasma Mode  | ---    | Nebulizer Gas  | 0.82 L/min | Dilution Gas  | 0.40 L/min |
| RF Power     | 1600 W | Option Gas     | ---        | Auxiliary Gas | 0.90 L/min |
| RF Matching  | 1.80 V | Nebulizer Pump | 0.10 rps   | Plasma Gas    | 15.0 L/min |
| Sample Depth | 9.0 mm | S/C Temp       | 2 °C       |               |            |

### Lens Parameters

|           |       |            |       |         |       |
|-----------|-------|------------|-------|---------|-------|
| Extract 1 | 0.0 V | Omega Lens | 8.2 V | Deflect | 3.8 V |
|-----------|-------|------------|-------|---------|-------|

# US EPA Tune Check Report

Reviewed By:Mohan  
On:12/11/2024 3:43:35  
AM  
Inst Id :P7  
LB :LB133721

|            |          |               |       |            |       |
|------------|----------|---------------|-------|------------|-------|
| Extract 2  | -130.0 V | Cell Entrance | -40 V | Plate Bias | -60 V |
| Omega Bias | -70 V    | Cell Exit     | -60 V |            |       |

Cell Parameters

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

QP Parameters

|             |     |             |        |         |         |
|-------------|-----|-------------|--------|---------|---------|
| Mass Gain   | 136 | Axis Gain   | 0.9976 | QP Bias | -13.0 V |
| Mass Offset | 130 | Axis Offset | 0.12   |         |         |

Hardware Settings

Torch

|         |        |         |        |
|---------|--------|---------|--------|
| Torch H | 0.1 mm | Torch V | 0.4 mm |
|---------|--------|---------|--------|

EM

|               |        |           |        |          |        |
|---------------|--------|-----------|--------|----------|--------|
| Discriminator | 4.8 mV | Analog HV | 2230 V | Pulse HV | 1000 V |
|---------------|--------|-----------|--------|----------|--------|

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:12:15 DataFile Name : 004CALB.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.02    | 0.06    | -0.08   | 0.00       | N/A     | ppb   |
| Antimony   | 121-1 | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Arsenic    | 75-2  | -0.01   | -0.01   | 0.02    | 0.00       | N/A     | ppb   |
| Barium     | 135-1 | 0.01    | 0.00    | -0.01   | 0.00       | N/A     | ppb   |
| Barium     | 137-1 | 0.01    | 0.00    | -0.01   | 0.00       | N/A     | ppb   |
| Beryllium  | 9-1   | -0.01   | 0.02    | 0.00    | 0.00       | N/A     | ppb   |
| Bismuth    | 209-1 |         |         |         | 100        |         | %     |
| Bismuth    | 209-2 |         |         |         | 100        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.03    | 0.01    | -0.04   | 0.00       | N/A     | ppb   |
| Cadmium    | 106-1 | 0.43    | 0.15    | -0.58   | 0.00       | N/A     | ppb   |
| Cadmium    | 111-1 | 0.01    | 0.00    | -0.01   | 0.00       | N/A     | ppb   |
| Calcium    | 43-1  | 0.23    | -0.50   | 0.27    | 0.00       | N/A     | ppb   |
| Calcium    | 44-1  | 1.18    | -0.51   | -0.67   | 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    | -0.01   | 0.00    | 0.00       | N/A     | ppb   |
| Cobalt     | 59-2  | -0.01   | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Copper     | 63-2  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 100        |         | %     |
| Holmium    | 165-2 |         |         |         | 100        |         | %     |
| Indium     | 115-1 |         |         |         | 100        |         | %     |
| Indium     | 115-2 |         |         |         | 100        |         | %     |
| Iron       | 56-2  | 0.05    | 0.00    | -0.06   | 0.00       | N/A     | ppb   |
| Iron       | 57-2  | -0.02   | 0.61    | -0.59   | 0.00       | N/A     | ppb   |
| Iron       | 54-2  | 0.17    | -0.08   | -0.09   | 0.00       | N/A     | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:12:15 DataFile Name : 004CALB.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Lead       | 207-1 | 0.00    | 0.00    | 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  | -0.07   | -0.02   | 0.09    | 0.00       | N/A     | ppb   |
| Manganese  | 55-2  | 0.00    | 0.01    | -0.01   | 0.00       | N/A     | ppb   |
| Molybdenum | 94-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Molybdenum | 95-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Molybdenum | 96-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Molybdenum | 97-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Molybdenum | 98-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.01   | 0.03    | -0.02   | 0.00       | N/A     | ppb   |
| Phosphorus | 31-2  | -17.89  | -16.77  | -15.04  | -16.56     |         | ppb   |
| Potassium  | 39-2  | 0.89    | -1.34   | 0.45    | 0.00       | N/A     | ppb   |
| Rhodium    | 103-1 |         |         |         | 100        |         | %     |
| Rhodium    | 103-2 |         |         |         | 100        |         | %     |
| Scandium   | 45-1  |         |         |         | 100        |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 0.18    | 0.04    | -0.21   | 0.00       | N/A     | ppb   |
| Selenium   | 77-2  | 0.07    | -0.03   | -0.03   | 0.00       | N/A     | ppb   |
| Selenium   | 78-2  | 0.13    | 0.10    | -0.23   | 0.00       | N/A     | ppb   |
| Silicon    | 28-1  | -0.17   | 0.07    | 0.10    | 0.00       | N/A     | ppb   |
| Silver     | 107-1 | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Silver     | 109-1 | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Sodium     | 23-2  | -0.05   | 0.26    | -0.21   | 0.00       | N/A     | ppb   |
| Strontium  | 86-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Strontium  | 88-1  | 0.00    | 0.00    | 0.00    | 0.00       | N/A     | ppb   |
| Sulfur     | 34-1  | -56.07  | -11.83  | 25.99   | -13.97     |         | 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 | 0.02    | -0.01   | -0.01   | 0.00       | N/A     | ppb   |
| Titanium   | 47-1  | 0.01    | 0.00    | -0.01   | 0.00       | N/A     | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

S0

Instrumnet Name :

P7

Client Sample ID :

S0

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:12:15

DataFile Name :

004CALB.d

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

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S2 Instrumnet Name : P7  
Client Sample ID : S2 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:15:31 DataFile Name : 005CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 18.45   | 19.51   | 19.55   | 19.17      | 3.26    | ppb   |
| Antimony   | 121-1 | 2.08    | 2.13    | 2.14    | 2.11       | 1.57    | ppb   |
| Arsenic    | 75-2  | 1.16    | 1.10    | 0.98    | 1.08       | 8.35    | ppb   |
| Barium     | 135-1 | 9.95    | 10.34   | 10.46   | 10.25      | 2.61    | ppb   |
| Barium     | 137-1 | 9.99    | 10.35   | 10.40   | 10.24      | 2.19    | ppb   |
| Beryllium  | 9-1   | 1.07    | 1.05    | 1.02    | 1.04       | 2.16    | ppb   |
| Bismuth    | 209-1 |         |         |         | 101        |         | %     |
| Bismuth    | 209-2 |         |         |         | 101        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.74    | 0.96    | 0.88    | 0.86       | 12.64   | ppb   |
| Cadmium    | 106-1 | 1.30    | 1.26    | 1.39    | 1.32       | 4.79    | ppb   |
| Cadmium    | 111-1 | 1.18    | 1.13    | 1.21    | 1.17       | 3.72    | ppb   |
| Calcium    | 43-1  | 512.79  | 535.73  | 525.64  | 524.72     | 2.19    | ppb   |
| Calcium    | 44-1  | 515.35  | 526.55  | 528.47  | 523.45     | 1.35    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 2.17    | 2.10    | 2.09    | 2.12       | 2.02    | ppb   |
| Cobalt     | 59-2  | 1.10    | 1.07    | 1.09    | 1.09       | 1.38    | ppb   |
| Copper     | 63-2  | 2.01    | 1.98    | 2.03    | 2.01       | 1.34    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 101        |         | %     |
| Holmium    | 165-2 |         |         |         | 101        |         | %     |
| Indium     | 115-1 |         |         |         | 100        |         | %     |
| Indium     | 115-2 |         |         |         | 101        |         | %     |
| Iron       | 56-2  | 55.86   | 55.64   | 56.21   | 55.90      | 0.51    | ppb   |
| Iron       | 57-2  | 58.23   | 58.38   | 58.86   | 58.49      | 0.56    | ppb   |
| Iron       | 54-2  | 56.95   | 58.04   | 54.93   | 56.64      | 2.79    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S2 Instrumnet Name : P7  
Client Sample ID : S2 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:15:31 DataFile Name : 005CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.96    | 0.96    | 0.98    | 0.97       | 1.36    | ppb   |
| Lead       | 207-1 | 0.96    | 0.97    | 0.97    | 0.97       | 0.95    | ppb   |
| Lead       | 208-1 | 0.96    | 0.97    | 0.98    | 0.97       | 1.07    | ppb   |
| Lithium    | 6-1   |         |         |         | 100        |         | %     |
| Magnesium  | 24-2  | 502.03  | 492.48  | 504.92  | 499.81     | 1.30    | ppb   |
| Manganese  | 55-2  | 1.05    | 1.02    | 1.04    | 1.04       | 1.35    | ppb   |
| Molybdenum | 94-1  | 5.62    | 5.81    | 5.80    | 5.75       | 1.84    | ppb   |
| Molybdenum | 95-1  | 4.70    | 4.90    | 4.96    | 4.85       | 2.73    | ppb   |
| Molybdenum | 96-1  | 4.84    | 4.93    | 5.09    | 4.95       | 2.60    | ppb   |
| Molybdenum | 97-1  | 4.73    | 4.87    | 4.95    | 4.85       | 2.34    | ppb   |
| Molybdenum | 98-1  | 4.82    | 4.96    | 4.98    | 4.92       | 1.67    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 1.05    | 1.04    | 1.09    | 1.06       | 2.08    | ppb   |
| Phosphorus | 31-2  | 16.38   | 17.53   | 15.79   | 16.56      | 5.35    | ppb   |
| Potassium  | 39-2  | 534.89  | 531.00  | 531.93  | 532.61     | 0.38    | ppb   |
| Rhodium    | 103-1 |         |         |         | 101        |         | %     |
| Rhodium    | 103-2 |         |         |         | 101        |         | %     |
| Scandium   | 45-1  |         |         |         | 100        |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 5.46    | 5.24    | 5.13    | 5.28       | 3.26    | ppb   |
| Selenium   | 77-2  | 5.46    | 6.56    | 4.00    | 5.34       | 24.05   | ppb   |
| Selenium   | 78-2  | 5.21    | 4.78    | 4.83    | 4.94       | 4.75    | ppb   |
| Silicon    | 28-1  | 7.23    | 7.52    | 1.02    | 5.26       | 69.79   | ppb   |
| Silver     | 107-1 | 1.04    | 1.07    | 1.08    | 1.06       | 1.94    | ppb   |
| Silver     | 109-1 | 1.00    | 1.06    | 1.08    | 1.05       | 4.07    | ppb   |
| Sodium     | 23-2  | 487.95  | 485.12  | 489.78  | 487.61     | 0.48    | ppb   |
| Strontium  | 86-1  | 1.00    | 1.05    | 1.01    | 1.02       | 2.58    | ppb   |
| Strontium  | 88-1  | 0.98    | 0.99    | 1.02    | 0.99       | 2.08    | ppb   |
| Sulfur     | 34-1  | -24.84  | 53.38   | 13.36   | 13.97      | 280.04  | ppb   |
| Terbium    | 159-1 |         |         |         | 100        |         | %     |
| Terbium    | 159-2 |         |         |         | 100        |         | %     |
| Thallium   | 203-1 | 0.95    | 0.98    | 0.99    | 0.97       | 1.79    | ppb   |
| Thallium   | 205-1 | 0.96    | 0.95    | 0.97    | 0.96       | 0.98    | ppb   |
| Tin        | 118-1 | 5.24    | 5.48    | 5.39    | 5.37       | 2.28    | ppb   |
| Titanium   | 47-1  | 5.11    | 5.11    | 4.97    | 5.06       | 1.58    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

S2

Instrumnet Name :

P7

Client Sample ID :

S2

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:15:31

DataFile Name :

005CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.87    | 0.92    | 0.91    | 0.90       | 2.59    | ppb   |
| Vanadium  | 51-2  | 5.07    | 5.13    | 5.12    | 5.11       | 0.71    | ppb   |
| Yttrium   | 89-1  |         |         |         | 101        |         | %     |
| Yttrium   | 89-2  |         |         |         | 101        |         | %     |
| Zinc      | 66-2  | 4.87    | 4.95    | 5.10    | 4.97       | 2.37    | ppb   |
| Zirconium | 90-1  | 0.94    | 0.98    | 0.98    | 0.97       | 2.22    | ppb   |
| Zirconium | 91-1  | 0.95    | 0.98    | 0.98    | 0.97       | 1.85    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S3 Instrumnet Name : P7  
Client Sample ID : S3 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:18:47 DataFile Name : 006CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 1022.77 | 1044.45 | 1035.02 | 1034.08    | 1.05    | ppb   |
| Antimony   | 121-1 | 52.51   | 54.12   | 54.25   | 53.63      | 1.81    | ppb   |
| Arsenic    | 75-2  | 51.41   | 52.58   | 51.71   | 51.90      | 1.17    | ppb   |
| Barium     | 135-1 | 258.69  | 264.75  | 266.76  | 263.40     | 1.59    | ppb   |
| Barium     | 137-1 | 258.19  | 265.47  | 268.50  | 264.05     | 2.01    | ppb   |
| Beryllium  | 9-1   | 49.31   | 50.50   | 50.99   | 50.27      | 1.72    | ppb   |
| Bismuth    | 209-1 |         |         |         | 100        |         | %     |
| Bismuth    | 209-2 |         |         |         | 100        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 54.28   | 56.36   | 56.59   | 55.74      | 2.28    | ppb   |
| Cadmium    | 106-1 | 54.63   | 54.58   | 55.48   | 54.90      | 0.92    | ppb   |
| Cadmium    | 111-1 | 54.95   | 56.43   | 56.66   | 56.01      | 1.65    | ppb   |
| Calcium    | 43-1  | 5392.69 | 5532.26 | 5539.88 | 5488.28    | 1.51    | ppb   |
| Calcium    | 44-1  | 5090.09 | 5155.39 | 5187.43 | 5144.30    | 0.96    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 51.71   | 52.27   | 52.27   | 52.09      | 0.62    | ppb   |
| Cobalt     | 59-2  | 52.72   | 53.27   | 52.90   | 52.96      | 0.52    | ppb   |
| Copper     | 63-2  | 528.84  | 528.14  | 528.44  | 528.47     | 0.07    | 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 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 97         |         | %     |
| Iron       | 56-2  | 2717.52 | 2725.74 | 2732.74 | 2725.33    | 0.28    | ppb   |
| Iron       | 57-2  | 2785.90 | 2844.56 | 2817.03 | 2815.83    | 1.04    | ppb   |
| Iron       | 54-2  | 2876.93 | 2907.39 | 2898.54 | 2894.29    | 0.54    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S3 Instrumnet Name : P7  
Client Sample ID : S3 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:18:47 DataFile Name : 006CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 250.61  | 254.47  | 249.53  | 251.54     | 1.03    | ppb   |
| Lead       | 207-1 | 250.89  | 255.04  | 253.51  | 253.14     | 0.83    | ppb   |
| Lead       | 208-1 | 249.57  | 252.50  | 251.37  | 251.14     | 0.59    | ppb   |
| Lithium    | 6-1   |         |         |         | 101        |         | %     |
| Magnesium  | 24-2  | 5243.89 | 5249.13 | 5309.22 | 5267.41    | 0.69    | ppb   |
| Manganese  | 55-2  | 517.45  | 521.01  | 521.06  | 519.84     | 0.40    | ppb   |
| Molybdenum | 94-1  | 502.66  | 507.50  | 504.05  | 504.73     | 0.49    | ppb   |
| Molybdenum | 95-1  | 499.34  | 510.41  | 499.93  | 503.23     | 1.24    | ppb   |
| Molybdenum | 96-1  | 498.24  | 503.76  | 503.37  | 501.79     | 0.61    | ppb   |
| Molybdenum | 97-1  | 503.38  | 515.39  | 499.92  | 506.23     | 1.60    | ppb   |
| Molybdenum | 98-1  | 494.74  | 506.62  | 499.52  | 500.30     | 1.19    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 52.96   | 53.76   | 53.74   | 53.49      | 0.85    | ppb   |
| Phosphorus | 31-2  | 1015.55 | 1028.39 | 1066.83 | 1036.92    | 2.57    | ppb   |
| Potassium  | 39-2  | 2651.38 | 2685.63 | 2643.39 | 2660.13    | 0.84    | ppb   |
| Rhodium    | 103-1 |         |         |         | 99         |         | %     |
| Rhodium    | 103-2 |         |         |         | 97         |         | %     |
| Scandium   | 45-1  |         |         |         | 99         |         | %     |
| Scandium   | 45-2  |         |         |         | 98         |         | %     |
| Selenium   | 82-1  | 52.40   | 52.89   | 52.59   | 52.63      | 0.47    | ppb   |
| Selenium   | 77-2  | 50.71   | 53.33   | 52.92   | 52.32      | 2.69    | ppb   |
| Selenium   | 78-2  | 51.12   | 53.07   | 52.33   | 52.18      | 1.89    | ppb   |
| Silicon    | 28-1  | 57.09   | 58.37   | 58.43   | 57.96      | 1.31    | ppb   |
| Silver     | 107-1 | 55.90   | 57.09   | 57.47   | 56.82      | 1.45    | ppb   |
| Silver     | 109-1 | 55.42   | 56.90   | 57.52   | 56.61      | 1.91    | ppb   |
| Sodium     | 23-2  | 5248.62 | 5275.31 | 5357.14 | 5293.69    | 1.07    | ppb   |
| Strontium  | 86-1  | 50.26   | 51.06   | 50.56   | 50.63      | 0.80    | ppb   |
| Strontium  | 88-1  | 50.68   | 50.94   | 50.74   | 50.79      | 0.27    | ppb   |
| Sulfur     | 34-1  | 821.55  | 894.69  | 919.08  | 878.44     | 5.78    | ppb   |
| Terbium    | 159-1 |         |         |         | 100        |         | %     |
| Terbium    | 159-2 |         |         |         | 99         |         | %     |
| Thallium   | 203-1 | 49.64   | 51.01   | 50.23   | 50.30      | 1.37    | ppb   |
| Thallium   | 205-1 | 49.22   | 50.14   | 49.32   | 49.56      | 1.01    | ppb   |
| Tin        | 118-1 | 53.26   | 54.91   | 54.96   | 54.38      | 1.77    | ppb   |
| Titanium   | 47-1  | 497.03  | 507.42  | 512.93  | 505.79     | 1.60    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S3Instrumnet Name :P7

Client Sample ID :S3Dilution Factor :1

Date & Time Acquired :2024-12-03 13:18:47DataFile Name :006CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 47.60   | 48.51   | 48.27   | 48.12      | 0.98    | ppb   |
| Vanadium  | 51-2  | 50.85   | 51.34   | 51.68   | 51.29      | 0.82    | ppb   |
| Yttrium   | 89-1  |         |         |         | 99         |         | %     |
| Yttrium   | 89-2  |         |         |         | 98         |         | %     |
| Zinc      | 66-2  | 534.83  | 540.80  | 540.53  | 538.72     | 0.63    | ppb   |
| Zirconium | 90-1  | 50.03   | 50.93   | 50.70   | 50.55      | 0.93    | ppb   |
| Zirconium | 91-1  | 50.20   | 51.37   | 50.53   | 50.70      | 1.19    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S4 Instrumnet Name : P7  
Client Sample ID : S4 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:21:42 DataFile Name : 007CALS.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 2571.89  | 2499.61  | 2491.01  | 2520.84    | 1.76    | ppb   |
| Antimony   | 121-1 | 124.25   | 130.01   | 129.57   | 127.94     | 2.50    | ppb   |
| Arsenic    | 75-2  | 126.65   | 125.80   | 125.01   | 125.82     | 0.65    | ppb   |
| Barium     | 135-1 | 617.43   | 648.24   | 639.50   | 635.06     | 2.50    | ppb   |
| Barium     | 137-1 | 608.56   | 643.56   | 639.44   | 630.52     | 3.03    | ppb   |
| Beryllium  | 9-1   | 116.65   | 124.43   | 123.40   | 121.49     | 3.48    | ppb   |
| Bismuth    | 209-1 |          |          |          | 102        |         | %     |
| Bismuth    | 209-2 |          |          |          | 101        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 127.33   | 135.54   | 132.12   | 131.66     | 3.13    | ppb   |
| Cadmium    | 106-1 | 124.60   | 132.87   | 130.71   | 129.39     | 3.31    | ppb   |
| Cadmium    | 111-1 | 126.95   | 134.96   | 134.75   | 132.22     | 3.45    | ppb   |
| Calcium    | 43-1  | 12700.30 | 13295.34 | 13399.68 | 13131.77   | 2.87    | ppb   |
| Calcium    | 44-1  | 11996.51 | 12546.64 | 12740.07 | 12427.74   | 3.10    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 128.26   | 127.97   | 127.44   | 127.89     | 0.33    | ppb   |
| Cobalt     | 59-2  | 130.60   | 128.09   | 127.04   | 128.58     | 1.42    | ppb   |
| Copper     | 63-2  | 1320.39  | 1305.57  | 1270.00  | 1298.65    | 1.99    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 100        |         | %     |
| Holmium    | 165-2 |          |          |          | 100        |         | %     |
| Indium     | 115-1 |          |          |          | 97         |         | %     |
| Indium     | 115-2 |          |          |          | 95         |         | %     |
| Iron       | 56-2  | 6686.86  | 6743.40  | 6694.12  | 6708.13    | 0.46    | ppb   |
| Iron       | 57-2  | 6960.77  | 7019.43  | 6912.76  | 6964.32    | 0.77    | ppb   |
| Iron       | 54-2  | 6802.87  | 6932.31  | 6807.49  | 6847.56    | 1.07    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S4 Instrumnet Name : P7  
Client Sample ID : S4 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:21:42 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 591.46   | 611.41   | 609.31   | 604.06     | 1.81    | ppb   |
| Lead       | 207-1 | 595.81   | 619.26   | 613.14   | 609.40     | 2.00    | ppb   |
| Lead       | 208-1 | 589.93   | 612.46   | 610.69   | 604.36     | 2.07    | ppb   |
| Lithium    | 6-1   |          |          |          | 99         |         | %     |
| Magnesium  | 24-2  | 13011.15 | 12842.75 | 12871.67 | 12908.52   | 0.70    | ppb   |
| Manganese  | 55-2  | 1278.45  | 1277.57  | 1263.64  | 1273.22    | 0.65    | ppb   |
| Molybdenum | 94-1  | 1181.43  | 1227.34  | 1236.49  | 1215.09    | 2.43    | ppb   |
| Molybdenum | 95-1  | 1174.53  | 1229.28  | 1240.85  | 1214.88    | 2.92    | ppb   |
| Molybdenum | 96-1  | 1177.92  | 1225.99  | 1238.53  | 1214.15    | 2.63    | ppb   |
| Molybdenum | 97-1  | 1179.83  | 1230.17  | 1234.98  | 1214.99    | 2.51    | ppb   |
| Molybdenum | 98-1  | 1178.82  | 1234.76  | 1245.95  | 1219.84    | 2.95    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 131.16   | 129.61   | 128.81   | 129.86     | 0.92    | ppb   |
| Phosphorus | 31-2  | 2503.50  | 2476.32  | 2513.86  | 2497.89    | 0.78    | ppb   |
| Potassium  | 39-2  | 6377.14  | 6288.04  | 6364.43  | 6343.21    | 0.76    | ppb   |
| Rhodium    | 103-1 |          |          |          | 96         |         | %     |
| Rhodium    | 103-2 |          |          |          | 95         |         | %     |
| Scandium   | 45-1  |          |          |          | 95         |         | %     |
| Scandium   | 45-2  |          |          |          | 94         |         | %     |
| Selenium   | 82-1  | 122.34   | 129.69   | 128.86   | 126.96     | 3.17    | ppb   |
| Selenium   | 77-2  | 129.44   | 123.56   | 126.89   | 126.63     | 2.33    | ppb   |
| Selenium   | 78-2  | 130.26   | 124.73   | 127.25   | 127.41     | 2.18    | ppb   |
| Silicon    | 28-1  | 124.86   | 131.01   | 135.07   | 130.31     | 3.94    | ppb   |
| Silver     | 107-1 | 128.32   | 136.35   | 134.12   | 132.93     | 3.12    | ppb   |
| Silver     | 109-1 | 126.62   | 134.46   | 133.41   | 131.50     | 3.24    | ppb   |
| Sodium     | 23-2  | 13093.95 | 12944.43 | 12740.85 | 12926.41   | 1.37    | ppb   |
| Strontium  | 86-1  | 119.56   | 124.55   | 124.59   | 122.90     | 2.35    | ppb   |
| Strontium  | 88-1  | 118.31   | 122.97   | 123.65   | 121.64     | 2.39    | ppb   |
| Sulfur     | 34-1  | 2045.43  | 2218.83  | 2256.73  | 2173.66    | 5.18    | ppb   |
| Terbium    | 159-1 |          |          |          | 99         |         | %     |
| Terbium    | 159-2 |          |          |          | 99         |         | %     |
| Thallium   | 203-1 | 117.73   | 122.53   | 123.26   | 121.18     | 2.48    | ppb   |
| Thallium   | 205-1 | 117.55   | 121.50   | 122.48   | 120.51     | 2.17    | ppb   |
| Tin        | 118-1 | 123.16   | 129.52   | 131.43   | 128.04     | 3.38    | ppb   |
| Titanium   | 47-1  | 1179.94  | 1242.13  | 1252.42  | 1224.83    | 3.20    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S4Instrumnet Name :P7

Client Sample ID :S4Dilution Factor :1

Date & Time Acquired :2024-12-03 13:21:42DataFile Name :007CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 114.28  | 117.66  | 116.97  | 116.30     | 1.54    | ppb   |
| Vanadium  | 51-2  | 125.17  | 124.50  | 124.40  | 124.69     | 0.33    | ppb   |
| Yttrium   | 89-1  |         |         |         | 96         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 1319.86 | 1306.44 | 1279.34 | 1301.88    | 1.59    | ppb   |
| Zirconium | 90-1  | 117.72  | 122.54  | 125.23  | 121.83     | 3.12    | ppb   |
| Zirconium | 91-1  | 119.00  | 124.58  | 125.75  | 123.11     | 2.93    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S5 Instrumnet Name : P7  
Client Sample ID : S5 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:24:30 DataFile Name : 008CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 5035.41  | 5189.02  | 5147.61  | 5124.01    | 1.55    | ppb   |
| Antimony   | 121-1 | 251.61   | 249.50   | 253.40   | 251.50     | 0.78    | ppb   |
| Arsenic    | 75-2  | 248.99   | 247.41   | 245.32   | 247.24     | 0.74    | ppb   |
| Barium     | 135-1 | 1237.82  | 1247.51  | 1257.37  | 1247.57    | 0.78    | ppb   |
| Barium     | 137-1 | 1256.66  | 1257.73  | 1246.39  | 1253.59    | 0.50    | ppb   |
| Beryllium  | 9-1   | 245.51   | 251.90   | 245.63   | 247.68     | 1.48    | ppb   |
| Bismuth    | 209-1 |          |          |          | 100        |         | %     |
| Bismuth    | 209-2 |          |          |          | 100        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 257.81   | 255.71   | 259.18   | 257.57     | 0.68    | ppb   |
| Cadmium    | 106-1 | 255.77   | 258.99   | 258.76   | 257.84     | 0.70    | ppb   |
| Cadmium    | 111-1 | 259.91   | 258.72   | 261.22   | 259.95     | 0.48    | ppb   |
| Calcium    | 43-1  | 26511.59 | 26511.02 | 26638.92 | 26553.84   | 0.28    | ppb   |
| Calcium    | 44-1  | 25210.99 | 25013.37 | 24784.41 | 25002.92   | 0.85    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 254.27   | 251.95   | 250.30   | 252.17     | 0.79    | ppb   |
| Cobalt     | 59-2  | 254.09   | 252.49   | 257.07   | 254.55     | 0.91    | ppb   |
| Copper     | 63-2  | 2538.02  | 2555.77  | 2536.96  | 2543.58    | 0.42    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 98         |         | %     |
| Holmium    | 165-2 |          |          |          | 99         |         | %     |
| Indium     | 115-1 |          |          |          | 92         |         | %     |
| Indium     | 115-2 |          |          |          | 92         |         | %     |
| Iron       | 56-2  | 13121.45 | 13288.00 | 13034.45 | 13147.97   | 0.98    | ppb   |
| Iron       | 57-2  | 13014.44 | 13179.76 | 13287.56 | 13160.59   | 1.05    | ppb   |
| Iron       | 54-2  | 13326.99 | 13594.52 | 13147.44 | 13356.32   | 1.68    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S5 Instrumnet Name : P7  
Client Sample ID : S5 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:24:30 DataFile Name : 008CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 1228.37  | 1214.74  | 1218.00  | 1220.37    | 0.58    | ppb   |
| Lead       | 207-1 | 1227.71  | 1221.20  | 1214.11  | 1221.01    | 0.56    | ppb   |
| Lead       | 208-1 | 1220.80  | 1216.37  | 1215.73  | 1217.63    | 0.23    | ppb   |
| Lithium    | 6-1   |          |          |          | 98         |         | %     |
| Magnesium  | 24-2  | 25972.48 | 26105.05 | 26049.51 | 26042.35   | 0.26    | ppb   |
| Manganese  | 55-2  | 2501.99  | 2529.21  | 2472.30  | 2501.17    | 1.14    | ppb   |
| Molybdenum | 94-1  | 2454.10  | 2501.07  | 2463.90  | 2473.02    | 1.00    | ppb   |
| Molybdenum | 95-1  | 2491.10  | 2499.34  | 2454.31  | 2481.58    | 0.97    | ppb   |
| Molybdenum | 96-1  | 2471.24  | 2495.35  | 2466.72  | 2477.77    | 0.62    | ppb   |
| Molybdenum | 97-1  | 2474.44  | 2489.94  | 2449.94  | 2471.44    | 0.82    | ppb   |
| Molybdenum | 98-1  | 2478.37  | 2500.09  | 2446.93  | 2475.13    | 1.08    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 253.43   | 255.83   | 253.41   | 254.22     | 0.55    | ppb   |
| Phosphorus | 31-2  | 5003.76  | 5022.95  | 5043.54  | 5023.42    | 0.40    | ppb   |
| Potassium  | 39-2  | 12930.14 | 12876.86 | 12665.40 | 12824.13   | 1.09    | ppb   |
| Rhodium    | 103-1 |          |          |          | 90         |         | %     |
| Rhodium    | 103-2 |          |          |          | 91         |         | %     |
| Scandium   | 45-1  |          |          |          | 89         |         | %     |
| Scandium   | 45-2  |          |          |          | 91         |         | %     |
| Selenium   | 82-1  | 257.42   | 255.85   | 254.46   | 255.91     | 0.58    | ppb   |
| Selenium   | 77-2  | 254.38   | 248.69   | 250.71   | 251.26     | 1.15    | ppb   |
| Selenium   | 78-2  | 254.51   | 248.66   | 244.71   | 249.29     | 1.98    | ppb   |
| Silicon    | 28-1  | 261.36   | 259.97   | 264.83   | 262.05     | 0.95    | ppb   |
| Silver     | 107-1 | 258.53   | 253.70   | 257.42   | 256.55     | 0.99    | ppb   |
| Silver     | 109-1 | 255.69   | 256.58   | 257.65   | 256.64     | 0.38    | ppb   |
| Sodium     | 23-2  | 25973.13 | 26264.65 | 26346.30 | 26194.69   | 0.75    | ppb   |
| Strontium  | 86-1  | 248.40   | 248.98   | 247.08   | 248.15     | 0.39    | ppb   |
| Strontium  | 88-1  | 244.69   | 246.47   | 246.50   | 245.89     | 0.42    | ppb   |
| Sulfur     | 34-1  | 4598.54  | 4615.24  | 4588.25  | 4600.68    | 0.30    | ppb   |
| Terbium    | 159-1 |          |          |          | 96         |         | %     |
| Terbium    | 159-2 |          |          |          | 99         |         | %     |
| Thallium   | 203-1 | 241.87   | 242.72   | 245.42   | 243.34     | 0.76    | ppb   |
| Thallium   | 205-1 | 241.89   | 240.13   | 242.16   | 241.39     | 0.46    | ppb   |
| Tin        | 118-1 | 252.86   | 250.53   | 255.94   | 253.11     | 1.07    | ppb   |
| Titanium   | 47-1  | 2451.32  | 2458.88  | 2490.40  | 2466.87    | 0.84    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S5Instrumnet Name :P7

Client Sample ID :S5Dilution Factor :1

Date & Time Acquired :2024-12-03 13:24:30DataFile Name :008CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 237.97  | 237.91  | 238.39  | 238.09     | 0.11    | ppb   |
| Vanadium  | 51-2  | 244.77  | 246.34  | 246.27  | 245.79     | 0.36    | ppb   |
| Yttrium   | 89-1  |         |         |         | 91         |         | %     |
| Yttrium   | 89-2  |         |         |         | 92         |         | %     |
| Zinc      | 66-2  | 2546.56 | 2576.54 | 2559.43 | 2560.84    | 0.59    | ppb   |
| Zirconium | 90-1  | 247.08  | 248.75  | 246.88  | 247.57     | 0.42    | ppb   |
| Zirconium | 91-1  | 248.02  | 248.42  | 246.38  | 247.61     | 0.44    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S6 Instrumnet Name : P7  
Client Sample ID : S6 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:27:14 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 10334.06 | 10360.61 | 10259.73 | 10318.13   | 0.51    | ppb   |
| Antimony   | 121-1 | 483.61   | 502.74   | 491.12   | 492.49     | 1.96    | ppb   |
| Arsenic    | 75-2  | 486.37   | 496.16   | 504.09   | 495.54     | 1.79    | ppb   |
| Barium     | 135-1 | 2422.96  | 2465.74  | 2443.22  | 2443.97    | 0.88    | ppb   |
| Barium     | 137-1 | 2437.51  | 2495.91  | 2464.94  | 2466.12    | 1.18    | ppb   |
| Beryllium  | 9-1   | 477.57   | 498.29   | 489.99   | 488.62     | 2.13    | ppb   |
| Bismuth    | 209-1 |          |          |          | 99         |         | %     |
| Bismuth    | 209-2 |          |          |          | 100        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 485.97   | 502.21   | 504.47   | 497.55     | 2.03    | ppb   |
| Cadmium    | 106-1 | 488.60   | 501.69   | 497.96   | 496.08     | 1.36    | ppb   |
| Cadmium    | 111-1 | 487.78   | 505.04   | 496.60   | 496.47     | 1.74    | ppb   |
| Calcium    | 43-1  | 49942.82 | 51160.67 | 50090.43 | 50397.98   | 1.32    | ppb   |
| Calcium    | 44-1  | 49131.31 | 50957.82 | 50173.74 | 50087.62   | 1.83    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 499.69   | 503.30   | 498.39   | 500.46     | 0.51    | ppb   |
| Cobalt     | 59-2  | 502.47   | 510.35   | 495.28   | 502.70     | 1.50    | ppb   |
| Copper     | 63-2  | 5043.89  | 5077.08  | 5035.13  | 5052.03    | 0.44    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 99         |         | %     |
| Holmium    | 165-2 |          |          |          | 100        |         | %     |
| Indium     | 115-1 |          |          |          | 89         |         | %     |
| Indium     | 115-2 |          |          |          | 90         |         | %     |
| Iron       | 56-2  | 26325.26 | 26186.37 | 26272.54 | 26261.39   | 0.27    | ppb   |
| Iron       | 57-2  | 26370.95 | 26661.28 | 26119.37 | 26383.86   | 1.03    | ppb   |
| Iron       | 54-2  | 26400.65 | 26643.31 | 26695.21 | 26579.72   | 0.59    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S6 Instrumnet Name : P7  
Client Sample ID : S6 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:27:14 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 2406.16  | 2451.66  | 2455.33  | 2437.72    | 1.12    | ppb   |
| Lead       | 207-1 | 2381.39  | 2458.38  | 2455.00  | 2431.59    | 1.79    | ppb   |
| Lead       | 208-1 | 2389.10  | 2459.48  | 2461.86  | 2436.81    | 1.70    | ppb   |
| Lithium    | 6-1   |          |          |          | 97         |         | %     |
| Magnesium  | 24-2  | 52160.18 | 52341.43 | 51970.66 | 52157.42   | 0.36    | ppb   |
| Manganese  | 55-2  | 4991.08  | 5007.74  | 4998.64  | 4999.15    | 0.17    | ppb   |
| Molybdenum | 94-1  | 4801.64  | 5039.88  | 4995.11  | 4945.54    | 2.56    | ppb   |
| Molybdenum | 95-1  | 4793.61  | 5002.10  | 5009.91  | 4935.21    | 2.49    | ppb   |
| Molybdenum | 96-1  | 4814.06  | 5009.98  | 4978.93  | 4934.32    | 2.13    | ppb   |
| Molybdenum | 97-1  | 4823.88  | 5052.52  | 4949.44  | 4941.95    | 2.32    | ppb   |
| Molybdenum | 98-1  | 4806.64  | 5022.87  | 5022.79  | 4950.77    | 2.52    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 497.20   | 502.24   | 497.46   | 498.96     | 0.57    | ppb   |
| Phosphorus | 31-2  | 10091.57 | 10071.54 | 10103.52 | 10088.88   | 0.16    | ppb   |
| Potassium  | 39-2  | 25301.36 | 25707.49 | 25313.89 | 25440.91   | 0.91    | ppb   |
| Rhodium    | 103-1 |          |          |          | 88         |         | %     |
| Rhodium    | 103-2 |          |          |          | 91         |         | %     |
| Scandium   | 45-1  |          |          |          | 88         |         | %     |
| Scandium   | 45-2  |          |          |          | 90         |         | %     |
| Selenium   | 82-1  | 488.36   | 510.15   | 505.09   | 501.20     | 2.28    | ppb   |
| Selenium   | 77-2  | 503.61   | 498.03   | 490.22   | 497.29     | 1.35    | ppb   |
| Selenium   | 78-2  | 492.19   | 503.36   | 503.99   | 499.85     | 1.33    | ppb   |
| Silicon    | 28-1  | 501.69   | 515.52   | 513.25   | 510.15     | 1.45    | ppb   |
| Silver     | 107-1 | 488.84   | 501.91   | 495.69   | 495.48     | 1.32    | ppb   |
| Silver     | 109-1 | 489.07   | 504.45   | 504.85   | 499.45     | 1.80    | ppb   |
| Sodium     | 23-2  | 52481.14 | 53368.59 | 52644.18 | 52831.30   | 0.89    | ppb   |
| Strontium  | 86-1  | 474.14   | 498.94   | 498.57   | 490.55     | 2.90    | ppb   |
| Strontium  | 88-1  | 475.33   | 494.22   | 497.87   | 489.14     | 2.47    | ppb   |
| Sulfur     | 34-1  | 9093.63  | 9362.47  | 9399.15  | 9285.08    | 1.80    | ppb   |
| Terbium    | 159-1 |          |          |          | 97         |         | %     |
| Terbium    | 159-2 |          |          |          | 99         |         | %     |
| Thallium   | 203-1 | 479.44   | 493.88   | 490.73   | 488.02     | 1.56    | ppb   |
| Thallium   | 205-1 | 479.53   | 489.47   | 488.80   | 485.93     | 1.14    | ppb   |
| Tin        | 118-1 | 485.05   | 496.75   | 495.71   | 492.50     | 1.32    | ppb   |
| Titanium   | 47-1  | 4909.61  | 4952.89  | 5017.68  | 4960.06    | 1.10    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S6Instrumnet Name :P7

Client Sample ID :S6Dilution Factor :1

Date & Time Acquired :2024-12-03 13:27:14DataFile Name :009CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 479.82  | 486.89  | 491.92  | 486.21     | 1.25    | ppb   |
| Vanadium  | 51-2  | 497.74  | 497.52  | 498.82  | 498.03     | 0.14    | ppb   |
| Yttrium   | 89-1  |         |         |         | 90         |         | %     |
| Yttrium   | 89-2  |         |         |         | 92         |         | %     |
| Zinc      | 66-2  | 5011.35 | 5067.32 | 5036.52 | 5038.40    | 0.56    | ppb   |
| Zirconium | 90-1  | 479.71  | 499.59  | 497.20  | 492.16     | 2.21    | ppb   |
| Zirconium | 91-1  | 479.78  | 502.23  | 493.77  | 491.93     | 2.30    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S7 Instrumnet Name : P7  
Client Sample ID : S7 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:29:59 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 20307.25  | 20367.88  | 20389.92  | 20355.02   | 0.21    | ppb   |
| Antimony   | 121-1 | 991.40    | 1015.99   | 1001.10   | 1002.83    | 1.24    | ppb   |
| Arsenic    | 75-2  | 1006.15   | 1000.82   | 1001.20   | 1002.72    | 0.30    | ppb   |
| Barium     | 135-1 | 4972.68   | 5135.43   | 4971.97   | 5026.69    | 1.87    | ppb   |
| Barium     | 137-1 | 4923.91   | 5117.70   | 5002.33   | 5014.65    | 1.94    | ppb   |
| Beryllium  | 9-1   | 1005.42   | 995.39    | 1019.28   | 1006.70    | 1.19    | ppb   |
| Bismuth    | 209-1 |           |           |           | 97         |         | %     |
| Bismuth    | 209-2 |           |           |           | 98         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 985.68    | 1013.42   | 995.54    | 998.21     | 1.41    | ppb   |
| Cadmium    | 106-1 | 990.48    | 1014.90   | 992.24    | 999.21     | 1.36    | ppb   |
| Cadmium    | 111-1 | 991.15    | 1018.38   | 984.69    | 998.07     | 1.79    | ppb   |
| Calcium    | 43-1  | 103309.11 | 104026.42 | 103995.97 | 103777.17  | 0.39    | ppb   |
| Calcium    | 44-1  | 101110.04 | 102363.68 | 103811.19 | 102428.30  | 1.32    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 989.81    | 999.36    | 1007.11   | 998.76     | 0.87    | ppb   |
| Cobalt     | 59-2  | 991.09    | 999.98    | 999.69    | 996.92     | 0.51    | ppb   |
| Copper     | 63-2  | 9950.29   | 10007.52  | 9908.94   | 9955.58    | 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 |           |           |           | 99         |         | %     |
| Holmium    | 165-2 |           |           |           | 100        |         | %     |
| Indium     | 115-1 |           |           |           | 88         |         | %     |
| Indium     | 115-2 |           |           |           | 89         |         | %     |
| Iron       | 56-2  | 52144.90  | 52659.35  | 52404.96  | 52403.07   | 0.49    | ppb   |
| Iron       | 57-2  | 51422.66  | 52880.67  | 52310.18  | 52204.50   | 1.41    | ppb   |
| Iron       | 54-2  | 52074.65  | 53095.31  | 53207.59  | 52792.51   | 1.18    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S7Instrumnet Name :P7

Client Sample ID :S7Dilution Factor :1

Date & Time Acquired :2024-12-03 13:29:59DataFile Name :010CAL.S.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 5024.44   | 5038.01   | 5060.81   | 5041.09    | 0.36    | ppb   |
| Lead       | 207-1 | 5026.23   | 5024.10   | 5079.41   | 5043.24    | 0.62    | ppb   |
| Lead       | 208-1 | 5013.16   | 5048.73   | 5064.74   | 5042.21    | 0.52    | ppb   |
| Lithium    | 6-1   |           |           |           | 97         |         | %     |
| Magnesium  | 24-2  | 101947.54 | 102965.50 | 102928.38 | 102613.80  | 0.56    | ppb   |
| Manganese  | 55-2  | 9891.60   | 10022.28  | 10074.83  | 9996.24    | 0.94    | ppb   |
| Molybdenum | 94-1  | 10145.54  | 9923.66   | 10045.10  | 10038.10   | 1.11    | ppb   |
| Molybdenum | 95-1  | 10072.20  | 9942.24   | 10109.25  | 10041.23   | 0.87    | ppb   |
| Molybdenum | 96-1  | 10043.36  | 9985.12   | 10099.89  | 10042.79   | 0.57    | ppb   |
| Molybdenum | 97-1  | 10036.67  | 9963.86   | 10120.16  | 10040.23   | 0.78    | ppb   |
| Molybdenum | 98-1  | 9990.14   | 9912.81   | 10200.82  | 10034.59   | 1.49    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 994.90    | 990.89    | 1010.25   | 998.68     | 1.02    | ppb   |
| Phosphorus | 31-2  | 19893.48  | 19995.58  | 19955.32  | 19948.12   | 0.26    | ppb   |
| Potassium  | 39-2  | 50350.98  | 50718.20  | 50836.13  | 50635.10   | 0.50    | ppb   |
| Rhodium    | 103-1 |           |           |           | 86         |         | %     |
| Rhodium    | 103-2 |           |           |           | 89         |         | %     |
| Scandium   | 45-1  |           |           |           | 87         |         | %     |
| Scandium   | 45-2  |           |           |           | 91         |         | %     |
| Selenium   | 82-1  | 1001.51   | 993.04    | 998.08    | 997.54     | 0.43    | ppb   |
| Selenium   | 77-2  | 996.44    | 994.89    | 1010.83   | 1000.72    | 0.88    | ppb   |
| Selenium   | 78-2  | 1005.56   | 1005.10   | 988.87    | 999.84     | 0.95    | ppb   |
| Silicon    | 28-1  | 999.22    | 985.29    | 988.18    | 990.90     | 0.74    | ppb   |
| Silver     | 107-1 | 987.31    | 1016.41   | 994.15    | 999.29     | 1.52    | ppb   |
| Silver     | 109-1 | 991.35    | 1014.00   | 987.06    | 997.47     | 1.45    | ppb   |
| Sodium     | 23-2  | 103455.13 | 105488.62 | 105415.88 | 104786.54  | 1.10    | ppb   |
| Strontium  | 86-1  | 994.74    | 1000.67   | 1020.84   | 1005.42    | 1.36    | ppb   |
| Strontium  | 88-1  | 1001.49   | 1002.93   | 1016.09   | 1006.84    | 0.80    | ppb   |
| Sulfur     | 34-1  | 20161.11  | 20593.51  | 20757.86  | 20504.16   | 1.50    | ppb   |
| Terbium    | 159-1 |           |           |           | 97         |         | %     |
| Terbium    | 159-2 |           |           |           | 98         |         | %     |
| Thallium   | 203-1 | 1007.88   | 1010.69   | 1005.79   | 1008.12    | 0.24    | ppb   |
| Thallium   | 205-1 | 1012.88   | 1010.02   | 1006.40   | 1009.77    | 0.32    | ppb   |
| Tin        | 118-1 | 988.58    | 1021.26   | 997.27    | 1002.37    | 1.69    | ppb   |
| Titanium   | 47-1  | 9984.75   | 9942.54   | 10166.04  | 10031.11   | 1.18    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S7Instrumnet Name :P7

Client Sample ID :S7Dilution Factor :1

Date & Time Acquired :2024-12-03 13:29:59DataFile Name :010CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3  | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|----------|------------|---------|-------|
| Uranium   | 238-1 | 1014.89 | 998.69  | 1019.58  | 1011.05    | 1.08    | ppb   |
| Vanadium  | 51-2  | 996.32  | 1002.67 | 1007.04  | 1002.01    | 0.54    | ppb   |
| Yttrium   | 89-1  |         |         |          | 90         |         | %     |
| Yttrium   | 89-2  |         |         |          | 91         |         | %     |
| Zinc      | 66-2  | 9896.23 | 9946.37 | 10028.91 | 9957.17    | 0.67    | ppb   |
| Zirconium | 90-1  | 1001.46 | 1006.51 | 1006.72  | 1004.89    | 0.30    | ppb   |
| Zirconium | 91-1  | 1005.72 | 1000.45 | 1008.34  | 1004.84    | 0.40    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S8 Instrumnet Name : P7  
Client Sample ID : S8 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:32:43 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 100266.17 | 99011.70  | 100392.50 | 99890.12   | 0.76    | ppb   |
| Antimony   | 121-1 | 0.51      | 0.55      | 0.50      | 0.52       | 4.25    | ppb   |
| Arsenic    | 75-2  | 0.49      | 0.62      | 0.58      | 0.57       | 12.20   | ppb   |
| Barium     | 135-1 | 2.30      | 2.37      | 2.26      | 2.31       | 2.26    | ppb   |
| Barium     | 137-1 | 2.43      | 2.36      | 2.35      | 2.38       | 1.93    | ppb   |
| Beryllium  | 9-1   | 0.20      | 0.21      | 0.17      | 0.19       | 11.47   | ppb   |
| Bismuth    | 209-1 |           |           |           | 89         |         | %     |
| Bismuth    | 209-2 |           |           |           | 90         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 0.48      | 0.44      | 0.43      | 0.45       | 5.25    | ppb   |
| Cadmium    | 106-1 | -0.01     | 0.08      | 0.17      | 0.08       | 118.20  | ppb   |
| Cadmium    | 111-1 | 0.28      | 0.27      | 0.24      | 0.26       | 8.74    | ppb   |
| Calcium    | 43-1  | 501791.38 | 500080.79 | 495446.96 | 499106.38  | 0.66    | ppb   |
| Calcium    | 44-1  | 500344.98 | 501706.80 | 496465.53 | 499505.77  | 0.54    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 1.39      | 1.58      | 1.35      | 1.44       | 8.41    | ppb   |
| Cobalt     | 59-2  | 2.62      | 2.61      | 2.63      | 2.62       | 0.48    | ppb   |
| Copper     | 63-2  | 2.21      | 2.14      | 2.12      | 2.16       | 2.11    | 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 |           |           |           | 98         |         | %     |
| Holmium    | 165-2 |           |           |           | 99         |         | %     |
| Indium     | 115-1 |           |           |           | 88         |         | %     |
| Indium     | 115-2 |           |           |           | 90         |         | %     |
| Iron       | 56-2  | 247254.40 | 250083.04 | 250703.99 | 249347.14  | 0.74    | ppb   |
| Iron       | 57-2  | 246397.14 | 249315.99 | 252386.86 | 249366.67  | 1.20    | ppb   |
| Iron       | 54-2  | 248512.25 | 247218.34 | 251934.89 | 249221.83  | 0.98    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S8 Instrumnet Name : P7  
Client Sample ID : S8 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:32:43 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 1.07      | 1.12      | 1.10      | 1.10       | 2.17    | ppb   |
| Lead       | 207-1 | 1.06      | 1.07      | 1.07      | 1.07       | 0.85    | ppb   |
| Lead       | 208-1 | 1.07      | 1.09      | 1.08      | 1.08       | 0.94    | ppb   |
| Lithium    | 6-1   |           |           |           | 94         |         | %     |
| Magnesium  | 24-2  | 499285.82 | 498065.18 | 500238.48 | 499196.49  | 0.22    | ppb   |
| Manganese  | 55-2  | 5.69      | 5.57      | 5.68      | 5.64       | 1.15    | ppb   |
| Molybdenum | 94-1  | 3.03      | 2.90      | 2.99      | 2.97       | 2.27    | ppb   |
| Molybdenum | 95-1  | 2.27      | 2.25      | 2.22      | 2.24       | 1.18    | ppb   |
| Molybdenum | 96-1  | 3.65      | 3.58      | 3.47      | 3.57       | 2.54    | ppb   |
| Molybdenum | 97-1  | 2.26      | 2.22      | 2.21      | 2.23       | 1.19    | ppb   |
| Molybdenum | 98-1  | 2.20      | 2.14      | 2.09      | 2.14       | 2.55    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 2.74      | 2.74      | 2.79      | 2.75       | 1.14    | ppb   |
| Phosphorus | 31-2  | -6.70     | -7.67     | -8.17     | -7.51      |         | ppb   |
| Potassium  | 39-2  | 248566.20 | 249651.66 | 251208.19 | 249808.68  | 0.53    | ppb   |
| Rhodium    | 103-1 |           |           |           | 82         |         | %     |
| Rhodium    | 103-2 |           |           |           | 85         |         | %     |
| Scandium   | 45-1  |           |           |           | 89         |         | %     |
| Scandium   | 45-2  |           |           |           | 94         |         | %     |
| Selenium   | 82-1  | 1.02      | 0.98      | 0.50      | 0.83       | 34.59   | ppb   |
| Selenium   | 77-2  | 0.18      | 0.28      | 0.18      | 0.21       | 27.76   | ppb   |
| Selenium   | 78-2  | 0.38      | 0.25      | -0.15     | 0.16       | 175.72  | ppb   |
| Silicon    | 28-1  | 1.93      | 1.72      | 1.37      | 1.67       | 16.94   | ppb   |
| Silver     | 107-1 | 0.32      | 0.29      | 0.27      | 0.29       | 9.34    | ppb   |
| Silver     | 109-1 | 0.30      | 0.29      | 0.25      | 0.28       | 10.81   | ppb   |
| Sodium     | 23-2  | 499768.19 | 494298.35 | 501992.18 | 498686.24  | 0.79    | ppb   |
| Strontium  | 86-1  | 3.44      | 3.39      | 3.41      | 3.41       | 0.72    | ppb   |
| Strontium  | 88-1  | 3.36      | 3.40      | 3.45      | 3.40       | 1.25    | ppb   |
| Sulfur     | 34-1  | -540.79   | -411.62   | -288.70   | -413.70    |         | ppb   |
| Terbium    | 159-1 |           |           |           | 96         |         | %     |
| Terbium    | 159-2 |           |           |           | 98         |         | %     |
| Thallium   | 203-1 | 0.18      | 0.16      | 0.13      | 0.16       | 17.23   | ppb   |
| Thallium   | 205-1 | 0.18      | 0.16      | 0.13      | 0.16       | 15.78   | ppb   |
| Tin        | 118-1 | 0.28      | 0.28      | 0.26      | 0.27       | 3.17    | ppb   |
| Titanium   | 47-1  | 1.68      | 1.73      | 1.64      | 1.68       | 2.86    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

S8

Instrumnet Name :

P7

Client Sample ID :

S8

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:32:43

DataFile Name :

011CAL.S.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.15    | 0.15    | 0.14    | 0.15       | 3.77    | ppb   |
| Vanadium  | 51-2  | 0.34    | 0.33    | 0.33    | 0.33       | 1.17    | ppb   |
| Yttrium   | 89-1  |         |         |         | 91         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 2.89    | 2.77    | 2.91    | 2.86       | 2.65    | ppb   |
| Zirconium | 90-1  | 0.60    | 0.62    | 0.60    | 0.61       | 2.16    | ppb   |
| Zirconium | 91-1  | 0.58    | 0.55    | 0.56    | 0.57       | 3.07    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICV01 Instrumnet Name : P7  
Client Sample ID : ICV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:47:27 DataFile Name : 012ICV.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 546.19  | 551.86  | 549.87  | 549.31     | 0.52    | ppb   |
| Antimony   | 121-1 | 199.27  | 203.15  | 201.69  | 201.37     | 0.97    | ppb   |
| Arsenic    | 75-2  | 200.32  | 202.69  | 203.54  | 202.18     | 0.82    | ppb   |
| Barium     | 135-1 | 98.42   | 102.55  | 100.77  | 100.58     | 2.06    | ppb   |
| Barium     | 137-1 | 98.41   | 101.69  | 101.20  | 100.43     | 1.76    | ppb   |
| Beryllium  | 9-1   | 96.72   | 97.83   | 99.03   | 97.86      | 1.18    | ppb   |
| Bismuth    | 209-1 |         |         |         | 103        |         | %     |
| Bismuth    | 209-2 |         |         |         | 103        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 153.77  | 162.46  | 157.28  | 157.84     | 2.77    | ppb   |
| Cadmium    | 106-1 | 158.55  | 160.89  | 161.90  | 160.45     | 1.07    | ppb   |
| Cadmium    | 111-1 | 105.32  | 110.20  | 107.51  | 107.68     | 2.27    | ppb   |
| Calcium    | 43-1  | 2277.93 | 2307.61 | 2346.73 | 2310.76    | 1.49    | ppb   |
| Calcium    | 44-1  | 2043.31 | 2108.34 | 2109.41 | 2087.02    | 1.81    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 102.18  | 102.40  | 101.93  | 102.17     | 0.23    | ppb   |
| Cobalt     | 59-2  | 102.89  | 103.61  | 103.55  | 103.35     | 0.39    | ppb   |
| Copper     | 63-2  | 98.61   | 98.59   | 97.90   | 98.37      | 0.41    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 99         |         | %     |
| Holmium    | 165-2 |         |         |         | 101        |         | %     |
| Indium     | 115-1 |         |         |         | 94         |         | %     |
| Indium     | 115-2 |         |         |         | 95         |         | %     |
| Iron       | 56-2  | 2073.24 | 2053.31 | 2058.71 | 2061.76    | 0.50    | ppb   |
| Iron       | 57-2  | 2137.11 | 2132.11 | 2150.39 | 2139.87    | 0.44    | ppb   |
| Iron       | 54-2  | 2229.04 | 2223.14 | 2229.18 | 2227.12    | 0.15    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICV01 Instrumnet Name : P7  
Client Sample ID : ICV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:47:27 DataFile Name : 012ICV.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 206.97  | 211.80  | 214.22  | 210.99     | 1.75    | ppb   |
| Lead       | 207-1 | 199.70  | 206.87  | 205.38  | 203.98     | 1.85    | ppb   |
| Lead       | 208-1 | 202.47  | 208.08  | 208.96  | 206.51     | 1.70    | ppb   |
| Lithium    | 6-1   |         |         |         | 105        |         | %     |
| Magnesium  | 24-2  | 1141.89 | 1147.47 | 1155.38 | 1148.25    | 0.59    | ppb   |
| Manganese  | 55-2  | 100.01  | 100.10  | 100.17  | 100.09     | 0.08    | ppb   |
| Molybdenum | 94-1  | 4881.58 | 5002.20 | 5078.41 | 4987.40    | 1.99    | ppb   |
| Molybdenum | 95-1  | 4952.18 | 5054.94 | 5107.11 | 5038.07    | 1.56    | ppb   |
| Molybdenum | 96-1  | 4908.03 | 5032.48 | 5084.91 | 5008.47    | 1.81    | ppb   |
| Molybdenum | 97-1  | 4915.06 | 5016.90 | 5082.86 | 5004.94    | 1.69    | ppb   |
| Molybdenum | 98-1  | 4929.50 | 5052.99 | 5026.91 | 5003.13    | 1.30    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 103.96  | 104.39  | 104.47  | 104.28     | 0.26    | ppb   |
| Phosphorus | 31-2  | -16.59  | -17.02  | -16.14  | -16.58     |         | ppb   |
| Potassium  | 39-2  | 1992.66 | 1945.63 | 1933.80 | 1957.36    | 1.59    | ppb   |
| Rhodium    | 103-1 |         |         |         | 95         |         | %     |
| Rhodium    | 103-2 |         |         |         | 96         |         | %     |
| Scandium   | 45-1  |         |         |         | 94         |         | %     |
| Scandium   | 45-2  |         |         |         | 95         |         | %     |
| Selenium   | 82-1  | 206.09  | 211.01  | 214.79  | 210.63     | 2.07    | ppb   |
| Selenium   | 77-2  | 197.46  | 211.09  | 205.19  | 204.58     | 3.34    | ppb   |
| Selenium   | 78-2  | 211.83  | 210.19  | 206.34  | 209.46     | 1.34    | ppb   |
| Silicon    | 28-1  | 86.18   | 92.64   | 95.43   | 91.42      | 5.19    | ppb   |
| Silver     | 107-1 | 50.98   | 52.90   | 52.45   | 52.11      | 1.93    | ppb   |
| Silver     | 109-1 | 50.31   | 52.58   | 51.62   | 51.50      | 2.21    | ppb   |
| Sodium     | 23-2  | 2050.35 | 2078.75 | 2038.40 | 2055.83    | 1.01    | ppb   |
| Strontium  | 86-1  | 491.59  | 498.42  | 498.36  | 496.12     | 0.79    | ppb   |
| Strontium  | 88-1  | 485.23  | 495.49  | 497.65  | 492.79     | 1.35    | ppb   |
| Sulfur     | 34-1  | -227.12 | -175.78 | -145.02 | -182.64    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 99         |         | %     |
| Terbium    | 159-2 |         |         |         | 101        |         | %     |
| Thallium   | 203-1 | 205.67  | 211.71  | 210.67  | 209.35     | 1.54    | ppb   |
| Thallium   | 205-1 | 202.99  | 210.71  | 211.92  | 208.54     | 2.32    | ppb   |
| Tin        | 118-1 | 496.22  | 512.94  | 501.70  | 503.62     | 1.69    | ppb   |
| Titanium   | 47-1  | 4909.06 | 5038.41 | 5074.98 | 5007.48    | 1.74    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICV01 Instrumnet Name : P7  
Client Sample ID : ICV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:47:27 DataFile Name : 012ICV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 485.54  | 500.56  | 497.74  | 494.61     | 1.61    | ppb   |
| Vanadium  | 51-2  | 97.01   | 97.12   | 96.90   | 97.01      | 0.11    | ppb   |
| Yttrium   | 89-1  |         |         |         | 95         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 206.48  | 207.49  | 208.10  | 207.35     | 0.39    | ppb   |
| Zirconium | 90-1  | 475.23  | 481.80  | 485.25  | 480.76     | 1.06    | ppb   |
| Zirconium | 91-1  | 480.01  | 487.80  | 496.31  | 488.04     | 1.67    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : LLICV Instrumnet Name : P7  
Client Sample ID : LLICV Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:51:14 DataFile Name : 013LLCC.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 20.45   | 19.62   | 19.85   | 19.98      | 2.15    | ppb   |
| Antimony   | 121-1 | 2.07    | 2.10    | 2.15    | 2.11       | 2.07    | ppb   |
| Arsenic    | 75-2  | 1.05    | 1.05    | 1.14    | 1.08       | 4.76    | ppb   |
| Barium     | 135-1 | 9.90    | 10.07   | 9.93    | 9.97       | 0.88    | ppb   |
| Barium     | 137-1 | 9.97    | 9.98    | 10.15   | 10.04      | 1.00    | ppb   |
| Beryllium  | 9-1   | 1.01    | 1.12    | 1.00    | 1.04       | 6.33    | ppb   |
| Bismuth    | 209-1 |         |         |         | 102        |         | %     |
| Bismuth    | 209-2 |         |         |         | 104        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.96    | 1.11    | 0.86    | 0.98       | 12.73   | ppb   |
| Cadmium    | 106-1 | 0.26    | 0.02    | 0.17    | 0.15       | 81.64   | ppb   |
| Cadmium    | 111-1 | 1.12    | 1.17    | 1.14    | 1.15       | 2.13    | ppb   |
| Calcium    | 43-1  | 528.81  | 524.45  | 534.01  | 529.09     | 0.90    | ppb   |
| Calcium    | 44-1  | 518.06  | 520.84  | 535.05  | 524.65     | 1.74    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 2.03    | 2.03    | 2.01    | 2.02       | 0.74    | ppb   |
| Cobalt     | 59-2  | 1.07    | 1.11    | 1.05    | 1.08       | 2.89    | ppb   |
| Copper     | 63-2  | 1.99    | 1.99    | 2.00    | 1.99       | 0.40    | 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 |         |         |         | 95         |         | %     |
| Indium     | 115-2 |         |         |         | 96         |         | %     |
| Iron       | 56-2  | 55.29   | 55.37   | 55.57   | 55.41      | 0.26    | ppb   |
| Iron       | 57-2  | 54.86   | 55.47   | 56.12   | 55.49      | 1.13    | ppb   |
| Iron       | 54-2  | 57.43   | 56.74   | 57.48   | 57.22      | 0.72    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : LLICV Instrumnet Name : P7  
Client Sample ID : LLICV Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:51:14 DataFile Name : 013LLCC.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 1.02    | 1.04    | 1.04    | 1.04       | 1.04    | ppb   |
| Lead       | 207-1 | 1.01    | 1.05    | 1.00    | 1.02       | 2.47    | ppb   |
| Lead       | 208-1 | 1.02    | 1.05    | 1.03    | 1.03       | 1.30    | ppb   |
| Lithium    | 6-1   |         |         |         | 102        |         | %     |
| Magnesium  | 24-2  | 509.66  | 516.00  | 513.71  | 513.13     | 0.63    | ppb   |
| Manganese  | 55-2  | 0.96    | 1.01    | 0.99    | 0.99       | 2.34    | ppb   |
| Molybdenum | 94-1  | 6.02    | 6.13    | 6.48    | 6.21       | 3.86    | ppb   |
| Molybdenum | 95-1  | 5.14    | 5.30    | 5.71    | 5.38       | 5.46    | ppb   |
| Molybdenum | 96-1  | 5.19    | 5.49    | 5.73    | 5.47       | 4.94    | ppb   |
| Molybdenum | 97-1  | 5.19    | 5.35    | 5.53    | 5.36       | 3.22    | ppb   |
| Molybdenum | 98-1  | 5.11    | 5.35    | 5.57    | 5.34       | 4.34    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 1.05    | 0.99    | 1.00    | 1.01       | 3.16    | ppb   |
| Phosphorus | 31-2  | 21.33   | 14.51   | 16.81   | 17.55      | 19.77   | ppb   |
| Potassium  | 39-2  | 524.15  | 528.31  | 527.32  | 526.59     | 0.41    | ppb   |
| Rhodium    | 103-1 |         |         |         | 94         |         | %     |
| Rhodium    | 103-2 |         |         |         | 96         |         | %     |
| Scandium   | 45-1  |         |         |         | 92         |         | %     |
| Scandium   | 45-2  |         |         |         | 95         |         | %     |
| Selenium   | 82-1  | 5.25    | 5.22    | 4.96    | 5.14       | 3.11    | ppb   |
| Selenium   | 77-2  | 5.20    | 6.70    | 4.91    | 5.60       | 17.11   | ppb   |
| Selenium   | 78-2  | 5.27    | 4.84    | 4.64    | 4.92       | 6.52    | ppb   |
| Silicon    | 28-1  | 0.05    | -0.03   | 0.27    | 0.10       | 157.60  | ppb   |
| Silver     | 107-1 | 1.06    | 1.05    | 1.06    | 1.06       | 0.25    | ppb   |
| Silver     | 109-1 | 1.03    | 1.06    | 1.08    | 1.06       | 2.36    | ppb   |
| Sodium     | 23-2  | 516.13  | 518.94  | 519.45  | 518.17     | 0.35    | ppb   |
| Strontium  | 86-1  | 1.00    | 1.03    | 1.11    | 1.05       | 5.45    | ppb   |
| Strontium  | 88-1  | 1.00    | 1.05    | 1.10    | 1.05       | 4.86    | ppb   |
| Sulfur     | 34-1  | -191.39 | -169.15 | -177.19 | -179.24    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 98         |         | %     |
| Terbium    | 159-2 |         |         |         | 100        |         | %     |
| Thallium   | 203-1 | 0.98    | 1.00    | 0.99    | 0.99       | 1.04    | ppb   |
| Thallium   | 205-1 | 0.96    | 1.01    | 0.99    | 0.99       | 2.76    | ppb   |
| Tin        | 118-1 | 5.06    | 5.22    | 5.10    | 5.13       | 1.59    | ppb   |
| Titanium   | 47-1  | 5.35    | 5.28    | 7.20    | 5.94       | 18.25   | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

LLICV

Instrumnet Name :

P7

Client Sample ID :

LLICV

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:51:14

DataFile Name :

013LLCC.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.93    | 0.96    | 0.95    | 0.95       | 1.65    | ppb   |
| Vanadium  | 51-2  | 5.00    | 5.15    | 5.06    | 5.07       | 1.53    | ppb   |
| Yttrium   | 89-1  |         |         |         | 93         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 5.23    | 5.28    | 5.04    | 5.19       | 2.42    | ppb   |
| Zirconium | 90-1  | 0.98    | 1.02    | 1.07    | 1.02       | 4.57    | ppb   |
| Zirconium | 91-1  | 1.02    | 1.01    | 1.07    | 1.03       | 3.30    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICB01 Instrumnet Name : P7  
Client Sample ID : ICB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:58:15 DataFile Name : 015CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.04    | 0.00    | 0.05    | 0.03       | 90.30   | ppb   |
| Antimony   | 121-1 | 0.01    | 0.01    | 0.01    | 0.01       | 5.89    | ppb   |
| Arsenic    | 75-2  | 0.00    | 0.02    | 0.01    | 0.01       | 86.26   | ppb   |
| Barium     | 135-1 | 0.00    | -0.01   | -0.01   | -0.01      |         | ppb   |
| Barium     | 137-1 | -0.01   | 0.00    | -0.01   | -0.01      |         | ppb   |
| Beryllium  | 9-1   | -0.03   | 0.01    | 0.01    | 0.00       |         | ppb   |
| Bismuth    | 209-1 |         |         |         | 103        |         | %     |
| Bismuth    | 209-2 |         |         |         | 105        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.01   | -0.02   | 0.01    | -0.01      |         | ppb   |
| Cadmium    | 106-1 | -0.93   | -0.83   | -0.70   | -0.82      |         | ppb   |
| Cadmium    | 111-1 | -0.02   | -0.02   | -0.02   | -0.02      |         | ppb   |
| Calcium    | 43-1  | -3.50   | -2.05   | -2.38   | -2.65      |         | ppb   |
| Calcium    | 44-1  | 0.46    | -0.54   | -0.95   | -0.34      |         | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.00    | -0.01   | 0.01    | 0.00       |         | ppb   |
| Cobalt     | 59-2  | -0.02   | -0.02   | -0.02   | -0.02      |         | ppb   |
| Copper     | 63-2  | -0.01   | -0.02   | 0.00    | -0.01      |         | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 101        |         | %     |
| Holmium    | 165-2 |         |         |         | 102        |         | %     |
| Indium     | 115-1 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 98         |         | %     |
| Iron       | 56-2  | -0.32   | -0.31   | -0.36   | -0.33      |         | ppb   |
| Iron       | 57-2  | -1.26   | -0.51   | -0.81   | -0.86      |         | ppb   |
| Iron       | 54-2  | -0.46   | -0.53   | -0.27   | -0.42      |         | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICB01 Instrumnet Name : P7  
Client Sample ID : ICB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:58:15 DataFile Name : 015CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.02    | 0.02    | 0.02    | 0.02       | 7.85    | ppb   |
| Lead       | 207-1 | 0.01    | 0.02    | 0.02    | 0.02       | 53.54   | ppb   |
| Lead       | 208-1 | 0.02    | 0.02    | 0.02    | 0.02       | 4.58    | ppb   |
| Lithium    | 6-1   |         |         |         | 104        |         | %     |
| Magnesium  | 24-2  | -1.52   | -1.42   | -1.31   | -1.42      |         | ppb   |
| Manganese  | 55-2  | 0.01    | -0.02   | -0.02   | -0.01      |         | ppb   |
| Molybdenum | 94-1  | 0.03    | 0.03    | 0.03    | 0.03       | 10.08   | ppb   |
| Molybdenum | 95-1  | 0.02    | 0.02    | 0.02    | 0.02       | 9.26    | ppb   |
| Molybdenum | 96-1  | 0.01    | 0.01    | 0.01    | 0.01       | 24.20   | ppb   |
| Molybdenum | 97-1  | 0.01    | 0.02    | 0.02    | 0.01       | 51.24   | ppb   |
| Molybdenum | 98-1  | 0.02    | 0.02    | 0.01    | 0.02       | 13.70   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.06   | -0.06   | -0.03   | -0.05      |         | ppb   |
| Phosphorus | 31-2  | -20.33  | -16.87  | -18.36  | -18.52     |         | ppb   |
| Potassium  | 39-2  | -5.62   | -5.35   | -3.97   | -4.98      |         | ppb   |
| Rhodium    | 103-1 |         |         |         | 96         |         | %     |
| Rhodium    | 103-2 |         |         |         | 99         |         | %     |
| Scandium   | 45-1  |         |         |         | 95         |         | %     |
| Scandium   | 45-2  |         |         |         | 97         |         | %     |
| Selenium   | 82-1  | 0.79    | 0.06    | 0.03    | 0.29       | 146.87  | ppb   |
| Selenium   | 77-2  | 0.07    | 0.07    | 0.07    | 0.07       | 0.85    | ppb   |
| Selenium   | 78-2  | -0.47   | -0.51   | -0.26   | -0.42      |         | ppb   |
| Silicon    | 28-1  | -2.16   | -1.95   | -1.78   | -1.97      |         | ppb   |
| Silver     | 107-1 | 0.01    | 0.01    | 0.01    | 0.01       | 26.25   | ppb   |
| Silver     | 109-1 | 0.01    | 0.01    | 0.01    | 0.01       | 15.23   | ppb   |
| Sodium     | 23-2  | 7.52    | 6.72    | 7.65    | 7.30       | 6.89    | ppb   |
| Strontium  | 86-1  | 0.00    | 0.01    | 0.02    | 0.01       | 89.82   | ppb   |
| Strontium  | 88-1  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Sulfur     | 34-1  | -230.29 | -198.27 | -142.36 | -190.31    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 99         |         | %     |
| Terbium    | 159-2 |         |         |         | 102        |         | %     |
| Thallium   | 203-1 | 0.00    | -0.01   | -0.01   | -0.01      |         | ppb   |
| Thallium   | 205-1 | 0.00    | -0.01   | 0.00    | 0.00       |         | ppb   |
| Tin        | 118-1 | -0.02   | -0.03   | -0.02   | -0.02      |         | ppb   |
| Titanium   | 47-1  | 0.01    | 0.00    | 0.01    | 0.01       | 79.72   | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :ICB01Instrumnet Name :P7

Client Sample ID :ICB01Dilution Factor :1

Date & Time Acquired :2024-12-03 13:58:15DataFile Name :015CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Yttrium   | 89-1  |         |         |         | 96         |         | %     |
| Yttrium   | 89-2  |         |         |         | 97         |         | %     |
| Zinc      | 66-2  | -0.08   | -0.04   | -0.07   | -0.06      |         | ppb   |
| Zirconium | 90-1  | 0.00    | 0.00    | 0.00    | 0.00       | 5.99    | ppb   |
| Zirconium | 91-1  | 0.01    | 0.00    | 0.00    | 0.00       | 237.68  | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSA01 Instrumnet Name : P7  
Client Sample ID : ICSA01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:26:39 DataFile Name : 021ICSA.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 86230.38 | 84775.83 | 86953.45 | 85986.55   | 1.29    | ppb   |
| Antimony   | 121-1 | 1.05     | 1.06     | 1.09     | 1.07       | 1.99    | ppb   |
| Arsenic    | 75-2  | 0.33     | 0.36     | 0.33     | 0.34       | 4.76    | ppb   |
| Barium     | 135-1 | 1.34     | 1.39     | 1.33     | 1.35       | 2.21    | ppb   |
| Barium     | 137-1 | 1.32     | 1.35     | 1.33     | 1.33       | 1.42    | ppb   |
| Beryllium  | 9-1   | 0.30     | 0.24     | 0.24     | 0.26       | 12.68   | ppb   |
| Bismuth    | 209-1 |          |          |          | 106        |         | %     |
| Bismuth    | 209-2 |          |          |          | 101        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 7.97     | 8.36     | 7.56     | 7.96       | 4.97    | ppb   |
| Cadmium    | 106-1 | -1.96    | -2.26    | -1.82    | -2.01      |         | ppb   |
| Cadmium    | 111-1 | 0.30     | 0.31     | 0.33     | 0.31       | 4.36    | ppb   |
| Calcium    | 43-1  | 93069.30 | 95162.47 | 93618.29 | 93950.02   | 1.16    | ppb   |
| Calcium    | 44-1  | 93049.27 | 95160.75 | 94172.29 | 94127.44   | 1.12    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 19.20    | 19.29    | 19.37    | 19.29      | 0.43    | ppb   |
| Cobalt     | 59-2  | 1.20     | 1.18     | 1.22     | 1.20       | 1.54    | ppb   |
| Copper     | 63-2  | 6.82     | 6.96     | 7.08     | 6.95       | 1.84    | 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 |          |          |          | 110        |         | %     |
| Holmium    | 165-2 |          |          |          | 106        |         | %     |
| Indium     | 115-1 |          |          |          | 103        |         | %     |
| Indium     | 115-2 |          |          |          | 97         |         | %     |
| Iron       | 56-2  | 98919.38 | 99451.92 | 98620.33 | 98997.21   | 0.43    | ppb   |
| Iron       | 57-2  | 98310.78 | 98655.77 | 98998.23 | 98654.93   | 0.35    | ppb   |
| Iron       | 54-2  | 98950.48 | 98868.72 | 98609.37 | 98809.52   | 0.18    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSA01 Instrumnet Name : P7  
Client Sample ID : ICSA01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:26:39 DataFile Name : 021ICSA.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 6.61     | 5.56     | 5.30     | 5.82       | 11.93   | ppb   |
| Lead       | 207-1 | 6.06     | 5.05     | 4.78     | 5.29       | 12.76   | ppb   |
| Lead       | 208-1 | 6.24     | 5.27     | 4.89     | 5.47       | 12.72   | ppb   |
| Lithium    | 6-1   |          |          |          | 88         |         | %     |
| Magnesium  | 24-2  | 88379.76 | 88839.85 | 90740.20 | 89319.94   | 1.40    | ppb   |
| Manganese  | 55-2  | 7.50     | 7.56     | 7.52     | 7.52       | 0.40    | ppb   |
| Molybdenum | 94-1  | 1469.85  | 1476.04  | 1489.58  | 1478.49    | 0.68    | ppb   |
| Molybdenum | 95-1  | 1796.03  | 1821.08  | 1810.54  | 1809.22    | 0.70    | ppb   |
| Molybdenum | 96-1  | 1762.56  | 1769.70  | 1757.08  | 1763.11    | 0.36    | ppb   |
| Molybdenum | 97-1  | 1790.73  | 1807.47  | 1791.17  | 1796.46    | 0.53    | ppb   |
| Molybdenum | 98-1  | 1790.90  | 1806.39  | 1817.07  | 1804.79    | 0.73    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 5.32     | 5.16     | 5.14     | 5.21       | 1.91    | ppb   |
| Phosphorus | 31-2  | 91939.54 | 90487.55 | 90075.69 | 90834.26   | 1.08    | ppb   |
| Potassium  | 39-2  | 93891.02 | 92951.46 | 93791.68 | 93544.72   | 0.55    | ppb   |
| Rhodium    | 103-1 |          |          |          | 97         |         | %     |
| Rhodium    | 103-2 |          |          |          | 97         |         | %     |
| Scandium   | 45-1  |          |          |          | 95         |         | %     |
| Scandium   | 45-2  |          |          |          | 98         |         | %     |
| Selenium   | 82-1  | -0.13    | -0.39    | -0.15    | -0.22      |         | ppb   |
| Selenium   | 77-2  | -0.03    | 0.07     | 0.76     | 0.26       | 163.59  | ppb   |
| Selenium   | 78-2  | -0.12    | 0.37     | -1.19    | -0.31      |         | ppb   |
| Silicon    | 28-1  | -0.66    | -0.38    | -0.51    | -0.52      |         | ppb   |
| Silver     | 107-1 | 0.02     | 0.02     | 0.02     | 0.02       | 1.23    | ppb   |
| Silver     | 109-1 | 0.02     | 0.02     | 0.02     | 0.02       | 4.30    | ppb   |
| Sodium     | 23-2  | 95178.20 | 95154.60 | 95221.51 | 95184.77   | 0.04    | ppb   |
| Strontium  | 86-1  | 32.20    | 32.17    | 32.14    | 32.17      | 0.10    | ppb   |
| Strontium  | 88-1  | 31.51    | 32.59    | 32.30    | 32.13      | 1.74    | ppb   |
| Sulfur     | 34-1  | 86262.93 | 88349.45 | 87264.81 | 87292.40   | 1.20    | ppb   |
| Terbium    | 159-1 |          |          |          | 109        |         | %     |
| Terbium    | 159-2 |          |          |          | 104        |         | %     |
| Thallium   | 203-1 | 0.08     | 0.08     | 0.07     | 0.08       | 9.54    | ppb   |
| Thallium   | 205-1 | 0.09     | 0.08     | 0.07     | 0.08       | 8.87    | ppb   |
| Tin        | 118-1 | 0.20     | 0.17     | 0.14     | 0.17       | 16.26   | ppb   |
| Titanium   | 47-1  | 1844.16  | 1875.59  | 1842.34  | 1854.03    | 1.01    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

ICSA01

Instrumnet Name :

P7

Client Sample ID :

ICSA01

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:26:39

DataFile Name :

021ICSA.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.01    | 0.01    | 0.01       | 6.21    | ppb   |
| Vanadium  | 51-2  | 0.18    | 0.18    | 0.20    | 0.19       | 6.53    | ppb   |
| Yttrium   | 89-1  |         |         |         | 103        |         | %     |
| Yttrium   | 89-2  |         |         |         | 99         |         | %     |
| Zinc      | 66-2  | 10.79   | 10.22   | 10.69   | 10.57      | 2.85    | ppb   |
| Zirconium | 90-1  | 0.08    | 0.08    | 0.07    | 0.08       | 7.39    | ppb   |
| Zirconium | 91-1  | 0.08    | 0.08    | 0.07    | 0.08       | 5.63    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSAB01 Instrumnet Name : P7  
Client Sample ID : ICSAB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:29:42 DataFile Name : 022ICSB.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 89101.88  | 89664.76  | 89406.06  | 89390.90   | 0.32    | ppb   |
| Antimony   | 121-1 | 20.50     | 20.67     | 21.04     | 20.73      | 1.34    | ppb   |
| Arsenic    | 75-2  | 20.17     | 19.49     | 19.79     | 19.82      | 1.71    | ppb   |
| Barium     | 135-1 | 20.37     | 20.54     | 21.18     | 20.70      | 2.08    | ppb   |
| Barium     | 137-1 | 20.40     | 20.72     | 21.13     | 20.75      | 1.76    | ppb   |
| Beryllium  | 9-1   | 18.95     | 19.16     | 19.04     | 19.05      | 0.55    | ppb   |
| Bismuth    | 209-1 |           |           |           | 107        |         | %     |
| Bismuth    | 209-2 |           |           |           | 103        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 23.91     | 23.65     | 25.32     | 24.30      | 3.69    | ppb   |
| Cadmium    | 106-1 | 15.02     | 15.39     | 15.74     | 15.38      | 2.35    | ppb   |
| Cadmium    | 111-1 | 19.47     | 19.80     | 20.05     | 19.77      | 1.49    | ppb   |
| Calcium    | 43-1  | 98090.84  | 98813.57  | 99574.08  | 98826.16   | 0.75    | ppb   |
| Calcium    | 44-1  | 98284.63  | 97781.62  | 98710.79  | 98259.01   | 0.47    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 39.52     | 40.03     | 39.78     | 39.77      | 0.64    | ppb   |
| Cobalt     | 59-2  | 20.87     | 21.37     | 21.07     | 21.10      | 1.19    | ppb   |
| Copper     | 63-2  | 25.58     | 25.90     | 25.85     | 25.78      | 0.66    | ppb   |
| Dysprosium | 156-1 |           |           |           |            |         | cps   |
| Dysprosium | 156-2 |           |           |           |            |         | cps   |
| Erbium     | 164-1 |           |           |           |            |         | cps   |
| Erbium     | 164-2 |           |           |           |            |         | cps   |
| Gadolinium | 160-1 |           |           |           |            |         | cps   |
| Gadolinium | 160-2 |           |           |           |            |         | cps   |
| Holmium    | 165-1 |           |           |           | 113        |         | %     |
| Holmium    | 165-2 |           |           |           | 107        |         | %     |
| Indium     | 115-1 |           |           |           | 104        |         | %     |
| Indium     | 115-2 |           |           |           | 98         |         | %     |
| Iron       | 56-2  | 103140.21 | 102861.12 | 102294.52 | 102765.29  | 0.42    | ppb   |
| Iron       | 57-2  | 100799.17 | 102351.61 | 102581.06 | 101910.62  | 0.95    | ppb   |
| Iron       | 54-2  | 102209.01 | 102850.97 | 101680.43 | 102246.80  | 0.57    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSAB01 Instrumnet Name : P7  
Client Sample ID : ICSAB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:29:42 DataFile Name : 022ICSB.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 25.90    | 25.32    | 25.40    | 25.54      | 1.22    | ppb   |
| Lead       | 207-1 | 24.32    | 23.93    | 24.22    | 24.16      | 0.84    | ppb   |
| Lead       | 208-1 | 24.73    | 24.27    | 24.35    | 24.45      | 1.00    | ppb   |
| Lithium    | 6-1   |          |          |          | 85         |         | %     |
| Magnesium  | 24-2  | 92542.57 | 92828.97 | 93781.49 | 93051.01   | 0.70    | ppb   |
| Manganese  | 55-2  | 26.88    | 27.00    | 26.88    | 26.92      | 0.26    | ppb   |
| Molybdenum | 94-1  | 1506.63  | 1545.39  | 1550.95  | 1534.32    | 1.57    | ppb   |
| Molybdenum | 95-1  | 1825.44  | 1882.07  | 1890.65  | 1866.05    | 1.90    | ppb   |
| Molybdenum | 96-1  | 1792.12  | 1841.72  | 1844.23  | 1826.02    | 1.61    | ppb   |
| Molybdenum | 97-1  | 1849.50  | 1873.39  | 1880.85  | 1867.91    | 0.88    | ppb   |
| Molybdenum | 98-1  | 1838.90  | 1881.59  | 1884.14  | 1868.21    | 1.36    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 25.02    | 24.75    | 24.54    | 24.77      | 0.96    | ppb   |
| Phosphorus | 31-2  | 95387.73 | 93637.97 | 95620.25 | 94881.98   | 1.14    | ppb   |
| Potassium  | 39-2  | 96955.92 | 97467.62 | 98513.38 | 97645.64   | 0.81    | ppb   |
| Rhodium    | 103-1 |          |          |          | 98         |         | %     |
| Rhodium    | 103-2 |          |          |          | 98         |         | %     |
| Scandium   | 45-1  |          |          |          | 95         |         | %     |
| Scandium   | 45-2  |          |          |          | 98         |         | %     |
| Selenium   | 82-1  | 19.35    | 19.31    | 18.90    | 19.18      | 1.31    | ppb   |
| Selenium   | 77-2  | 20.70    | 17.39    | 18.46    | 18.85      | 8.95    | ppb   |
| Selenium   | 78-2  | 19.89    | 19.07    | 18.96    | 19.31      | 2.65    | ppb   |
| Silicon    | 28-1  | -0.03    | 0.02     | 0.29     | 0.10       | 179.68  | ppb   |
| Silver     | 107-1 | 18.12    | 18.49    | 18.92    | 18.51      | 2.17    | ppb   |
| Silver     | 109-1 | 18.14    | 18.38    | 18.83    | 18.45      | 1.90    | ppb   |
| Sodium     | 23-2  | 97328.50 | 98018.23 | 97854.45 | 97733.72   | 0.37    | ppb   |
| Strontium  | 86-1  | 33.09    | 33.51    | 33.57    | 33.39      | 0.78    | ppb   |
| Strontium  | 88-1  | 32.43    | 33.24    | 33.76    | 33.14      | 2.01    | ppb   |
| Sulfur     | 34-1  | 88981.61 | 88442.54 | 90669.66 | 89364.60   | 1.30    | ppb   |
| Terbium    | 159-1 |          |          |          | 112        |         | %     |
| Terbium    | 159-2 |          |          |          | 105        |         | %     |
| Thallium   | 203-1 | 19.89    | 19.93    | 20.02    | 19.95      | 0.34    | ppb   |
| Thallium   | 205-1 | 19.89    | 19.79    | 19.99    | 19.89      | 0.48    | ppb   |
| Tin        | 118-1 | 0.12     | 0.12     | 0.11     | 0.12       | 4.66    | ppb   |
| Titanium   | 47-1  | 1922.38  | 1957.16  | 1932.82  | 1937.45    | 0.92    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

ICSAB01

Instrumnet Name :

P7

Client Sample ID :

ICSAB01

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:29:42

DataFile Name :

022ICSB.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.02    | 0.02    | 0.01       | 9.95    | ppb   |
| Vanadium  | 51-2  | 19.52   | 19.47   | 19.40   | 19.46      | 0.31    | ppb   |
| Yttrium   | 89-1  |         |         |         | 104        |         | %     |
| Yttrium   | 89-2  |         |         |         | 101        |         | %     |
| Zinc      | 66-2  | 30.53   | 30.72   | 30.90   | 30.72      | 0.61    | ppb   |
| Zirconium | 90-1  | 0.01    | 0.02    | 0.02    | 0.02       | 7.41    | ppb   |
| Zirconium | 91-1  | 0.02    | 0.02    | 0.03    | 0.02       | 18.73   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV01 Instrumnet Name : P7  
Client Sample ID : CCV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:32:44 DataFile Name : 023CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 49541.48  | 49722.00  | 50080.86  | 49781.45   | 0.55    | ppb   |
| Antimony   | 121-1 | 518.67    | 541.25    | 534.56    | 531.49     | 2.18    | ppb   |
| Arsenic    | 75-2  | 528.52    | 532.72    | 531.13    | 530.79     | 0.40    | ppb   |
| Barium     | 135-1 | 2479.85   | 2577.02   | 2547.48   | 2534.78    | 1.97    | ppb   |
| Barium     | 137-1 | 2508.63   | 2574.02   | 2543.16   | 2541.94    | 1.29    | ppb   |
| Beryllium  | 9-1   | 481.08    | 488.63    | 483.33    | 484.35     | 0.80    | ppb   |
| Bismuth    | 209-1 |           |           |           | 106        |         | %     |
| Bismuth    | 209-2 |           |           |           | 98         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 509.37    | 522.48    | 519.09    | 516.98     | 1.32    | ppb   |
| Cadmium    | 106-1 | 506.29    | 518.84    | 515.80    | 513.64     | 1.27    | ppb   |
| Cadmium    | 111-1 | 509.28    | 527.04    | 527.59    | 521.30     | 2.00    | ppb   |
| Calcium    | 43-1  | 248920.63 | 256622.50 | 253241.90 | 252928.34  | 1.53    | ppb   |
| Calcium    | 44-1  | 248118.49 | 255722.84 | 252033.21 | 251958.18  | 1.51    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 506.18    | 514.60    | 514.98    | 511.92     | 0.97    | ppb   |
| Cobalt     | 59-2  | 533.01    | 538.04    | 541.53    | 537.53     | 0.80    | ppb   |
| Copper     | 63-2  | 5163.67   | 5160.42   | 5234.25   | 5186.11    | 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 |           |           |           | 115        |         | %     |
| Holmium    | 165-2 |           |           |           | 106        |         | %     |
| Indium     | 115-1 |           |           |           | 103        |         | %     |
| Indium     | 115-2 |           |           |           | 95         |         | %     |
| Iron       | 56-2  | 128145.67 | 128041.31 | 130717.15 | 128968.04  | 1.18    | ppb   |
| Iron       | 57-2  | 128106.64 | 128600.35 | 128324.56 | 128343.85  | 0.19    | ppb   |
| Iron       | 54-2  | 126706.74 | 127678.32 | 129036.66 | 127807.24  | 0.92    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV01Instrumnet Name :P7

Client Sample ID :CCV01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:32:44DataFile Name :023CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 2554.63   | 2582.89   | 2607.63   | 2581.72    | 1.03    | ppb   |
| Lead       | 207-1 | 2540.40   | 2561.58   | 2579.65   | 2560.55    | 0.77    | ppb   |
| Lead       | 208-1 | 2531.39   | 2563.46   | 2594.75   | 2563.20    | 1.24    | ppb   |
| Lithium    | 6-1   |           |           |           | 85         |         | %     |
| Magnesium  | 24-2  | 249572.92 | 247320.70 | 249721.07 | 248871.56  | 0.54    | ppb   |
| Manganese  | 55-2  | 5040.48   | 5071.08   | 5123.93   | 5078.50    | 0.83    | ppb   |
| Molybdenum | 94-1  | 4976.92   | 5111.64   | 5113.46   | 5067.34    | 1.55    | ppb   |
| Molybdenum | 95-1  | 4996.93   | 5080.53   | 5124.84   | 5067.43    | 1.28    | ppb   |
| Molybdenum | 96-1  | 5018.77   | 5072.29   | 5127.88   | 5072.98    | 1.08    | ppb   |
| Molybdenum | 97-1  | 5015.77   | 5085.60   | 5119.17   | 5073.52    | 1.04    | ppb   |
| Molybdenum | 98-1  | 5033.96   | 5101.70   | 5120.48   | 5085.38    | 0.89    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 517.85    | 530.60    | 535.82    | 528.09     | 1.75    | ppb   |
| Phosphorus | 31-2  | 9677.67   | 9839.75   | 9907.09   | 9808.17    | 1.20    | ppb   |
| Potassium  | 39-2  | 125525.93 | 126229.20 | 127270.08 | 126341.74  | 0.69    | ppb   |
| Rhodium    | 103-1 |           |           |           | 98         |         | %     |
| Rhodium    | 103-2 |           |           |           | 95         |         | %     |
| Scandium   | 45-1  |           |           |           | 97         |         | %     |
| Scandium   | 45-2  |           |           |           | 100        |         | %     |
| Selenium   | 82-1  | 503.04    | 511.19    | 511.00    | 508.41     | 0.91    | ppb   |
| Selenium   | 77-2  | 488.71    | 500.81    | 493.39    | 494.30     | 1.23    | ppb   |
| Selenium   | 78-2  | 500.29    | 501.02    | 503.80    | 501.70     | 0.37    | ppb   |
| Silicon    | 28-1  | 483.70    | 499.70    | 495.63    | 493.01     | 1.69    | ppb   |
| Silver     | 107-1 | 511.78    | 520.68    | 517.92    | 516.79     | 0.88    | ppb   |
| Silver     | 109-1 | 510.75    | 522.67    | 523.89    | 519.10     | 1.40    | ppb   |
| Sodium     | 23-2  | 246632.89 | 247230.01 | 247445.18 | 247102.69  | 0.17    | ppb   |
| Strontium  | 86-1  | 499.94    | 504.86    | 503.59    | 502.80     | 0.51    | ppb   |
| Strontium  | 88-1  | 501.57    | 501.49    | 507.12    | 503.39     | 0.64    | ppb   |
| Sulfur     | 34-1  | 8073.09   | 8518.06   | 8365.83   | 8318.99    | 2.72    | ppb   |
| Terbium    | 159-1 |           |           |           | 112        |         | %     |
| Terbium    | 159-2 |           |           |           | 104        |         | %     |
| Thallium   | 203-1 | 513.26    | 515.78    | 522.28    | 517.11     | 0.90    | ppb   |
| Thallium   | 205-1 | 513.45    | 516.12    | 522.20    | 517.26     | 0.87    | ppb   |
| Tin        | 118-1 | 496.46    | 517.22    | 512.13    | 508.60     | 2.13    | ppb   |
| Titanium   | 47-1  | 4912.73   | 5057.21   | 5057.55   | 5009.16    | 1.67    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV01Instrumnet Name :P7

Client Sample ID :CCV01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:32:44DataFile Name :023CCV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 508.75  | 519.06  | 527.97  | 518.59     | 1.85    | ppb   |
| Vanadium  | 51-2  | 508.09  | 509.61  | 520.57  | 512.76     | 1.33    | ppb   |
| Yttrium   | 89-1  |         |         |         | 106        |         | %     |
| Yttrium   | 89-2  |         |         |         | 102        |         | %     |
| Zinc      | 66-2  | 5175.99 | 5137.05 | 5167.67 | 5160.24    | 0.40    | ppb   |
| Zirconium | 90-1  | 502.97  | 515.03  | 511.60  | 509.86     | 1.22    | ppb   |
| Zirconium | 91-1  | 502.07  | 509.68  | 515.64  | 509.13     | 1.34    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB01 Instrumnet Name : P7  
Client Sample ID : CCB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:36:30 DataFile Name : 024CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 7.10    | 7.88    | 6.55    | 7.18       | 9.33    | ppb   |
| Antimony   | 121-1 | 0.12    | 0.11    | 0.11    | 0.11       | 7.52    | ppb   |
| Arsenic    | 75-2  | 0.01    | 0.03    | 0.03    | 0.02       | 40.76   | ppb   |
| Barium     | 135-1 | 0.15    | 0.14    | 0.13    | 0.14       | 7.40    | ppb   |
| Barium     | 137-1 | 0.16    | 0.14    | 0.14    | 0.15       | 8.02    | ppb   |
| Beryllium  | 9-1   | 0.07    | 0.05    | 0.08    | 0.06       | 25.56   | ppb   |
| Bismuth    | 209-1 |         |         |         | 114        |         | %     |
| Bismuth    | 209-2 |         |         |         | 109        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.01   | -0.02   | 0.04    | 0.00       | 803.36  | ppb   |
| Cadmium    | 106-1 | -1.62   | -1.54   | -1.59   | -1.58      |         | ppb   |
| Cadmium    | 111-1 | 0.03    | 0.01    | 0.01    | 0.01       | 99.84   | ppb   |
| Calcium    | 43-1  | 19.43   | 19.38   | 15.90   | 18.24      | 11.10   | ppb   |
| Calcium    | 44-1  | 20.56   | 18.97   | 17.19   | 18.91      | 8.91    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.05    | 0.03    | 0.07    | 0.05       | 40.92   | ppb   |
| Cobalt     | 59-2  | 0.01    | 0.02    | 0.01    | 0.01       | 51.84   | ppb   |
| Copper     | 63-2  | 0.32    | 0.36    | 0.26    | 0.31       | 16.96   | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 112        |         | %     |
| Holmium    | 165-2 |         |         |         | 106        |         | %     |
| Indium     | 115-1 |         |         |         | 108        |         | %     |
| Indium     | 115-2 |         |         |         | 102        |         | %     |
| Iron       | 56-2  | 13.11   | 14.01   | 11.11   | 12.74      | 11.69   | ppb   |
| Iron       | 57-2  | 11.11   | 12.63   | 9.11    | 10.95      | 16.14   | ppb   |
| Iron       | 54-2  | 13.09   | 12.95   | 11.30   | 12.45      | 8.02    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB01 Instrumnet Name : P7  
Client Sample ID : CCB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:36:30 DataFile Name : 024CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.68    | 0.67    | 0.63    | 0.66       | 3.98    | ppb   |
| Lead       | 207-1 | 0.66    | 0.64    | 0.64    | 0.64       | 1.65    | ppb   |
| Lead       | 208-1 | 0.66    | 0.65    | 0.64    | 0.65       | 2.17    | ppb   |
| Lithium    | 6-1   |         |         |         | 92         |         | %     |
| Magnesium  | 24-2  | 15.12   | 16.03   | 12.68   | 14.61      | 11.87   | ppb   |
| Manganese  | 55-2  | 0.25    | 0.26    | 0.22    | 0.24       | 8.03    | ppb   |
| Molybdenum | 94-1  | 0.50    | 0.43    | 0.44    | 0.46       | 8.07    | ppb   |
| Molybdenum | 95-1  | 0.53    | 0.45    | 0.43    | 0.47       | 11.59   | ppb   |
| Molybdenum | 96-1  | 0.50    | 0.42    | 0.42    | 0.45       | 9.68    | ppb   |
| Molybdenum | 97-1  | 0.52    | 0.42    | 0.43    | 0.45       | 11.64   | ppb   |
| Molybdenum | 98-1  | 0.50    | 0.43    | 0.44    | 0.46       | 8.02    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.01   | -0.04   | -0.02   | -0.02      |         | ppb   |
| Phosphorus | 31-2  | -11.71  | -13.51  | -13.40  | -12.87     |         | ppb   |
| Potassium  | 39-2  | 14.81   | 13.72   | 13.66   | 14.06      | 4.62    | ppb   |
| Rhodium    | 103-1 |         |         |         | 105        |         | %     |
| Rhodium    | 103-2 |         |         |         | 105        |         | %     |
| Scandium   | 45-1  |         |         |         | 98         |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 0.23    | 0.04    | -0.23   | 0.01       | 1709.03 | ppb   |
| Selenium   | 77-2  | -0.03   | -0.03   | 0.16    | 0.03       | 355.72  | ppb   |
| Selenium   | 78-2  | 0.26    | 0.22    | -0.54   | -0.02      |         | ppb   |
| Silicon    | 28-1  | -2.68   | -2.09   | -2.54   | -2.44      |         | ppb   |
| Silver     | 107-1 | 0.10    | 0.08    | 0.08    | 0.09       | 11.54   | ppb   |
| Silver     | 109-1 | 0.10    | 0.08    | 0.07    | 0.08       | 14.38   | ppb   |
| Sodium     | 23-2  | 39.83   | 40.52   | 37.37   | 39.24      | 4.22    | ppb   |
| Strontium  | 86-1  | 0.04    | 0.07    | 0.04    | 0.05       | 33.11   | ppb   |
| Strontium  | 88-1  | 0.04    | 0.03    | 0.03    | 0.03       | 10.61   | ppb   |
| Sulfur     | 34-1  | -636.99 | -510.29 | -590.07 | -579.12    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 111        |         | %     |
| Terbium    | 159-2 |         |         |         | 106        |         | %     |
| Thallium   | 203-1 | 0.15    | 0.14    | 0.14    | 0.15       | 4.27    | ppb   |
| Thallium   | 205-1 | 0.15    | 0.14    | 0.15    | 0.15       | 3.34    | ppb   |
| Tin        | 118-1 | 0.04    | 0.03    | 0.03    | 0.04       | 14.90   | ppb   |
| Titanium   | 47-1  | 0.44    | 0.41    | 0.42    | 0.42       | 3.75    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CCB01

Instrumnet Name :

P7

Client Sample ID :

CCB01

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:36:30

DataFile Name :

024CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.03    | 0.03    | 0.03    | 0.03       | 10.77   | ppb   |
| Vanadium  | 51-2  | 0.02    | 0.02    | 0.02    | 0.02       | 8.82    | ppb   |
| Yttrium   | 89-1  |         |         |         | 105        |         | %     |
| Yttrium   | 89-2  |         |         |         | 103        |         | %     |
| Zinc      | 66-2  | 0.30    | 0.39    | 0.37    | 0.35       | 13.07   | ppb   |
| Zirconium | 90-1  | 0.05    | 0.04    | 0.04    | 0.05       | 8.64    | ppb   |
| Zirconium | 91-1  | 0.07    | 0.04    | 0.04    | 0.05       | 25.93   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CRI Instrumnet Name : P7  
Client Sample ID : CRI Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:44:01 DataFile Name : 025LLCC.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 21.56   | 22.03   | 20.50   | 21.36      | 3.65    | ppb   |
| Antimony   | 121-1 | 2.10    | 2.15    | 2.17    | 2.14       | 1.72    | ppb   |
| Arsenic    | 75-2  | 1.14    | 1.03    | 1.10    | 1.09       | 5.07    | ppb   |
| Barium     | 135-1 | 9.88    | 10.17   | 10.21   | 10.09      | 1.78    | ppb   |
| Barium     | 137-1 | 10.10   | 10.26   | 10.33   | 10.23      | 1.16    | ppb   |
| Beryllium  | 9-1   | 1.11    | 1.12    | 1.07    | 1.10       | 2.46    | ppb   |
| Bismuth    | 209-1 |         |         |         | 115        |         | %     |
| Bismuth    | 209-2 |         |         |         | 110        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 1.04    | 1.00    | 1.23    | 1.09       | 11.37   | ppb   |
| Cadmium    | 106-1 | -0.62   | -0.55   | -0.46   | -0.54      |         | ppb   |
| Cadmium    | 111-1 | 1.08    | 1.09    | 1.09    | 1.09       | 0.53    | ppb   |
| Calcium    | 43-1  | 532.73  | 541.91  | 546.84  | 540.49     | 1.33    | ppb   |
| Calcium    | 44-1  | 537.47  | 547.87  | 535.86  | 540.40     | 1.21    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 2.10    | 2.12    | 2.12    | 2.11       | 0.51    | ppb   |
| Cobalt     | 59-2  | 1.11    | 1.10    | 1.10    | 1.10       | 0.59    | ppb   |
| Copper     | 63-2  | 2.12    | 2.12    | 2.09    | 2.11       | 0.85    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 114        |         | %     |
| Holmium    | 165-2 |         |         |         | 108        |         | %     |
| Indium     | 115-1 |         |         |         | 110        |         | %     |
| Indium     | 115-2 |         |         |         | 104        |         | %     |
| Iron       | 56-2  | 59.97   | 59.96   | 58.61   | 59.51      | 1.31    | ppb   |
| Iron       | 57-2  | 60.53   | 60.34   | 58.66   | 59.84      | 1.72    | ppb   |
| Iron       | 54-2  | 61.04   | 60.16   | 59.77   | 60.32      | 1.08    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CRI Instrumnet Name : P7  
Client Sample ID : CRI Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:44:01 DataFile Name : 025LLCC.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 1.21    | 1.24    | 1.21    | 1.22       | 1.18    | ppb   |
| Lead       | 207-1 | 1.22    | 1.24    | 1.24    | 1.23       | 1.07    | ppb   |
| Lead       | 208-1 | 1.20    | 1.24    | 1.23    | 1.22       | 1.67    | ppb   |
| Lithium    | 6-1   |         |         |         | 93         |         | %     |
| Magnesium  | 24-2  | 500.47  | 503.74  | 497.66  | 500.63     | 0.61    | ppb   |
| Manganese  | 55-2  | 1.04    | 1.04    | 1.03    | 1.04       | 0.49    | ppb   |
| Molybdenum | 94-1  | 5.79    | 6.02    | 5.99    | 5.93       | 2.10    | ppb   |
| Molybdenum | 95-1  | 5.05    | 5.14    | 5.10    | 5.10       | 0.81    | ppb   |
| Molybdenum | 96-1  | 4.98    | 5.24    | 5.16    | 5.13       | 2.60    | ppb   |
| Molybdenum | 97-1  | 4.99    | 5.01    | 5.12    | 5.04       | 1.44    | ppb   |
| Molybdenum | 98-1  | 5.07    | 5.10    | 5.11    | 5.09       | 0.42    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 0.99    | 1.03    | 0.99    | 1.00       | 2.60    | ppb   |
| Phosphorus | 31-2  | 7.72    | 12.44   | 17.36   | 12.51      | 38.55   | ppb   |
| Potassium  | 39-2  | 528.68  | 529.10  | 528.89  | 528.89     | 0.04    | ppb   |
| Rhodium    | 103-1 |         |         |         | 107        |         | %     |
| Rhodium    | 103-2 |         |         |         | 107        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 103        |         | %     |
| Selenium   | 82-1  | 5.11    | 5.34    | 5.06    | 5.17       | 2.92    | ppb   |
| Selenium   | 77-2  | 5.62    | 4.81    | 6.02    | 5.48       | 11.28   | ppb   |
| Selenium   | 78-2  | 4.82    | 4.15    | 5.13    | 4.70       | 10.70   | ppb   |
| Silicon    | 28-1  | -1.54   | -1.40   | -1.78   | -1.58      |         | ppb   |
| Silver     | 107-1 | 1.04    | 1.09    | 1.08    | 1.07       | 2.26    | ppb   |
| Silver     | 109-1 | 1.03    | 1.04    | 1.08    | 1.05       | 2.57    | ppb   |
| Sodium     | 23-2  | 515.50  | 515.26  | 508.97  | 513.24     | 0.72    | ppb   |
| Strontium  | 86-1  | 1.01    | 1.08    | 1.04    | 1.04       | 3.15    | ppb   |
| Strontium  | 88-1  | 1.00    | 1.02    | 1.03    | 1.02       | 1.73    | ppb   |
| Sulfur     | 34-1  | -400.85 | -374.43 | -438.42 | -404.56    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 112        |         | %     |
| Terbium    | 159-2 |         |         |         | 108        |         | %     |
| Thallium   | 203-1 | 1.09    | 1.14    | 1.11    | 1.11       | 2.06    | ppb   |
| Thallium   | 205-1 | 1.10    | 1.13    | 1.13    | 1.12       | 1.46    | ppb   |
| Tin        | 118-1 | 5.15    | 5.24    | 5.27    | 5.22       | 1.17    | ppb   |
| Titanium   | 47-1  | 5.14    | 5.09    | 5.03    | 5.09       | 1.03    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CRI

Instrumnet Name :

P7

Client Sample ID :

CRI

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:44:01

DataFile Name :

025LLCC.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.90    | 0.92    | 0.92    | 0.91       | 1.32    | ppb   |
| Vanadium  | 51-2  | 5.05    | 5.12    | 5.08    | 5.09       | 0.61    | ppb   |
| Yttrium   | 89-1  |         |         |         | 107        |         | %     |
| Yttrium   | 89-2  |         |         |         | 106        |         | %     |
| Zinc      | 66-2  | 5.30    | 5.14    | 5.01    | 5.15       | 2.85    | ppb   |
| Zirconium | 90-1  | 0.98    | 1.01    | 1.00    | 1.00       | 1.78    | ppb   |
| Zirconium | 91-1  | 0.97    | 1.02    | 0.99    | 0.99       | 2.65    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BL Instrumnet Name : P7  
Client Sample ID : PB165237BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:47:40 DataFile Name : 026CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 4.22    | 3.40    | 2.98    | 3.53       | 17.93   | ppb   |
| Antimony   | 121-1 | 0.01    | 0.02    | 0.02    | 0.01       | 5.26    | ppb   |
| Arsenic    | 75-2  | 0.00    | 0.03    | -0.02   | 0.00       | 643.10  | ppb   |
| Barium     | 135-1 | 0.01    | 0.00    | 0.00    | 0.00       | 363.22  | ppb   |
| Barium     | 137-1 | 0.01    | 0.00    | 0.01    | 0.01       | 35.89   | ppb   |
| Beryllium  | 9-1   | 0.02    | 0.00    | -0.01   | 0.00       | 753.67  | ppb   |
| Bismuth    | 209-1 |         |         |         | 115        |         | %     |
| Bismuth    | 209-2 |         |         |         | 111        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.04   | -0.03   | -0.04   | -0.04      |         | ppb   |
| Cadmium    | 106-1 | -1.17   | -1.12   | -0.82   | -1.04      |         | ppb   |
| Cadmium    | 111-1 | -0.02   | -0.03   | -0.01   | -0.02      |         | ppb   |
| Calcium    | 43-1  | -4.14   | -5.37   | -4.67   | -4.73      |         | ppb   |
| Calcium    | 44-1  | -2.81   | -3.99   | -4.32   | -3.71      |         | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | -0.04   | 0.00    | -0.03   | -0.02      |         | ppb   |
| Cobalt     | 59-2  | 0.00    | -0.01   | -0.01   | -0.01      |         | ppb   |
| Copper     | 63-2  | 0.10    | 0.06    | 0.06    | 0.07       | 31.04   | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 113        |         | %     |
| Holmium    | 165-2 |         |         |         | 108        |         | %     |
| Indium     | 115-1 |         |         |         | 109        |         | %     |
| Indium     | 115-2 |         |         |         | 104        |         | %     |
| Iron       | 56-2  | 5.53    | 4.84    | 4.22    | 4.86       | 13.53   | ppb   |
| Iron       | 57-2  | 4.32    | 3.87    | 3.83    | 4.01       | 6.67    | ppb   |
| Iron       | 54-2  | 5.21    | 5.19    | 2.86    | 4.42       | 30.56   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BL Instrumnet Name : P7  
Client Sample ID : PB165237BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:47:40 DataFile Name : 026CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.17    | 0.17    | 0.15    | 0.16       | 5.69    | ppb   |
| Lead       | 207-1 | 0.16    | 0.17    | 0.14    | 0.16       | 8.29    | ppb   |
| Lead       | 208-1 | 0.17    | 0.16    | 0.15    | 0.16       | 3.92    | ppb   |
| Lithium    | 6-1   |         |         |         | 94         |         | %     |
| Magnesium  | 24-2  | 5.06    | 3.64    | 3.35    | 4.01       | 22.76   | ppb   |
| Manganese  | 55-2  | 0.05    | 0.05    | 0.03    | 0.04       | 28.89   | ppb   |
| Molybdenum | 94-1  | 0.11    | 0.08    | 0.08    | 0.09       | 20.90   | ppb   |
| Molybdenum | 95-1  | 0.12    | 0.08    | 0.08    | 0.09       | 21.05   | ppb   |
| Molybdenum | 96-1  | 0.09    | 0.08    | 0.09    | 0.09       | 7.76    | ppb   |
| Molybdenum | 97-1  | 0.10    | 0.09    | 0.08    | 0.09       | 9.62    | ppb   |
| Molybdenum | 98-1  | 0.11    | 0.08    | 0.09    | 0.10       | 13.56   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.05   | -0.06   | -0.07   | -0.06      |         | ppb   |
| Phosphorus | 31-2  | -14.50  | -15.16  | -16.63  | -15.43     |         | ppb   |
| Potassium  | 39-2  | 4.77    | 3.46    | 1.73    | 3.32       | 45.87   | ppb   |
| Rhodium    | 103-1 |         |         |         | 108        |         | %     |
| Rhodium    | 103-2 |         |         |         | 108        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 103        |         | %     |
| Selenium   | 82-1  | 0.38    | 0.11    | -0.11   | 0.13       | 195.93  | ppb   |
| Selenium   | 77-2  | -0.03   | 0.06    | -0.03   | 0.00       |         | ppb   |
| Selenium   | 78-2  | -0.70   | -0.68   | 0.08    | -0.44      |         | ppb   |
| Silicon    | 28-1  | -2.87   | -2.36   | -2.37   | -2.54      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.02    | 0.01    | 0.02       | 11.80   | ppb   |
| Silver     | 109-1 | 0.02    | 0.01    | 0.02    | 0.02       | 20.65   | ppb   |
| Sodium     | 23-2  | 19.35   | 17.56   | 17.44   | 18.12      | 5.90    | ppb   |
| Strontium  | 86-1  | 0.01    | -0.01   | 0.01    | 0.00       | 239.67  | ppb   |
| Strontium  | 88-1  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Sulfur     | 34-1  | -510.23 | -403.65 | -410.40 | -441.43    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 112        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 0.14    | 0.15    | 0.15    | 0.15       | 3.76    | ppb   |
| Thallium   | 205-1 | 0.15    | 0.15    | 0.15    | 0.15       | 2.49    | ppb   |
| Tin        | 118-1 | 0.00    | 0.00    | -0.01   | 0.00       |         | ppb   |
| Titanium   | 47-1  | 0.09    | 0.11    | 0.09    | 0.10       | 9.59    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

PB165237BL

Instrumnet Name :

P7

Client Sample ID :

PB165237BL

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:47:40

DataFile Name :

026CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.00    | 0.00    | 0.00       | 26.26   | ppb   |
| Vanadium  | 51-2  | 0.01    | 0.01    | 0.00    | 0.01       | 44.94   | ppb   |
| Yttrium   | 89-1  |         |         |         | 107        |         | %     |
| Yttrium   | 89-2  |         |         |         | 105        |         | %     |
| Zinc      | 66-2  | -0.13   | -0.19   | -0.16   | -0.16      |         | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.00    | 0.01       | 56.23   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.01    | 0.01       | 45.19   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BS Instrumnet Name : P7  
Client Sample ID : PB165237BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:50:57 DataFile Name : 027LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 42.56   | 42.22   | 42.45   | 42.41      | 0.41    | ppb   |
| Antimony   | 121-1 | 4.22    | 4.24    | 4.21    | 4.22       | 0.35    | ppb   |
| Arsenic    | 75-2  | 2.18    | 2.08    | 2.01    | 2.09       | 4.07    | ppb   |
| Barium     | 135-1 | 19.97   | 20.06   | 20.17   | 20.07      | 0.52    | ppb   |
| Barium     | 137-1 | 20.07   | 20.29   | 20.46   | 20.27      | 0.95    | ppb   |
| Beryllium  | 9-1   | 1.97    | 2.10    | 2.03    | 2.03       | 3.10    | ppb   |
| Bismuth    | 209-1 |         |         |         | 115        |         | %     |
| Bismuth    | 209-2 |         |         |         | 111        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 1.76    | 1.73    | 1.72    | 1.74       | 0.98    | ppb   |
| Cadmium    | 106-1 | 1.35    | 0.86    | 0.98    | 1.06       | 24.02   | ppb   |
| Cadmium    | 111-1 | 1.80    | 1.92    | 1.83    | 1.85       | 3.40    | ppb   |
| Calcium    | 43-1  | 1026.18 | 1030.47 | 1032.68 | 1029.77    | 0.32    | ppb   |
| Calcium    | 44-1  | 1023.56 | 1038.27 | 1029.92 | 1030.58    | 0.72    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 4.31    | 4.16    | 4.27    | 4.25       | 1.84    | ppb   |
| Cobalt     | 59-2  | 2.07    | 2.12    | 2.16    | 2.12       | 2.04    | ppb   |
| Copper     | 63-2  | 4.41    | 4.45    | 4.43    | 4.43       | 0.42    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 114        |         | %     |
| Holmium    | 165-2 |         |         |         | 109        |         | %     |
| Indium     | 115-1 |         |         |         | 110        |         | %     |
| Indium     | 115-2 |         |         |         | 105        |         | %     |
| Iron       | 56-2  | 438.58  | 438.76  | 439.31  | 438.88     | 0.09    | ppb   |
| Iron       | 57-2  | 455.44  | 456.82  | 451.44  | 454.57     | 0.61    | ppb   |
| Iron       | 54-2  | 456.85  | 455.80  | 456.52  | 456.39     | 0.12    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BS Instrumnet Name : P7  
Client Sample ID : PB165237BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:50:57 DataFile Name : 027LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 2.15    | 2.21    | 2.12    | 2.16       | 2.18    | ppb   |
| Lead       | 207-1 | 2.11    | 2.11    | 2.10    | 2.11       | 0.24    | ppb   |
| Lead       | 208-1 | 2.12    | 2.17    | 2.12    | 2.13       | 1.35    | ppb   |
| Lithium    | 6-1   |         |         |         | 95         |         | %     |
| Magnesium  | 24-2  | 996.99  | 1000.14 | 1007.26 | 1001.46    | 0.53    | ppb   |
| Manganese  | 55-2  | 2.08    | 2.13    | 2.07    | 2.10       | 1.64    | ppb   |
| Molybdenum | 94-1  | 11.86   | 11.96   | 11.81   | 11.88      | 0.66    | ppb   |
| Molybdenum | 95-1  | 10.19   | 10.12   | 10.01   | 10.11      | 0.88    | ppb   |
| Molybdenum | 96-1  | 10.27   | 10.07   | 10.24   | 10.19      | 1.03    | ppb   |
| Molybdenum | 97-1  | 10.03   | 10.25   | 10.00   | 10.09      | 1.34    | ppb   |
| Molybdenum | 98-1  | 10.11   | 10.14   | 9.93    | 10.06      | 1.13    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.12    | 2.15    | 2.02    | 2.10       | 3.30    | ppb   |
| Phosphorus | 31-2  | -18.01  | -13.26  | -18.56  | -16.61     |         | ppb   |
| Potassium  | 39-2  | 1069.42 | 1072.37 | 1080.41 | 1074.07    | 0.53    | ppb   |
| Rhodium    | 103-1 |         |         |         | 109        |         | %     |
| Rhodium    | 103-2 |         |         |         | 108        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 104        |         | %     |
| Selenium   | 82-1  | 11.04   | 10.55   | 10.22   | 10.60      | 3.89    | ppb   |
| Selenium   | 77-2  | 9.18    | 12.27   | 9.86    | 10.44      | 15.60   | ppb   |
| Selenium   | 78-2  | 10.72   | 9.53    | 11.08   | 10.45      | 7.80    | ppb   |
| Silicon    | 28-1  | 0.86    | 1.04    | 1.04    | 0.98       | 10.39   | ppb   |
| Silver     | 107-1 | 2.10    | 2.12    | 2.13    | 2.12       | 0.68    | ppb   |
| Silver     | 109-1 | 2.06    | 2.11    | 2.13    | 2.10       | 1.81    | ppb   |
| Sodium     | 23-2  | 1018.08 | 1029.87 | 1034.81 | 1027.59    | 0.84    | ppb   |
| Strontium  | 86-1  | 1.98    | 2.10    | 1.99    | 2.02       | 3.14    | ppb   |
| Strontium  | 88-1  | 2.02    | 2.04    | 2.03    | 2.03       | 0.53    | ppb   |
| Sulfur     | 34-1  | -297.15 | -329.68 | -301.98 | -309.61    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 112        |         | %     |
| Terbium    | 159-2 |         |         |         | 108        |         | %     |
| Thallium   | 203-1 | 2.11    | 2.11    | 2.08    | 2.10       | 0.64    | ppb   |
| Thallium   | 205-1 | 2.09    | 2.15    | 2.09    | 2.11       | 1.60    | ppb   |
| Tin        | 118-1 | 0.03    | 0.01    | 0.02    | 0.02       | 38.12   | ppb   |
| Titanium   | 47-1  | 10.12   | 10.41   | 10.17   | 10.24      | 1.51    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

PB165237BS

Instrumnet Name :

P7

Client Sample ID :

PB165237BS

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:50:57

DataFile Name :

027LCSE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.83    | 1.89    | 1.84    | 1.85       | 1.77    | ppb   |
| Vanadium  | 51-2  | 10.08   | 10.14   | 10.05   | 10.09      | 0.44    | ppb   |
| Yttrium   | 89-1  |         |         |         | 109        |         | %     |
| Yttrium   | 89-2  |         |         |         | 105        |         | %     |
| Zinc      | 66-2  | 10.76   | 10.90   | 10.68   | 10.78      | 1.05    | ppb   |
| Zirconium | 90-1  | 2.03    | 2.02    | 2.00    | 2.02       | 0.94    | ppb   |
| Zirconium | 91-1  | 2.01    | 1.99    | 2.06    | 2.02       | 1.81    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BL Instrumnet Name : P7  
Client Sample ID : PB165238BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:54:10 DataFile Name : 028CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 2.88    | 2.65    | 2.57    | 2.70       | 5.85    | ppb   |
| Antimony   | 121-1 | 0.02    | 0.02    | 0.01    | 0.01       | 2.48    | ppb   |
| Arsenic    | 75-2  | -0.01   | -0.01   | 0.00    | -0.01      |         | ppb   |
| Barium     | 135-1 | 0.02    | 0.02    | 0.01    | 0.02       | 57.70   | ppb   |
| Barium     | 137-1 | 0.02    | 0.01    | 0.00    | 0.01       | 86.93   | ppb   |
| Beryllium  | 9-1   | 0.03    | 0.00    | 0.01    | 0.01       | 93.57   | ppb   |
| Bismuth    | 209-1 |         |         |         | 114        |         | %     |
| Bismuth    | 209-2 |         |         |         | 109        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.03   | -0.04   | -0.03   | -0.03      |         | ppb   |
| Cadmium    | 106-1 | -1.01   | -0.71   | -0.99   | -0.90      |         | ppb   |
| Cadmium    | 111-1 | -0.01   | -0.01   | -0.02   | -0.01      |         | ppb   |
| Calcium    | 43-1  | -0.60   | 0.64    | -1.93   | -0.63      |         | ppb   |
| Calcium    | 44-1  | -1.35   | -1.77   | -4.06   | -2.39      |         | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | -0.01   | 0.01    | -0.01   | 0.00       |         | ppb   |
| Cobalt     | 59-2  | -0.01   | -0.01   | 0.00    | -0.01      |         | ppb   |
| Copper     | 63-2  | 0.02    | 0.01    | 0.03    | 0.02       | 48.32   | 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 |         |         |         | 113        |         | %     |
| Holmium    | 165-2 |         |         |         | 107        |         | %     |
| Indium     | 115-1 |         |         |         | 111        |         | %     |
| Indium     | 115-2 |         |         |         | 103        |         | %     |
| Iron       | 56-2  | 2.57    | 2.01    | 2.01    | 2.20       | 14.67   | ppb   |
| Iron       | 57-2  | 1.28    | 0.12    | 1.22    | 0.88       | 74.42   | ppb   |
| Iron       | 54-2  | 2.07    | 1.61    | 1.59    | 1.76       | 15.34   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BL Instrumnet Name : P7  
Client Sample ID : PB165238BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:54:10 DataFile Name : 028CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.12    | 0.11    | 0.10    | 0.11       | 8.89    | ppb   |
| Lead       | 207-1 | 0.11    | 0.12    | 0.10    | 0.11       | 7.83    | ppb   |
| Lead       | 208-1 | 0.11    | 0.11    | 0.10    | 0.11       | 8.10    | ppb   |
| Lithium    | 6-1   |         |         |         | 95         |         | %     |
| Magnesium  | 24-2  | 1.03    | 0.59    | 0.46    | 0.69       | 43.36   | ppb   |
| Manganese  | 55-2  | 0.00    | 0.00    | -0.02   | 0.00       |         | ppb   |
| Molybdenum | 94-1  | 0.13    | 0.12    | 0.10    | 0.11       | 11.97   | ppb   |
| Molybdenum | 95-1  | 0.14    | 0.12    | 0.12    | 0.13       | 8.78    | ppb   |
| Molybdenum | 96-1  | 0.12    | 0.11    | 0.08    | 0.10       | 21.55   | ppb   |
| Molybdenum | 97-1  | 0.12    | 0.11    | 0.09    | 0.11       | 18.62   | ppb   |
| Molybdenum | 98-1  | 0.13    | 0.13    | 0.10    | 0.12       | 14.63   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.06   | -0.02   | -0.08   | -0.05      |         | ppb   |
| Phosphorus | 31-2  | -17.29  | -18.04  | -17.05  | -17.46     |         | ppb   |
| Potassium  | 39-2  | 2.20    | 1.35    | 1.96    | 1.83       | 23.85   | ppb   |
| Rhodium    | 103-1 |         |         |         | 108        |         | %     |
| Rhodium    | 103-2 |         |         |         | 107        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 103        |         | %     |
| Selenium   | 82-1  | -0.33   | -0.10   | -0.10   | -0.18      |         | ppb   |
| Selenium   | 77-2  | -0.03   | -0.03   | -0.03   | -0.03      |         | ppb   |
| Selenium   | 78-2  | -0.74   | -0.19   | -0.40   | -0.44      |         | ppb   |
| Silicon    | 28-1  | -2.39   | -2.25   | -2.14   | -2.26      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.02    | 0.02    | 0.02       | 7.96    | ppb   |
| Silver     | 109-1 | 0.02    | 0.02    | 0.02    | 0.02       | 13.21   | ppb   |
| Sodium     | 23-2  | 13.46   | 12.94   | 13.27   | 13.22      | 1.99    | ppb   |
| Strontium  | 86-1  | 0.00    | 0.01    | 0.00    | 0.00       | 43.15   | ppb   |
| Strontium  | 88-1  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Sulfur     | 34-1  | -300.93 | -271.20 | -242.58 | -271.57    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 112        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 0.14    | 0.14    | 0.15    | 0.14       | 1.73    | ppb   |
| Thallium   | 205-1 | 0.15    | 0.16    | 0.16    | 0.15       | 3.96    | ppb   |
| Tin        | 118-1 | 0.02    | 0.00    | 0.01    | 0.01       | 74.45   | ppb   |
| Titanium   | 47-1  | 0.17    | 0.14    | 0.12    | 0.14       | 16.36   | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165238BLInstrumnet Name :P7

Client Sample ID :PB165238BLDilution Factor :1

Date & Time Acquired :2024-12-03 14:54:10DataFile Name :028CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.01    | 0.00    | 0.01       | 25.37   | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       | 29.60   | ppb   |
| Yttrium   | 89-1  |         |         |         | 108        |         | %     |
| Yttrium   | 89-2  |         |         |         | 104        |         | %     |
| Zinc      | 66-2  | -0.18   | -0.19   | -0.16   | -0.18      |         | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.01    | 0.01       | 26.12   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.02    | 0.01       | 32.85   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BS Instrumnet Name : P7  
Client Sample ID : PB165238BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:57:27 DataFile Name : 029LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 42.65   | 41.17   | 42.31   | 42.05      | 1.84    | ppb   |
| Antimony   | 121-1 | 4.10    | 4.23    | 4.32    | 4.22       | 2.63    | ppb   |
| Arsenic    | 75-2  | 2.16    | 2.07    | 2.30    | 2.18       | 5.31    | ppb   |
| Barium     | 135-1 | 19.73   | 20.41   | 20.45   | 20.20      | 1.99    | ppb   |
| Barium     | 137-1 | 19.95   | 20.23   | 20.73   | 20.30      | 1.93    | ppb   |
| Beryllium  | 9-1   | 1.87    | 2.11    | 2.03    | 2.01       | 5.93    | ppb   |
| Bismuth    | 209-1 |         |         |         | 115        |         | %     |
| Bismuth    | 209-2 |         |         |         | 109        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 1.55    | 1.86    | 1.90    | 1.77       | 10.91   | ppb   |
| Cadmium    | 106-1 | 1.23    | 1.47    | 0.46    | 1.05       | 49.88   | ppb   |
| Cadmium    | 111-1 | 1.79    | 1.84    | 1.84    | 1.82       | 1.58    | ppb   |
| Calcium    | 43-1  | 1008.29 | 1073.76 | 1044.94 | 1042.33    | 3.15    | ppb   |
| Calcium    | 44-1  | 999.01  | 1036.54 | 1042.35 | 1025.97    | 2.29    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 4.25    | 4.27    | 4.33    | 4.29       | 0.95    | ppb   |
| Cobalt     | 59-2  | 2.17    | 2.16    | 2.14    | 2.16       | 0.62    | ppb   |
| Copper     | 63-2  | 4.41    | 4.52    | 4.45    | 4.46       | 1.24    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 113        |         | %     |
| Holmium    | 165-2 |         |         |         | 108        |         | %     |
| Indium     | 115-1 |         |         |         | 109        |         | %     |
| Indium     | 115-2 |         |         |         | 104        |         | %     |
| Iron       | 56-2  | 435.80  | 442.91  | 432.60  | 437.10     | 1.21    | ppb   |
| Iron       | 57-2  | 451.83  | 455.51  | 460.37  | 455.91     | 0.94    | ppb   |
| Iron       | 54-2  | 460.46  | 458.07  | 456.79  | 458.44     | 0.41    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BS Instrumnet Name : P7  
Client Sample ID : PB165238BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:57:27 DataFile Name : 029LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 2.08    | 2.04    | 2.11    | 2.08       | 1.80    | ppb   |
| Lead       | 207-1 | 2.06    | 2.08    | 2.09    | 2.08       | 0.72    | ppb   |
| Lead       | 208-1 | 2.06    | 2.06    | 2.12    | 2.08       | 1.65    | ppb   |
| Lithium    | 6-1   |         |         |         | 96         |         | %     |
| Magnesium  | 24-2  | 1010.44 | 1010.62 | 1005.64 | 1008.90    | 0.28    | ppb   |
| Manganese  | 55-2  | 2.10    | 2.05    | 2.10    | 2.08       | 1.54    | ppb   |
| Molybdenum | 94-1  | 11.75   | 11.91   | 11.96   | 11.87      | 0.92    | ppb   |
| Molybdenum | 95-1  | 9.79    | 10.13   | 10.23   | 10.05      | 2.30    | ppb   |
| Molybdenum | 96-1  | 9.98    | 10.33   | 10.15   | 10.15      | 1.72    | ppb   |
| Molybdenum | 97-1  | 9.90    | 10.14   | 10.01   | 10.02      | 1.21    | ppb   |
| Molybdenum | 98-1  | 9.89    | 10.10   | 10.09   | 10.03      | 1.15    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.11    | 2.10    | 2.16    | 2.12       | 1.56    | ppb   |
| Phosphorus | 31-2  | -18.50  | -16.52  | -15.15  | -16.72     |         | ppb   |
| Potassium  | 39-2  | 1078.25 | 1082.03 | 1079.81 | 1080.03    | 0.18    | ppb   |
| Rhodium    | 103-1 |         |         |         | 108        |         | %     |
| Rhodium    | 103-2 |         |         |         | 107        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 104        |         | %     |
| Selenium   | 82-1  | 10.44   | 10.73   | 10.65   | 10.61      | 1.42    | ppb   |
| Selenium   | 77-2  | 11.68   | 9.24    | 10.81   | 10.57      | 11.73   | ppb   |
| Selenium   | 78-2  | 10.73   | 10.79   | 10.10   | 10.54      | 3.62    | ppb   |
| Silicon    | 28-1  | 0.53    | 6.38    | 1.45    | 2.79       | 112.79  | ppb   |
| Silver     | 107-1 | 2.07    | 2.11    | 2.18    | 2.12       | 2.81    | ppb   |
| Silver     | 109-1 | 2.06    | 2.16    | 2.17    | 2.13       | 2.75    | ppb   |
| Sodium     | 23-2  | 1022.51 | 1046.65 | 1049.27 | 1039.48    | 1.42    | ppb   |
| Strontium  | 86-1  | 1.95    | 2.08    | 2.00    | 2.01       | 3.39    | ppb   |
| Strontium  | 88-1  | 1.98    | 2.06    | 2.05    | 2.03       | 2.18    | ppb   |
| Sulfur     | 34-1  | -301.87 | -195.93 | -208.90 | -235.57    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 112        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 2.04    | 2.10    | 2.10    | 2.08       | 1.77    | ppb   |
| Thallium   | 205-1 | 2.07    | 2.08    | 2.16    | 2.10       | 2.40    | ppb   |
| Tin        | 118-1 | 0.01    | 0.01    | 0.03    | 0.02       | 50.87   | ppb   |
| Titanium   | 47-1  | 9.73    | 10.32   | 10.16   | 10.07      | 3.01    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

PB165238BS

Instrumnet Name :

P7

Client Sample ID :

PB165238BS

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:57:27

DataFile Name :

029LCSE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.81    | 1.84    | 1.87    | 1.84       | 1.64    | ppb   |
| Vanadium  | 51-2  | 10.12   | 10.21   | 10.17   | 10.17      | 0.45    | ppb   |
| Yttrium   | 89-1  |         |         |         | 108        |         | %     |
| Yttrium   | 89-2  |         |         |         | 104        |         | %     |
| Zinc      | 66-2  | 10.99   | 11.01   | 11.29   | 11.09      | 1.51    | ppb   |
| Zirconium | 90-1  | 2.00    | 2.03    | 2.08    | 2.03       | 1.99    | ppb   |
| Zirconium | 91-1  | 1.96    | 2.04    | 2.01    | 2.00       | 2.04    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BL Instrumnet Name : P7  
Client Sample ID : PB165241BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:00:41 DataFile Name : 030CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 1.12    | 1.55    | 0.98    | 1.22       | 24.44   | ppb   |
| Antimony   | 121-1 | 0.01    | 0.01    | 0.01    | 0.01       | 6.23    | ppb   |
| Arsenic    | 75-2  | 0.01    | 0.01    | 0.01    | 0.01       | 26.68   | ppb   |
| Barium     | 135-1 | 0.01    | 0.02    | 0.02    | 0.02       | 25.21   | ppb   |
| Barium     | 137-1 | 0.02    | 0.03    | 0.02    | 0.03       | 17.27   | ppb   |
| Beryllium  | 9-1   | -0.01   | 0.00    | 0.02    | 0.00       | 428.58  | ppb   |
| Bismuth    | 209-1 |         |         |         | 112        |         | %     |
| Bismuth    | 209-2 |         |         |         | 107        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.01   | -0.02   | -0.01   | -0.01      |         | ppb   |
| Cadmium    | 106-1 | 0.01    | -0.76   | -1.11   | -0.62      |         | ppb   |
| Cadmium    | 111-1 | 0.00    | -0.01   | -0.02   | -0.01      |         | ppb   |
| Calcium    | 43-1  | 2.49    | 2.69    | 0.63    | 1.94       | 58.86   | ppb   |
| Calcium    | 44-1  | 2.64    | 3.66    | 2.15    | 2.81       | 27.39   | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.04    | 0.00    | 0.03    | 0.02       | 78.10   | ppb   |
| Cobalt     | 59-2  | 0.00    | -0.01   | 0.00    | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.04    | 0.03    | 0.02    | 0.03       | 31.43   | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 110        |         | %     |
| Holmium    | 165-2 |         |         |         | 105        |         | %     |
| Indium     | 115-1 |         |         |         | 108        |         | %     |
| Indium     | 115-2 |         |         |         | 103        |         | %     |
| Iron       | 56-2  | 2.05    | 2.20    | 1.36    | 1.87       | 24.05   | ppb   |
| Iron       | 57-2  | 1.78    | 1.18    | 0.19    | 1.05       | 76.54   | ppb   |
| Iron       | 54-2  | 2.07    | 1.90    | 1.24    | 1.74       | 25.16   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BL Instrumnet Name : P7  
Client Sample ID : PB165241BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:00:41 DataFile Name : 030CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.07    | 0.07    | 0.07    | 0.07       | 1.75    | ppb   |
| Lead       | 207-1 | 0.07    | 0.08    | 0.07    | 0.07       | 7.53    | ppb   |
| Lead       | 208-1 | 0.07    | 0.07    | 0.07    | 0.07       | 4.41    | ppb   |
| Lithium    | 6-1   |         |         |         | 94         |         | %     |
| Magnesium  | 24-2  | 0.58    | 0.67    | -0.08   | 0.39       | 105.22  | ppb   |
| Manganese  | 55-2  | -0.01   | 0.02    | 0.02    | 0.01       | 162.09  | ppb   |
| Molybdenum | 94-1  | 0.07    | 0.13    | 0.11    | 0.10       | 27.96   | ppb   |
| Molybdenum | 95-1  | 0.08    | 0.11    | 0.10    | 0.10       | 16.68   | ppb   |
| Molybdenum | 96-1  | 0.07    | 0.11    | 0.09    | 0.09       | 22.95   | ppb   |
| Molybdenum | 97-1  | 0.07    | 0.11    | 0.08    | 0.09       | 22.96   | ppb   |
| Molybdenum | 98-1  | 0.08    | 0.12    | 0.09    | 0.09       | 20.05   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.01   | -0.02   | -0.02   | -0.02      |         | ppb   |
| Phosphorus | 31-2  | -20.28  | -18.87  | -23.21  | -20.78     |         | ppb   |
| Potassium  | 39-2  | 1.96    | 3.14    | 1.81    | 2.30       | 31.63   | ppb   |
| Rhodium    | 103-1 |         |         |         | 105        |         | %     |
| Rhodium    | 103-2 |         |         |         | 105        |         | %     |
| Scandium   | 45-1  |         |         |         | 100        |         | %     |
| Scandium   | 45-2  |         |         |         | 102        |         | %     |
| Selenium   | 82-1  | -0.28   | -0.03   | -0.47   | -0.26      |         | ppb   |
| Selenium   | 77-2  | -0.03   | -0.03   | -0.03   | -0.03      |         | ppb   |
| Selenium   | 78-2  | 0.16    | -0.22   | 1.03    | 0.32       | 198.15  | ppb   |
| Silicon    | 28-1  | -2.70   | -2.45   | -2.48   | -2.55      |         | ppb   |
| Silver     | 107-1 | 0.01    | 0.02    | 0.01    | 0.02       | 13.43   | ppb   |
| Silver     | 109-1 | 0.02    | 0.03    | 0.01    | 0.02       | 44.99   | ppb   |
| Sodium     | 23-2  | 10.25   | 10.16   | 8.97    | 9.79       | 7.31    | ppb   |
| Strontium  | 86-1  | 0.01    | 0.02    | 0.01    | 0.01       | 63.48   | ppb   |
| Strontium  | 88-1  | 0.01    | 0.01    | 0.01    | 0.01       | 12.66   | ppb   |
| Sulfur     | 34-1  | -162.54 | -160.51 | -218.31 | -180.45    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 110        |         | %     |
| Terbium    | 159-2 |         |         |         | 105        |         | %     |
| Thallium   | 203-1 | 0.14    | 0.14    | 0.13    | 0.13       | 1.51    | ppb   |
| Thallium   | 205-1 | 0.15    | 0.14    | 0.14    | 0.14       | 1.84    | ppb   |
| Tin        | 118-1 | 0.01    | 0.00    | 0.03    | 0.01       | 133.19  | ppb   |
| Titanium   | 47-1  | 0.06    | 0.07    | 0.09    | 0.08       | 17.07   | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165241BLInstrumnet Name :P7

Client Sample ID :PB165241BLDilution Factor :1

Date & Time Acquired :2024-12-03 15:00:41DataFile Name :030CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.01    | 0.00    | 0.01       | 39.56   | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.01    | 0.00    | 0.01       | 53.71   | ppb   |
| Yttrium   | 89-1  |         |         |         | 105        |         | %     |
| Yttrium   | 89-2  |         |         |         | 102        |         | %     |
| Zinc      | 66-2  | 0.11    | 0.12    | 0.09    | 0.11       | 14.31   | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.01    | 0.01       | 38.29   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.02    | 0.02       | 36.37   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BS Instrumnet Name : P7  
Client Sample ID : PB165241BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:03:58 DataFile Name : 031LCSS.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 9969.13  | 9893.53  | 9896.00  | 9919.55    | 0.43    | ppb   |
| Antimony   | 121-1 | 497.31   | 496.18   | 512.29   | 501.93     | 1.79    | ppb   |
| Arsenic    | 75-2  | 497.82   | 493.09   | 483.76   | 491.56     | 1.46    | ppb   |
| Barium     | 135-1 | 2455.44  | 2461.22  | 2554.42  | 2490.36    | 2.23    | ppb   |
| Barium     | 137-1 | 2418.46  | 2478.44  | 2536.29  | 2477.73    | 2.38    | ppb   |
| Beryllium  | 9-1   | 481.25   | 472.69   | 486.48   | 480.14     | 1.45    | ppb   |
| Bismuth    | 209-1 |          |          |          | 109        |         | %     |
| Bismuth    | 209-2 |          |          |          | 103        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 495.86   | 501.50   | 509.43   | 502.26     | 1.36    | ppb   |
| Cadmium    | 106-1 | 491.63   | 500.21   | 513.19   | 501.68     | 2.16    | ppb   |
| Cadmium    | 111-1 | 499.35   | 500.46   | 518.23   | 506.01     | 2.09    | ppb   |
| Calcium    | 43-1  | 51032.57 | 51044.82 | 50748.85 | 50942.08   | 0.33    | ppb   |
| Calcium    | 44-1  | 49554.58 | 50043.00 | 50498.52 | 50032.03   | 0.94    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 508.15   | 495.03   | 495.27   | 499.48     | 1.50    | ppb   |
| Cobalt     | 59-2  | 508.60   | 504.04   | 499.95   | 504.20     | 0.86    | ppb   |
| Copper     | 63-2  | 5102.91  | 5038.82  | 4985.55  | 5042.42    | 1.17    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 110        |         | %     |
| Holmium    | 165-2 |          |          |          | 104        |         | %     |
| Indium     | 115-1 |          |          |          | 103        |         | %     |
| Indium     | 115-2 |          |          |          | 96         |         | %     |
| Iron       | 56-2  | 26531.21 | 25920.21 | 26361.01 | 26270.81   | 1.20    | ppb   |
| Iron       | 57-2  | 26422.30 | 26247.11 | 26000.29 | 26223.23   | 0.81    | ppb   |
| Iron       | 54-2  | 26947.00 | 26416.24 | 26471.15 | 26611.46   | 1.10    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BS Instrumnet Name : P7  
Client Sample ID : PB165241BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:03:58 DataFile Name : 031LCSS.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 2490.83  | 2484.82  | 2432.35  | 2469.33    | 1.30    | ppb   |
| Lead       | 207-1 | 2449.37  | 2462.49  | 2420.78  | 2444.21    | 0.87    | ppb   |
| Lead       | 208-1 | 2449.00  | 2456.56  | 2422.39  | 2442.65    | 0.73    | ppb   |
| Lithium    | 6-1   |          |          |          | 93         |         | %     |
| Magnesium  | 24-2  | 52027.92 | 50719.96 | 50680.43 | 51142.77   | 1.50    | ppb   |
| Manganese  | 55-2  | 5036.45  | 4978.01  | 4955.90  | 4990.12    | 0.83    | ppb   |
| Molybdenum | 94-1  | 4878.77  | 4923.20  | 4898.75  | 4900.24    | 0.45    | ppb   |
| Molybdenum | 95-1  | 4869.30  | 4950.38  | 4914.16  | 4911.28    | 0.83    | ppb   |
| Molybdenum | 96-1  | 4861.08  | 4920.32  | 4903.20  | 4894.86    | 0.62    | ppb   |
| Molybdenum | 97-1  | 4862.68  | 4927.87  | 4898.17  | 4896.24    | 0.67    | ppb   |
| Molybdenum | 98-1  | 4885.41  | 4935.33  | 4938.09  | 4919.61    | 0.60    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 516.65   | 498.79   | 495.39   | 503.61     | 2.27    | ppb   |
| Phosphorus | 31-2  | 9793.28  | 9683.93  | 9678.98  | 9718.73    | 0.66    | ppb   |
| Potassium  | 39-2  | 25174.64 | 25066.89 | 25073.38 | 25104.97   | 0.24    | ppb   |
| Rhodium    | 103-1 |          |          |          | 100        |         | %     |
| Rhodium    | 103-2 |          |          |          | 98         |         | %     |
| Scandium   | 45-1  |          |          |          | 97         |         | %     |
| Scandium   | 45-2  |          |          |          | 97         |         | %     |
| Selenium   | 82-1  | 496.68   | 495.26   | 498.45   | 496.80     | 0.32    | ppb   |
| Selenium   | 77-2  | 487.97   | 475.97   | 480.47   | 481.47     | 1.26    | ppb   |
| Selenium   | 78-2  | 497.57   | 486.51   | 482.65   | 488.91     | 1.58    | ppb   |
| Silicon    | 28-1  | 479.44   | 479.21   | 480.25   | 479.63     | 0.11    | ppb   |
| Silver     | 107-1 | 497.77   | 503.61   | 513.90   | 505.09     | 1.62    | ppb   |
| Silver     | 109-1 | 496.20   | 502.25   | 514.66   | 504.37     | 1.87    | ppb   |
| Sodium     | 23-2  | 52113.42 | 51280.40 | 51553.14 | 51648.99   | 0.82    | ppb   |
| Strontium  | 86-1  | 482.45   | 490.34   | 492.36   | 488.38     | 1.07    | ppb   |
| Strontium  | 88-1  | 483.83   | 487.43   | 492.37   | 487.88     | 0.88    | ppb   |
| Sulfur     | 34-1  | 8758.80  | 8798.01  | 8751.03  | 8769.28    | 0.29    | ppb   |
| Terbium    | 159-1 |          |          |          | 108        |         | %     |
| Terbium    | 159-2 |          |          |          | 104        |         | %     |
| Thallium   | 203-1 | 497.59   | 496.91   | 485.29   | 493.26     | 1.40    | ppb   |
| Thallium   | 205-1 | 495.60   | 496.48   | 483.78   | 491.95     | 1.44    | ppb   |
| Tin        | 118-1 | 505.20   | 503.64   | 513.23   | 507.36     | 1.01    | ppb   |
| Titanium   | 47-1  | 4794.88  | 4916.51  | 4934.12  | 4881.84    | 1.55    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165241BSInstrumnet Name :P7

Client Sample ID :PB165241BSDilution Factor :1

Date & Time Acquired :2024-12-03 15:03:58DataFile Name :031LCSS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 469.84  | 480.37  | 478.89  | 476.37     | 1.20    | ppb   |
| Vanadium  | 51-2  | 501.76  | 490.42  | 490.56  | 494.24     | 1.32    | ppb   |
| Yttrium   | 89-1  |         |         |         | 102        |         | %     |
| Yttrium   | 89-2  |         |         |         | 99         |         | %     |
| Zinc      | 66-2  | 5096.87 | 5037.24 | 5063.98 | 5066.03    | 0.59    | ppb   |
| Zirconium | 90-1  | 485.31  | 491.17  | 492.89  | 489.79     | 0.81    | ppb   |
| Zirconium | 91-1  | 483.56  | 491.59  | 489.79  | 488.31     | 0.86    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04 Instrumnet Name : P7  
Client Sample ID : MX1010 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:09:05 DataFile Name : 032SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 1654.96 | 1655.85 | 1640.89 | 1650.57    | 0.51    | ppb   |
| Antimony   | 121-1 | 25.36   | 26.30   | 25.60   | 25.75      | 1.89    | ppb   |
| Arsenic    | 75-2  | 27.31   | 26.28   | 26.68   | 26.76      | 1.94    | ppb   |
| Barium     | 135-1 | 2999.17 | 3119.15 | 3074.12 | 3064.15    | 1.98    | ppb   |
| Barium     | 137-1 | 3007.37 | 3131.76 | 3057.40 | 3065.51    | 2.04    | ppb   |
| Beryllium  | 9-1   | 32.19   | 32.32   | 31.96   | 32.16      | 0.56    | ppb   |
| Bismuth    | 209-1 |         |         |         | 112        |         | %     |
| Bismuth    | 209-2 |         |         |         | 110        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 69.12   | 73.17   | 72.84   | 71.71      | 3.14    | ppb   |
| Cadmium    | 106-1 | 66.47   | 69.05   | 67.76   | 67.76      | 1.90    | ppb   |
| Cadmium    | 111-1 | 80.70   | 83.57   | 81.90   | 82.06      | 1.75    | ppb   |
| Calcium    | 43-1  | 14.26   | 11.70   | 11.39   | 12.45      | 12.64   | ppb   |
| Calcium    | 44-1  | 12.55   | 10.37   | 8.41    | 10.44      | 19.83   | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 188.18  | 190.41  | 187.28  | 188.62     | 0.86    | ppb   |
| Cobalt     | 59-2  | 0.52    | 0.51    | 0.51    | 0.51       | 1.17    | ppb   |
| Copper     | 63-2  | 3028.98 | 3025.72 | 3040.66 | 3031.79    | 0.26    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 110        |         | %     |
| Holmium    | 165-2 |         |         |         | 107        |         | %     |
| Indium     | 115-1 |         |         |         | 104        |         | %     |
| Indium     | 115-2 |         |         |         | 101        |         | %     |
| Iron       | 56-2  | 2613.14 | 2605.18 | 2600.19 | 2606.17    | 0.25    | ppb   |
| Iron       | 57-2  | 2677.60 | 2663.49 | 2691.52 | 2677.53    | 0.52    | ppb   |
| Iron       | 54-2  | 2813.47 | 2820.91 | 2847.19 | 2827.19    | 0.63    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04 Instrumnet Name : P7  
Client Sample ID : MX1010 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:09:05 DataFile Name : 032SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 152.62  | 156.35  | 157.54  | 155.50     | 1.65    | ppb   |
| Lead       | 207-1 | 147.25  | 148.19  | 149.85  | 148.43     | 0.89    | ppb   |
| Lead       | 208-1 | 149.37  | 150.86  | 151.92  | 150.72     | 0.85    | ppb   |
| Lithium    | 6-1   |         |         |         | 93         |         | %     |
| Magnesium  | 24-2  | 7.38    | 5.82    | 5.60    | 6.26       | 15.50   | ppb   |
| Manganese  | 55-2  | 902.59  | 901.58  | 909.94  | 904.70     | 0.50    | ppb   |
| Molybdenum | 94-1  | 100.23  | 103.14  | 103.45  | 102.27     | 1.73    | ppb   |
| Molybdenum | 95-1  | 122.28  | 124.32  | 125.71  | 124.11     | 1.39    | ppb   |
| Molybdenum | 96-1  | 119.15  | 122.65  | 122.99  | 121.60     | 1.75    | ppb   |
| Molybdenum | 97-1  | 122.13  | 125.20  | 126.12  | 124.48     | 1.68    | ppb   |
| Molybdenum | 98-1  | 122.69  | 124.78  | 125.30  | 124.26     | 1.11    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 969.18  | 957.74  | 966.03  | 964.32     | 0.61    | ppb   |
| Phosphorus | 31-2  | -16.33  | -19.16  | -17.48  | -17.66     |         | ppb   |
| Potassium  | 39-2  | 12.16   | 11.76   | 12.24   | 12.05      | 2.14    | ppb   |
| Rhodium    | 103-1 |         |         |         | 102        |         | %     |
| Rhodium    | 103-2 |         |         |         | 104        |         | %     |
| Scandium   | 45-1  |         |         |         | 96         |         | %     |
| Scandium   | 45-2  |         |         |         | 99         |         | %     |
| Selenium   | 82-1  | 141.08  | 142.99  | 144.46  | 142.85     | 1.19    | ppb   |
| Selenium   | 77-2  | 144.95  | 138.83  | 137.94  | 140.57     | 2.72    | ppb   |
| Selenium   | 78-2  | 136.87  | 140.76  | 137.42  | 138.35     | 1.52    | ppb   |
| Silicon    | 28-1  | 23.28   | 22.82   | 22.19   | 22.76      | 2.40    | ppb   |
| Silver     | 107-1 | 185.64  | 194.86  | 189.02  | 189.84     | 2.46    | ppb   |
| Silver     | 109-1 | 183.94  | 191.95  | 188.63  | 188.17     | 2.14    | ppb   |
| Sodium     | 23-2  | 44.10   | 42.86   | 43.11   | 43.36      | 1.51    | ppb   |
| Strontium  | 86-1  | 0.11    | 0.09    | 0.09    | 0.09       | 11.22   | ppb   |
| Strontium  | 88-1  | 0.10    | 0.11    | 0.10    | 0.10       | 3.77    | ppb   |
| Sulfur     | 34-1  | -618.03 | -704.34 | -772.66 | -698.34    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 108        |         | %     |
| Terbium    | 159-2 |         |         |         | 106        |         | %     |
| Thallium   | 203-1 | 14.47   | 14.67   | 14.73   | 14.62      | 0.96    | ppb   |
| Thallium   | 205-1 | 14.34   | 14.58   | 14.71   | 14.54      | 1.28    | ppb   |
| Tin        | 118-1 | 0.04    | 0.03    | 0.02    | 0.03       | 29.31   | ppb   |
| Titanium   | 47-1  | 0.40    | 0.45    | 0.32    | 0.39       | 16.82   | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

P4917-04

Instrumnet Name :

P7

Client Sample ID :

MX1010

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:09:05

DataFile Name :

032SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.02    | 0.02    | 0.01    | 0.02       | 17.07   | ppb   |
| Vanadium  | 51-2  | 1124.72 | 1133.92 | 1145.20 | 1134.61    | 0.90    | ppb   |
| Yttrium   | 89-1  |         |         |         | 102        |         | %     |
| Yttrium   | 89-2  |         |         |         | 101        |         | %     |
| Zinc      | 66-2  | 875.95  | 885.79  | 874.71  | 878.82     | 0.69    | ppb   |
| Zirconium | 90-1  | 0.09    | 0.09    | 0.09    | 0.09       | 1.29    | ppb   |
| Zirconium | 91-1  | 0.11    | 0.13    | 0.10    | 0.11       | 12.48   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04DLX2 Instrumnet Name : P7  
Client Sample ID : MX1010DL Dilution Factor : 2  
Date & Time Acquired : 2024-12-03 15:12:17 DataFile Name : 033SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 823.34  | 824.60  | 814.79  | 820.91     | 0.65    | ppb   |
| Antimony   | 121-1 | 12.73   | 12.88   | 12.94   | 12.85      | 0.83    | ppb   |
| Arsenic    | 75-2  | 13.64   | 13.29   | 13.27   | 13.40      | 1.57    | ppb   |
| Barium     | 135-1 | 1514.25 | 1526.84 | 1542.38 | 1527.82    | 0.92    | ppb   |
| Barium     | 137-1 | 1525.09 | 1541.88 | 1535.94 | 1534.30    | 0.55    | ppb   |
| Beryllium  | 9-1   | 15.64   | 15.72   | 16.55   | 15.97      | 3.16    | ppb   |
| Bismuth    | 209-1 |         |         |         | 113        |         | %     |
| Bismuth    | 209-2 |         |         |         | 110        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 35.45   | 36.01   | 35.57   | 35.68      | 0.81    | ppb   |
| Cadmium    | 106-1 | 32.83   | 34.57   | 34.29   | 33.90      | 2.76    | ppb   |
| Cadmium    | 111-1 | 40.41   | 40.75   | 41.69   | 40.95      | 1.62    | ppb   |
| Calcium    | 43-1  | 14.06   | 12.47   | 10.01   | 12.18      | 16.76   | ppb   |
| Calcium    | 44-1  | 12.12   | 10.72   | 11.61   | 11.48      | 6.18    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 95.74   | 94.45   | 95.24   | 95.14      | 0.68    | ppb   |
| Cobalt     | 59-2  | 0.25    | 0.24    | 0.23    | 0.24       | 3.41    | ppb   |
| Copper     | 63-2  | 1520.40 | 1515.08 | 1503.20 | 1512.89    | 0.58    | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 110        |         | %     |
| Holmium    | 165-2 |         |         |         | 107        |         | %     |
| Indium     | 115-1 |         |         |         | 106        |         | %     |
| Indium     | 115-2 |         |         |         | 102        |         | %     |
| Iron       | 56-2  | 1299.07 | 1280.48 | 1275.99 | 1285.18    | 0.95    | ppb   |
| Iron       | 57-2  | 1336.09 | 1340.45 | 1315.34 | 1330.63    | 1.01    | ppb   |
| Iron       | 54-2  | 1414.99 | 1405.39 | 1398.65 | 1406.34    | 0.58    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04DLX2 Instrumnet Name : P7  
Client Sample ID : MX1010DL Dilution Factor : 2  
Date & Time Acquired : 2024-12-03 15:12:17 DataFile Name : 033SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 78.35   | 78.83   | 79.29   | 78.82      | 0.59    | ppb   |
| Lead       | 207-1 | 74.15   | 73.91   | 74.66   | 74.24      | 0.52    | ppb   |
| Lead       | 208-1 | 76.10   | 76.26   | 75.89   | 76.08      | 0.24    | ppb   |
| Lithium    | 6-1   |         |         |         | 95         |         | %     |
| Magnesium  | 24-2  | 1.73    | 3.52    | 1.86    | 2.37       | 42.18   | ppb   |
| Manganese  | 55-2  | 451.36  | 438.26  | 445.97  | 445.19     | 1.48    | ppb   |
| Molybdenum | 94-1  | 50.85   | 51.99   | 51.13   | 51.32      | 1.16    | ppb   |
| Molybdenum | 95-1  | 61.96   | 62.50   | 61.53   | 62.00      | 0.79    | ppb   |
| Molybdenum | 96-1  | 60.81   | 61.40   | 60.91   | 61.04      | 0.51    | ppb   |
| Molybdenum | 97-1  | 62.04   | 62.81   | 61.80   | 62.22      | 0.85    | ppb   |
| Molybdenum | 98-1  | 61.92   | 63.18   | 62.15   | 62.42      | 1.07    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 472.62  | 473.47  | 467.89  | 471.33     | 0.64    | ppb   |
| Phosphorus | 31-2  | -19.27  | -16.35  | -15.92  | -17.18     |         | ppb   |
| Potassium  | 39-2  | 4.26    | 4.85    | 2.70    | 3.94       | 28.11   | ppb   |
| Rhodium    | 103-1 |         |         |         | 104        |         | %     |
| Rhodium    | 103-2 |         |         |         | 105        |         | %     |
| Scandium   | 45-1  |         |         |         | 97         |         | %     |
| Scandium   | 45-2  |         |         |         | 101        |         | %     |
| Selenium   | 82-1  | 70.90   | 71.85   | 69.90   | 70.88      | 1.38    | ppb   |
| Selenium   | 77-2  | 67.35   | 73.39   | 70.06   | 70.26      | 4.31    | ppb   |
| Selenium   | 78-2  | 69.11   | 68.35   | 67.53   | 68.33      | 1.16    | ppb   |
| Silicon    | 28-1  | 12.12   | 11.72   | 11.54   | 11.80      | 2.51    | ppb   |
| Silver     | 107-1 | 93.83   | 93.35   | 96.18   | 94.45      | 1.60    | ppb   |
| Silver     | 109-1 | 93.32   | 94.85   | 94.80   | 94.32      | 0.92    | ppb   |
| Sodium     | 23-2  | 38.85   | 38.53   | 36.59   | 37.99      | 3.23    | ppb   |
| Strontium  | 86-1  | 0.05    | 0.06    | 0.07    | 0.06       | 21.05   | ppb   |
| Strontium  | 88-1  | 0.06    | 0.06    | 0.06    | 0.06       | 0.88    | ppb   |
| Sulfur     | 34-1  | -773.56 | -777.18 | -809.49 | -786.75    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 109        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 7.29    | 7.30    | 7.32    | 7.31       | 0.22    | ppb   |
| Thallium   | 205-1 | 7.28    | 7.32    | 7.39    | 7.33       | 0.76    | ppb   |
| Tin        | 118-1 | 0.01    | 0.01    | 0.03    | 0.02       | 48.27   | ppb   |
| Titanium   | 47-1  | 0.28    | 0.30    | 0.38    | 0.32       | 16.66   | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4917-04DLX2Instrumnet Name :P7

Client Sample ID :MX1010DLDilution Factor :2

Date & Time Acquired :2024-12-03 15:12:17DataFile Name :033SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.01    | 0.01    | 0.01       | 9.25    | ppb   |
| Vanadium  | 51-2  | 577.78  | 561.95  | 562.11  | 567.28     | 1.60    | ppb   |
| Yttrium   | 89-1  |         |         |         | 104        |         | %     |
| Yttrium   | 89-2  |         |         |         | 103        |         | %     |
| Zinc      | 66-2  | 433.56  | 433.35  | 429.26  | 432.06     | 0.56    | ppb   |
| Zirconium | 90-1  | 0.05    | 0.05    | 0.05    | 0.05       | 2.73    | ppb   |
| Zirconium | 91-1  | 0.05    | 0.06    | 0.07    | 0.06       | 14.61   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-01 Instrumnet Name : P7  
Client Sample ID : MX1007 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:15:21 DataFile Name : 034SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 15097.68 | 15467.24 | 15210.45 | 15258.46   | 1.24    | ppb   |
| Antimony   | 121-1 | 148.29   | 155.45   | 158.79   | 154.17     | 3.48    | ppb   |
| Arsenic    | 75-2  | 454.18   | 451.03   | 453.39   | 452.87     | 0.36    | ppb   |
| Barium     | 135-1 | 902.55   | 933.61   | 946.36   | 927.51     | 2.43    | ppb   |
| Barium     | 137-1 | 888.85   | 934.00   | 944.28   | 922.38     | 3.20    | ppb   |
| Beryllium  | 9-1   | 346.50   | 348.36   | 345.70   | 346.86     | 0.39    | ppb   |
| Bismuth    | 209-1 |          |          |          | 118        |         | %     |
| Bismuth    | 209-2 |          |          |          | 112        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 241.26   | 249.02   | 250.84   | 247.04     | 2.06    | ppb   |
| Cadmium    | 106-1 | 235.77   | 248.35   | 250.88   | 245.00     | 3.30    | ppb   |
| Cadmium    | 111-1 | 274.91   | 285.28   | 292.10   | 284.10     | 3.05    | ppb   |
| Calcium    | 43-1  | 14188.53 | 14624.77 | 14908.60 | 14573.96   | 2.49    | ppb   |
| Calcium    | 44-1  | 13314.68 | 13748.91 | 14018.78 | 13694.12   | 2.59    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 614.60   | 623.90   | 607.64   | 615.38     | 1.33    | ppb   |
| Cobalt     | 59-2  | 446.78   | 445.33   | 445.19   | 445.77     | 0.20    | ppb   |
| Copper     | 63-2  | 316.11   | 314.21   | 310.80   | 313.70     | 0.86    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 116        |         | %     |
| Holmium    | 165-2 |          |          |          | 110        |         | %     |
| Indium     | 115-1 |          |          |          | 108        |         | %     |
| Indium     | 115-2 |          |          |          | 102        |         | %     |
| Iron       | 56-2  | 19781.97 | 20054.70 | 19605.41 | 19814.02   | 1.14    | ppb   |
| Iron       | 57-2  | 19587.61 | 19709.43 | 19566.52 | 19621.19   | 0.39    | ppb   |
| Iron       | 54-2  | 20204.88 | 20478.67 | 19993.97 | 20225.84   | 1.20    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-01 Instrumnet Name : P7  
Client Sample ID : MX1007 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:15:21 DataFile Name : 034SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 370.83  | 382.98  | 399.91  | 384.57     | 3.80    | ppb   |
| Lead       | 207-1 | 357.48  | 365.45  | 378.34  | 367.09     | 2.87    | ppb   |
| Lead       | 208-1 | 361.01  | 369.51  | 385.74  | 372.09     | 3.38    | ppb   |
| Lithium    | 6-1   |         |         |         | 106        |         | %     |
| Magnesium  | 24-2  | 4510.84 | 4641.71 | 4589.23 | 4580.59    | 1.44    | ppb   |
| Manganese  | 55-2  | 1054.38 | 1063.95 | 1038.95 | 1052.43    | 1.20    | ppb   |
| Molybdenum | 94-1  | 113.55  | 118.17  | 118.88  | 116.87     | 2.48    | ppb   |
| Molybdenum | 95-1  | 109.14  | 113.61  | 113.59  | 112.11     | 2.29    | ppb   |
| Molybdenum | 96-1  | 109.03  | 113.92  | 115.31  | 112.76     | 2.93    | ppb   |
| Molybdenum | 97-1  | 109.23  | 113.61  | 112.94  | 111.92     | 2.11    | ppb   |
| Molybdenum | 98-1  | 108.72  | 114.69  | 113.02  | 112.14     | 2.75    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 292.19  | 296.08  | 292.18  | 293.48     | 0.77    | ppb   |
| Phosphorus | 31-2  | 544.38  | 559.98  | 543.16  | 549.17     | 1.71    | ppb   |
| Potassium  | 39-2  | 3554.19 | 3560.41 | 3511.03 | 3541.88    | 0.76    | ppb   |
| Rhodium    | 103-1 |         |         |         | 106        |         | %     |
| Rhodium    | 103-2 |         |         |         | 106        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 103        |         | %     |
| Selenium   | 82-1  | 249.20  | 255.36  | 256.54  | 253.70     | 1.55    | ppb   |
| Selenium   | 77-2  | 252.64  | 259.15  | 258.82  | 256.87     | 1.43    | ppb   |
| Selenium   | 78-2  | 244.95  | 246.50  | 249.06  | 246.84     | 0.84    | ppb   |
| Silicon    | 28-1  | 967.27  | 1001.17 | 1002.79 | 990.41     | 2.03    | ppb   |
| Silver     | 107-1 | 124.28  | 127.91  | 131.92  | 128.04     | 2.98    | ppb   |
| Silver     | 109-1 | 124.04  | 128.28  | 130.62  | 127.65     | 2.61    | ppb   |
| Sodium     | 23-2  | 1212.34 | 1223.81 | 1208.51 | 1214.88    | 0.66    | ppb   |
| Strontium  | 86-1  | 510.68  | 527.74  | 534.38  | 524.27     | 2.33    | ppb   |
| Strontium  | 88-1  | 509.25  | 533.06  | 531.25  | 524.52     | 2.53    | ppb   |
| Sulfur     | 34-1  | -917.59 | -923.58 | -951.72 | -930.96    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 114        |         | %     |
| Terbium    | 159-2 |         |         |         | 110        |         | %     |
| Thallium   | 203-1 | 421.90  | 434.55  | 449.63  | 435.36     | 3.19    | ppb   |
| Thallium   | 205-1 | 422.00  | 433.59  | 447.97  | 434.52     | 3.00    | ppb   |
| Tin        | 118-1 | 239.65  | 245.58  | 254.12  | 246.45     | 2.95    | ppb   |
| Titanium   | 47-1  | 586.82  | 618.87  | 621.00  | 608.90     | 3.15    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4917-01Instrumnet Name :P7

Client Sample ID :MX1007Dilution Factor :1

Date & Time Acquired :2024-12-03 15:15:21DataFile Name :034SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 402.90  | 418.23  | 435.13  | 418.75     | 3.85    | ppb   |
| Vanadium  | 51-2  | 299.50  | 298.80  | 295.74  | 298.01     | 0.67    | ppb   |
| Yttrium   | 89-1  |         |         |         | 113        |         | %     |
| Yttrium   | 89-2  |         |         |         | 109        |         | %     |
| Zinc      | 66-2  | 989.56  | 1016.38 | 992.84  | 999.60     | 1.46    | ppb   |
| Zirconium | 90-1  | 13.59   | 14.27   | 14.24   | 14.03      | 2.72    | ppb   |
| Zirconium | 91-1  | 13.76   | 14.46   | 14.40   | 14.21      | 2.71    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV02 Instrumnet Name : P7  
Client Sample ID : CCV02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:18:05 DataFile Name : 035CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 49665.66  | 50073.45  | 49650.08  | 49796.39   | 0.48    | ppb   |
| Antimony   | 121-1 | 518.08    | 525.75    | 525.58    | 523.14     | 0.84    | ppb   |
| Arsenic    | 75-2  | 525.11    | 528.13    | 528.00    | 527.08     | 0.32    | ppb   |
| Barium     | 135-1 | 2486.88   | 2519.76   | 2504.76   | 2503.80    | 0.66    | ppb   |
| Barium     | 137-1 | 2460.45   | 2509.31   | 2500.87   | 2490.21    | 1.05    | ppb   |
| Beryllium  | 9-1   | 480.03    | 492.50    | 493.06    | 488.53     | 1.51    | ppb   |
| Bismuth    | 209-1 |           |           |           | 107        |         | %     |
| Bismuth    | 209-2 |           |           |           | 101        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 504.99    | 514.47    | 513.65    | 511.04     | 1.03    | ppb   |
| Cadmium    | 106-1 | 505.61    | 510.32    | 510.77    | 508.90     | 0.56    | ppb   |
| Cadmium    | 111-1 | 506.95    | 511.06    | 518.37    | 512.13     | 1.13    | ppb   |
| Calcium    | 43-1  | 251226.62 | 251722.03 | 246532.80 | 249827.15  | 1.15    | ppb   |
| Calcium    | 44-1  | 249249.46 | 246176.06 | 248351.58 | 247925.70  | 0.64    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 507.41    | 514.69    | 509.14    | 510.41     | 0.75    | ppb   |
| Cobalt     | 59-2  | 531.77    | 540.95    | 533.85    | 535.52     | 0.90    | ppb   |
| Copper     | 63-2  | 5102.01   | 5213.28   | 5097.65   | 5137.64    | 1.28    | 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 |           |           |           | 113        |         | %     |
| Holmium    | 165-2 |           |           |           | 107        |         | %     |
| Indium     | 115-1 |           |           |           | 100        |         | %     |
| Indium     | 115-2 |           |           |           | 95         |         | %     |
| Iron       | 56-2  | 129253.30 | 128669.31 | 126195.47 | 128039.36  | 1.27    | ppb   |
| Iron       | 57-2  | 128125.03 | 128629.29 | 128281.88 | 128345.40  | 0.20    | ppb   |
| Iron       | 54-2  | 127424.54 | 129281.25 | 126569.82 | 127758.54  | 1.09    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV02 Instrumnet Name : P7  
Client Sample ID : CCV02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:18:05 DataFile Name : 035CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 2570.37   | 2552.79   | 2633.39   | 2585.51    | 1.64    | ppb   |
| Lead       | 207-1 | 2521.96   | 2522.67   | 2598.00   | 2547.54    | 1.72    | ppb   |
| Lead       | 208-1 | 2544.02   | 2536.52   | 2598.25   | 2559.60    | 1.32    | ppb   |
| Lithium    | 6-1   |           |           |           | 90         |         | %     |
| Magnesium  | 24-2  | 252689.74 | 257086.49 | 252872.25 | 254216.16  | 0.98    | ppb   |
| Manganese  | 55-2  | 5046.96   | 5079.23   | 4977.26   | 5034.49    | 1.04    | ppb   |
| Molybdenum | 94-1  | 4985.10   | 5057.33   | 5110.80   | 5051.08    | 1.25    | ppb   |
| Molybdenum | 95-1  | 4991.05   | 5025.59   | 5091.29   | 5035.98    | 1.01    | ppb   |
| Molybdenum | 96-1  | 5033.72   | 5032.47   | 5036.19   | 5034.12    | 0.04    | ppb   |
| Molybdenum | 97-1  | 5041.92   | 5075.51   | 5065.28   | 5060.91    | 0.34    | ppb   |
| Molybdenum | 98-1  | 5080.92   | 5093.24   | 5112.66   | 5095.60    | 0.31    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 534.72    | 532.66    | 526.99    | 531.46     | 0.75    | ppb   |
| Phosphorus | 31-2  | 9870.43   | 9978.85   | 9815.48   | 9888.25    | 0.84    | ppb   |
| Potassium  | 39-2  | 125736.74 | 125019.87 | 125190.40 | 125315.67  | 0.30    | ppb   |
| Rhodium    | 103-1 |           |           |           | 96         |         | %     |
| Rhodium    | 103-2 |           |           |           | 94         |         | %     |
| Scandium   | 45-1  |           |           |           | 96         |         | %     |
| Scandium   | 45-2  |           |           |           | 98         |         | %     |
| Selenium   | 82-1  | 508.25    | 513.68    | 518.36    | 513.43     | 0.99    | ppb   |
| Selenium   | 77-2  | 498.80    | 497.00    | 507.20    | 501.00     | 1.09    | ppb   |
| Selenium   | 78-2  | 495.58    | 507.80    | 491.64    | 498.34     | 1.69    | ppb   |
| Silicon    | 28-1  | 504.28    | 498.46    | 506.35    | 503.03     | 0.81    | ppb   |
| Silver     | 107-1 | 502.51    | 514.11    | 512.18    | 509.60     | 1.22    | ppb   |
| Silver     | 109-1 | 501.04    | 508.17    | 509.22    | 506.15     | 0.88    | ppb   |
| Sodium     | 23-2  | 250034.64 | 254104.69 | 250553.90 | 251564.41  | 0.88    | ppb   |
| Strontium  | 86-1  | 499.28    | 511.86    | 501.47    | 504.20     | 1.33    | ppb   |
| Strontium  | 88-1  | 491.41    | 502.46    | 504.70    | 499.52     | 1.42    | ppb   |
| Sulfur     | 34-1  | 8626.40   | 8547.47   | 8575.88   | 8583.25    | 0.47    | ppb   |
| Terbium    | 159-1 |           |           |           | 111        |         | %     |
| Terbium    | 159-2 |           |           |           | 105        |         | %     |
| Thallium   | 203-1 | 516.71    | 510.04    | 526.50    | 517.75     | 1.60    | ppb   |
| Thallium   | 205-1 | 513.49    | 512.86    | 522.48    | 516.28     | 1.04    | ppb   |
| Tin        | 118-1 | 504.71    | 503.13    | 501.18    | 503.01     | 0.35    | ppb   |
| Titanium   | 47-1  | 4981.42   | 4932.31   | 5006.31   | 4973.35    | 0.76    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV02Instrumnet Name :P7

Client Sample ID :CCV02Dilution Factor :1

Date & Time Acquired :2024-12-03 15:18:05DataFile Name :035CCV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 515.80  | 517.22  | 525.46  | 519.49     | 1.00    | ppb   |
| Vanadium  | 51-2  | 511.19  | 513.82  | 509.20  | 511.40     | 0.45    | ppb   |
| Yttrium   | 89-1  |         |         |         | 103        |         | %     |
| Yttrium   | 89-2  |         |         |         | 99         |         | %     |
| Zinc      | 66-2  | 5076.62 | 5178.06 | 5071.12 | 5108.60    | 1.18    | ppb   |
| Zirconium | 90-1  | 500.55  | 512.00  | 515.07  | 509.21     | 1.50    | ppb   |
| Zirconium | 91-1  | 499.82  | 514.89  | 522.35  | 512.35     | 2.24    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB02 Instrumnet Name : P7  
Client Sample ID : CCB02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:27:22 DataFile Name : 037CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 2.48    | 2.80    | 2.96    | 2.75       | 8.85    | ppb   |
| Antimony   | 121-1 | 0.03    | 0.03    | 0.03    | 0.03       | 6.87    | ppb   |
| Arsenic    | 75-2  | 0.03    | 0.02    | 0.02    | 0.02       | 30.84   | ppb   |
| Barium     | 135-1 | 0.08    | 0.04    | 0.08    | 0.06       | 31.03   | ppb   |
| Barium     | 137-1 | 0.06    | 0.04    | 0.06    | 0.06       | 18.42   | ppb   |
| Beryllium  | 9-1   | 0.03    | 0.03    | 0.09    | 0.05       | 66.71   | ppb   |
| Bismuth    | 209-1 |         |         |         | 113        |         | %     |
| Bismuth    | 209-2 |         |         |         | 109        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.04   | -0.02   | -0.01   | -0.02      |         | ppb   |
| Cadmium    | 106-1 | -0.35   | -1.40   | -0.72   | -0.82      |         | ppb   |
| Cadmium    | 111-1 | 0.01    | -0.03   | 0.01    | 0.00       |         | ppb   |
| Calcium    | 43-1  | 2.08    | 3.77    | 55.02   | 20.29      | 148.30  | ppb   |
| Calcium    | 44-1  | 2.61    | 2.39    | 37.21   | 14.07      | 142.39  | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.02    | 0.01    | 0.01    | 0.01       | 33.95   | ppb   |
| Cobalt     | 59-2  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.15    | 0.13    | 0.16    | 0.15       | 10.10   | ppb   |
| Dysprosium | 156-1 |         |         |         |            |         | cps   |
| Dysprosium | 156-2 |         |         |         |            |         | cps   |
| Erbium     | 164-1 |         |         |         |            |         | cps   |
| Erbium     | 164-2 |         |         |         |            |         | cps   |
| Gadolinium | 160-1 |         |         |         |            |         | cps   |
| Gadolinium | 160-2 |         |         |         |            |         | cps   |
| Holmium    | 165-1 |         |         |         | 111        |         | %     |
| Holmium    | 165-2 |         |         |         | 106        |         | %     |
| Indium     | 115-1 |         |         |         | 107        |         | %     |
| Indium     | 115-2 |         |         |         | 102        |         | %     |
| Iron       | 56-2  | 4.08    | 4.32    | 4.95    | 4.45       | 10.03   | ppb   |
| Iron       | 57-2  | 2.91    | 3.40    | 3.94    | 3.42       | 15.08   | ppb   |
| Iron       | 54-2  | 3.67    | 4.63    | 4.79    | 4.37       | 13.85   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB02 Instrumnet Name : P7  
Client Sample ID : CCB02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:27:22 DataFile Name : 037CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.29    | 0.30    | 0.31    | 0.30       | 2.19    | ppb   |
| Lead       | 207-1 | 0.27    | 0.29    | 0.29    | 0.28       | 3.76    | ppb   |
| Lead       | 208-1 | 0.28    | 0.29    | 0.29    | 0.29       | 1.95    | ppb   |
| Lithium    | 6-1   |         |         |         | 95         |         | %     |
| Magnesium  | 24-2  | 2.87    | 3.43    | 4.18    | 3.50       | 18.82   | ppb   |
| Manganese  | 55-2  | 0.09    | 0.09    | 0.10    | 0.09       | 1.42    | ppb   |
| Molybdenum | 94-1  | 0.16    | 0.12    | 0.20    | 0.16       | 26.28   | ppb   |
| Molybdenum | 95-1  | 0.15    | 0.13    | 0.20    | 0.16       | 25.51   | ppb   |
| Molybdenum | 96-1  | 0.14    | 0.12    | 0.21    | 0.15       | 31.53   | ppb   |
| Molybdenum | 97-1  | 0.15    | 0.09    | 0.16    | 0.13       | 26.13   | ppb   |
| Molybdenum | 98-1  | 0.15    | 0.11    | 0.15    | 0.14       | 16.38   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.02   | -0.06   | -0.03   | -0.04      |         | ppb   |
| Phosphorus | 31-2  | -15.82  | -17.74  | -17.92  | -17.16     |         | ppb   |
| Potassium  | 39-2  | 2.74    | 2.40    | 4.43    | 3.19       | 33.99   | ppb   |
| Rhodium    | 103-1 |         |         |         | 105        |         | %     |
| Rhodium    | 103-2 |         |         |         | 105        |         | %     |
| Scandium   | 45-1  |         |         |         | 99         |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | -0.37   | -0.34   | -0.15   | -0.29      |         | ppb   |
| Selenium   | 77-2  | 0.16    | -0.03   | 0.06    | 0.06       | 152.53  | ppb   |
| Selenium   | 78-2  | -0.19   | -0.14   | -0.22   | -0.18      |         | ppb   |
| Silicon    | 28-1  | -3.64   | -3.09   | -2.81   | -3.18      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.02    | 0.02    | 0.02       | 4.21    | ppb   |
| Silver     | 109-1 | 0.02    | 0.02    | 0.02    | 0.02       | 2.41    | ppb   |
| Sodium     | 23-2  | 17.14   | 17.38   | 18.06   | 17.53      | 2.74    | ppb   |
| Strontium  | 86-1  | 0.04    | 0.03    | 0.04    | 0.04       | 3.79    | ppb   |
| Strontium  | 88-1  | 0.01    | 0.01    | 0.03    | 0.02       | 69.09   | ppb   |
| Sulfur     | 34-1  | -478.47 | -338.54 | -364.67 | -393.89    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 110        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 0.17    | 0.16    | 0.17    | 0.17       | 2.75    | ppb   |
| Thallium   | 205-1 | 0.16    | 0.18    | 0.17    | 0.17       | 3.95    | ppb   |
| Tin        | 118-1 | 0.01    | 0.02    | 0.01    | 0.01       | 49.63   | ppb   |
| Titanium   | 47-1  | 0.13    | 0.09    | 0.80    | 0.34       | 117.19  | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CCB02

Instrumnet Name :

P7

Client Sample ID :

CCB02

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:27:22

DataFile Name :

037CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.01    | 0.01    | 0.01       | 28.05   | ppb   |
| Vanadium  | 51-2  | 0.02    | 0.02    | 0.03    | 0.02       | 22.55   | ppb   |
| Yttrium   | 89-1  |         |         |         | 105        |         | %     |
| Yttrium   | 89-2  |         |         |         | 102        |         | %     |
| Zinc      | 66-2  | 0.14    | 0.16    | 0.23    | 0.18       | 26.70   | ppb   |
| Zirconium | 90-1  | 0.02    | 0.02    | 0.02    | 0.02       | 15.63   | ppb   |
| Zirconium | 91-1  | 0.02    | 0.02    | 0.02    | 0.02       | 13.11   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOIL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:33:14 DataFile Name : 038SMPL.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 122915.89 | 123062.61 | 121502.77 | 122493.76  | 0.70    | ppb   |
| Antimony   | 121-1 | 592.05    | 590.63    | 590.45    | 591.05     | 0.15    | ppb   |
| Arsenic    | 75-2  | 876.67    | 874.48    | 868.42    | 873.19     | 0.49    | ppb   |
| Barium     | 135-1 | 3683.36   | 3717.66   | 3683.82   | 3694.94    | 0.53    | ppb   |
| Barium     | 137-1 | 3683.87   | 3720.01   | 3696.72   | 3700.20    | 0.50    | ppb   |
| Beryllium  | 9-1   | 624.84    | 602.06    | 593.02    | 606.64     | 2.70    | ppb   |
| Bismuth    | 209-1 |           |           |           | 123        |         | %     |
| Bismuth    | 209-2 |           |           |           | 107        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 781.64    | 776.89    | 789.75    | 782.76     | 0.83    | ppb   |
| Cadmium    | 106-1 | 763.68    | 770.15    | 772.59    | 768.80     | 0.60    | ppb   |
| Cadmium    | 111-1 | 876.42    | 869.15    | 886.49    | 877.35     | 0.99    | ppb   |
| Calcium    | 43-1  | 67269.81  | 67375.66  | 68038.57  | 67561.35   | 0.62    | ppb   |
| Calcium    | 44-1  | 66415.49  | 66940.08  | 67008.03  | 66787.87   | 0.49    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 3377.66   | 3393.83   | 3404.15   | 3391.88    | 0.39    | ppb   |
| Cobalt     | 59-2  | 1142.53   | 1137.53   | 1137.55   | 1139.20    | 0.25    | ppb   |
| Copper     | 63-2  | 3088.33   | 3128.22   | 3125.80   | 3114.12    | 0.72    | 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 |           |           |           | 129        |         | %     |
| Holmium    | 165-2 |           |           |           | 114        |         | %     |
| Indium     | 115-1 |           |           |           | 112        |         | %     |
| Indium     | 115-2 |           |           |           | 98         |         | %     |
| Iron       | 56-2  | 145388.66 | 146204.47 | 145640.26 | 145744.46  | 0.29    | ppb   |
| Iron       | 57-2  | 144962.99 | 143351.99 | 145261.12 | 144525.37  | 0.71    | ppb   |
| Iron       | 54-2  | 147426.68 | 145982.20 | 147445.36 | 146951.41  | 0.57    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOIL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:33:14 DataFile Name : 038SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 2320.13  | 2390.30  | 2389.64  | 2366.69    | 1.70    | ppb   |
| Lead       | 207-1 | 2269.88  | 2321.86  | 2296.92  | 2296.22    | 1.13    | ppb   |
| Lead       | 208-1 | 2293.87  | 2342.17  | 2339.04  | 2325.03    | 1.16    | ppb   |
| Lithium    | 6-1   |          |          |          | 229        |         | %     |
| Magnesium  | 24-2  | 81025.61 | 82333.54 | 80521.63 | 81293.59   | 1.15    | ppb   |
| Manganese  | 55-2  | 12173.09 | 12191.67 | 12144.26 | 12169.67   | 0.20    | ppb   |
| Molybdenum | 94-1  | 1231.83  | 1245.66  | 1253.71  | 1243.73    | 0.89    | ppb   |
| Molybdenum | 95-1  | 1270.00  | 1276.73  | 1290.07  | 1278.93    | 0.80    | ppb   |
| Molybdenum | 96-1  | 1257.73  | 1280.92  | 1288.12  | 1275.59    | 1.24    | ppb   |
| Molybdenum | 97-1  | 1254.89  | 1285.38  | 1298.89  | 1279.72    | 1.76    | ppb   |
| Molybdenum | 98-1  | 1272.17  | 1291.40  | 1290.39  | 1284.66    | 0.84    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 1100.94  | 1096.33  | 1104.25  | 1100.51    | 0.36    | ppb   |
| Phosphorus | 31-2  | 6743.61  | 6857.85  | 6732.70  | 6778.05    | 1.02    | ppb   |
| Potassium  | 39-2  | 88428.37 | 88453.42 | 88547.65 | 88476.48   | 0.07    | ppb   |
| Rhodium    | 103-1 |          |          |          | 106        |         | %     |
| Rhodium    | 103-2 |          |          |          | 102        |         | %     |
| Scandium   | 45-1  |          |          |          | 111        |         | %     |
| Scandium   | 45-2  |          |          |          | 113        |         | %     |
| Selenium   | 82-1  | 1821.87  | 1854.32  | 1875.96  | 1850.72    | 1.47    | ppb   |
| Selenium   | 77-2  | 1893.43  | 1855.07  | 1857.06  | 1868.52    | 1.16    | ppb   |
| Selenium   | 78-2  | 1846.07  | 1830.91  | 1814.89  | 1830.62    | 0.85    | ppb   |
| Silicon    | 28-1  | 4334.75  | 4190.62  | 4167.26  | 4230.88    | 2.14    | ppb   |
| Silver     | 107-1 | 365.15   | 364.41   | 367.70   | 365.75     | 0.47    | ppb   |
| Silver     | 109-1 | 363.66   | 365.58   | 369.66   | 366.30     | 0.84    | ppb   |
| Sodium     | 23-2  | 96374.94 | 97988.74 | 97517.42 | 97293.70   | 0.85    | ppb   |
| Strontium  | 86-1  | 2501.87  | 2529.27  | 2530.62  | 2520.59    | 0.64    | ppb   |
| Strontium  | 88-1  | 2513.12  | 2515.71  | 2560.26  | 2529.69    | 1.05    | ppb   |
| Sulfur     | 34-1  | 2158.68  | 2101.14  | 1991.46  | 2083.76    | 4.08    | ppb   |
| Terbium    | 159-1 |          |          |          | 126        |         | %     |
| Terbium    | 159-2 |          |          |          | 113        |         | %     |
| Thallium   | 203-1 | 2383.51  | 2422.20  | 2443.43  | 2416.38    | 1.26    | ppb   |
| Thallium   | 205-1 | 2373.92  | 2439.48  | 2425.61  | 2413.00    | 1.43    | ppb   |
| Tin        | 118-1 | 875.11   | 871.27   | 871.06   | 872.48     | 0.26    | ppb   |
| Titanium   | 47-1  | 4430.12  | 4485.23  | 4457.62  | 4457.66    | 0.62    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10Instrumnet Name :P7

Client Sample ID :PT-MET-SOILDilution Factor :1

Date & Time Acquired :2024-12-03 15:33:14DataFile Name :038SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 422.91  | 432.94  | 435.19  | 430.35     | 1.52    | ppb   |
| Vanadium  | 51-2  | 2783.28 | 2797.59 | 2822.38 | 2801.08    | 0.71    | ppb   |
| Yttrium   | 89-1  |         |         |         | 154        |         | %     |
| Yttrium   | 89-2  |         |         |         | 138        |         | %     |
| Zinc      | 66-2  | 3549.38 | 3628.08 | 3576.70 | 3584.72    | 1.11    | ppb   |
| Zirconium | 90-1  | 107.51  | 105.96  | 107.18  | 106.88     | 0.76    | ppb   |
| Zirconium | 91-1  | 105.87  | 106.72  | 108.02  | 106.87     | 1.01    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10DLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILDL Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:38:03 DataFile Name : 039SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 27973.34 | 28102.03 | 27939.57 | 28004.98   | 0.31    | ppb   |
| Antimony   | 121-1 | 120.24   | 123.56   | 122.24   | 122.02     | 1.37    | ppb   |
| Arsenic    | 75-2  | 211.81   | 212.48   | 215.10   | 213.13     | 0.82    | ppb   |
| Barium     | 135-1 | 737.25   | 765.20   | 762.41   | 754.95     | 2.04    | ppb   |
| Barium     | 137-1 | 744.60   | 762.60   | 760.80   | 756.00     | 1.31    | ppb   |
| Beryllium  | 9-1   | 240.73   | 242.97   | 248.70   | 244.13     | 1.68    | ppb   |
| Bismuth    | 209-1 |          |          |          | 117        |         | %     |
| Bismuth    | 209-2 |          |          |          | 108        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 160.14   | 165.80   | 164.28   | 163.41     | 1.79    | ppb   |
| Cadmium    | 106-1 | 156.90   | 161.25   | 158.73   | 158.96     | 1.38    | ppb   |
| Cadmium    | 111-1 | 180.87   | 187.01   | 185.57   | 184.48     | 1.74    | ppb   |
| Calcium    | 43-1  | 15203.58 | 15945.72 | 15681.84 | 15610.38   | 2.41    | ppb   |
| Calcium    | 44-1  | 14250.25 | 14971.79 | 14736.84 | 14652.96   | 2.51    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 749.07   | 757.76   | 764.03   | 756.95     | 0.99    | ppb   |
| Cobalt     | 59-2  | 251.12   | 258.25   | 255.59   | 254.99     | 1.41    | ppb   |
| Copper     | 63-2  | 705.32   | 708.64   | 714.78   | 709.58     | 0.68    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 117        |         | %     |
| Holmium    | 165-2 |          |          |          | 109        |         | %     |
| Indium     | 115-1 |          |          |          | 108        |         | %     |
| Indium     | 115-2 |          |          |          | 99         |         | %     |
| Iron       | 56-2  | 32512.73 | 32895.63 | 32832.05 | 32746.81   | 0.63    | ppb   |
| Iron       | 57-2  | 31866.83 | 32498.10 | 32251.45 | 32205.46   | 0.99    | ppb   |
| Iron       | 54-2  | 33114.28 | 33440.30 | 33264.20 | 33272.93   | 0.49    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10DLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILDL Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:38:03 DataFile Name : 039SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 459.07   | 484.46   | 484.67   | 476.07     | 3.09    | ppb   |
| Lead       | 207-1 | 444.16   | 464.83   | 467.88   | 458.95     | 2.81    | ppb   |
| Lead       | 208-1 | 450.16   | 470.45   | 473.30   | 464.64     | 2.72    | ppb   |
| Lithium    | 6-1   |          |          |          | 113        |         | %     |
| Magnesium  | 24-2  | 18363.77 | 18372.97 | 18441.48 | 18392.74   | 0.23    | ppb   |
| Manganese  | 55-2  | 2683.33  | 2723.21  | 2707.89  | 2704.81    | 0.74    | ppb   |
| Molybdenum | 94-1  | 306.86   | 318.68   | 315.97   | 313.84     | 1.97    | ppb   |
| Molybdenum | 95-1  | 318.24   | 326.72   | 331.12   | 325.36     | 2.01    | ppb   |
| Molybdenum | 96-1  | 316.04   | 323.30   | 325.64   | 321.66     | 1.56    | ppb   |
| Molybdenum | 97-1  | 316.87   | 326.54   | 328.00   | 323.80     | 1.87    | ppb   |
| Molybdenum | 98-1  | 315.63   | 328.00   | 331.17   | 324.93     | 2.53    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 244.43   | 249.14   | 248.21   | 247.26     | 1.01    | ppb   |
| Phosphorus | 31-2  | 1457.02  | 1519.18  | 1494.57  | 1490.26    | 2.10    | ppb   |
| Potassium  | 39-2  | 19916.76 | 20227.53 | 20070.75 | 20071.68   | 0.77    | ppb   |
| Rhodium    | 103-1 |          |          |          | 105        |         | %     |
| Rhodium    | 103-2 |          |          |          | 103        |         | %     |
| Scandium   | 45-1  |          |          |          | 97         |         | %     |
| Scandium   | 45-2  |          |          |          | 101        |         | %     |
| Selenium   | 82-1  | 432.12   | 450.19   | 447.65   | 443.32     | 2.21    | ppb   |
| Selenium   | 77-2  | 429.13   | 455.94   | 445.40   | 443.49     | 3.05    | ppb   |
| Selenium   | 78-2  | 427.18   | 426.85   | 436.85   | 430.29     | 1.32    | ppb   |
| Silicon    | 28-1  | 938.94   | 984.49   | 962.04   | 961.82     | 2.37    | ppb   |
| Silver     | 107-1 | 75.70    | 78.80    | 78.56    | 77.68      | 2.22    | ppb   |
| Silver     | 109-1 | 76.76    | 77.73    | 76.81    | 77.10      | 0.71    | ppb   |
| Sodium     | 23-2  | 21863.84 | 22435.54 | 21924.39 | 22074.59   | 1.42    | ppb   |
| Strontium  | 86-1  | 624.81   | 652.19   | 648.81   | 641.94     | 2.33    | ppb   |
| Strontium  | 88-1  | 622.45   | 646.09   | 643.69   | 637.41     | 2.04    | ppb   |
| Sulfur     | 34-1  | -512.03  | -477.45  | -559.73  | -516.40    |         | ppb   |
| Terbium    | 159-1 |          |          |          | 116        |         | %     |
| Terbium    | 159-2 |          |          |          | 108        |         | %     |
| Thallium   | 203-1 | 462.98   | 487.69   | 488.42   | 479.70     | 3.02    | ppb   |
| Thallium   | 205-1 | 460.57   | 487.08   | 493.30   | 480.31     | 3.62    | ppb   |
| Tin        | 118-1 | 180.62   | 185.49   | 182.46   | 182.85     | 1.34    | ppb   |
| Titanium   | 47-1  | 944.66   | 976.57   | 972.69   | 964.64     | 1.81    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10DLX5Instrumnet Name :P7

Client Sample ID :PT-MET-SOILDLDilution Factor :5

Date & Time Acquired :2024-12-03 15:38:03DataFile Name :039SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 80.16   | 84.58   | 83.38   | 82.71      | 2.76    | ppb   |
| Vanadium  | 51-2  | 623.56  | 637.67  | 626.99  | 629.40     | 1.17    | ppb   |
| Yttrium   | 89-1  |         |         |         | 114        |         | %     |
| Yttrium   | 89-2  |         |         |         | 108        |         | %     |
| Zinc      | 66-2  | 838.88  | 839.02  | 838.39  | 838.77     | 0.04    | ppb   |
| Zirconium | 90-1  | 25.91   | 27.12   | 27.11   | 26.71      | 2.59    | ppb   |
| Zirconium | 91-1  | 25.93   | 27.04   | 27.23   | 26.73      | 2.63    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10RE Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:40:48 DataFile Name : 040SMPL.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 110171.87 | 108481.81 | 108883.88 | 109179.19  | 0.81    | ppb   |
| Antimony   | 121-1 | 436.32    | 447.76    | 440.25    | 441.44     | 1.32    | ppb   |
| Arsenic    | 75-2  | 775.91    | 771.32    | 768.36    | 771.86     | 0.49    | ppb   |
| Barium     | 135-1 | 3193.83   | 3258.90   | 3241.03   | 3231.25    | 1.04    | ppb   |
| Barium     | 137-1 | 3155.59   | 3236.78   | 3212.63   | 3201.67    | 1.30    | ppb   |
| Beryllium  | 9-1   | 595.61    | 575.92    | 565.63    | 579.05     | 2.63    | ppb   |
| Bismuth    | 209-1 |           |           |           | 117        |         | %     |
| Bismuth    | 209-2 |           |           |           | 106        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 679.75    | 688.09    | 679.99    | 682.61     | 0.70    | ppb   |
| Cadmium    | 106-1 | 668.84    | 674.19    | 669.72    | 670.92     | 0.43    | ppb   |
| Cadmium    | 111-1 | 754.45    | 756.48    | 747.78    | 752.90     | 0.60    | ppb   |
| Calcium    | 43-1  | 61198.04  | 61723.19  | 62734.78  | 61885.34   | 1.26    | ppb   |
| Calcium    | 44-1  | 59938.13  | 59978.89  | 62155.15  | 60690.73   | 2.09    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 3126.03   | 3036.76   | 3089.09   | 3083.96    | 1.45    | ppb   |
| Cobalt     | 59-2  | 1039.08   | 1021.48   | 1041.36   | 1033.97    | 1.05    | ppb   |
| Copper     | 63-2  | 2818.58   | 2799.07   | 2853.16   | 2823.60    | 0.97    | ppb   |
| Dysprosium | 156-1 |           |           |           |            |         | cps   |
| Dysprosium | 156-2 |           |           |           |            |         | cps   |
| Erbium     | 164-1 |           |           |           |            |         | cps   |
| Erbium     | 164-2 |           |           |           |            |         | cps   |
| Gadolinium | 160-1 |           |           |           |            |         | cps   |
| Gadolinium | 160-2 |           |           |           |            |         | cps   |
| Holmium    | 165-1 |           |           |           | 122        |         | %     |
| Holmium    | 165-2 |           |           |           | 111        |         | %     |
| Indium     | 115-1 |           |           |           | 106        |         | %     |
| Indium     | 115-2 |           |           |           | 96         |         | %     |
| Iron       | 56-2  | 132174.90 | 130417.16 | 130782.14 | 131124.74  | 0.71    | ppb   |
| Iron       | 57-2  | 131803.01 | 129673.49 | 130163.26 | 130546.59  | 0.85    | ppb   |
| Iron       | 54-2  | 134979.85 | 131418.27 | 133167.65 | 133188.59  | 1.34    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10REInstrumnet Name :P7

Client Sample ID :PT-MET-SOILREDilution Factor :1

Date & Time Acquired :2024-12-03 15:40:48DataFile Name :040SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 2108.89  | 2172.38  | 2157.83  | 2146.37    | 1.55    | ppb   |
| Lead       | 207-1 | 2025.65  | 2065.44  | 2080.57  | 2057.22    | 1.38    | ppb   |
| Lead       | 208-1 | 2062.53  | 2098.31  | 2107.77  | 2089.54    | 1.14    | ppb   |
| Lithium    | 6-1   |          |          |          | 193        |         | %     |
| Magnesium  | 24-2  | 72318.47 | 70756.50 | 71785.04 | 71620.00   | 1.11    | ppb   |
| Manganese  | 55-2  | 11040.49 | 10889.82 | 10956.36 | 10962.23   | 0.69    | ppb   |
| Molybdenum | 94-1  | 1095.88  | 1101.07  | 1105.52  | 1100.82    | 0.44    | ppb   |
| Molybdenum | 95-1  | 1153.44  | 1143.54  | 1153.99  | 1150.32    | 0.51    | ppb   |
| Molybdenum | 96-1  | 1141.92  | 1140.62  | 1151.14  | 1144.56    | 0.50    | ppb   |
| Molybdenum | 97-1  | 1144.70  | 1146.27  | 1161.23  | 1150.73    | 0.79    | ppb   |
| Molybdenum | 98-1  | 1146.33  | 1139.85  | 1168.09  | 1151.42    | 1.28    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 1004.49  | 991.14   | 1002.93  | 999.52     | 0.73    | ppb   |
| Phosphorus | 31-2  | 6008.89  | 5854.73  | 5905.62  | 5923.08    | 1.33    | ppb   |
| Potassium  | 39-2  | 79765.74 | 78837.22 | 79405.85 | 79336.27   | 0.59    | ppb   |
| Rhodium    | 103-1 |          |          |          | 101        |         | %     |
| Rhodium    | 103-2 |          |          |          | 100        |         | %     |
| Scandium   | 45-1  |          |          |          | 102        |         | %     |
| Scandium   | 45-2  |          |          |          | 107        |         | %     |
| Selenium   | 82-1  | 1552.98  | 1550.81  | 1589.24  | 1564.34    | 1.38    | ppb   |
| Selenium   | 77-2  | 1537.92  | 1580.54  | 1555.07  | 1557.84    | 1.38    | ppb   |
| Selenium   | 78-2  | 1542.58  | 1540.38  | 1528.27  | 1537.08    | 0.50    | ppb   |
| Silicon    | 28-1  | 2847.99  | 2860.97  | 2904.02  | 2870.99    | 1.02    | ppb   |
| Silver     | 107-1 | 322.85   | 327.76   | 326.20   | 325.60     | 0.77    | ppb   |
| Silver     | 109-1 | 322.29   | 330.80   | 322.79   | 325.30     | 1.47    | ppb   |
| Sodium     | 23-2  | 88655.56 | 87155.89 | 87673.99 | 87828.48   | 0.87    | ppb   |
| Strontium  | 86-1  | 2313.37  | 2313.95  | 2329.21  | 2318.84    | 0.39    | ppb   |
| Strontium  | 88-1  | 2316.86  | 2330.42  | 2335.98  | 2327.75    | 0.42    | ppb   |
| Sulfur     | 34-1  | 1538.02  | 1543.89  | 1622.26  | 1568.06    | 3.00    | ppb   |
| Terbium    | 159-1 |          |          |          | 120        |         | %     |
| Terbium    | 159-2 |          |          |          | 110        |         | %     |
| Thallium   | 203-1 | 2136.06  | 2205.29  | 2163.67  | 2168.34    | 1.61    | ppb   |
| Thallium   | 205-1 | 2145.31  | 2175.23  | 2175.83  | 2165.46    | 0.81    | ppb   |
| Tin        | 118-1 | 745.05   | 759.91   | 757.63   | 754.20     | 1.06    | ppb   |
| Titanium   | 47-1  | 3511.77  | 3588.80  | 3588.52  | 3563.03    | 1.25    | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

P4495-10RE

Instrumnet Name :

P7

Client Sample ID :

PT-MET-SOILRE

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:40:48

DataFile Name :

040SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 380.16  | 395.19  | 383.93  | 386.43     | 2.02    | ppb   |
| Vanadium  | 51-2  | 2569.18 | 2510.32 | 2552.36 | 2543.96    | 1.19    | ppb   |
| Yttrium   | 89-1  |         |         |         | 140        |         | %     |
| Yttrium   | 89-2  |         |         |         | 130        |         | %     |
| Zinc      | 66-2  | 3221.27 | 3194.01 | 3230.56 | 3215.28    | 0.59    | ppb   |
| Zirconium | 90-1  | 90.45   | 90.87   | 91.83   | 91.05      | 0.78    | ppb   |
| Zirconium | 91-1  | 90.85   | 91.62   | 93.45   | 91.98      | 1.45    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10REDLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:43:24 DataFile Name : 041SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 24467.48 | 24680.34 | 24345.07 | 24497.63   | 0.69    | ppb   |
| Antimony   | 121-1 | 89.76    | 93.38    | 92.40    | 91.85      | 2.04    | ppb   |
| Arsenic    | 75-2  | 190.64   | 188.49   | 192.52   | 190.55     | 1.06    | ppb   |
| Barium     | 135-1 | 648.58   | 664.32   | 668.75   | 660.55     | 1.60    | ppb   |
| Barium     | 137-1 | 653.91   | 666.12   | 665.28   | 661.77     | 1.03    | ppb   |
| Beryllium  | 9-1   | 223.13   | 229.96   | 227.66   | 226.91     | 1.53    | ppb   |
| Bismuth    | 209-1 |          |          |          | 117        |         | %     |
| Bismuth    | 209-2 |          |          |          | 109        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 143.68   | 149.17   | 146.06   | 146.30     | 1.88    | ppb   |
| Cadmium    | 106-1 | 138.54   | 141.11   | 142.18   | 140.61     | 1.33    | ppb   |
| Cadmium    | 111-1 | 160.82   | 164.90   | 166.60   | 164.11     | 1.81    | ppb   |
| Calcium    | 43-1  | 13937.89 | 14234.87 | 14300.27 | 14157.68   | 1.36    | ppb   |
| Calcium    | 44-1  | 13131.21 | 13318.20 | 13535.50 | 13328.30   | 1.52    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 674.35   | 682.23   | 677.85   | 678.14     | 0.58    | ppb   |
| Cobalt     | 59-2  | 230.96   | 228.58   | 232.67   | 230.74     | 0.89    | ppb   |
| Copper     | 63-2  | 633.26   | 631.45   | 633.51   | 632.74     | 0.18    | ppb   |
| Dysprosium | 156-1 |          |          |          |            |         | cps   |
| Dysprosium | 156-2 |          |          |          |            |         | cps   |
| Erbium     | 164-1 |          |          |          |            |         | cps   |
| Erbium     | 164-2 |          |          |          |            |         | cps   |
| Gadolinium | 160-1 |          |          |          |            |         | cps   |
| Gadolinium | 160-2 |          |          |          |            |         | cps   |
| Holmium    | 165-1 |          |          |          | 116        |         | %     |
| Holmium    | 165-2 |          |          |          | 109        |         | %     |
| Indium     | 115-1 |          |          |          | 108        |         | %     |
| Indium     | 115-2 |          |          |          | 100        |         | %     |
| Iron       | 56-2  | 29230.69 | 28924.82 | 29181.36 | 29112.29   | 0.56    | ppb   |
| Iron       | 57-2  | 28773.30 | 28306.10 | 28455.46 | 28511.62   | 0.84    | ppb   |
| Iron       | 54-2  | 29686.21 | 29285.29 | 29367.68 | 29446.39   | 0.72    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10REDLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:43:24 DataFile Name : 041SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 418.75   | 425.76   | 427.54   | 424.02     | 1.10    | ppb   |
| Lead       | 207-1 | 402.53   | 413.05   | 413.94   | 409.84     | 1.55    | ppb   |
| Lead       | 208-1 | 408.82   | 418.35   | 418.29   | 415.16     | 1.32    | ppb   |
| Lithium    | 6-1   |          |          |          | 106        |         | %     |
| Magnesium  | 24-2  | 15849.08 | 16199.09 | 16038.06 | 16028.74   | 1.09    | ppb   |
| Manganese  | 55-2  | 2435.81  | 2408.88  | 2412.87  | 2419.19    | 0.60    | ppb   |
| Molybdenum | 94-1  | 271.12   | 273.92   | 275.41   | 273.48     | 0.80    | ppb   |
| Molybdenum | 95-1  | 280.88   | 291.15   | 289.56   | 287.20     | 1.92    | ppb   |
| Molybdenum | 96-1  | 282.98   | 287.85   | 286.54   | 285.79     | 0.88    | ppb   |
| Molybdenum | 97-1  | 284.28   | 289.51   | 282.37   | 285.39     | 1.30    | ppb   |
| Molybdenum | 98-1  | 285.04   | 290.96   | 289.30   | 288.43     | 1.06    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 220.77   | 219.95   | 220.83   | 220.52     | 0.22    | ppb   |
| Phosphorus | 31-2  | 1320.01  | 1296.85  | 1306.83  | 1307.90    | 0.89    | ppb   |
| Potassium  | 39-2  | 17531.78 | 17547.09 | 17601.02 | 17559.96   | 0.21    | ppb   |
| Rhodium    | 103-1 |          |          |          | 104        |         | %     |
| Rhodium    | 103-2 |          |          |          | 104        |         | %     |
| Scandium   | 45-1  |          |          |          | 94         |         | %     |
| Scandium   | 45-2  |          |          |          | 100        |         | %     |
| Selenium   | 82-1  | 389.46   | 396.02   | 393.65   | 393.04     | 0.85    | ppb   |
| Selenium   | 77-2  | 377.97   | 395.50   | 388.43   | 387.30     | 2.28    | ppb   |
| Selenium   | 78-2  | 379.16   | 375.91   | 379.01   | 378.03     | 0.49    | ppb   |
| Silicon    | 28-1  | 635.61   | 658.16   | 662.15   | 651.98     | 2.19    | ppb   |
| Silver     | 107-1 | 69.45    | 70.94    | 70.90    | 70.43      | 1.21    | ppb   |
| Silver     | 109-1 | 69.65    | 70.69    | 70.52    | 70.29      | 0.79    | ppb   |
| Sodium     | 23-2  | 19683.12 | 19714.44 | 19625.06 | 19674.20   | 0.23    | ppb   |
| Strontium  | 86-1  | 567.65   | 583.33   | 583.97   | 578.32     | 1.60    | ppb   |
| Strontium  | 88-1  | 570.21   | 579.98   | 572.24   | 574.14     | 0.90    | ppb   |
| Sulfur     | 34-1  | -696.45  | -608.04  | -662.99  | -655.83    |         | ppb   |
| Terbium    | 159-1 |          |          |          | 115        |         | %     |
| Terbium    | 159-2 |          |          |          | 108        |         | %     |
| Thallium   | 203-1 | 422.69   | 431.34   | 435.98   | 430.00     | 1.57    | ppb   |
| Thallium   | 205-1 | 426.37   | 432.19   | 433.24   | 430.60     | 0.86    | ppb   |
| Tin        | 118-1 | 156.93   | 160.02   | 160.01   | 158.99     | 1.12    | ppb   |
| Titanium   | 47-1  | 775.93   | 785.88   | 805.88   | 789.23     | 1.93    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10REDLX5Instrumnet Name :P7

Client Sample ID :PT-MET-SOILREDilution Factor :5

Date & Time Acquired :2024-12-03 15:43:24DataFile Name :041SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 73.77   | 74.95   | 76.53   | 75.08      | 1.85    | ppb   |
| Vanadium  | 51-2  | 556.96  | 555.44  | 551.12  | 554.51     | 0.55    | ppb   |
| Yttrium   | 89-1  |         |         |         | 111        |         | %     |
| Yttrium   | 89-2  |         |         |         | 107        |         | %     |
| Zinc      | 66-2  | 737.63  | 734.73  | 737.43  | 736.60     | 0.22    | ppb   |
| Zirconium | 90-1  | 22.16   | 22.81   | 22.76   | 22.58      | 1.59    | ppb   |
| Zirconium | 91-1  | 22.48   | 22.96   | 22.61   | 22.68      | 1.11    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV03 Instrumnet Name : P7  
Client Sample ID : CCV03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:46:11 DataFile Name : 042CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 49231.79  | 48199.51  | 48900.06  | 48777.12   | 1.08    | ppb   |
| Antimony   | 121-1 | 508.20    | 519.75    | 517.35    | 515.10     | 1.18    | ppb   |
| Arsenic    | 75-2  | 519.83    | 521.10    | 524.81    | 521.91     | 0.50    | ppb   |
| Barium     | 135-1 | 2455.59   | 2506.33   | 2481.16   | 2481.03    | 1.02    | ppb   |
| Barium     | 137-1 | 2451.95   | 2505.00   | 2526.10   | 2494.35    | 1.53    | ppb   |
| Beryllium  | 9-1   | 467.67    | 490.85    | 480.71    | 479.74     | 2.42    | ppb   |
| Bismuth    | 209-1 |           |           |           | 109        |         | %     |
| Bismuth    | 209-2 |           |           |           | 101        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 491.31    | 507.49    | 502.03    | 500.28     | 1.65    | ppb   |
| Cadmium    | 106-1 | 489.07    | 502.14    | 506.39    | 499.20     | 1.81    | ppb   |
| Cadmium    | 111-1 | 500.71    | 516.55    | 517.98    | 511.75     | 1.87    | ppb   |
| Calcium    | 43-1  | 244588.06 | 252962.64 | 251095.09 | 249548.60  | 1.76    | ppb   |
| Calcium    | 44-1  | 242785.56 | 250615.95 | 250200.64 | 247867.38  | 1.78    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 509.01    | 505.12    | 516.08    | 510.07     | 1.09    | ppb   |
| Cobalt     | 59-2  | 537.58    | 545.91    | 542.56    | 542.01     | 0.77    | ppb   |
| Copper     | 63-2  | 5192.48   | 5224.69   | 5238.03   | 5218.40    | 0.45    | ppb   |
| Dysprosium | 156-1 |           |           |           |            |         | cps   |
| Dysprosium | 156-2 |           |           |           |            |         | cps   |
| Erbium     | 164-1 |           |           |           |            |         | cps   |
| Erbium     | 164-2 |           |           |           |            |         | cps   |
| Gadolinium | 160-1 |           |           |           |            |         | cps   |
| Gadolinium | 160-2 |           |           |           |            |         | cps   |
| Holmium    | 165-1 |           |           |           | 115        |         | %     |
| Holmium    | 165-2 |           |           |           | 107        |         | %     |
| Indium     | 115-1 |           |           |           | 102        |         | %     |
| Indium     | 115-2 |           |           |           | 95         |         | %     |
| Iron       | 56-2  | 128161.41 | 127783.58 | 128330.30 | 128091.76  | 0.22    | ppb   |
| Iron       | 57-2  | 127676.10 | 128059.23 | 129261.51 | 128332.28  | 0.64    | ppb   |
| Iron       | 54-2  | 129572.67 | 127519.57 | 129293.96 | 128795.40  | 0.86    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV03 Instrumnet Name : P7  
Client Sample ID : CCV03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:46:11 DataFile Name : 042CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 2525.73   | 2603.73   | 2570.13   | 2566.53    | 1.52    | ppb   |
| Lead       | 207-1 | 2500.87   | 2553.20   | 2553.95   | 2536.00    | 1.20    | ppb   |
| Lead       | 208-1 | 2512.98   | 2557.54   | 2551.18   | 2540.57    | 0.95    | ppb   |
| Lithium    | 6-1   |           |           |           | 81         |         | %     |
| Magnesium  | 24-2  | 248597.97 | 248809.27 | 249446.82 | 248951.35  | 0.18    | ppb   |
| Manganese  | 55-2  | 5048.41   | 5022.84   | 5069.23   | 5046.83    | 0.46    | ppb   |
| Molybdenum | 94-1  | 4974.11   | 5099.31   | 5055.47   | 5042.97    | 1.26    | ppb   |
| Molybdenum | 95-1  | 4977.36   | 5080.84   | 5078.05   | 5045.42    | 1.17    | ppb   |
| Molybdenum | 96-1  | 4958.68   | 5112.08   | 5029.39   | 5033.38    | 1.53    | ppb   |
| Molybdenum | 97-1  | 4975.93   | 5089.88   | 5070.36   | 5045.39    | 1.21    | ppb   |
| Molybdenum | 98-1  | 4968.64   | 5130.22   | 5088.18   | 5062.34    | 1.66    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 531.13    | 529.96    | 539.37    | 533.49     | 0.96    | ppb   |
| Phosphorus | 31-2  | 9719.48   | 9511.45   | 9655.66   | 9628.86    | 1.11    | ppb   |
| Potassium  | 39-2  | 125013.98 | 123148.89 | 123433.39 | 123865.42  | 0.81    | ppb   |
| Rhodium    | 103-1 |           |           |           | 96         |         | %     |
| Rhodium    | 103-2 |           |           |           | 96         |         | %     |
| Scandium   | 45-1  |           |           |           | 93         |         | %     |
| Scandium   | 45-2  |           |           |           | 96         |         | %     |
| Selenium   | 82-1  | 498.52    | 511.38    | 504.27    | 504.72     | 1.28    | ppb   |
| Selenium   | 77-2  | 483.54    | 487.54    | 492.16    | 487.75     | 0.88    | ppb   |
| Selenium   | 78-2  | 493.85    | 499.21    | 485.95    | 493.00     | 1.35    | ppb   |
| Silicon    | 28-1  | 472.72    | 500.89    | 495.72    | 489.78     | 3.06    | ppb   |
| Silver     | 107-1 | 496.37    | 515.18    | 510.84    | 507.46     | 1.94    | ppb   |
| Silver     | 109-1 | 492.51    | 506.47    | 509.29    | 502.76     | 1.79    | ppb   |
| Sodium     | 23-2  | 247343.52 | 244238.95 | 246253.58 | 245945.35  | 0.64    | ppb   |
| Strontium  | 86-1  | 493.40    | 509.30    | 494.05    | 498.92     | 1.80    | ppb   |
| Strontium  | 88-1  | 494.77    | 500.35    | 498.47    | 497.86     | 0.57    | ppb   |
| Sulfur     | 34-1  | 8043.37   | 8323.51   | 8418.72   | 8261.87    | 2.36    | ppb   |
| Terbium    | 159-1 |           |           |           | 113        |         | %     |
| Terbium    | 159-2 |           |           |           | 107        |         | %     |
| Thallium   | 203-1 | 511.87    | 507.56    | 517.84    | 512.42     | 1.01    | ppb   |
| Thallium   | 205-1 | 511.47    | 518.74    | 513.88    | 514.70     | 0.72    | ppb   |
| Tin        | 118-1 | 489.02    | 507.09    | 501.43    | 499.18     | 1.85    | ppb   |
| Titanium   | 47-1  | 4838.21   | 5048.15   | 4939.76   | 4942.04    | 2.12    | ppb   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV03Instrumnet Name :P7

Client Sample ID :CCV03Dilution Factor :1

Date & Time Acquired :2024-12-03 15:46:11DataFile Name :042CCV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 512.91  | 521.30  | 521.41  | 518.54     | 0.94    | ppb   |
| Vanadium  | 51-2  | 510.30  | 506.52  | 511.92  | 509.58     | 0.54    | ppb   |
| Yttrium   | 89-1  |         |         |         | 104        |         | %     |
| Yttrium   | 89-2  |         |         |         | 100        |         | %     |
| Zinc      | 66-2  | 5234.37 | 5137.86 | 5170.46 | 5180.89    | 0.95    | ppb   |
| Zirconium | 90-1  | 499.86  | 512.57  | 507.03  | 506.49     | 1.26    | ppb   |
| Zirconium | 91-1  | 500.98  | 506.17  | 499.69  | 502.28     | 0.68    | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB03 Instrumnet Name : P7  
Client Sample ID : CCB03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:53:54 DataFile Name : 043CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 2.60    | 3.32    | 5.57    | 3.83       | 40.43   | ppb   |
| Antimony   | 121-1 | 0.10    | 0.08    | 0.08    | 0.09       | 11.51   | ppb   |
| Arsenic    | 75-2  | -0.01   | 0.00    | 0.04    | 0.01       | 348.00  | ppb   |
| Barium     | 135-1 | 0.15    | 0.06    | 0.08    | 0.10       | 45.64   | ppb   |
| Barium     | 137-1 | 0.14    | 0.06    | 0.08    | 0.09       | 42.33   | ppb   |
| Beryllium  | 9-1   | 0.11    | 0.10    | 0.10    | 0.10       | 5.26    | ppb   |
| Bismuth    | 209-1 |         |         |         | 113        |         | %     |
| Bismuth    | 209-2 |         |         |         | 110        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.00    | -0.03   | -0.05   | -0.03      |         | ppb   |
| Cadmium    | 106-1 | -1.51   | -1.57   | -2.13   | -1.74      |         | ppb   |
| Cadmium    | 111-1 | 0.01    | 0.00    | -0.02   | -0.01      |         | ppb   |
| Calcium    | 43-1  | 8.75    | 4.82    | 3.96    | 5.84       | 43.71   | ppb   |
| Calcium    | 44-1  | 8.77    | 2.21    | 3.22    | 4.73       | 74.65   | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.04    | 0.08    | 0.07    | 0.07       | 30.79   | ppb   |
| Cobalt     | 59-2  | -0.01   | 0.01    | 0.01    | 0.00       | 434.24  | ppb   |
| Copper     | 63-2  | 0.17    | 0.17    | 0.28    | 0.21       | 28.80   | 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 |         |         |         | 110        |         | %     |
| Holmium    | 165-2 |         |         |         | 106        |         | %     |
| Indium     | 115-1 |         |         |         | 106        |         | %     |
| Indium     | 115-2 |         |         |         | 100        |         | %     |
| Iron       | 56-2  | 4.21    | 5.15    | 8.15    | 5.84       | 35.30   | ppb   |
| Iron       | 57-2  | 1.78    | 3.27    | 5.37    | 3.47       | 52.01   | ppb   |
| Iron       | 54-2  | 3.58    | 5.41    | 8.82    | 5.94       | 44.82   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB03 Instrumnet Name : P7  
Client Sample ID : CCB03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:53:54 DataFile Name : 043CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.61    | 0.63    | 0.63    | 0.62       | 1.09    | ppb   |
| Lead       | 207-1 | 0.64    | 0.57    | 0.61    | 0.61       | 6.04    | ppb   |
| Lead       | 208-1 | 0.64    | 0.59    | 0.61    | 0.61       | 4.24    | ppb   |
| Lithium    | 6-1   |         |         |         | 86         |         | %     |
| Magnesium  | 24-2  | 2.03    | 3.24    | 6.87    | 4.04       | 62.37   | ppb   |
| Manganese  | 55-2  | 0.17    | 0.20    | 0.30    | 0.22       | 30.82   | ppb   |
| Molybdenum | 94-1  | 0.27    | 0.17    | 0.16    | 0.20       | 30.74   | ppb   |
| Molybdenum | 95-1  | 0.25    | 0.14    | 0.17    | 0.19       | 31.42   | ppb   |
| Molybdenum | 96-1  | 0.25    | 0.13    | 0.15    | 0.18       | 37.38   | ppb   |
| Molybdenum | 97-1  | 0.25    | 0.13    | 0.13    | 0.17       | 41.44   | ppb   |
| Molybdenum | 98-1  | 0.25    | 0.14    | 0.14    | 0.18       | 34.67   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | -0.06   | -0.02   | -0.03   | -0.03      |         | ppb   |
| Phosphorus | 31-2  | -20.03  | -15.96  | -17.58  | -17.85     |         | ppb   |
| Potassium  | 39-2  | -1.13   | 1.29    | 2.12    | 0.76       | 221.47  | ppb   |
| Rhodium    | 103-1 |         |         |         | 103        |         | %     |
| Rhodium    | 103-2 |         |         |         | 104        |         | %     |
| Scandium   | 45-1  |         |         |         | 95         |         | %     |
| Scandium   | 45-2  |         |         |         | 98         |         | %     |
| Selenium   | 82-1  | 0.00    | -0.03   | 0.12    | 0.03       | 262.48  | ppb   |
| Selenium   | 77-2  | 0.26    | -0.03   | 0.16    | 0.13       | 114.72  | ppb   |
| Selenium   | 78-2  | -0.39   | 0.12    | -0.47   | -0.25      |         | ppb   |
| Silicon    | 28-1  | -3.04   | -3.05   | -2.98   | -3.02      |         | ppb   |
| Silver     | 107-1 | 0.04    | 0.02    | 0.02    | 0.03       | 26.94   | ppb   |
| Silver     | 109-1 | 0.03    | 0.03    | 0.02    | 0.03       | 14.43   | ppb   |
| Sodium     | 23-2  | 19.97   | 20.81   | 24.26   | 21.68      | 10.47   | ppb   |
| Strontium  | 86-1  | 0.06    | 0.04    | 0.05    | 0.05       | 26.03   | ppb   |
| Strontium  | 88-1  | 0.06    | 0.03    | 0.03    | 0.04       | 42.18   | ppb   |
| Sulfur     | 34-1  | -557.36 | -514.36 | -530.71 | -534.14    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 109        |         | %     |
| Terbium    | 159-2 |         |         |         | 106        |         | %     |
| Thallium   | 203-1 | 0.17    | 0.14    | 0.15    | 0.15       | 10.76   | ppb   |
| Thallium   | 205-1 | 0.18    | 0.14    | 0.15    | 0.15       | 12.32   | ppb   |
| Tin        | 118-1 | 0.01    | 0.00    | 0.00    | 0.00       | 227.36  | ppb   |
| Titanium   | 47-1  | 0.32    | 0.13    | 0.13    | 0.19       | 55.48   | ppb   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CCB03

Instrumnet Name :

P7

Client Sample ID :

CCB03

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:53:54

DataFile Name :

043CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.02    | 0.01    | 0.01    | 0.01       | 45.22   | ppb   |
| Vanadium  | 51-2  | 0.04    | 0.04    | 0.07    | 0.05       | 27.42   | ppb   |
| Yttrium   | 89-1  |         |         |         | 104        |         | %     |
| Yttrium   | 89-2  |         |         |         | 100        |         | %     |
| Zinc      | 66-2  | 0.14    | 0.29    | 0.33    | 0.25       | 39.65   | ppb   |
| Zirconium | 90-1  | 0.04    | 0.02    | 0.02    | 0.03       | 23.01   | ppb   |
| Zirconium | 91-1  | 0.03    | 0.03    | 0.04    | 0.03       | 16.04   | ppb   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:12:15 DataFile Name : 004CALB.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 213      | 233      | 170      | 206      | 15.75  | cps   |
| Antimony   | 121-1 | 17       | 13       | 47       | 26       | 71.84  | cps   |
| Arsenic    | 75-2  | 37       | 33       | 67       | 46       | 40.30  | cps   |
| Barium     | 135-1 | 213      | 150      | 137      | 167      | 24.58  | cps   |
| Barium     | 137-1 | 337      | 307      | 223      | 289      | 20.33  | cps   |
| Beryllium  | 9-1   | 160      | 210      | 167      | 179      | 15.18  | cps   |
| Bismuth    | 209-1 | 11254609 | 11140330 | 11250385 | 11215108 | 0.58   | cps   |
| Bismuth    | 209-2 | 8446259  | 8700207  | 8468174  | 8538213  | 1.65   | cps   |
| Bromine    | 81-1  | 15852    | 16399    | 16416    | 16222    | 1.98   | cps   |
| Bromine    | 81-2  | 220      | 233      | 203      | 219      | 6.87   | cps   |
| Cadmium    | 108-1 | 37       | 30       | 13       | 27       | 45.08  | cps   |
| Cadmium    | 106-1 | 5274     | 5141     | 4861     | 5092     | 4.14   | cps   |
| Cadmium    | 111-1 | 1109     | 1064     | 1010     | 1061     | 4.70   | cps   |
| Calcium    | 43-1  | 977      | 933      | 967      | 959      | 2.37   | cps   |
| Calcium    | 44-1  | 27001    | 25455    | 25245    | 25900    | 3.70   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2770     | 2677     | 2750     | 2732     | 1.80   | cps   |
| Cobalt     | 59-2  | 503      | 593      | 627      | 574      | 11.11  | cps   |
| Copper     | 63-2  | 1533     | 1570     | 1593     | 1566     | 1.93   | cps   |
| Dysprosium | 156-1 | 20       | 20       | 13       | 18       | 21.66  | cps   |
| Dysprosium | 156-2 | 13       | 13       | 7        | 11       | 34.61  | cps   |
| Erbium     | 164-1 | 97       | 67       | 50       | 71       | 33.26  | cps   |
| Erbium     | 164-2 | 57       | 47       | 60       | 54       | 12.74  | cps   |
| Gadolinium | 160-1 | 80       | 73       | 63       | 72       | 11.62  | cps   |
| Gadolinium | 160-2 | 760      | 787      | 840      | 796      | 5.12   | cps   |
| Holmium    | 165-1 | 18430299 | 18341770 | 18367162 | 18379744 | 0.25   | cps   |
| Holmium    | 165-2 | 12794952 | 12973210 | 12903840 | 12890667 | 0.70   | cps   |
| Indium     | 115-1 | 15442575 | 15353543 | 15425628 | 15407249 | 0.31   | cps   |
| Indium     | 115-2 | 5959884  | 6029545  | 6018163  | 6002531  | 0.62   | cps   |
| Iron       | 56-2  | 30257    | 30117    | 29636    | 30003    | 1.09   | cps   |
| Iron       | 57-2  | 1763     | 1887     | 1670     | 1773     | 6.13   | cps   |
| Iron       | 54-2  | 3724     | 3654     | 3644     | 3674     | 1.19   | cps   |
| Krypton    | 83-1  | 277      | 277      | 327      | 293      | 9.84   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:12:15 DataFile Name : 004CALB.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1320     | 1333     | 1293     | 1316     | 1.55   | cps   |
| Lead       | 207-1 | 1153     | 1063     | 1117     | 1111     | 4.07   | cps   |
| Lead       | 208-1 | 5070     | 4960     | 4964     | 4998     | 1.25   | cps   |
| Lithium    | 6-1   | 1906267  | 1837333  | 1791895  | 1845165  | 3.12   | cps   |
| Magnesium  | 24-2  | 3394     | 3450     | 3520     | 3455     | 1.84   | cps   |
| Manganese  | 55-2  | 1080     | 1160     | 1033     | 1091     | 5.87   | cps   |
| Molybdenum | 94-1  | 460      | 460      | 507      | 476      | 5.67   | cps   |
| Molybdenum | 95-1  | 280      | 257      | 283      | 273      | 5.32   | cps   |
| Molybdenum | 96-1  | 460      | 423      | 467      | 450      | 5.19   | cps   |
| Molybdenum | 97-1  | 227      | 220      | 193      | 213      | 8.27   | cps   |
| Molybdenum | 98-1  | 487      | 520      | 443      | 483      | 7.95   | cps   |
| Neodymium  | 150-1 | 7        | 7        | 13       | 9        | 43.25  | cps   |
| Neodymium  | 150-2 | 3        | 7        | 3        | 4        | 43.40  | cps   |
| Nickel     | 60-2  | 1073     | 1193     | 1053     | 1107     | 6.84   | cps   |
| Phosphorus | 31-2  | 370      | 397      | 433      | 400      | 7.95   | cps   |
| Potassium  | 39-2  | 76611    | 75134    | 76568    | 76104    | 1.10   | cps   |
| Rhodium    | 103-1 | 14949480 | 14862878 | 14675743 | 14829367 | 0.94   | cps   |
| Rhodium    | 103-2 | 9031025  | 9138874  | 9129348  | 9099749  | 0.66   | cps   |
| Scandium   | 45-1  | 8545765  | 8467861  | 8440870  | 8484832  | 0.64   | cps   |
| Scandium   | 45-2  | 800888   | 805978   | 804411   | 803759   | 0.32   | cps   |
| Selenium   | 82-1  | 767      | 718      | 647      | 711      | 8.43   | cps   |
| Selenium   | 77-2  | 3        | 0        | 0        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 613      | 617      | 580      | 603      | 3.36   | cps   |
| Silicon    | 28-1  | 864535   | 867218   | 866005   | 865919   | 0.16   | cps   |
| Silver     | 107-1 | 110      | 117      | 107      | 111      | 4.58   | cps   |
| Silver     | 109-1 | 63       | 60       | 57       | 60       | 5.55   | cps   |
| Sodium     | 23-2  | 22884    | 23368    | 22804    | 23018    | 1.33   | cps   |
| Strontium  | 86-1  | 487      | 507      | 523      | 506      | 3.63   | cps   |
| Strontium  | 88-1  | 1033     | 807      | 753      | 864      | 17.20  | cps   |
| Sulfur     | 34-1  | 261497   | 262131   | 263867   | 262499   | 0.47   | cps   |
| Terbium    | 159-1 | 18932192 | 18925488 | 19209941 | 19022540 | 0.85   | cps   |
| Terbium    | 159-2 | 12795324 | 13015653 | 13026900 | 12945959 | 1.01   | cps   |
| Thallium   | 203-1 | 577      | 533      | 523      | 544      | 5.21   | cps   |
| Thallium   | 205-1 | 1313     | 1280     | 1147     | 1247     | 7.07   | cps   |
| Tin        | 118-1 | 3794     | 3357     | 3324     | 3492     | 7.52   | cps   |
| Titanium   | 47-1  | 157      | 133      | 107      | 132      | 18.92  | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S0Instrumnet Name :P7

Client Sample ID :S0Dilution Factor :1

Date & Time Acquired :2024-12-03 13:12:15DataFile Name :004CALB.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 153      | 150      | 83       | 129      | 30.64  | cps   |
| Vanadium  | 51-2  | 30       | 40       | 23       | 31       | 26.97  | cps   |
| Yttrium   | 89-1  | 18300657 | 18110576 | 18149603 | 18186945 | 0.55   | cps   |
| Yttrium   | 89-2  | 5198561  | 5261030  | 5260965  | 5240185  | 0.69   | cps   |
| Zinc      | 66-2  | 1107     | 1117     | 1107     | 1110     | 0.52   | cps   |
| Zirconium | 90-1  | 923      | 873      | 1007     | 934      | 7.21   | cps   |
| Zirconium | 91-1  | 167      | 143      | 207      | 172      | 18.60  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S2 Instrumnet Name : P7  
Client Sample ID : S2 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:15:31 DataFile Name : 005CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 8459     | 8946     | 8869     | 8758     | 2.99   | cps   |
| Antimony   | 121-1 | 37542    | 37586    | 37489    | 37539    | 0.13   | cps   |
| Arsenic    | 75-2  | 1300     | 1213     | 1087     | 1200     | 8.94   | cps   |
| Barium     | 135-1 | 45101    | 45780    | 45974    | 45618    | 1.00   | cps   |
| Barium     | 137-1 | 78465    | 79396    | 79199    | 79020    | 0.62   | cps   |
| Beryllium  | 9-1   | 2157     | 2094     | 2027     | 2092     | 3.11   | cps   |
| Bismuth    | 209-1 | 11364164 | 11310094 | 11182703 | 11285654 | 0.83   | cps   |
| Bismuth    | 209-2 | 8704723  | 8730051  | 8553461  | 8662745  | 1.10   | cps   |
| Bromine    | 81-1  | 15972    | 15508    | 14838    | 15439    | 3.69   | cps   |
| Bromine    | 81-2  | 107      | 133      | 73       | 104      | 28.79  | cps   |
| Cadmium    | 108-1 | 287      | 353      | 323      | 321      | 10.40  | cps   |
| Cadmium    | 106-1 | 5845     | 5691     | 5708     | 5748     | 1.46   | cps   |
| Cadmium    | 111-1 | 6313     | 5935     | 6263     | 6170     | 3.32   | cps   |
| Calcium    | 43-1  | 25455    | 26189    | 25558    | 25734    | 1.55   | cps   |
| Calcium    | 44-1  | 427737   | 430532   | 429386   | 429218   | 0.33   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 19907    | 19349    | 19136    | 19464    | 2.05   | cps   |
| Cobalt     | 59-2  | 14203    | 13883    | 14033    | 14040    | 1.14   | cps   |
| Copper     | 63-2  | 19850    | 19616    | 19887    | 19784    | 0.74   | cps   |
| Dysprosium | 156-1 | 23       | 17       | 13       | 18       | 28.64  | cps   |
| Dysprosium | 156-2 | 10       | 10       | 13       | 11       | 17.30  | cps   |
| Erbium     | 164-1 | 90       | 77       | 90       | 86       | 9.00   | cps   |
| Erbium     | 164-2 | 43       | 20       | 53       | 39       | 43.98  | cps   |
| Gadolinium | 160-1 | 80       | 73       | 70       | 74       | 6.84   | cps   |
| Gadolinium | 160-2 | 780      | 810      | 837      | 809      | 3.50   | cps   |
| Holmium    | 165-1 | 18941854 | 18514595 | 18317446 | 18591298 | 1.72   | cps   |
| Holmium    | 165-2 | 12959104 | 13121920 | 12931176 | 13004067 | 0.79   | cps   |
| Indium     | 115-1 | 15615611 | 15334351 | 15246828 | 15398930 | 1.25   | cps   |
| Indium     | 115-2 | 6053630  | 6099857  | 5955496  | 6036328  | 1.22   | cps   |
| Iron       | 56-2  | 424793   | 423881   | 423277   | 423984   | 0.18   | cps   |
| Iron       | 57-2  | 12122    | 12165    | 12118    | 12135    | 0.21   | cps   |
| Iron       | 54-2  | 25625    | 26083    | 24614    | 25440    | 2.96   | cps   |
| Krypton    | 83-1  | 287      | 283      | 257      | 276      | 5.97   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S2 Instrumnet Name : P7  
Client Sample ID : S2 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:15:31 DataFile Name : 005CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 14838    | 14832    | 14945    | 14872    | 0.43   | cps   |
| Lead       | 207-1 | 13143    | 13277    | 13133    | 13184    | 0.61   | cps   |
| Lead       | 208-1 | 59641    | 59792    | 59842    | 59758    | 0.17   | cps   |
| Lithium    | 6-1   | 1865436  | 1840719  | 1823458  | 1843204  | 1.14   | cps   |
| Magnesium  | 24-2  | 364707   | 358366   | 363351   | 362141   | 0.92   | cps   |
| Manganese  | 55-2  | 7769     | 7605     | 7642     | 7672     | 1.12   | cps   |
| Molybdenum | 94-1  | 38838    | 39440    | 38881    | 39053    | 0.86   | cps   |
| Molybdenum | 95-1  | 46333    | 47433    | 47387    | 47051    | 1.32   | cps   |
| Molybdenum | 96-1  | 52541    | 52654    | 53688    | 52961    | 1.19   | cps   |
| Molybdenum | 97-1  | 29216    | 29590    | 29704    | 29503    | 0.86   | cps   |
| Molybdenum | 98-1  | 76552    | 77303    | 76636    | 76831    | 0.54   | cps   |
| Neodymium  | 150-1 | 10       | 3        | 7        | 7        | 50.03  | cps   |
| Neodymium  | 150-2 | 0        | 0        | 20       | 7        | 173.21 | cps   |
| Nickel     | 60-2  | 4474     | 4454     | 4537     | 4488     | 0.97   | cps   |
| Phosphorus | 31-2  | 1120     | 1147     | 1097     | 1121     | 2.23   | cps   |
| Potassium  | 39-2  | 550085   | 547449   | 542328   | 546621   | 0.72   | cps   |
| Rhodium    | 103-1 | 15077611 | 15144405 | 14808716 | 15010244 | 1.18   | cps   |
| Rhodium    | 103-2 | 9217371  | 9167508  | 9189808  | 9191562  | 0.27   | cps   |
| Scandium   | 45-1  | 8556205  | 8439861  | 8388696  | 8461588  | 1.01   | cps   |
| Scandium   | 45-2  | 808853   | 810036   | 801263   | 806717   | 0.59   | cps   |
| Selenium   | 82-1  | 2347     | 2240     | 2182     | 2256     | 3.71   | cps   |
| Selenium   | 77-2  | 190      | 223      | 137      | 183      | 23.85  | cps   |
| Selenium   | 78-2  | 1217     | 1143     | 1150     | 1170     | 3.47   | cps   |
| Silicon    | 28-1  | 1206057  | 1202941  | 902358   | 1103785  | 15.80  | cps   |
| Silver     | 107-1 | 24007    | 24090    | 24167    | 24088    | 0.33   | cps   |
| Silver     | 109-1 | 22080    | 22888    | 23162    | 22710    | 2.48   | cps   |
| Sodium     | 23-2  | 567539   | 565207   | 564234   | 565660   | 0.30   | cps   |
| Strontium  | 86-1  | 6545     | 6718     | 6391     | 6552     | 2.50   | cps   |
| Strontium  | 88-1  | 52527    | 52199    | 53065    | 52597    | 0.83   | cps   |
| Sulfur     | 34-1  | 263969   | 265698   | 261383   | 263683   | 0.82   | cps   |
| Terbium    | 159-1 | 19435115 | 18984767 | 18844522 | 19088135 | 1.62   | cps   |
| Terbium    | 159-2 | 12926124 | 13090010 | 12709663 | 12908599 | 1.48   | cps   |
| Thallium   | 203-1 | 17334    | 17752    | 17605    | 17564    | 1.21   | cps   |
| Thallium   | 205-1 | 41423    | 40858    | 41172    | 41151    | 0.69   | cps   |
| Tin        | 118-1 | 82293    | 83932    | 82032    | 82752    | 1.24   | cps   |
| Titanium   | 47-1  | 12015    | 11858    | 11468    | 11780    | 2.39   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S2Instrumnet Name :P7

Client Sample ID :S2Dilution Factor :1

Date & Time Acquired :2024-12-03 13:15:31DataFile Name :005CAL.S.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 50418    | 52674    | 51656    | 51583    | 2.19   | cps   |
| Vanadium  | 51-2  | 35458    | 35990    | 35505    | 35651    | 0.83   | cps   |
| Yttrium   | 89-1  | 18572233 | 18251898 | 18034511 | 18286214 | 1.48   | cps   |
| Yttrium   | 89-2  | 5345132  | 5237164  | 5239055  | 5273784  | 1.17   | cps   |
| Zinc      | 66-2  | 8526     | 8663     | 8796     | 8661     | 1.56   | cps   |
| Zirconium | 90-1  | 31988    | 32593    | 32289    | 32290    | 0.94   | cps   |
| Zirconium | 91-1  | 7172     | 7292     | 7162     | 7208     | 1.00   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S3 Instrumnet Name : P7  
Client Sample ID : S3 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:18:47 DataFile Name : 006CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 451326   | 453235   | 446938   | 450500   | 0.72   | cps   |
| Antimony   | 121-1 | 940036   | 950777   | 944319   | 945044   | 0.57   | cps   |
| Arsenic    | 75-2  | 54175    | 54851    | 53546    | 54191    | 1.20   | cps   |
| Barium     | 135-1 | 1157360  | 1162251  | 1160244  | 1159952  | 0.21   | cps   |
| Barium     | 137-1 | 2001708  | 2019482  | 2023677  | 2014956  | 0.58   | cps   |
| Beryllium  | 9-1   | 91530    | 93026    | 93975    | 92844    | 1.33   | cps   |
| Bismuth    | 209-1 | 11273964 | 11108988 | 11243537 | 11208830 | 0.78   | cps   |
| Bismuth    | 209-2 | 8667969  | 8569049  | 8380409  | 8539143  | 1.71   | cps   |
| Bromine    | 81-1  | 14641    | 14621    | 14177    | 14479    | 1.81   | cps   |
| Bromine    | 81-2  | 110      | 97       | 90       | 99       | 10.30  | cps   |
| Cadmium    | 108-1 | 18802    | 19156    | 19056    | 19005    | 0.96   | cps   |
| Cadmium    | 106-1 | 31785    | 31163    | 31304    | 31417    | 1.04   | cps   |
| Cadmium    | 111-1 | 242192   | 244007   | 242741   | 242980   | 0.38   | cps   |
| Calcium    | 43-1  | 257338   | 259892   | 256385   | 257872   | 0.70   | cps   |
| Calcium    | 44-1  | 3975148  | 3963571  | 3928829  | 3955849  | 0.61   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 405955   | 403488   | 401537   | 403660   | 0.55   | cps   |
| Cobalt     | 59-2  | 646352   | 642156   | 634566   | 641025   | 0.93   | cps   |
| Copper     | 63-2  | 4748354  | 4663307  | 4643095  | 4684919  | 1.19   | cps   |
| Dysprosium | 156-1 | 47       | 60       | 40       | 49       | 20.83  | cps   |
| Dysprosium | 156-2 | 83       | 67       | 77       | 76       | 11.10  | cps   |
| Erbium     | 164-1 | 73       | 93       | 90       | 86       | 12.53  | cps   |
| Erbium     | 164-2 | 60       | 27       | 83       | 57       | 50.25  | cps   |
| Gadolinium | 160-1 | 117      | 93       | 83       | 98       | 17.50  | cps   |
| Gadolinium | 160-2 | 943      | 847      | 720      | 837      | 13.39  | cps   |
| Holmium    | 165-1 | 18624265 | 18173653 | 18400217 | 18399378 | 1.22   | cps   |
| Holmium    | 165-2 | 12963431 | 12812547 | 12703850 | 12826609 | 1.02   | cps   |
| Indium     | 115-1 | 15351618 | 14991507 | 15039181 | 15127435 | 1.29   | cps   |
| Indium     | 115-2 | 5845134  | 5776739  | 5794198  | 5805357  | 0.61   | cps   |
| Iron       | 56-2  | 18959831 | 18701223 | 18657230 | 18772762 | 0.87   | cps   |
| Iron       | 57-2  | 489385   | 491354   | 484230   | 488323   | 0.75   | cps   |
| Iron       | 54-2  | 1095960  | 1089134  | 1080504  | 1088533  | 0.71   | cps   |
| Krypton    | 83-1  | 277      | 260      | 307      | 281      | 8.41   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S3 Instrumnet Name : P7  
Client Sample ID : S3 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:18:47 DataFile Name : 006CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 3498594  | 3500391  | 3474112  | 3491032  | 0.42   | cps   |
| Lead       | 207-1 | 3123308  | 3128429  | 3147339  | 3133026  | 0.40   | cps   |
| Lead       | 208-1 | 14084790 | 14041198 | 14147717 | 14091235 | 0.38   | cps   |
| Lithium    | 6-1   | 1864450  | 1850565  | 1851326  | 1855447  | 0.42   | cps   |
| Magnesium  | 24-2  | 3724047  | 3665853  | 3689602  | 3693167  | 0.79   | cps   |
| Manganese  | 55-2  | 3239568  | 3207639  | 3192209  | 3213139  | 0.75   | cps   |
| Molybdenum | 94-1  | 3372081  | 3349799  | 3338486  | 3353456  | 0.51   | cps   |
| Molybdenum | 95-1  | 4808006  | 4835640  | 4752625  | 4798757  | 0.88   | cps   |
| Molybdenum | 96-1  | 5276737  | 5249395  | 5263328  | 5263153  | 0.26   | cps   |
| Molybdenum | 97-1  | 3038518  | 3060986  | 2979320  | 3026274  | 1.39   | cps   |
| Molybdenum | 98-1  | 7671687  | 7729567  | 7647348  | 7682868  | 0.55   | cps   |
| Neodymium  | 150-1 | 80       | 63       | 67       | 70       | 12.60  | cps   |
| Neodymium  | 150-2 | 10       | 23       | 30       | 21       | 48.24  | cps   |
| Nickel     | 60-2  | 167766   | 167460   | 166553   | 167260   | 0.38   | cps   |
| Phosphorus | 31-2  | 22563    | 22460    | 23158    | 22727    | 1.66   | cps   |
| Potassium  | 39-2  | 2389873  | 2379589  | 2331836  | 2367099  | 1.31   | cps   |
| Rhodium    | 103-1 | 14869791 | 14587983 | 14399374 | 14619050 | 1.62   | cps   |
| Rhodium    | 103-2 | 8892946  | 8833750  | 8820538  | 8849078  | 0.44   | cps   |
| Scandium   | 45-1  | 8518101  | 8386412  | 8261884  | 8388799  | 1.53   | cps   |
| Scandium   | 45-2  | 797577   | 784331   | 780484   | 787464   | 1.14   | cps   |
| Selenium   | 82-1  | 16003    | 15887    | 15856    | 15915    | 0.48   | cps   |
| Selenium   | 77-2  | 1707     | 1777     | 1750     | 1745     | 2.03   | cps   |
| Selenium   | 78-2  | 6338     | 6491     | 6361     | 6397     | 1.29   | cps   |
| Silicon    | 28-1  | 3485945  | 3489638  | 3440749  | 3472110  | 0.78   | cps   |
| Silver     | 107-1 | 1273314  | 1276226  | 1272842  | 1274127  | 0.14   | cps   |
| Silver     | 109-1 | 1207826  | 1216964  | 1218815  | 1214535  | 0.48   | cps   |
| Sodium     | 23-2  | 5796795  | 5729396  | 5789396  | 5771862  | 0.64   | cps   |
| Strontium  | 86-1  | 298480   | 298355   | 296406   | 297747   | 0.39   | cps   |
| Strontium  | 88-1  | 2633776  | 2604587  | 2603094  | 2613819  | 0.66   | cps   |
| Sulfur     | 34-1  | 320876   | 320856   | 317715   | 319816   | 0.57   | cps   |
| Terbium    | 159-1 | 19247363 | 18886469 | 18711919 | 18948584 | 1.44   | cps   |
| Terbium    | 159-2 | 12967584 | 12675939 | 12819527 | 12821017 | 1.14   | cps   |
| Thallium   | 203-1 | 866959   | 877848   | 874781   | 873196   | 0.64   | cps   |
| Thallium   | 205-1 | 2044729  | 2052186  | 2043195  | 2046703  | 0.23   | cps   |
| Tin        | 118-1 | 796006   | 805156   | 798342   | 799835   | 0.59   | cps   |
| Titanium   | 47-1  | 1150934  | 1156839  | 1152041  | 1153271  | 0.27   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S3Instrumnet Name :P7

Client Sample ID :S3Dilution Factor :1

Date & Time Acquired :2024-12-03 13:18:47DataFile Name :006CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 2719459  | 2730879  | 2750465  | 2733601  | 0.57   | cps   |
| Vanadium  | 51-2  | 350649   | 348152   | 348761   | 349187   | 0.37   | cps   |
| Yttrium   | 89-1  | 18267304 | 17973591 | 18035391 | 18092095 | 0.86   | cps   |
| Yttrium   | 89-2  | 5200159  | 5148237  | 5110074  | 5152823  | 0.88   | cps   |
| Zinc      | 66-2  | 804140   | 799605   | 795275   | 799674   | 0.55   | cps   |
| Zirconium | 90-1  | 1623167  | 1625776  | 1624140  | 1624361  | 0.08   | cps   |
| Zirconium | 91-1  | 364256   | 366781   | 362029   | 364355   | 0.65   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S4 Instrumnet Name : P7  
Client Sample ID : S4 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:21:42 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1069801  | 1041365  | 1047806  | 1052991  | 1.42   | cps   |
| Antimony   | 121-1 | 2239430  | 2261211  | 2249949  | 2250197  | 0.48   | cps   |
| Arsenic    | 75-2  | 127855   | 127404   | 126887   | 127382   | 0.38   | cps   |
| Barium     | 135-1 | 2780627  | 2817311  | 2774731  | 2790890  | 0.83   | cps   |
| Barium     | 137-1 | 4749246  | 4846751  | 4807801  | 4801266  | 1.02   | cps   |
| Beryllium  | 9-1   | 218651   | 222630   | 223084   | 221455   | 1.10   | cps   |
| Bismuth    | 209-1 | 11515300 | 11312259 | 11348450 | 11392003 | 0.95   | cps   |
| Bismuth    | 209-2 | 8604159  | 8605658  | 8623681  | 8611166  | 0.13   | cps   |
| Bromine    | 81-1  | 13683    | 13753    | 13406    | 13614    | 1.35   | cps   |
| Bromine    | 81-2  | 100      | 83       | 90       | 91       | 9.21   | cps   |
| Cadmium    | 108-1 | 44368    | 45575    | 44351    | 44764    | 1.57   | cps   |
| Cadmium    | 106-1 | 66334    | 67928    | 66796    | 67019    | 1.22   | cps   |
| Cadmium    | 111-1 | 561839   | 576352   | 574513   | 570901   | 1.38   | cps   |
| Calcium    | 43-1  | 588720   | 598503   | 595073   | 594099   | 0.84   | cps   |
| Calcium    | 44-1  | 9086075  | 9227814  | 9243565  | 9185818  | 0.94   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 945601   | 944935   | 950065   | 946867   | 0.29   | cps   |
| Cobalt     | 59-2  | 1508863  | 1482133  | 1484235  | 1491744  | 1.00   | cps   |
| Copper     | 63-2  | 11176137 | 11068021 | 10870450 | 11038203 | 1.40   | cps   |
| Dysprosium | 156-1 | 67       | 100      | 70       | 79       | 23.27  | cps   |
| Dysprosium | 156-2 | 150      | 183      | 93       | 142      | 32.00  | cps   |
| Erbium     | 164-1 | 127      | 77       | 100      | 101      | 24.74  | cps   |
| Erbium     | 164-2 | 80       | 57       | 47       | 61       | 27.99  | cps   |
| Gadolinium | 160-1 | 110      | 87       | 117      | 104      | 15.08  | cps   |
| Gadolinium | 160-2 | 803      | 830      | 793      | 809      | 2.34   | cps   |
| Holmium    | 165-1 | 18845815 | 18399512 | 18099556 | 18448294 | 2.04   | cps   |
| Holmium    | 165-2 | 13083089 | 12945130 | 12722875 | 12917031 | 1.41   | cps   |
| Indium     | 115-1 | 15239909 | 14781122 | 14710907 | 14910646 | 1.93   | cps   |
| Indium     | 115-2 | 5671304  | 5730927  | 5701295  | 5701175  | 0.52   | cps   |
| Iron       | 56-2  | 43947691 | 44388204 | 44489588 | 44275161 | 0.65   | cps   |
| Iron       | 57-2  | 1150435  | 1161927  | 1155348  | 1155903  | 0.50   | cps   |
| Iron       | 54-2  | 2438826  | 2489045  | 2467898  | 2465256  | 1.02   | cps   |
| Krypton    | 83-1  | 260      | 263      | 293      | 272      | 6.74   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S4 Instrumnet Name : P7  
Client Sample ID : S4 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:21:42 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 8431845  | 8562484  | 8560291  | 8518207  | 0.88   | cps   |
| Lead       | 207-1 | 7574338  | 7733658  | 7681629  | 7663208  | 1.06   | cps   |
| Lead       | 208-1 | 33998547 | 34674911 | 34685215 | 34452891 | 1.14   | cps   |
| Lithium    | 6-1   | 1884978  | 1799309  | 1818016  | 1834101  | 2.46   | cps   |
| Magnesium  | 24-2  | 8707558  | 8608308  | 8711019  | 8675628  | 0.67   | cps   |
| Manganese  | 55-2  | 7545192  | 7551754  | 7541555  | 7546167  | 0.07   | cps   |
| Molybdenum | 94-1  | 7771301  | 7850016  | 7814087  | 7811801  | 0.50   | cps   |
| Molybdenum | 95-1  | 11089605 | 11285580 | 11255734 | 11210306 | 0.94   | cps   |
| Molybdenum | 96-1  | 12232536 | 12379621 | 12356857 | 12323005 | 0.64   | cps   |
| Molybdenum | 97-1  | 6983257  | 7079891  | 7022695  | 7028614  | 0.69   | cps   |
| Molybdenum | 98-1  | 17924136 | 18255463 | 18200819 | 18126806 | 0.98   | cps   |
| Neodymium  | 150-1 | 137      | 160      | 153      | 150      | 8.01   | cps   |
| Neodymium  | 150-2 | 47       | 33       | 43       | 41       | 16.89  | cps   |
| Nickel     | 60-2  | 390224   | 386228   | 387560   | 388004   | 0.52   | cps   |
| Phosphorus | 31-2  | 51406    | 50935    | 52195    | 51512    | 1.24   | cps   |
| Potassium  | 39-2  | 5319788  | 5254639  | 5368971  | 5314466  | 1.08   | cps   |
| Rhodium    | 103-1 | 14556613 | 14024332 | 13987821 | 14189589 | 2.24   | cps   |
| Rhodium    | 103-2 | 8655282  | 8708794  | 8597348  | 8653808  | 0.64   | cps   |
| Scandium   | 45-1  | 8292294  | 8053369  | 7944957  | 8096873  | 2.19   | cps   |
| Scandium   | 45-2  | 752021   | 753194   | 760469   | 755228   | 0.61   | cps   |
| Selenium   | 82-1  | 35707    | 36764    | 36097    | 36189    | 1.48   | cps   |
| Selenium   | 77-2  | 4174     | 3997     | 4114     | 4095     | 2.19   | cps   |
| Selenium   | 78-2  | 14591    | 14040    | 14344    | 14325    | 1.93   | cps   |
| Silicon    | 28-1  | 6417291  | 6498710  | 6584928  | 6500310  | 1.29   | cps   |
| Silver     | 107-1 | 2942565  | 3017462  | 2963145  | 2974391  | 1.30   | cps   |
| Silver     | 109-1 | 2778117  | 2847029  | 2820030  | 2815058  | 1.23   | cps   |
| Sodium     | 23-2  | 13603319 | 13469205 | 13385762 | 13486095 | 0.81   | cps   |
| Strontium  | 86-1  | 695530   | 704528   | 696301   | 698786   | 0.71   | cps   |
| Strontium  | 88-1  | 6027643  | 6091673  | 6052336  | 6057217  | 0.53   | cps   |
| Sulfur     | 34-1  | 394129   | 394023   | 391145   | 393099   | 0.43   | cps   |
| Terbium    | 159-1 | 19376512 | 18698888 | 18668075 | 18914491 | 2.12   | cps   |
| Terbium    | 159-2 | 12901226 | 12826193 | 12770294 | 12832571 | 0.51   | cps   |
| Thallium   | 203-1 | 2099285  | 2146257  | 2166021  | 2137188  | 1.60   | cps   |
| Thallium   | 205-1 | 4985739  | 5062414  | 5119474  | 5055876  | 1.33   | cps   |
| Tin        | 118-1 | 1848260  | 1875586  | 1900012  | 1874620  | 1.38   | cps   |
| Titanium   | 47-1  | 2659716  | 2719208  | 2704827  | 2694584  | 1.15   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S4Instrumnet Name :P7

Client Sample ID :S4Dilution Factor :1

Date & Time Acquired :2024-12-03 13:21:42DataFile Name :007CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 6668743  | 6745305  | 6727213  | 6713754  | 0.60   | cps   |
| Vanadium  | 51-2  | 813822   | 810775   | 817938   | 814178   | 0.44   | cps   |
| Yttrium   | 89-1  | 17913078 | 17417725 | 17209695 | 17513499 | 2.06   | cps   |
| Yttrium   | 89-2  | 4984434  | 5000508  | 5011561  | 4998834  | 0.27   | cps   |
| Zinc      | 66-2  | 1869588  | 1853475  | 1832577  | 1851880  | 1.00   | cps   |
| Zirconium | 90-1  | 3744157  | 3789461  | 3826377  | 3786665  | 1.09   | cps   |
| Zirconium | 91-1  | 846489   | 861690   | 859373   | 855851   | 0.96   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S5 Instrumnet Name : P7  
Client Sample ID : S5 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:24:30 DataFile Name : 008CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 2047739  | 2089818  | 2073327  | 2070295  | 1.02   | cps   |
| Antimony   | 121-1 | 4322438  | 4265058  | 4294895  | 4294130  | 0.67   | cps   |
| Arsenic    | 75-2  | 244072   | 242978   | 239909   | 242320   | 0.89   | cps   |
| Barium     | 135-1 | 5313309  | 5328583  | 5325046  | 5322313  | 0.15   | cps   |
| Barium     | 137-1 | 9347352  | 9309323  | 9146999  | 9267891  | 1.15   | cps   |
| Beryllium  | 9-1   | 442505   | 444522   | 446326   | 444451   | 0.43   | cps   |
| Bismuth    | 209-1 | 11170674 | 11194629 | 11128842 | 11164715 | 0.30   | cps   |
| Bismuth    | 209-2 | 8627823  | 8459349  | 8544304  | 8543825  | 0.99   | cps   |
| Bromine    | 81-1  | 13183    | 12986    | 12329    | 12832    | 3.49   | cps   |
| Bromine    | 81-2  | 80       | 63       | 110      | 84       | 28.01  | cps   |
| Cadmium    | 108-1 | 85597    | 84484    | 84900    | 84994    | 0.66   | cps   |
| Cadmium    | 106-1 | 124582   | 125466   | 124293   | 124780   | 0.49   | cps   |
| Cadmium    | 111-1 | 1095332  | 1084962  | 1086115  | 1088803  | 0.52   | cps   |
| Calcium    | 43-1  | 1131388  | 1123183  | 1120662  | 1125078  | 0.50   | cps   |
| Calcium    | 44-1  | 17567816 | 17304261 | 17025510 | 17299196 | 1.57   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1830351  | 1796217  | 1784608  | 1803725  | 1.32   | cps   |
| Cobalt     | 59-2  | 2869630  | 2824047  | 2875505  | 2856394  | 0.99   | cps   |
| Copper     | 63-2  | 21003185 | 20945791 | 20793557 | 20914178 | 0.52   | cps   |
| Dysprosium | 156-1 | 143      | 93       | 87       | 108      | 28.74  | cps   |
| Dysprosium | 156-2 | 310      | 287      | 290      | 296      | 4.27   | cps   |
| Erbium     | 164-1 | 173      | 203      | 180      | 186      | 8.49   | cps   |
| Erbium     | 164-2 | 67       | 83       | 140      | 97       | 39.77  | cps   |
| Gadolinium | 160-1 | 123      | 120      | 103      | 116      | 9.27   | cps   |
| Gadolinium | 160-2 | 757      | 830      | 773      | 787      | 4.89   | cps   |
| Holmium    | 165-1 | 18110098 | 18025419 | 17922441 | 18019319 | 0.52   | cps   |
| Holmium    | 165-2 | 12871014 | 12719577 | 12731281 | 12773957 | 0.66   | cps   |
| Indium     | 115-1 | 14305678 | 14126285 | 14065936 | 14165967 | 0.88   | cps   |
| Indium     | 115-2 | 5567026  | 5515743  | 5426466  | 5503078  | 1.29   | cps   |
| Iron       | 56-2  | 84292054 | 84537097 | 82932049 | 83920400 | 1.03   | cps   |
| Iron       | 57-2  | 2101678  | 2107796  | 2125216  | 2111563  | 0.58   | cps   |
| Iron       | 54-2  | 4668185  | 4715832  | 4561268  | 4648428  | 1.70   | cps   |
| Krypton    | 83-1  | 223      | 207      | 237      | 222      | 6.76   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S5 Instrumnet Name : P7  
Client Sample ID : S5 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:24:30 DataFile Name : 008CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 16986079 | 16833630 | 16779549 | 16866419 | 0.63   | cps   |
| Lead       | 207-1 | 15139232 | 15091253 | 14915521 | 15048669 | 0.78   | cps   |
| Lead       | 208-1 | 68246296 | 68144318 | 67708120 | 68032911 | 0.42   | cps   |
| Lithium    | 6-1   | 1813291  | 1775406  | 1828119  | 1805605  | 1.51   | cps   |
| Magnesium  | 24-2  | 16991842 | 16913594 | 16879149 | 16928195 | 0.34   | cps   |
| Manganese  | 55-2  | 14436744 | 14452871 | 14128953 | 14339523 | 1.27   | cps   |
| Molybdenum | 94-1  | 14963361 | 15098932 | 14937439 | 14999911 | 0.58   | cps   |
| Molybdenum | 95-1  | 21802273 | 21658123 | 21357825 | 21606074 | 1.05   | cps   |
| Molybdenum | 96-1  | 23788619 | 23783237 | 23609810 | 23727222 | 0.43   | cps   |
| Molybdenum | 97-1  | 13576039 | 13526048 | 13365014 | 13489034 | 0.82   | cps   |
| Molybdenum | 98-1  | 34931220 | 34888953 | 34291412 | 34703862 | 1.03   | cps   |
| Neodymium  | 150-1 | 313      | 307      | 307      | 309      | 1.25   | cps   |
| Neodymium  | 150-2 | 83       | 80       | 90       | 84       | 6.03   | cps   |
| Nickel     | 60-2  | 736247   | 736030   | 729168   | 733815   | 0.55   | cps   |
| Phosphorus | 31-2  | 99766    | 99178    | 99591    | 99512    | 0.30   | cps   |
| Potassium  | 39-2  | 10474711 | 10331076 | 10163470 | 10323086 | 1.51   | cps   |
| Rhodium    | 103-1 | 13485104 | 13290074 | 13127151 | 13300777 | 1.35   | cps   |
| Rhodium    | 103-2 | 8421495  | 8274450  | 8238027  | 8311324  | 1.17   | cps   |
| Scandium   | 45-1  | 7640391  | 7585148  | 7531810  | 7585783  | 0.72   | cps   |
| Scandium   | 45-2  | 735287   | 728185   | 728251   | 730574   | 0.56   | cps   |
| Selenium   | 82-1  | 68927    | 67834    | 67753    | 68171    | 0.96   | cps   |
| Selenium   | 77-2  | 7966     | 7802     | 7832     | 7867     | 1.11   | cps   |
| Selenium   | 78-2  | 27155    | 26594    | 26070    | 26606    | 2.04   | cps   |
| Silicon    | 28-1  | 11523981 | 11384194 | 11500850 | 11469675 | 0.65   | cps   |
| Silver     | 107-1 | 5650708  | 5517974  | 5551195  | 5573292  | 1.24   | cps   |
| Silver     | 109-1 | 5347188  | 5339408  | 5316049  | 5334215  | 0.30   | cps   |
| Sodium     | 23-2  | 26362354 | 26400510 | 26484918 | 26415927 | 0.24   | cps   |
| Strontium  | 86-1  | 1339056  | 1328870  | 1324329  | 1330751  | 0.57   | cps   |
| Strontium  | 88-1  | 11555492 | 11524458 | 11574515 | 11551488 | 0.22   | cps   |
| Sulfur     | 34-1  | 520294   | 517553   | 512276   | 516708   | 0.79   | cps   |
| Terbium    | 159-1 | 18468756 | 18378026 | 18221783 | 18356188 | 0.68   | cps   |
| Terbium    | 159-2 | 12787099 | 12784170 | 12745584 | 12772284 | 0.18   | cps   |
| Thallium   | 203-1 | 4183112  | 4206850  | 4228527  | 4206163  | 0.54   | cps   |
| Thallium   | 205-1 | 9950775  | 9899645  | 9924623  | 9925014  | 0.26   | cps   |
| Tin        | 118-1 | 3613289  | 3562435  | 3608377  | 3594700  | 0.78   | cps   |
| Titanium   | 47-1  | 5091030  | 5069792  | 5098681  | 5086501  | 0.29   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S5Instrumnet Name :P7

Client Sample ID :S5Dilution Factor :1

Date & Time Acquired :2024-12-03 13:24:30DataFile Name :008CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 13471634 | 13496696 | 13444804 | 13471045 | 0.19   | cps   |
| Vanadium  | 51-2  | 1556000  | 1550892  | 1550554  | 1552482  | 0.20   | cps   |
| Yttrium   | 89-1  | 16604809 | 16440632 | 16510144 | 16518528 | 0.50   | cps   |
| Yttrium   | 89-2  | 4840862  | 4850008  | 4829451  | 4840107  | 0.21   | cps   |
| Zinc      | 66-2  | 3526011  | 3533048  | 3509908  | 3522989  | 0.34   | cps   |
| Zirconium | 90-1  | 7283361  | 7260251  | 7236177  | 7259930  | 0.32   | cps   |
| Zirconium | 91-1  | 1635283  | 1621706  | 1615214  | 1624067  | 0.63   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S6 Instrumnet Name : P7  
Client Sample ID : S6 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:27:14 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 4161170   | 4144012   | 4125805   | 4143662   | 0.43   | cps   |
| Antimony   | 121-1 | 8375826   | 8560500   | 8423279   | 8453201   | 1.13   | cps   |
| Arsenic    | 75-2  | 478834    | 482181    | 485869    | 482295    | 0.73   | cps   |
| Barium     | 135-1 | 10485336  | 10490697  | 10470485  | 10482173  | 0.10   | cps   |
| Barium     | 137-1 | 18278761  | 18401397  | 18305201  | 18328453  | 0.35   | cps   |
| Beryllium  | 9-1   | 864727    | 874332    | 874099    | 871053    | 0.63   | cps   |
| Bismuth    | 209-1 | 11208906  | 10999933  | 10996519  | 11068453  | 1.10   | cps   |
| Bismuth    | 209-2 | 8530318   | 8511879   | 8563347   | 8535181   | 0.31   | cps   |
| Bromine    | 81-1  | 12615     | 12228     | 12459     | 12434     | 1.57   | cps   |
| Bromine    | 81-2  | 87        | 73        | 87        | 82        | 9.37   | cps   |
| Cadmium    | 108-1 | 162647    | 165248    | 167198    | 165031    | 1.38   | cps   |
| Cadmium    | 106-1 | 235391    | 237495    | 237480    | 236789    | 0.51   | cps   |
| Cadmium    | 111-1 | 2071550   | 2108677   | 2088529   | 2089585   | 0.89   | cps   |
| Calcium    | 43-1  | 2089877   | 2112651   | 2070884   | 2091137   | 1.00   | cps   |
| Calcium    | 44-1  | 33560840  | 34349693  | 33860922  | 33923818  | 1.17   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 3559472   | 3561168   | 3545487   | 3555376   | 0.24   | cps   |
| Cobalt     | 59-2  | 5618770   | 5668796   | 5531108   | 5606225   | 1.24   | cps   |
| Copper     | 63-2  | 41330146  | 41324446  | 41204065  | 41286219  | 0.17   | cps   |
| Dysprosium | 156-1 | 200       | 200       | 183       | 194       | 4.95   | cps   |
| Dysprosium | 156-2 | 700       | 550       | 617       | 622       | 12.08  | cps   |
| Erbium     | 164-1 | 183       | 183       | 187       | 184       | 1.04   | cps   |
| Erbium     | 164-2 | 183       | 117       | 153       | 151       | 22.10  | cps   |
| Gadolinium | 160-1 | 137       | 207       | 147       | 163       | 23.18  | cps   |
| Gadolinium | 160-2 | 850       | 920       | 883       | 884       | 3.96   | cps   |
| Holmium    | 165-1 | 18427573  | 18001705  | 17908735  | 18112671  | 1.53   | cps   |
| Holmium    | 165-2 | 12887407  | 12971151  | 12846346  | 12901635  | 0.49   | cps   |
| Indium     | 115-1 | 13843741  | 13742920  | 13711318  | 13765993  | 0.50   | cps   |
| Indium     | 115-2 | 5444034   | 5428537   | 5396505   | 5423025   | 0.45   | cps   |
| Iron       | 56-2  | 167429578 | 165434611 | 166874301 | 166579496 | 0.62   | cps   |
| Iron       | 57-2  | 4215240   | 4233181   | 4169545   | 4205988   | 0.78   | cps   |
| Iron       | 54-2  | 9153799   | 9176238   | 9243708   | 9191248   | 0.51   | cps   |
| Krypton    | 83-1  | 253       | 247       | 280       | 260       | 6.79   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S6 Instrumnet Name : P7  
Client Sample ID : S6 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:27:14 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 33385218  | 33382293  | 33421898  | 33396470  | 0.07   | cps   |
| Lead       | 207-1 | 29465074  | 29850540  | 29800231  | 29705282  | 0.71   | cps   |
| Lead       | 208-1 | 134009481 | 135385321 | 135474208 | 134956337 | 0.61   | cps   |
| Lithium    | 6-1   | 1822012   | 1765656   | 1795077   | 1794249   | 1.57   | cps   |
| Magnesium  | 24-2  | 33787135  | 33678204  | 33620061  | 33695133  | 0.25   | cps   |
| Manganese  | 55-2  | 28516078  | 28420228  | 28521665  | 28485990  | 0.20   | cps   |
| Molybdenum | 94-1  | 29429219  | 29901568  | 29762095  | 29697627  | 0.82   | cps   |
| Molybdenum | 95-1  | 42172633  | 42599507  | 42847603  | 42539914  | 0.80   | cps   |
| Molybdenum | 96-1  | 46582409  | 46927901  | 46835613  | 46781974  | 0.38   | cps   |
| Molybdenum | 97-1  | 26604180  | 26973991  | 26536185  | 26704785  | 0.88   | cps   |
| Molybdenum | 98-1  | 68099766  | 68887476  | 69179591  | 68722277  | 0.81   | cps   |
| Neodymium  | 150-1 | 493       | 530       | 580       | 534       | 8.14   | cps   |
| Neodymium  | 150-2 | 140       | 117       | 140       | 132       | 10.19  | cps   |
| Nickel     | 60-2  | 1429336   | 1434168   | 1428192   | 1430566   | 0.22   | cps   |
| Phosphorus | 31-2  | 198538    | 196823    | 198511    | 197957    | 0.50   | cps   |
| Potassium  | 39-2  | 20229951  | 20416358  | 20213282  | 20286531  | 0.56   | cps   |
| Rhodium    | 103-1 | 13154943  | 13022969  | 12865608  | 13014506  | 1.11   | cps   |
| Rhodium    | 103-2 | 8261151   | 8275854   | 8195375   | 8244126   | 0.52   | cps   |
| Scandium   | 45-1  | 7494505   | 7395902   | 7404521   | 7431643   | 0.73   | cps   |
| Scandium   | 45-2  | 728086    | 723226    | 727127    | 726146    | 0.35   | cps   |
| Selenium   | 82-1  | 130862    | 132302    | 131551    | 131571    | 0.55   | cps   |
| Selenium   | 77-2  | 15839     | 15461     | 15094     | 15465     | 2.41   | cps   |
| Selenium   | 78-2  | 52225     | 52710     | 52342     | 52426     | 0.48   | cps   |
| Silicon    | 28-1  | 20995180  | 21269539  | 21203639  | 21156119  | 0.68   | cps   |
| Silver     | 107-1 | 10771752  | 10873624  | 10816820  | 10820732  | 0.47   | cps   |
| Silver     | 109-1 | 10311156  | 10456224  | 10540622  | 10436001  | 1.11   | cps   |
| Sodium     | 23-2  | 52724648  | 53257943  | 52818738  | 52933776  | 0.54   | cps   |
| Strontium  | 86-1  | 2568823   | 2616715   | 2625925   | 2603821   | 1.18   | cps   |
| Strontium  | 88-1  | 22563398  | 22709659  | 22974721  | 22749259  | 0.92   | cps   |
| Sulfur     | 34-1  | 781760    | 787493    | 790598    | 786617    | 0.57   | cps   |
| Terbium    | 159-1 | 18619780  | 18306110  | 18439201  | 18455030  | 0.85   | cps   |
| Terbium    | 159-2 | 12810195  | 12942536  | 12751235  | 12834655  | 0.76   | cps   |
| Thallium   | 203-1 | 8319725   | 8410368   | 8354250   | 8361448   | 0.55   | cps   |
| Thallium   | 205-1 | 19793338  | 19826636  | 19793716  | 19804563  | 0.10   | cps   |
| Tin        | 118-1 | 6984815   | 7032839   | 7069085   | 7028913   | 0.60   | cps   |
| Titanium   | 47-1  | 10001715  | 9957129   | 10099134  | 10019326  | 0.72   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S6Instrumnet Name :P7

Client Sample ID :S6Dilution Factor :1

Date & Time Acquired :2024-12-03 13:27:14DataFile Name :009CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 27255005 | 27141312 | 27413247 | 27269855 | 0.50   | cps   |
| Vanadium  | 51-2  | 3133184  | 3110839  | 3135836  | 3126620  | 0.44   | cps   |
| Yttrium   | 89-1  | 16691422 | 16157629 | 16226408 | 16358486 | 1.78   | cps   |
| Yttrium   | 89-2  | 4862332  | 4799765  | 4760396  | 4807498  | 1.07   | cps   |
| Zinc      | 66-2  | 6869867  | 6900215  | 6895277  | 6888453  | 0.24   | cps   |
| Zirconium | 90-1  | 14213899 | 14329563 | 14321591 | 14288351 | 0.45   | cps   |
| Zirconium | 91-1  | 3179728  | 3222027  | 3181254  | 3194336  | 0.75   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S7 Instrumnet Name : P7  
Client Sample ID : S7 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:29:59 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 8283448   | 8241709   | 8236452   | 8253870   | 0.31   | cps   |
| Antimony   | 121-1 | 17009336  | 17166394  | 17225341  | 17133690  | 0.65   | cps   |
| Arsenic    | 75-2  | 971385    | 967322    | 969929    | 969545    | 0.21   | cps   |
| Barium     | 135-1 | 21317301  | 21680550  | 21375818  | 21457889  | 0.91   | cps   |
| Barium     | 137-1 | 36577732  | 37439803  | 37267584  | 37095040  | 1.23   | cps   |
| Beryllium  | 9-1   | 1791661   | 1785133   | 1778748   | 1785181   | 0.36   | cps   |
| Bismuth    | 209-1 | 10764174  | 10922242  | 10800220  | 10828879  | 0.76   | cps   |
| Bismuth    | 209-2 | 8381867   | 8418912   | 8284674   | 8361818   | 0.83   | cps   |
| Bromine    | 81-1  | 13116     | 12592     | 12902     | 12870     | 2.05   | cps   |
| Bromine    | 81-2  | 103       | 113       | 150       | 122       | 20.10  | cps   |
| Cadmium    | 108-1 | 326769    | 330864    | 330993    | 329542    | 0.73   | cps   |
| Cadmium    | 106-1 | 467634    | 471768    | 469809    | 469737    | 0.44   | cps   |
| Cadmium    | 111-1 | 4168795   | 4218202   | 4153563   | 4180187   | 0.81   | cps   |
| Calcium    | 43-1  | 4250805   | 4314144   | 4244713   | 4269888   | 0.90   | cps   |
| Calcium    | 44-1  | 67903557  | 69288531  | 69157367  | 68783152  | 1.11   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 7140151   | 7151366   | 7194428   | 7161982   | 0.40   | cps   |
| Cobalt     | 59-2  | 11226562  | 11236634  | 11214122  | 11225773  | 0.10   | cps   |
| Copper     | 63-2  | 82595177  | 82405659  | 81453747  | 82151528  | 0.74   | cps   |
| Dysprosium | 156-1 | 363       | 370       | 430       | 388       | 9.47   | cps   |
| Dysprosium | 156-2 | 1197      | 1173      | 1307      | 1226      | 5.81   | cps   |
| Erbium     | 164-1 | 310       | 327       | 337       | 324       | 4.15   | cps   |
| Erbium     | 164-2 | 227       | 237       | 237       | 233       | 2.47   | cps   |
| Gadolinium | 160-1 | 287       | 290       | 253       | 277       | 7.33   | cps   |
| Gadolinium | 160-2 | 770       | 947       | 850       | 856       | 10.34  | cps   |
| Holmium    | 165-1 | 18133945  | 18141361  | 18052565  | 18109290  | 0.27   | cps   |
| Holmium    | 165-2 | 13027406  | 12936743  | 12824919  | 12929689  | 0.78   | cps   |
| Indium     | 115-1 | 13463348  | 13709601  | 13481600  | 13551516  | 1.01   | cps   |
| Indium     | 115-2 | 5352099   | 5285798   | 5315022   | 5317639   | 0.62   | cps   |
| Iron       | 56-2  | 335939668 | 336539468 | 334338602 | 335605913 | 0.34   | cps   |
| Iron       | 57-2  | 8325212   | 8492721   | 8386686   | 8401539   | 1.01   | cps   |
| Iron       | 54-2  | 18287744  | 18496938  | 18504211  | 18429631  | 0.67   | cps   |
| Krypton    | 83-1  | 353       | 277       | 200       | 277       | 27.71  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S7 Instrumnet Name : P7  
Client Sample ID : S7 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:29:59 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 66946217  | 68112767  | 67656604  | 67571863  | 0.87   | cps   |
| Lead       | 207-1 | 59721122  | 60572354  | 60555016  | 60282831  | 0.81   | cps   |
| Lead       | 208-1 | 270036211 | 275945976 | 273728201 | 273236796 | 1.09   | cps   |
| Lithium    | 6-1   | 1793341   | 1804816   | 1756217   | 1784792   | 1.42   | cps   |
| Magnesium  | 24-2  | 66895096  | 67022476  | 66883239  | 66933603  | 0.12   | cps   |
| Manganese  | 55-2  | 57250462  | 57542681  | 57745057  | 57512734  | 0.43   | cps   |
| Molybdenum | 94-1  | 60580634  | 60337439  | 59908656  | 60275576  | 0.56   | cps   |
| Molybdenum | 95-1  | 86330342  | 86771985  | 86543615  | 86548648  | 0.26   | cps   |
| Molybdenum | 96-1  | 94680452  | 95849759  | 95098759  | 95209656  | 0.62   | cps   |
| Molybdenum | 97-1  | 53927978  | 54514031  | 54311081  | 54251030  | 0.55   | cps   |
| Molybdenum | 98-1  | 137894301 | 139324585 | 140632835 | 139283907 | 0.98   | cps   |
| Neodymium  | 150-1 | 1127      | 1067      | 1077      | 1090      | 2.95   | cps   |
| Neodymium  | 150-2 | 293       | 313       | 333       | 313       | 6.38   | cps   |
| Nickel     | 60-2  | 2896397   | 2861637   | 2912518   | 2890184   | 0.90   | cps   |
| Phosphorus | 31-2  | 395803    | 394648    | 393179    | 394543    | 0.33   | cps   |
| Potassium  | 39-2  | 40714279  | 40682601  | 40706990  | 40701290  | 0.04   | cps   |
| Rhodium    | 103-1 | 12631241  | 12722634  | 12792305  | 12715393  | 0.64   | cps   |
| Rhodium    | 103-2 | 8097579   | 8073735   | 8043207   | 8071507   | 0.34   | cps   |
| Scandium   | 45-1  | 7370873   | 7429130   | 7311706   | 7370570   | 0.80   | cps   |
| Scandium   | 45-2  | 737577    | 731676    | 730419    | 733224    | 0.52   | cps   |
| Selenium   | 82-1  | 260788    | 263310    | 259585    | 261228    | 0.73   | cps   |
| Selenium   | 77-2  | 30732     | 30718     | 31283     | 30911     | 1.04   | cps   |
| Selenium   | 78-2  | 104062    | 104132    | 102696    | 103630    | 0.78   | cps   |
| Silicon    | 28-1  | 40380428  | 40143010  | 39622154  | 40048531  | 0.97   | cps   |
| Silver     | 107-1 | 21551796  | 21849931  | 21763776  | 21721834  | 0.71   | cps   |
| Silver     | 109-1 | 20704825  | 20856324  | 20674869  | 20745339  | 0.47   | cps   |
| Sodium     | 23-2  | 105269528 | 106479498 | 106223332 | 105990786 | 0.60   | cps   |
| Strontium  | 86-1  | 5250088   | 5377830   | 5381353   | 5336424   | 1.40   | cps   |
| Strontium  | 88-1  | 46315088  | 47228129  | 46933596  | 46825604  | 1.00   | cps   |
| Sulfur     | 34-1  | 1426062   | 1463211   | 1449765   | 1446346   | 1.30   | cps   |
| Terbium    | 159-1 | 18445210  | 18165001  | 18498462  | 18369558  | 0.98   | cps   |
| Terbium    | 159-2 | 12696162  | 12780602  | 12643906  | 12706890  | 0.54   | cps   |
| Thallium   | 203-1 | 16795206  | 17089207  | 16816446  | 16900287  | 0.97   | cps   |
| Thallium   | 205-1 | 40147764  | 40622423  | 40024679  | 40264955  | 0.78   | cps   |
| Tin        | 118-1 | 14098911  | 14343650  | 14263799  | 14235453  | 0.88   | cps   |
| Titanium   | 47-1  | 20004961  | 20077826  | 20204687  | 20095825  | 0.50   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S7Instrumnet Name :P7

Client Sample ID :S7Dilution Factor :1

Date & Time Acquired :2024-12-03 13:29:59DataFile Name :010CAL.S.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 55361339 | 55277684 | 55803463 | 55480829 | 0.51   | cps   |
| Vanadium  | 51-2  | 6353342  | 6342690  | 6359349  | 6351793  | 0.13   | cps   |
| Yttrium   | 89-1  | 16261701 | 16558544 | 16242123 | 16354123 | 1.08   | cps   |
| Yttrium   | 89-2  | 4768433  | 4773780  | 4784816  | 4775676  | 0.17   | cps   |
| Zinc      | 66-2  | 13742211 | 13701334 | 13791294 | 13744946 | 0.33   | cps   |
| Zirconium | 90-1  | 28908627 | 29584735 | 29025575 | 29172979 | 1.24   | cps   |
| Zirconium | 91-1  | 6493600  | 6577458  | 6502632  | 6524563  | 0.71   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S8 Instrumnet Name : P7  
Client Sample ID : S8 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:32:43 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | CPS1       | CPS2       | CPS3       | CPSMean    | CPSRSD | Units |
|------------|-------|------------|------------|------------|------------|--------|-------|
| Aluminium  | 27-2  | 42136896   | 41606585   | 41681949   | 41808477   | 0.69   | cps   |
| Antimony   | 121-1 | 8759       | 9283       | 8559       | 8867       | 4.21   | cps   |
| Arsenic    | 75-2  | 533        | 677        | 627        | 612        | 11.88  | cps   |
| Barium     | 135-1 | 9990       | 10190      | 9720       | 9967       | 2.37   | cps   |
| Barium     | 137-1 | 18292      | 17628      | 17441      | 17787      | 2.51   | cps   |
| Beryllium  | 9-1   | 523        | 527        | 457        | 502        | 7.86   | cps   |
| Bismuth    | 209-1 | 10220503   | 9978750    | 9806760    | 10002004   | 2.08   | cps   |
| Bismuth    | 209-2 | 7682229    | 7661751    | 7613508    | 7652496    | 0.46   | cps   |
| Bromine    | 81-1  | 14407      | 14437      | 15298      | 14714      | 3.44   | cps   |
| Bromine    | 81-2  | 157        | 147        | 157        | 153        | 3.77   | cps   |
| Cadmium    | 108-1 | 183        | 170        | 167        | 173        | 5.09   | cps   |
| Cadmium    | 106-1 | 4918       | 4918       | 4944       | 4926       | 0.31   | cps   |
| Cadmium    | 111-1 | 2209       | 2125       | 1996       | 2110       | 5.09   | cps   |
| Calcium    | 43-1  | 21043290   | 21039305   | 21021499   | 21034698   | 0.06   | cps   |
| Calcium    | 44-1  | 342435182  | 344476395  | 343774782  | 343562119  | 0.30   | cps   |
| Carbon     | 12-1  |            |            |            |            |        | cps   |
| Carbon     | 12-2  |            |            |            |            |        | cps   |
| Chlorine   | 35-1  |            |            |            |            |        | cps   |
| Chlorine   | 35-2  |            |            |            |            |        | cps   |
| Chromium   | 52-2  | 12922      | 14291      | 12449      | 13221      | 7.24   | cps   |
| Cobalt     | 59-2  | 31139      | 30982      | 30899      | 31006      | 0.39   | cps   |
| Copper     | 63-2  | 20344      | 19817      | 19349      | 19837      | 2.51   | cps   |
| Dysprosium | 156-1 | 713        | 727        | 763        | 734        | 3.53   | cps   |
| Dysprosium | 156-2 | 660        | 627        | 603        | 630        | 4.52   | cps   |
| Erbium     | 164-1 | 773        | 830        | 833        | 812        | 4.15   | cps   |
| Erbium     | 164-2 | 580        | 520        | 573        | 558        | 5.90   | cps   |
| Gadolinium | 160-1 | 683        | 757        | 740        | 727        | 5.29   | cps   |
| Gadolinium | 160-2 | 1130       | 1163       | 1287       | 1193       | 6.92   | cps   |
| Holmium    | 165-1 | 18180078   | 17961273   | 17802630   | 17981327   | 1.05   | cps   |
| Holmium    | 165-2 | 12763136   | 12852103   | 12735494   | 12783578   | 0.48   | cps   |
| Indium     | 115-1 | 13430905   | 13482309   | 13575941   | 13496385   | 0.54   | cps   |
| Indium     | 115-2 | 5353700    | 5477041    | 5415907    | 5415549    | 1.14   | cps   |
| Iron       | 56-2  | 1641048616 | 1659697682 | 1643906749 | 1648217682 | 0.61   | cps   |
| Iron       | 57-2  | 41092757   | 41576409   | 41584795   | 41417987   | 0.68   | cps   |
| Iron       | 54-2  | 89903042   | 89428259   | 90043692   | 89791664   | 0.36   | cps   |
| Krypton    | 83-1  | 320        | 303        | 380        | 334        | 12.06  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : S8 Instrumnet Name : P7  
Client Sample ID : S8 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:32:43 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 14755     | 14992     | 14474     | 14740     | 1.76   | cps   |
| Lead       | 207-1 | 12930     | 12799     | 12573     | 12767     | 1.42   | cps   |
| Lead       | 208-1 | 59278     | 58857     | 57150     | 58428     | 1.93   | cps   |
| Lithium    | 6-1   | 1747110   | 1732143   | 1730825   | 1736693   | 0.52   | cps   |
| Magnesium  | 24-2  | 337525368 | 336674948 | 334097255 | 336099191 | 0.53   | cps   |
| Manganese  | 55-2  | 34944     | 34239     | 34456     | 34546     | 1.04   | cps   |
| Molybdenum | 94-1  | 18879     | 18118     | 18478     | 18492     | 2.06   | cps   |
| Molybdenum | 95-1  | 20061     | 19974     | 19450     | 19828     | 1.67   | cps   |
| Molybdenum | 96-1  | 35500     | 34945     | 33495     | 34647     | 2.99   | cps   |
| Molybdenum | 97-1  | 12569     | 12392     | 12185     | 12382     | 1.55   | cps   |
| Molybdenum | 98-1  | 31414     | 30616     | 29633     | 30554     | 2.92   | cps   |
| Neodymium  | 150-1 | 330       | 393       | 320       | 348       | 11.43  | cps   |
| Neodymium  | 150-2 | 270       | 200       | 233       | 234       | 14.94  | cps   |
| Nickel     | 60-2  | 9253      | 9246      | 9300      | 9266      | 0.31   | cps   |
| Phosphorus | 31-2  | 580       | 560       | 543       | 561       | 3.27   | cps   |
| Potassium  | 39-2  | 206796150 | 207683317 | 206476777 | 206985415 | 0.30   | cps   |
| Rhodium    | 103-1 | 12148088  | 12201881  | 12078364  | 12142777  | 0.51   | cps   |
| Rhodium    | 103-2 | 7797279   | 7791524   | 7734503   | 7774435   | 0.45   | cps   |
| Scandium   | 45-1  | 7513536   | 7537808   | 7601866   | 7551070   | 0.60   | cps   |
| Scandium   | 45-2  | 759912    | 759855    | 750762    | 756843    | 0.70   | cps   |
| Selenium   | 82-1  | 918       | 909       | 774       | 867       | 9.29   | cps   |
| Selenium   | 77-2  | 7         | 10        | 7         | 8         | 24.71  | cps   |
| Selenium   | 78-2  | 610       | 603       | 553       | 589       | 5.26   | cps   |
| Silicon    | 28-1  | 844940    | 839077    | 831892    | 838637    | 0.78   | cps   |
| Silver     | 107-1 | 7092      | 6405      | 5831      | 6443      | 9.80   | cps   |
| Silver     | 109-1 | 6408      | 5945      | 5114      | 5822      | 11.26  | cps   |
| Sodium     | 23-2  | 523849086 | 518077059 | 519844046 | 520590063 | 0.57   | cps   |
| Strontium  | 86-1  | 18976     | 18762     | 18635     | 18791     | 0.92   | cps   |
| Strontium  | 88-1  | 159319    | 161643    | 161984    | 160982    | 0.90   | cps   |
| Sulfur     | 34-1  | 200571    | 209063    | 218367    | 209334    | 4.25   | cps   |
| Terbium    | 159-1 | 18387903  | 18235884  | 18170052  | 18264613  | 0.61   | cps   |
| Terbium    | 159-2 | 12653707  | 12673818  | 12574074  | 12633866  | 0.42   | cps   |
| Thallium   | 203-1 | 3350      | 2960      | 2407      | 2906      | 16.32  | cps   |
| Thallium   | 205-1 | 8042      | 6895      | 5915      | 6951      | 15.32  | cps   |
| Tin        | 118-1 | 7359      | 7229      | 7035      | 7207      | 2.26   | cps   |
| Titanium   | 47-1  | 3544      | 3667      | 3500      | 3570      | 2.42   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :S8Instrumnet Name :P7

Client Sample ID :S8Dilution Factor :1

Date & Time Acquired :2024-12-03 13:32:43DataFile Name :011CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 7969     | 7526     | 7099     | 7531     | 5.78   | cps   |
| Vanadium  | 51-2  | 2237     | 2187     | 2177     | 2200     | 1.46   | cps   |
| Yttrium   | 89-1  | 16583633 | 16620801 | 16446371 | 16550268 | 0.56   | cps   |
| Yttrium   | 89-2  | 4943484  | 5004290  | 4949206  | 4965660  | 0.68   | cps   |
| Zinc      | 66-2  | 5188     | 5014     | 5151     | 5118     | 1.79   | cps   |
| Zirconium | 90-1  | 18572    | 19239    | 18335    | 18715    | 2.51   | cps   |
| Zirconium | 91-1  | 4007     | 3787     | 3844     | 3879     | 2.95   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICV01 Instrumnet Name : P7  
Client Sample ID : ICV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:47:27 DataFile Name : 012ICV.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 233159   | 232837   | 231199   | 232398   | 0.45   | cps   |
| Antimony   | 121-1 | 3553340  | 3513028  | 3516307  | 3527559  | 0.63   | cps   |
| Arsenic    | 75-2  | 205523   | 203641   | 202400   | 203854   | 0.77   | cps   |
| Barium     | 135-1 | 438682   | 443277   | 439130   | 440363   | 0.58   | cps   |
| Barium     | 137-1 | 760108   | 761663   | 764205   | 761992   | 0.27   | cps   |
| Beryllium  | 9-1   | 186278   | 189180   | 187757   | 187739   | 0.77   | cps   |
| Bismuth    | 209-1 | 11709310 | 11408702 | 11417484 | 11511832 | 1.49   | cps   |
| Bismuth    | 209-2 | 8934737  | 8801103  | 8732112  | 8822651  | 1.17   | cps   |
| Bromine    | 81-1  | 13306    | 13229    | 13269    | 13268    | 0.29   | cps   |
| Bromine    | 81-2  | 113      | 103      | 93       | 103      | 9.68   | cps   |
| Cadmium    | 108-1 | 53003    | 54308    | 53006    | 53439    | 1.41   | cps   |
| Cadmium    | 106-1 | 82110    | 80732    | 81872    | 81572    | 0.90   | cps   |
| Cadmium    | 111-1 | 461329   | 468114   | 460432   | 463292   | 0.91   | cps   |
| Calcium    | 43-1  | 105399   | 103769   | 103423   | 104197   | 1.01   | cps   |
| Calcium    | 44-1  | 1554389  | 1558134  | 1528039  | 1546854  | 1.06   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 773091   | 765742   | 759620   | 766151   | 0.88   | cps   |
| Cobalt     | 59-2  | 1219156  | 1213407  | 1208514  | 1213692  | 0.44   | cps   |
| Copper     | 63-2  | 857432   | 847237   | 838452   | 847707   | 1.12   | cps   |
| Dysprosium | 156-1 | 23       | 23       | 37       | 28       | 27.73  | cps   |
| Dysprosium | 156-2 | 33       | 27       | 37       | 32       | 15.80  | cps   |
| Erbium     | 164-1 | 70       | 50       | 60       | 60       | 16.67  | cps   |
| Erbium     | 164-2 | 77       | 33       | 70       | 60       | 38.89  | cps   |
| Gadolinium | 160-1 | 60       | 90       | 73       | 74       | 20.19  | cps   |
| Gadolinium | 160-2 | 873      | 833      | 760      | 822      | 6.99   | cps   |
| Holmium    | 165-1 | 18472523 | 17953552 | 18251107 | 18225727 | 1.43   | cps   |
| Holmium    | 165-2 | 13179186 | 13112027 | 12863159 | 13051457 | 1.28   | cps   |
| Indium     | 115-1 | 14830596 | 14455847 | 14338573 | 14541672 | 1.77   | cps   |
| Indium     | 115-2 | 5721397  | 5601449  | 5697417  | 5673421  | 1.12   | cps   |
| Iron       | 56-2  | 13994145 | 13698751 | 13687327 | 13793408 | 1.26   | cps   |
| Iron       | 57-2  | 363420   | 358359   | 360169   | 360649   | 0.71   | cps   |
| Iron       | 54-2  | 821913   | 810218   | 809607   | 813912   | 0.85   | cps   |
| Krypton    | 83-1  | 293      | 300      | 307      | 300      | 2.22   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICV01 Instrumnet Name : P7  
Client Sample ID : ICV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:47:27 DataFile Name : 012ICV.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 3001144  | 2992266  | 3028759  | 3007389  | 0.63   | cps   |
| Lead       | 207-1 | 2582300  | 2606222  | 2589519  | 2592680  | 0.47   | cps   |
| Lead       | 208-1 | 11869027 | 11884447 | 11943697 | 11899057 | 0.33   | cps   |
| Lithium    | 6-1   | 1936438  | 1944270  | 1906353  | 1929020  | 1.04   | cps   |
| Magnesium  | 24-2  | 786764   | 781394   | 784047   | 784068   | 0.34   | cps   |
| Manganese  | 55-2  | 606297   | 599778   | 598112   | 601396   | 0.72   | cps   |
| Molybdenum | 94-1  | 31601060 | 31654373 | 31445474 | 31566969 | 0.34   | cps   |
| Molybdenum | 95-1  | 46016746 | 45916304 | 45392461 | 45775170 | 0.73   | cps   |
| Molybdenum | 96-1  | 50161361 | 50277781 | 49709043 | 50049395 | 0.60   | cps   |
| Molybdenum | 97-1  | 28630832 | 28567499 | 28320614 | 28506315 | 0.57   | cps   |
| Molybdenum | 98-1  | 73766296 | 73915436 | 71952512 | 73211414 | 1.49   | cps   |
| Neodymium  | 150-1 | 33       | 43       | 33       | 37       | 15.75  | cps   |
| Neodymium  | 150-2 | 7        | 7        | 3        | 6        | 34.70  | cps   |
| Nickel     | 60-2  | 317420   | 315029   | 314189   | 315546   | 0.53   | cps   |
| Phosphorus | 31-2  | 383      | 370      | 387      | 380      | 2.32   | cps   |
| Potassium  | 39-2  | 1754982  | 1695345  | 1679656  | 1709994  | 2.32   | cps   |
| Rhodium    | 103-1 | 14432622 | 13963837 | 13861234 | 14085898 | 2.16   | cps   |
| Rhodium    | 103-2 | 8833100  | 8686161  | 8695828  | 8738363  | 0.94   | cps   |
| Scandium   | 45-1  | 8217235  | 7986957  | 7828753  | 8010982  | 2.44   | cps   |
| Scandium   | 45-2  | 771250   | 762283   | 759653   | 764396   | 0.80   | cps   |
| Selenium   | 82-1  | 58726    | 58763    | 58516    | 58668    | 0.23   | cps   |
| Selenium   | 77-2  | 6471     | 6775     | 6518     | 6588     | 2.48   | cps   |
| Selenium   | 78-2  | 23752    | 23085    | 22440    | 23093    | 2.84   | cps   |
| Silicon    | 28-1  | 4648922  | 4796467  | 4818651  | 4754680  | 1.94   | cps   |
| Silver     | 107-1 | 1156687  | 1163975  | 1163486  | 1161382  | 0.35   | cps   |
| Silver     | 109-1 | 1092209  | 1106950  | 1095515  | 1098225  | 0.70   | cps   |
| Sodium     | 23-2  | 2203209  | 2207446  | 2157556  | 2189404  | 1.26   | cps   |
| Strontium  | 86-1  | 2813067  | 2788039  | 2727766  | 2776290  | 1.58   | cps   |
| Strontium  | 88-1  | 24328129 | 24284480 | 23865625 | 24159411 | 1.06   | cps   |
| Sulfur     | 34-1  | 240121   | 236695   | 233947   | 236921   | 1.31   | cps   |
| Terbium    | 159-1 | 19170453 | 18591295 | 18743013 | 18834921 | 1.59   | cps   |
| Terbium    | 159-2 | 13001814 | 13136408 | 12911572 | 13016598 | 0.87   | cps   |
| Thallium   | 203-1 | 3728566  | 3739603  | 3723985  | 3730718  | 0.22   | cps   |
| Thallium   | 205-1 | 8753406  | 8852879  | 8910946  | 8839077  | 0.90   | cps   |
| Tin        | 118-1 | 7356991  | 7375013  | 7272282  | 7334762  | 0.75   | cps   |
| Titanium   | 47-1  | 10964984 | 10938532 | 10799685 | 10901067 | 0.81   | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

ICV01

Instrumnet Name :

P7

Client Sample ID :

ICV01

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:47:27

DataFile Name :

012ICV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 28811650 | 28939896 | 28799479 | 28850342 | 0.27   | cps   |
| Vanadium  | 51-2  | 646852   | 640090   | 636450   | 641131   | 0.82   | cps   |
| Yttrium   | 89-1  | 17629700 | 17233626 | 16862984 | 17242103 | 2.22   | cps   |
| Yttrium   | 89-2  | 5066401  | 4961497  | 4910651  | 4979516  | 1.59   | cps   |
| Zinc      | 66-2  | 300853   | 298807   | 298646   | 299436   | 0.41   | cps   |
| Zirconium | 90-1  | 14872842 | 14739662 | 14525741 | 14712749 | 1.19   | cps   |
| Zirconium | 91-1  | 3360060  | 3337866  | 3323049  | 3340325  | 0.56   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : LLICV Instrumnet Name : P7  
Client Sample ID : LLICV Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:51:14 DataFile Name : 013LLCC.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 8839     | 8436     | 8502     | 8592     | 2.52   | cps   |
| Antimony   | 121-1 | 36062    | 36399    | 36914    | 36458    | 1.18   | cps   |
| Arsenic    | 75-2  | 1110     | 1103     | 1197     | 1137     | 4.58   | cps   |
| Barium     | 135-1 | 43279    | 43784    | 42664    | 43242    | 1.30   | cps   |
| Barium     | 137-1 | 75533    | 75234    | 75566    | 75444    | 0.24   | cps   |
| Beryllium  | 9-1   | 2067     | 2257     | 2037     | 2120     | 5.63   | cps   |
| Bismuth    | 209-1 | 11580150 | 11279604 | 11318210 | 11392655 | 1.44   | cps   |
| Bismuth    | 209-2 | 8859564  | 8835859  | 8831406  | 8842276  | 0.17   | cps   |
| Bromine    | 81-1  | 12919    | 12532    | 12549    | 12667    | 1.73   | cps   |
| Bromine    | 81-2  | 107      | 100      | 93       | 100      | 6.67   | cps   |
| Cadmium    | 108-1 | 350      | 397      | 310      | 352      | 12.32  | cps   |
| Cadmium    | 106-1 | 5141     | 5001     | 5008     | 5050     | 1.56   | cps   |
| Cadmium    | 111-1 | 5847     | 6024     | 5815     | 5895     | 1.90   | cps   |
| Calcium    | 43-1  | 24046    | 23862    | 24116    | 24008    | 0.55   | cps   |
| Calcium    | 44-1  | 394210   | 396321   | 403714   | 398082   | 1.25   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 17761    | 17687    | 17417    | 17622    | 1.03   | cps   |
| Cobalt     | 59-2  | 13056    | 13486    | 12742    | 13095    | 2.85   | cps   |
| Copper     | 63-2  | 18568    | 18458    | 18508    | 18512    | 0.30   | cps   |
| Dysprosium | 156-1 | 20       | 20       | 20       | 20       | 0.00   | cps   |
| Dysprosium | 156-2 | 7        | 20       | 23       | 17       | 52.90  | cps   |
| Erbium     | 164-1 | 57       | 83       | 33       | 58       | 43.30  | cps   |
| Erbium     | 164-2 | 63       | 53       | 20       | 46       | 49.80  | cps   |
| Gadolinium | 160-1 | 83       | 40       | 77       | 67       | 35.00  | cps   |
| Gadolinium | 160-2 | 683      | 877      | 833      | 798      | 12.72  | cps   |
| Holmium    | 165-1 | 18490748 | 18015716 | 17978620 | 18161695 | 1.57   | cps   |
| Holmium    | 165-2 | 13025176 | 12724362 | 12760486 | 12836675 | 1.28   | cps   |
| Indium     | 115-1 | 14913746 | 14647673 | 14464965 | 14675461 | 1.54   | cps   |
| Indium     | 115-2 | 5827255  | 5796068  | 5741693  | 5788339  | 0.75   | cps   |
| Iron       | 56-2  | 397556   | 395602   | 395533   | 396230   | 0.29   | cps   |
| Iron       | 57-2  | 10887    | 10921    | 10991    | 10933    | 0.48   | cps   |
| Iron       | 54-2  | 24387    | 23986    | 24166    | 24179    | 0.83   | cps   |
| Krypton    | 83-1  | 243      | 247      | 263      | 251      | 4.27   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : LLICV Instrumnet Name : P7  
Client Sample ID : LLICV Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:51:14 DataFile Name : 013LLCC.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 16036    | 15879    | 15936    | 15951    | 0.50   | cps   |
| Lead       | 207-1 | 14017    | 14131    | 13590    | 13913    | 2.05   | cps   |
| Lead       | 208-1 | 64183    | 64026    | 63543    | 63917    | 0.52   | cps   |
| Lithium    | 6-1   | 1883885  | 1871007  | 1870129  | 1875007  | 0.41   | cps   |
| Magnesium  | 24-2  | 349768   | 351881   | 349100   | 350250   | 0.41   | cps   |
| Manganese  | 55-2  | 6822     | 7055     | 6892     | 6923     | 1.73   | cps   |
| Molybdenum | 94-1  | 38664    | 38688    | 40021    | 39124    | 1.99   | cps   |
| Molybdenum | 95-1  | 47129    | 47734    | 50361    | 48408    | 3.55   | cps   |
| Molybdenum | 96-1  | 52457    | 54521    | 55694    | 54224    | 3.02   | cps   |
| Molybdenum | 97-1  | 29844    | 30245    | 30620    | 30236    | 1.28   | cps   |
| Molybdenum | 98-1  | 75480    | 77625    | 79194    | 77433    | 2.41   | cps   |
| Neodymium  | 150-1 | 10       | 10       | 0        | 7        | 86.60  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 4221     | 4011     | 4041     | 4091     | 2.78   | cps   |
| Phosphorus | 31-2  | 1160     | 1013     | 1057     | 1077     | 7.00   | cps   |
| Potassium  | 39-2  | 510746   | 511027   | 508412   | 510062   | 0.28   | cps   |
| Rhodium    | 103-1 | 14004454 | 14026859 | 13842128 | 13957814 | 0.72   | cps   |
| Rhodium    | 103-2 | 8849084  | 8756534  | 8729444  | 8778354  | 0.71   | cps   |
| Scandium   | 45-1  | 7846831  | 7849255  | 7795834  | 7830640  | 0.39   | cps   |
| Scandium   | 45-2  | 764207   | 759460   | 756795   | 760154   | 0.49   | cps   |
| Selenium   | 82-1  | 2126     | 2081     | 1969     | 2059     | 3.93   | cps   |
| Selenium   | 77-2  | 170      | 217      | 160      | 182      | 16.60  | cps   |
| Selenium   | 78-2  | 1150     | 1093     | 1077     | 1107     | 3.47   | cps   |
| Silicon    | 28-1  | 802937   | 799958   | 806999   | 803298   | 0.44   | cps   |
| Silver     | 107-1 | 23559    | 23332    | 23105    | 23332    | 0.97   | cps   |
| Silver     | 109-1 | 21940    | 22501    | 22594    | 22345    | 1.58   | cps   |
| Sodium     | 23-2  | 565919   | 565352   | 563898   | 565056   | 0.18   | cps   |
| Strontium  | 86-1  | 6115     | 6128     | 6468     | 6237     | 3.21   | cps   |
| Strontium  | 88-1  | 49974    | 51382    | 52921    | 51426    | 2.87   | cps   |
| Sulfur     | 34-1  | 231555   | 233033   | 230943   | 231844   | 0.46   | cps   |
| Terbium    | 159-1 | 18731146 | 18641355 | 18410773 | 18594425 | 0.89   | cps   |
| Terbium    | 159-2 | 12912135 | 13024065 | 12789634 | 12908611 | 0.91   | cps   |
| Thallium   | 203-1 | 18122    | 18009    | 17852    | 17994    | 0.75   | cps   |
| Thallium   | 205-1 | 42175    | 43315    | 42643    | 42711    | 1.34   | cps   |
| Tin        | 118-1 | 76750    | 78606    | 75891    | 77083    | 1.80   | cps   |
| Titanium   | 47-1  | 11534    | 11398    | 15370    | 12767    | 17.66  | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

LLICV

Instrumnet Name :

P7

Client Sample ID :

LLICV

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 13:51:14

DataFile Name :

013LLCC.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 54796    | 55147    | 54641    | 54861    | 0.47   | cps   |
| Vanadium  | 51-2  | 33046    | 33858    | 33156    | 33354    | 1.32   | cps   |
| Yttrium   | 89-1  | 17295965 | 16991917 | 16646803 | 16978228 | 1.91   | cps   |
| Yttrium   | 89-2  | 5025858  | 4977392  | 5001519  | 5001589  | 0.48   | cps   |
| Zinc      | 66-2  | 8583     | 8603     | 8232     | 8472     | 2.46   | cps   |
| Zirconium | 90-1  | 30979    | 31507    | 32554    | 31680    | 2.53   | cps   |
| Zirconium | 91-1  | 7135     | 6985     | 7245     | 7122     | 1.83   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICB01 Instrumnet Name : P7  
Client Sample ID : ICB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:58:15 DataFile Name : 015CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 217      | 200      | 220      | 212      | 5.05   | cps   |
| Antimony   | 121-1 | 177      | 187      | 190      | 184      | 3.76   | cps   |
| Arsenic    | 75-2  | 47       | 60       | 50       | 52       | 13.28  | cps   |
| Barium     | 135-1 | 160      | 140      | 130      | 143      | 10.66  | cps   |
| Barium     | 137-1 | 220      | 290      | 203      | 238      | 19.34  | cps   |
| Beryllium  | 9-1   | 133      | 197      | 207      | 179      | 22.23  | cps   |
| Bismuth    | 209-1 | 11819093 | 11421917 | 11542584 | 11594531 | 1.76   | cps   |
| Bismuth    | 209-2 | 9062856  | 8904997  | 8942188  | 8970014  | 0.92   | cps   |
| Bromine    | 81-1  | 13903    | 13693    | 13460    | 13685    | 1.62   | cps   |
| Bromine    | 81-2  | 210      | 187      | 240      | 212      | 12.60  | cps   |
| Cadmium    | 108-1 | 23       | 20       | 30       | 24       | 20.83  | cps   |
| Cadmium    | 106-1 | 4684     | 4654     | 4667     | 4669     | 0.32   | cps   |
| Cadmium    | 111-1 | 1004     | 980      | 976      | 987      | 1.53   | cps   |
| Calcium    | 43-1  | 763      | 817      | 797      | 792      | 3.40   | cps   |
| Calcium    | 44-1  | 25272    | 24153    | 23692    | 24372    | 3.33   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2670     | 2550     | 2720     | 2647     | 3.30   | cps   |
| Cobalt     | 59-2  | 370      | 320      | 333      | 341      | 7.59   | cps   |
| Copper     | 63-2  | 1477     | 1377     | 1490     | 1448     | 4.28   | cps   |
| Dysprosium | 156-1 | 7        | 7        | 13       | 9        | 43.25  | cps   |
| Dysprosium | 156-2 | 7        | 17       | 7        | 10       | 57.72  | cps   |
| Erbium     | 164-1 | 73       | 100      | 97       | 90       | 16.15  | cps   |
| Erbium     | 164-2 | 43       | 47       | 53       | 48       | 10.66  | cps   |
| Gadolinium | 160-1 | 57       | 63       | 73       | 64       | 13.01  | cps   |
| Gadolinium | 160-2 | 837      | 783      | 703      | 774      | 8.67   | cps   |
| Holmium    | 165-1 | 18635207 | 18457311 | 18421740 | 18504753 | 0.62   | cps   |
| Holmium    | 165-2 | 13324313 | 13055143 | 13146169 | 13175208 | 1.04   | cps   |
| Indium     | 115-1 | 15335893 | 14829722 | 14998329 | 15054648 | 1.71   | cps   |
| Indium     | 115-2 | 5969610  | 5828301  | 5851013  | 5882975  | 1.29   | cps   |
| Iron       | 56-2  | 26988    | 27094    | 26610    | 26897    | 0.95   | cps   |
| Iron       | 57-2  | 1510     | 1640     | 1580     | 1577     | 4.13   | cps   |
| Iron       | 54-2  | 3404     | 3384     | 3460     | 3416     | 1.16   | cps   |
| Krypton    | 83-1  | 233      | 280      | 263      | 259      | 9.13   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICB01 Instrumnet Name : P7  
Client Sample ID : ICB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:58:15 DataFile Name : 015CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1680     | 1587     | 1607     | 1625     | 3.03   | cps   |
| Lead       | 207-1 | 1257     | 1413     | 1433     | 1368     | 7.07   | cps   |
| Lead       | 208-1 | 6734     | 6394     | 6477     | 6535     | 2.71   | cps   |
| Lithium    | 6-1   | 1928584  | 1924063  | 1902678  | 1918442  | 0.72   | cps   |
| Magnesium  | 24-2  | 2304     | 2377     | 2440     | 2374     | 2.88   | cps   |
| Manganese  | 55-2  | 1110     | 947      | 957      | 1004     | 9.11   | cps   |
| Molybdenum | 94-1  | 647      | 657      | 627      | 643      | 2.37   | cps   |
| Molybdenum | 95-1  | 407      | 427      | 407      | 413      | 2.79   | cps   |
| Molybdenum | 96-1  | 510      | 550      | 523      | 528      | 3.86   | cps   |
| Molybdenum | 97-1  | 237      | 290      | 310      | 279      | 13.59  | cps   |
| Molybdenum | 98-1  | 693      | 713      | 660      | 689      | 3.91   | cps   |
| Neodymium  | 150-1 | 0        | 3        | 20       | 8        | 137.80 | cps   |
| Neodymium  | 150-2 | 0        | 10       | 7        | 6        | 91.64  | cps   |
| Nickel     | 60-2  | 903      | 897      | 983      | 928      | 5.20   | cps   |
| Phosphorus | 31-2  | 310      | 383      | 350      | 348      | 10.56  | cps   |
| Potassium  | 39-2  | 69263    | 69571    | 70368    | 69734    | 0.82   | cps   |
| Rhodium    | 103-1 | 14494942 | 14232907 | 14172816 | 14300222 | 1.20   | cps   |
| Rhodium    | 103-2 | 9111346  | 9031499  | 8934124  | 9025657  | 0.98   | cps   |
| Scandium   | 45-1  | 8167597  | 8041976  | 7989984  | 8066519  | 1.13   | cps   |
| Scandium   | 45-2  | 782302   | 783173   | 778878   | 781451   | 0.29   | cps   |
| Selenium   | 82-1  | 905      | 697      | 694      | 765      | 15.85  | cps   |
| Selenium   | 77-2  | 3        | 3        | 3        | 3        | 0.00   | cps   |
| Selenium   | 78-2  | 537      | 530      | 553      | 540      | 2.23   | cps   |
| Silicon    | 28-1  | 738541   | 736299   | 738838   | 737893   | 0.19   | cps   |
| Silver     | 107-1 | 300      | 327      | 233      | 287      | 16.77  | cps   |
| Silver     | 109-1 | 263      | 217      | 210      | 230      | 12.64  | cps   |
| Sodium     | 23-2  | 30520    | 29689    | 30520    | 30243    | 1.59   | cps   |
| Strontium  | 86-1  | 493      | 527      | 580      | 533      | 8.20   | cps   |
| Strontium  | 88-1  | 793      | 833      | 820      | 816      | 2.50   | cps   |
| Sulfur     | 34-1  | 238462   | 236869   | 238936   | 238089   | 0.45   | cps   |
| Terbium    | 159-1 | 19175917 | 18865796 | 18665521 | 18902411 | 1.36   | cps   |
| Terbium    | 159-2 | 13273630 | 13310245 | 13072848 | 13218908 | 0.97   | cps   |
| Thallium   | 203-1 | 507      | 450      | 437      | 464      | 8.00   | cps   |
| Thallium   | 205-1 | 1187     | 1033     | 1083     | 1101     | 7.10   | cps   |
| Tin        | 118-1 | 3174     | 3047     | 3137     | 3119     | 2.09   | cps   |
| Titanium   | 47-1  | 153      | 127      | 147      | 142      | 9.76   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICB01 Instrumnet Name : P7  
Client Sample ID : ICB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 13:58:15 DataFile Name : 015CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 57       | 53       | 70       | 60       | 14.70  | cps   |
| Vanadium  | 51-2  | 20       | 20       | 30       | 23       | 24.74  | cps   |
| Yttrium   | 89-1  | 17512016 | 17367955 | 17567165 | 17482378 | 0.59   | cps   |
| Yttrium   | 89-2  | 5111003  | 5093951  | 5054484  | 5086479  | 0.57   | cps   |
| Zinc      | 66-2  | 960      | 1027     | 970      | 986      | 3.65   | cps   |
| Zirconium | 90-1  | 1017     | 1003     | 1007     | 1009     | 0.69   | cps   |
| Zirconium | 91-1  | 213      | 140      | 190      | 181      | 20.69  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSA01 Instrumnet Name : P7  
Client Sample ID : ICSA01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:26:39 DataFile Name : 021ICSA.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 37633070  | 36972465  | 37890626  | 37498721  | 1.26   | cps   |
| Antimony   | 121-1 | 20378     | 20551     | 21252     | 20727     | 2.23   | cps   |
| Arsenic    | 75-2  | 393       | 427       | 397       | 406       | 4.53   | cps   |
| Barium     | 135-1 | 6685      | 6875      | 6642      | 6734      | 1.84   | cps   |
| Barium     | 137-1 | 11358     | 11635     | 11501     | 11498     | 1.20   | cps   |
| Beryllium  | 9-1   | 643       | 540       | 547       | 577       | 10.03  | cps   |
| Bismuth    | 209-1 | 11898865  | 11941031  | 11928918  | 11922938  | 0.18   | cps   |
| Bismuth    | 209-2 | 8612463   | 8526010   | 8673879   | 8604118   | 0.86   | cps   |
| Bromine    | 81-1  | 18291     | 18982     | 18555     | 18610     | 1.87   | cps   |
| Bromine    | 81-2  | 503       | 507       | 460       | 490       | 5.31   | cps   |
| Cadmium    | 108-1 | 3010      | 3147      | 2870      | 3009      | 4.60   | cps   |
| Cadmium    | 106-1 | 4541      | 4371      | 4634      | 4515      | 2.96   | cps   |
| Cadmium    | 111-1 | 2601      | 2632      | 2738      | 2657      | 2.70   | cps   |
| Calcium    | 43-1  | 4209552   | 4284224   | 4223209   | 4238995   | 0.94   | cps   |
| Calcium    | 44-1  | 68692782  | 69924876  | 69338167  | 69318608  | 0.89   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 150849    | 151438    | 151886    | 151391    | 0.34   | cps   |
| Cobalt     | 59-2  | 15098     | 14861     | 15295     | 15084     | 1.44   | cps   |
| Copper     | 63-2  | 62125     | 63327     | 64297     | 63250     | 1.72   | cps   |
| Dysprosium | 156-1 | 57        | 87        | 63        | 69        | 22.87  | cps   |
| Dysprosium | 156-2 | 67        | 53        | 77        | 66        | 17.86  | cps   |
| Erbium     | 164-1 | 160       | 183       | 123       | 156       | 19.44  | cps   |
| Erbium     | 164-2 | 83        | 73        | 77        | 78        | 6.55   | cps   |
| Gadolinium | 160-1 | 150       | 137       | 180       | 156       | 14.27  | cps   |
| Gadolinium | 160-2 | 783       | 773       | 783       | 780       | 0.74   | cps   |
| Holmium    | 165-1 | 20264045  | 20215625  | 20152145  | 20210605  | 0.28   | cps   |
| Holmium    | 165-2 | 13656504  | 13621771  | 13596284  | 13624853  | 0.22   | cps   |
| Indium     | 115-1 | 15920534  | 15860448  | 15655429  | 15812137  | 0.88   | cps   |
| Indium     | 115-2 | 5844022   | 5856706   | 5760431   | 5820386   | 0.90   | cps   |
| Iron       | 56-2  | 681821963 | 685014230 | 678721670 | 681852621 | 0.46   | cps   |
| Iron       | 57-2  | 17027794  | 17075620  | 17120640  | 17074685  | 0.27   | cps   |
| Iron       | 54-2  | 37176692  | 37120065  | 36991917  | 37096225  | 0.26   | cps   |
| Krypton    | 83-1  | 337       | 340       | 280       | 319       | 10.57  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSA01 Instrumnet Name : P7  
Client Sample ID : ICSA01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:26:39 DataFile Name : 021ICSA.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 98782     | 83581     | 79661     | 87342     | 11.56  | cps   |
| Lead       | 207-1 | 80735     | 67721     | 64060     | 70839     | 12.37  | cps   |
| Lead       | 208-1 | 377007    | 320492    | 297376    | 331625    | 12.35  | cps   |
| Lithium    | 6-1   | 1631035   | 1611407   | 1607196   | 1616546   | 0.79   | cps   |
| Magnesium  | 24-2  | 62048379  | 62327871  | 63608094  | 62661448  | 1.33   | cps   |
| Manganese  | 55-2  | 47495     | 47829     | 47558     | 47627     | 0.37   | cps   |
| Molybdenum | 94-1  | 10059959  | 10137139  | 10218138  | 10138412  | 0.78   | cps   |
| Molybdenum | 95-1  | 17644376  | 17952114  | 17827222  | 17807904  | 0.87   | cps   |
| Molybdenum | 96-1  | 19044977  | 19188106  | 19028893  | 19087325  | 0.46   | cps   |
| Molybdenum | 97-1  | 11028322  | 11169745  | 11056042  | 11084703  | 0.68   | cps   |
| Molybdenum | 98-1  | 28333399  | 28676970  | 28812762  | 28607710  | 0.86   | cps   |
| Neodymium  | 150-1 | 83        | 97        | 107       | 96        | 12.25  | cps   |
| Neodymium  | 150-2 | 40        | 20        | 63        | 41        | 52.75  | cps   |
| Nickel     | 60-2  | 17650     | 17147     | 17053     | 17283     | 1.86   | cps   |
| Phosphorus | 31-2  | 1954470   | 1922274   | 1911936   | 1929560   | 1.15   | cps   |
| Potassium  | 39-2  | 81166012  | 80298482  | 80956280  | 80806925  | 0.56   | cps   |
| Rhodium    | 103-1 | 14640320  | 14452501  | 14137691  | 14410170  | 1.76   | cps   |
| Rhodium    | 103-2 | 8836399   | 8805835   | 8742428   | 8794887   | 0.55   | cps   |
| Scandium   | 45-1  | 8102264   | 8064650   | 8080893   | 8082602   | 0.23   | cps   |
| Scandium   | 45-2  | 789159    | 788608    | 787953    | 788573    | 0.08   | cps   |
| Selenium   | 82-1  | 691       | 613       | 687       | 663       | 6.58   | cps   |
| Selenium   | 77-2  | 0         | 3         | 27        | 10        | 145.32 | cps   |
| Selenium   | 78-2  | 583       | 643       | 467       | 564       | 15.92  | cps   |
| Silicon    | 28-1  | 798063    | 806467    | 802748    | 802426    | 0.52   | cps   |
| Silver     | 107-1 | 667       | 663       | 680       | 670       | 1.32   | cps   |
| Silver     | 109-1 | 587       | 617       | 577       | 593       | 3.51   | cps   |
| Sodium     | 23-2  | 103622162 | 103524205 | 103510842 | 103552403 | 0.06   | cps   |
| Strontium  | 86-1  | 195274    | 195799    | 195347    | 195473    | 0.15   | cps   |
| Strontium  | 88-1  | 1670892   | 1734013   | 1716620   | 1707175   | 1.91   | cps   |
| Sulfur     | 34-1  | 5882241   | 5990494   | 5931949   | 5934895   | 0.91   | cps   |
| Terbium    | 159-1 | 20824049  | 20760396  | 20897129  | 20827191  | 0.33   | cps   |
| Terbium    | 159-2 | 13629341  | 13582268  | 13326562  | 13512724  | 1.21   | cps   |
| Thallium   | 203-1 | 2104      | 2054      | 1850      | 2002      | 6.70   | cps   |
| Thallium   | 205-1 | 5088      | 4734      | 4494      | 4772      | 6.26   | cps   |
| Tin        | 118-1 | 6965      | 6552      | 6105      | 6540      | 6.58   | cps   |
| Titanium   | 47-1  | 4061611   | 4111639   | 4046891   | 4073380   | 0.83   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :ICSA01Instrumnet Name :P7

Client Sample ID :ICSA01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:26:39DataFile Name :021ICSA.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 997      | 900      | 963      | 953      | 5.15   | cps   |
| Vanadium  | 51-2  | 1277     | 1280     | 1423     | 1327     | 6.31   | cps   |
| Yttrium   | 89-1  | 18638582 | 18702828 | 18680869 | 18674093 | 0.17   | cps   |
| Yttrium   | 89-2  | 5183694  | 5225997  | 5218156  | 5209282  | 0.43   | cps   |
| Zinc      | 66-2  | 17113    | 16266    | 16946    | 16775    | 2.68   | cps   |
| Zirconium | 90-1  | 3494     | 3604     | 3244     | 3447     | 5.35   | cps   |
| Zirconium | 91-1  | 747      | 760      | 700      | 736      | 4.28   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSAB01 Instrumnet Name : P7  
Client Sample ID : ICSAB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:29:42 DataFile Name : 022ICSB.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 39093520  | 39142804  | 39052868  | 39096397  | 0.12   | cps   |
| Antimony   | 121-1 | 406066    | 411126    | 412012    | 409735    | 0.78   | cps   |
| Arsenic    | 75-2  | 21566     | 20821     | 21262     | 21216     | 1.76   | cps   |
| Barium     | 135-1 | 101015    | 102270    | 103842    | 102375    | 1.38   | cps   |
| Barium     | 137-1 | 175354    | 178785    | 179515    | 177885    | 1.25   | cps   |
| Beryllium  | 9-1   | 30016     | 30523     | 29194     | 29911     | 2.24   | cps   |
| Bismuth    | 209-1 | 11991146  | 12078057  | 12039825  | 12036343  | 0.36   | cps   |
| Bismuth    | 209-2 | 8824163   | 8748199   | 8685472   | 8752611   | 0.79   | cps   |
| Bromine    | 81-1  | 18528     | 18896     | 18695     | 18706     | 0.98   | cps   |
| Bromine    | 81-2  | 643       | 683       | 613       | 647       | 5.43   | cps   |
| Cadmium    | 108-1 | 9183      | 9120      | 9610      | 9304      | 2.87   | cps   |
| Cadmium    | 106-1 | 13803     | 14060     | 14030     | 13965     | 1.01   | cps   |
| Cadmium    | 111-1 | 95708     | 97716     | 97424     | 96949     | 1.12   | cps   |
| Calcium    | 43-1  | 4406877   | 4474714   | 4458248   | 4446613   | 0.80   | cps   |
| Calcium    | 44-1  | 72069802  | 72272416  | 72135402  | 72159207  | 0.14   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 309243    | 311595    | 309849    | 310229    | 0.39   | cps   |
| Cobalt     | 59-2  | 254791    | 259571    | 256171    | 256845    | 0.96   | cps   |
| Copper     | 63-2  | 229974    | 231645    | 231347    | 230989    | 0.39   | cps   |
| Dysprosium | 156-1 | 87        | 93        | 87        | 89        | 4.33   | cps   |
| Dysprosium | 156-2 | 37        | 67        | 50        | 51        | 29.41  | cps   |
| Erbium     | 164-1 | 173       | 143       | 143       | 153       | 11.30  | cps   |
| Erbium     | 164-2 | 97        | 113       | 113       | 108       | 8.93   | cps   |
| Gadolinium | 160-1 | 150       | 187       | 113       | 150       | 24.45  | cps   |
| Gadolinium | 160-2 | 873       | 823       | 840       | 846       | 3.01   | cps   |
| Holmium    | 165-1 | 21021743  | 20636479  | 20716772  | 20791665  | 0.98   | cps   |
| Holmium    | 165-2 | 13949579  | 13814136  | 13747435  | 13837050  | 0.74   | cps   |
| Indium     | 115-1 | 15858574  | 16020048  | 16189342  | 16022655  | 1.03   | cps   |
| Indium     | 115-2 | 5859422   | 5844908   | 5903869   | 5869399   | 0.52   | cps   |
| Iron       | 56-2  | 714702736 | 709187403 | 705696603 | 709862247 | 0.64   | cps   |
| Iron       | 57-2  | 17551802  | 17732544  | 17782763  | 17689036  | 0.69   | cps   |
| Iron       | 54-2  | 38605513  | 38652763  | 38235411  | 38497896  | 0.59   | cps   |
| Krypton    | 83-1  | 327       | 267       | 257       | 283       | 13.36  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : ICSAB01 Instrumnet Name : P7  
Client Sample ID : ICSAB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:29:42 DataFile Name : 022ICSB.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 385773    | 380004    | 379908    | 381895    | 0.88   | cps   |
| Lead       | 207-1 | 323131    | 320275    | 323077    | 322161    | 0.51   | cps   |
| Lead       | 208-1 | 1489406   | 1472428   | 1472685   | 1478173   | 0.66   | cps   |
| Lithium    | 6-1   | 1585672   | 1595036   | 1534984   | 1571897   | 2.06   | cps   |
| Magnesium  | 24-2  | 65317079  | 65189989  | 65897672  | 65468247  | 0.58   | cps   |
| Manganese  | 55-2  | 168414    | 168316    | 167680    | 168137    | 0.24   | cps   |
| Molybdenum | 94-1  | 10546185  | 10708234  | 10735757  | 10663392  | 0.96   | cps   |
| Molybdenum | 95-1  | 18341065  | 18719101  | 18785168  | 18615112  | 1.29   | cps   |
| Molybdenum | 96-1  | 19804721  | 20147387  | 20154133  | 20035414  | 1.00   | cps   |
| Molybdenum | 97-1  | 11649254  | 11680568  | 11715050  | 11681624  | 0.28   | cps   |
| Molybdenum | 98-1  | 29754397  | 30137690  | 30147615  | 30013234  | 0.75   | cps   |
| Neodymium  | 150-1 | 100       | 97        | 93        | 97        | 3.45   | cps   |
| Neodymium  | 150-2 | 60        | 53        | 57        | 57        | 5.89   | cps   |
| Nickel     | 60-2  | 79405     | 78166     | 77569     | 78380     | 1.19   | cps   |
| Phosphorus | 31-2  | 2038553   | 1991116   | 2034450   | 2021373   | 1.30   | cps   |
| Potassium  | 39-2  | 84259807  | 84278490  | 85232119  | 84590139  | 0.66   | cps   |
| Rhodium    | 103-1 | 14673216  | 14561929  | 14519786  | 14584977  | 0.54   | cps   |
| Rhodium    | 103-2 | 8858856   | 8928422   | 8892595   | 8893291   | 0.39   | cps   |
| Scandium   | 45-1  | 8047932   | 8112060   | 8020492   | 8060161   | 0.58   | cps   |
| Scandium   | 45-2  | 793365    | 789379    | 789844    | 790862    | 0.28   | cps   |
| Selenium   | 82-1  | 6635      | 6558      | 6426      | 6540      | 1.62   | cps   |
| Selenium   | 77-2  | 707       | 593       | 633       | 644       | 8.92   | cps   |
| Selenium   | 78-2  | 2870      | 2774      | 2777      | 2807      | 1.96   | cps   |
| Silicon    | 28-1  | 820123    | 828939    | 831068    | 826710    | 0.70   | cps   |
| Silver     | 107-1 | 456762    | 467910    | 471478    | 465383    | 1.65   | cps   |
| Silver     | 109-1 | 437567    | 445187    | 449034    | 443929    | 1.31   | cps   |
| Sodium     | 23-2  | 106527498 | 106743188 | 106627645 | 106632777 | 0.10   | cps   |
| Strontium  | 86-1  | 205260    | 205763    | 205871    | 205631    | 0.16   | cps   |
| Strontium  | 88-1  | 1759160   | 1784432   | 1810538   | 1784710   | 1.44   | cps   |
| Sulfur     | 34-1  | 6019062   | 6031795   | 6107613   | 6052823   | 0.79   | cps   |
| Terbium    | 159-1 | 21298939  | 21382909  | 21053148  | 21244999  | 0.81   | cps   |
| Terbium    | 159-2 | 13734812  | 13638767  | 13517881  | 13630487  | 0.80   | cps   |
| Thallium   | 203-1 | 369761    | 373248    | 373720    | 372243    | 0.58   | cps   |
| Thallium   | 205-1 | 879606    | 881639    | 887398    | 882881    | 0.46   | cps   |
| Tin        | 118-1 | 5881      | 5991      | 5718      | 5863      | 2.35   | cps   |
| Titanium   | 47-1  | 4205487   | 4315672   | 4213903   | 4245021   | 1.44   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :ICSAB01Instrumnet Name :P7

Client Sample ID :ICSAB01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:29:42DataFile Name :022ICSB.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 930      | 1070     | 1103     | 1034     | 8.89   | cps   |
| Vanadium  | 51-2  | 133894   | 132895   | 132482   | 133090   | 0.55   | cps   |
| Yttrium   | 89-1  | 19062401 | 18869972 | 18850622 | 18927665 | 0.62   | cps   |
| Yttrium   | 89-2  | 5270648  | 5264438  | 5295851  | 5276979  | 0.32   | cps   |
| Zinc      | 66-2  | 46693    | 46736    | 47044    | 46824    | 0.41   | cps   |
| Zirconium | 90-1  | 1457     | 1513     | 1500     | 1490     | 1.99   | cps   |
| Zirconium | 91-1  | 327      | 360      | 390      | 359      | 8.83   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV01 Instrumnet Name : P7  
Client Sample ID : CCV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:32:44 DataFile Name : 023CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 22033476  | 22046016  | 22065626  | 22048373  | 0.07   | cps   |
| Antimony   | 121-1 | 10411009  | 10626996  | 10529831  | 10522612  | 1.03   | cps   |
| Arsenic    | 75-2  | 573687    | 570067    | 573313    | 572356    | 0.35   | cps   |
| Barium     | 135-1 | 12437612  | 12642608  | 12538396  | 12539539  | 0.82   | cps   |
| Barium     | 137-1 | 21802818  | 21882487  | 21690517  | 21791941  | 0.44   | cps   |
| Beryllium  | 9-1   | 747557    | 762635    | 763754    | 757982    | 1.19   | cps   |
| Bismuth    | 209-1 | 12140971  | 11929292  | 11735304  | 11935189  | 1.70   | cps   |
| Bismuth    | 209-2 | 8417892   | 8427361   | 8314560   | 8386605   | 0.75   | cps   |
| Bromine    | 81-1  | 16690     | 16686     | 17043     | 16806     | 1.22   | cps   |
| Bromine    | 81-2  | 187       | 173       | 123       | 161       | 20.72  | cps   |
| Cadmium    | 108-1 | 197579    | 198235    | 197590    | 197801    | 0.19   | cps   |
| Cadmium    | 106-1 | 282482    | 283021    | 282315    | 282606    | 0.13   | cps   |
| Cadmium    | 111-1 | 2506650   | 2537361   | 2548276   | 2530762   | 0.85   | cps   |
| Calcium    | 43-1  | 11614084  | 11738789  | 11632792  | 11661889  | 0.58   | cps   |
| Calcium    | 44-1  | 188935404 | 190909510 | 188945277 | 189596731 | 0.60   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 3982569   | 4036408   | 4014022   | 4011000   | 0.67   | cps   |
| Cobalt     | 59-2  | 6583420   | 6625103   | 6626206   | 6611576   | 0.37   | cps   |
| Copper     | 63-2  | 46735208  | 46562729  | 46932171  | 46743369  | 0.40   | cps   |
| Dysprosium | 156-1 | 587       | 620       | 517       | 574       | 9.18   | cps   |
| Dysprosium | 156-2 | 840       | 947       | 987       | 924       | 8.20   | cps   |
| Erbium     | 164-1 | 677       | 533       | 587       | 599       | 12.10  | cps   |
| Erbium     | 164-2 | 477       | 360       | 383       | 407       | 15.18  | cps   |
| Gadolinium | 160-1 | 480       | 537       | 490       | 502       | 6.02   | cps   |
| Gadolinium | 160-2 | 1100      | 997       | 1150      | 1082      | 7.23   | cps   |
| Holmium    | 165-1 | 21452203  | 21087833  | 20645458  | 21061831  | 1.92   | cps   |
| Holmium    | 165-2 | 13601298  | 13724635  | 13600459  | 13642131  | 0.52   | cps   |
| Indium     | 115-1 | 16051501  | 15949574  | 15674829  | 15891968  | 1.23   | cps   |
| Indium     | 115-2 | 5755030   | 5708639   | 5672544   | 5712071   | 0.72   | cps   |
| Iron       | 56-2  | 900102893 | 896614840 | 909601106 | 902106280 | 0.75   | cps   |
| Iron       | 57-2  | 22611086  | 22628691  | 22438303  | 22559360  | 0.47   | cps   |
| Iron       | 54-2  | 48511671  | 48733886  | 48942884  | 48729480  | 0.44   | cps   |
| Krypton    | 83-1  | 300       | 320       | 390       | 337       | 14.04  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV01 Instrumnet Name : P7  
Client Sample ID : CCV01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:32:44 DataFile Name : 023CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 38392561  | 38140497  | 37879546  | 38137535  | 0.67   | cps   |
| Lead       | 207-1 | 34046166  | 33731470  | 33417011  | 33731549  | 0.93   | cps   |
| Lead       | 208-1 | 153798061 | 153030558 | 152379879 | 153069499 | 0.46   | cps   |
| Lithium    | 6-1   | 1563623   | 1570533   | 1590086   | 1574747   | 0.87   | cps   |
| Magnesium  | 24-2  | 178551157 | 176397877 | 176990877 | 177313304 | 0.63   | cps   |
| Manganese  | 55-2  | 31809135  | 31904164  | 32034120  | 31915806  | 0.35   | cps   |
| Molybdenum | 94-1  | 35444886  | 36039622  | 35799446  | 35761318  | 0.84   | cps   |
| Molybdenum | 95-1  | 51082811  | 51417118  | 51501576  | 51333835  | 0.43   | cps   |
| Molybdenum | 96-1  | 56430189  | 56460644  | 56678859  | 56523231  | 0.24   | cps   |
| Molybdenum | 97-1  | 32143607  | 32264615  | 32249710  | 32219310  | 0.20   | cps   |
| Molybdenum | 98-1  | 82873745  | 83147579  | 82868012  | 82963112  | 0.19   | cps   |
| Neodymium  | 150-1 | 780       | 857       | 707       | 781       | 9.60   | cps   |
| Neodymium  | 150-2 | 323       | 240       | 263       | 276       | 15.60  | cps   |
| Nickel     | 60-2  | 1644311   | 1679605   | 1685456   | 1669790   | 1.33   | cps   |
| Phosphorus | 31-2  | 210332    | 213187    | 213292    | 212270    | 0.79   | cps   |
| Potassium  | 39-2  | 110556872 | 110835288 | 111046535 | 110812898 | 0.22   | cps   |
| Rhodium    | 103-1 | 14618494  | 14523102  | 14299456  | 14480350  | 1.13   | cps   |
| Rhodium    | 103-2 | 8723743   | 8669862   | 8665072   | 8686225   | 0.38   | cps   |
| Scandium   | 45-1  | 8359113   | 8195317   | 8229722   | 8261384   | 1.05   | cps   |
| Scandium   | 45-2  | 804206    | 801743    | 796706    | 800885    | 0.48   | cps   |
| Selenium   | 82-1  | 156609    | 157540    | 156376    | 156841    | 0.39   | cps   |
| Selenium   | 77-2  | 16946     | 17120     | 17013     | 17027     | 0.51   | cps   |
| Selenium   | 78-2  | 58518     | 57772     | 58595     | 58295     | 0.78   | cps   |
| Silicon    | 28-1  | 22608219  | 22870688  | 22786654  | 22755187  | 0.59   | cps   |
| Silver     | 107-1 | 13070216  | 13006963  | 12980191  | 13019123  | 0.36   | cps   |
| Silver     | 109-1 | 12480117  | 12492443  | 12562371  | 12511644  | 0.35   | cps   |
| Sodium     | 23-2  | 273596729 | 273418943 | 271937616 | 272984429 | 0.33   | cps   |
| Strontium  | 86-1  | 3147376   | 3146470   | 3116560   | 3136802   | 0.56   | cps   |
| Strontium  | 88-1  | 27665867  | 27384131  | 27497327  | 27515775  | 0.52   | cps   |
| Sulfur     | 34-1  | 803222    | 816862    | 810198    | 810094    | 0.84   | cps   |
| Terbium    | 159-1 | 21579899  | 21108540  | 21177282  | 21288574  | 1.20   | cps   |
| Terbium    | 159-2 | 13609926  | 13499630  | 13416579  | 13508712  | 0.72   | cps   |
| Thallium   | 203-1 | 9647171   | 9525439   | 9488708   | 9553773   | 0.87   | cps   |
| Thallium   | 205-1 | 22955699  | 22672681  | 22566795  | 22731725  | 0.88   | cps   |
| Tin        | 118-1 | 8285621   | 8443424   | 8387548   | 8372198   | 0.96   | cps   |
| Titanium   | 47-1  | 11162641  | 11265756  | 11313814  | 11247403  | 0.69   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV01Instrumnet Name :P7

Client Sample ID :CCV01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:32:44DataFile Name :023CCV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 31301303 | 31379037 | 31398443 | 31359594 | 0.16   | cps   |
| Vanadium  | 51-2  | 3532685  | 3532377  | 3585681  | 3550248  | 0.86   | cps   |
| Yttrium   | 89-1  | 19395321 | 19201017 | 19066281 | 19220873 | 0.86   | cps   |
| Yttrium   | 89-2  | 5361010  | 5285108  | 5331129  | 5325749  | 0.72   | cps   |
| Zinc      | 66-2  | 7837351  | 7754583  | 7751778  | 7781237  | 0.62   | cps   |
| Zirconium | 90-1  | 17317209 | 17554883 | 17315474 | 17395856 | 0.79   | cps   |
| Zirconium | 91-1  | 3866474  | 3885727  | 3903614  | 3885271  | 0.48   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB01 Instrumnet Name : P7  
Client Sample ID : CCB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:36:30 DataFile Name : 024CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 3374     | 3714     | 3104     | 3397     | 9.00   | cps   |
| Antimony   | 121-1 | 2470     | 2244     | 2107     | 2274     | 8.07   | cps   |
| Arsenic    | 75-2  | 60       | 77       | 77       | 71       | 13.53  | cps   |
| Barium     | 135-1 | 923      | 880      | 817      | 873      | 6.14   | cps   |
| Barium     | 137-1 | 1713     | 1510     | 1513     | 1579     | 7.38   | cps   |
| Beryllium  | 9-1   | 290      | 240      | 290      | 273      | 10.56  | cps   |
| Bismuth    | 209-1 | 12937364 | 12808037 | 12688660 | 12811354 | 0.97   | cps   |
| Bismuth    | 209-2 | 9289894  | 9386212  | 9354557  | 9343554  | 0.53   | cps   |
| Bromine    | 81-1  | 16680    | 16733    | 16730    | 16714    | 0.18   | cps   |
| Bromine    | 81-2  | 263      | 240      | 233      | 246      | 6.41   | cps   |
| Cadmium    | 108-1 | 27       | 23       | 43       | 31       | 34.44  | cps   |
| Cadmium    | 106-1 | 4858     | 4784     | 4824     | 4822     | 0.76   | cps   |
| Cadmium    | 111-1 | 1346     | 1197     | 1211     | 1252     | 6.58   | cps   |
| Calcium    | 43-1  | 1867     | 1810     | 1683     | 1787     | 5.25   | cps   |
| Calcium    | 44-1  | 41517    | 39117    | 38533    | 39722    | 3.98   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 3140     | 2954     | 3247     | 3114     | 4.77   | cps   |
| Cobalt     | 59-2  | 677      | 777      | 650      | 701      | 9.52   | cps   |
| Copper     | 63-2  | 4434     | 4868     | 3887     | 4396     | 11.17  | cps   |
| Dysprosium | 156-1 | 17       | 17       | 7        | 13       | 43.29  | cps   |
| Dysprosium | 156-2 | 13       | 13       | 3        | 10       | 57.75  | cps   |
| Erbium     | 164-1 | 60       | 70       | 87       | 72       | 18.66  | cps   |
| Erbium     | 164-2 | 50       | 33       | 50       | 44       | 21.66  | cps   |
| Gadolinium | 160-1 | 57       | 70       | 87       | 71       | 21.14  | cps   |
| Gadolinium | 160-2 | 713      | 740      | 773      | 742      | 4.05   | cps   |
| Holmium    | 165-1 | 20794492 | 20616978 | 20519394 | 20643621 | 0.68   | cps   |
| Holmium    | 165-2 | 13777097 | 13649260 | 13707460 | 13711272 | 0.47   | cps   |
| Indium     | 115-1 | 16610555 | 16598781 | 16643450 | 16617595 | 0.14   | cps   |
| Indium     | 115-2 | 6122617  | 6079662  | 6093151  | 6098477  | 0.36   | cps   |
| Iron       | 56-2  | 122401   | 128568   | 107545   | 119504   | 9.04   | cps   |
| Iron       | 57-2  | 3744     | 4007     | 3367     | 3706     | 8.68   | cps   |
| Iron       | 54-2  | 8709     | 8643     | 7966     | 8439     | 4.88   | cps   |
| Krypton    | 83-1  | 310      | 307      | 330      | 316      | 4.00   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB01 Instrumnet Name : P7  
Client Sample ID : CCB01 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:36:30 DataFile Name : 024CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 12416    | 12159    | 11405    | 11993    | 4.38   | cps   |
| Lead       | 207-1 | 10651    | 10294    | 10181    | 10375    | 2.37   | cps   |
| Lead       | 208-1 | 48758    | 47082    | 46064    | 47301    | 2.88   | cps   |
| Lithium    | 6-1   | 1718151  | 1688548  | 1688762  | 1698487  | 1.00   | cps   |
| Magnesium  | 24-2  | 14307    | 14941    | 12472    | 13906    | 9.22   | cps   |
| Manganese  | 55-2  | 2650     | 2737     | 2480     | 2622     | 4.98   | cps   |
| Molybdenum | 94-1  | 3981     | 3514     | 3597     | 3697     | 6.73   | cps   |
| Molybdenum | 95-1  | 5581     | 4764     | 4597     | 4981     | 10.57  | cps   |
| Molybdenum | 96-1  | 5945     | 5101     | 5191     | 5412     | 8.56   | cps   |
| Molybdenum | 97-1  | 3467     | 2867     | 2947     | 3094     | 10.53  | cps   |
| Molybdenum | 98-1  | 8623     | 7515     | 7769     | 7969     | 7.28   | cps   |
| Neodymium  | 150-1 | 10       | 3        | 3        | 6        | 69.34  | cps   |
| Neodymium  | 150-2 | 7        | 0        | 0        | 2        | 173.21 | cps   |
| Nickel     | 60-2  | 1090     | 980      | 1053     | 1041     | 5.38   | cps   |
| Phosphorus | 31-2  | 507      | 467      | 467      | 480      | 4.81   | cps   |
| Potassium  | 39-2  | 89411    | 88297    | 87781    | 88496    | 0.94   | cps   |
| Rhodium    | 103-1 | 15659035 | 15654421 | 15596715 | 15636724 | 0.22   | cps   |
| Rhodium    | 103-2 | 9628924  | 9621924  | 9455615  | 9568821  | 1.03   | cps   |
| Scandium   | 45-1  | 8429897  | 8183013  | 8343571  | 8318827  | 1.51   | cps   |
| Scandium   | 45-2  | 806233   | 804889   | 800667   | 803930   | 0.36   | cps   |
| Selenium   | 82-1  | 816      | 758      | 680      | 751      | 9.09   | cps   |
| Selenium   | 77-2  | 0        | 0        | 7        | 2        | 173.21 | cps   |
| Selenium   | 78-2  | 653      | 647      | 553      | 618      | 9.05   | cps   |
| Silicon    | 28-1  | 738819   | 742914   | 737317   | 739684   | 0.39   | cps   |
| Silver     | 107-1 | 2637     | 2124     | 2194     | 2318     | 12.01  | cps   |
| Silver     | 109-1 | 2437     | 2024     | 1833     | 2098     | 14.71  | cps   |
| Sodium     | 23-2  | 67386    | 68033    | 64200    | 66540    | 3.08   | cps   |
| Strontium  | 86-1  | 787      | 970      | 793      | 850      | 12.23  | cps   |
| Strontium  | 88-1  | 2890     | 2790     | 2537     | 2739     | 6.65   | cps   |
| Sulfur     | 34-1  | 218499   | 220453   | 219416   | 219456   | 0.45   | cps   |
| Terbium    | 159-1 | 21421778 | 20921784 | 21202219 | 21181927 | 1.18   | cps   |
| Terbium    | 159-2 | 13704581 | 13739262 | 13703248 | 13715697 | 0.15   | cps   |
| Thallium   | 203-1 | 3687     | 3424     | 3420     | 3510     | 4.36   | cps   |
| Thallium   | 205-1 | 8416     | 8012     | 8376     | 8268     | 2.69   | cps   |
| Tin        | 118-1 | 4614     | 4394     | 4397     | 4469     | 2.82   | cps   |
| Titanium   | 47-1  | 1137     | 1033     | 1083     | 1084     | 4.77   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCB01Instrumnet Name :P7

Client Sample ID :CCB01Dilution Factor :1

Date & Time Acquired :2024-12-03 14:36:30DataFile Name :024CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 2327     | 1910     | 1977     | 2071     | 10.81  | cps   |
| Vanadium  | 51-2  | 177      | 203      | 197      | 192      | 7.22   | cps   |
| Yttrium   | 89-1  | 19057592 | 19083300 | 19221818 | 19120903 | 0.46   | cps   |
| Yttrium   | 89-2  | 5412362  | 5395555  | 5342605  | 5383507  | 0.68   | cps   |
| Zinc      | 66-2  | 1570     | 1697     | 1670     | 1646     | 4.06   | cps   |
| Zirconium | 90-1  | 2667     | 2464     | 2440     | 2524     | 4.94   | cps   |
| Zirconium | 91-1  | 677      | 517      | 500      | 564      | 17.28  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CRI Instrumnet Name : P7  
Client Sample ID : CRI Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:44:01 DataFile Name : 025LLCC.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 10117    | 10213    | 9613     | 9981     | 3.23   | cps   |
| Antimony   | 121-1 | 41837    | 42549    | 42670    | 42352    | 1.06   | cps   |
| Arsenic    | 75-2  | 1337     | 1207     | 1277     | 1273     | 5.11   | cps   |
| Barium     | 135-1 | 49342    | 50309    | 50335    | 49995    | 1.13   | cps   |
| Barium     | 137-1 | 87369    | 87983    | 88218    | 87857    | 0.50   | cps   |
| Beryllium  | 9-1   | 2057     | 2090     | 1960     | 2036     | 3.32   | cps   |
| Bismuth    | 209-1 | 12993514 | 12824125 | 12804000 | 12873880 | 0.81   | cps   |
| Bismuth    | 209-2 | 9365608  | 9449210  | 9388584  | 9401134  | 0.46   | cps   |
| Bromine    | 81-1  | 16683    | 17107    | 16823    | 16871    | 1.28   | cps   |
| Bromine    | 81-2  | 100      | 140      | 90       | 110      | 24.05  | cps   |
| Cadmium    | 108-1 | 430      | 410      | 497      | 446      | 10.18  | cps   |
| Cadmium    | 106-1 | 5398     | 5384     | 5411     | 5398     | 0.25   | cps   |
| Cadmium    | 111-1 | 6476     | 6474     | 6419     | 6457     | 0.50   | cps   |
| Calcium    | 43-1  | 26253    | 26500    | 27368    | 26707    | 2.19   | cps   |
| Calcium    | 44-1  | 442382   | 447254   | 448422   | 446019   | 0.72   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 19903    | 19790    | 20033    | 19909    | 0.61   | cps   |
| Cobalt     | 59-2  | 14721    | 14400    | 14557    | 14559    | 1.10   | cps   |
| Copper     | 63-2  | 21435    | 21162    | 21092    | 21230    | 0.86   | cps   |
| Dysprosium | 156-1 | 20       | 40       | 30       | 30       | 33.33  | cps   |
| Dysprosium | 156-2 | 23       | 20       | 3        | 16       | 68.90  | cps   |
| Erbium     | 164-1 | 97       | 83       | 97       | 92       | 8.35   | cps   |
| Erbium     | 164-2 | 80       | 57       | 53       | 63       | 22.94  | cps   |
| Gadolinium | 160-1 | 77       | 80       | 57       | 71       | 17.74  | cps   |
| Gadolinium | 160-2 | 750      | 697      | 847      | 764      | 9.95   | cps   |
| Holmium    | 165-1 | 20958967 | 20825279 | 20848841 | 20877696 | 0.34   | cps   |
| Holmium    | 165-2 | 13835334 | 13937245 | 13805158 | 13859246 | 0.50   | cps   |
| Indium     | 115-1 | 16968941 | 16755765 | 16937725 | 16887477 | 0.68   | cps   |
| Indium     | 115-2 | 6217925  | 6233521  | 6242774  | 6231407  | 0.20   | cps   |
| Iron       | 56-2  | 466137   | 460680   | 455380   | 460732   | 1.17   | cps   |
| Iron       | 57-2  | 12869    | 12685    | 12502    | 12685    | 1.45   | cps   |
| Iron       | 54-2  | 27939    | 27271    | 27382    | 27531    | 1.30   | cps   |
| Krypton    | 83-1  | 277      | 360      | 323      | 320      | 13.05  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CRI Instrumnet Name : P7  
Client Sample ID : CRI Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:44:01 DataFile Name : 025LLCC.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 21030    | 21160    | 20743    | 20977    | 1.02   | cps   |
| Lead       | 207-1 | 18776    | 18890    | 18773    | 18813    | 0.35   | cps   |
| Lead       | 208-1 | 83914    | 85415    | 84350    | 84560    | 0.91   | cps   |
| Lithium    | 6-1   | 1720926  | 1724783  | 1690744  | 1712151  | 1.09   | cps   |
| Magnesium  | 24-2  | 373449   | 371528   | 370627   | 371868   | 0.39   | cps   |
| Manganese  | 55-2  | 7896     | 7832     | 7842     | 7857     | 0.43   | cps   |
| Molybdenum | 94-1  | 42281    | 43478    | 43458    | 43072    | 1.59   | cps   |
| Molybdenum | 95-1  | 52654    | 52949    | 52848    | 52817    | 0.28   | cps   |
| Molybdenum | 96-1  | 57221    | 59567    | 58888    | 58559    | 2.06   | cps   |
| Molybdenum | 97-1  | 32633    | 32433    | 33305    | 32790    | 1.39   | cps   |
| Molybdenum | 98-1  | 85102    | 84710    | 85277    | 85030    | 0.34   | cps   |
| Neodymium  | 150-1 | 3        | 10       | 10       | 8        | 49.52  | cps   |
| Neodymium  | 150-2 | 7        | 7        | 13       | 9        | 43.25  | cps   |
| Nickel     | 60-2  | 4374     | 4474     | 4374     | 4407     | 1.31   | cps   |
| Phosphorus | 31-2  | 957      | 1050     | 1170     | 1059     | 10.10  | cps   |
| Potassium  | 39-2  | 559367   | 553277   | 558426   | 557023   | 0.59   | cps   |
| Rhodium    | 103-1 | 16010777 | 15914385 | 15882909 | 15936024 | 0.42   | cps   |
| Rhodium    | 103-2 | 9701543  | 9728229  | 9761319  | 9730363  | 0.31   | cps   |
| Scandium   | 45-1  | 8506260  | 8446126  | 8646904  | 8533096  | 1.21   | cps   |
| Scandium   | 45-2  | 830793   | 821196   | 829116   | 827035   | 0.62   | cps   |
| Selenium   | 82-1  | 2372     | 2419     | 2341     | 2377     | 1.66   | cps   |
| Selenium   | 77-2  | 203      | 173      | 217      | 198      | 11.22  | cps   |
| Selenium   | 78-2  | 1220     | 1133     | 1250     | 1201     | 5.04   | cps   |
| Silicon    | 28-1  | 797645   | 798164   | 799621   | 798476   | 0.13   | cps   |
| Silver     | 107-1 | 26531    | 27456    | 27075    | 27021    | 1.72   | cps   |
| Silver     | 109-1 | 24988    | 25095    | 25913    | 25332    | 2.00   | cps   |
| Sodium     | 23-2  | 614511   | 607135   | 605794   | 609147   | 0.77   | cps   |
| Strontium  | 86-1  | 7018     | 7355     | 7118     | 7164     | 2.41   | cps   |
| Strontium  | 88-1  | 56652    | 57488    | 58178    | 57439    | 1.33   | cps   |
| Sulfur     | 34-1  | 236661   | 236786   | 237957   | 237135   | 0.30   | cps   |
| Terbium    | 159-1 | 21405705 | 21214142 | 21130058 | 21249968 | 0.66   | cps   |
| Terbium    | 159-2 | 14077961 | 13911279 | 13992808 | 13994016 | 0.60   | cps   |
| Thallium   | 203-1 | 22586    | 23203    | 22672    | 22820    | 1.47   | cps   |
| Thallium   | 205-1 | 54241    | 54981    | 54639    | 54620    | 0.68   | cps   |
| Tin        | 118-1 | 89167    | 89891    | 89905    | 89654    | 0.47   | cps   |
| Titanium   | 47-1  | 12015    | 11811    | 11968    | 11931    | 0.89   | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CRI

Instrumnet Name :

P7

Client Sample ID :

CRI

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:44:01

DataFile Name :

025LLCC.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 59314    | 59887    | 59807    | 59669    | 0.52   | cps   |
| Vanadium  | 51-2  | 36340    | 36364    | 36474    | 36393    | 0.20   | cps   |
| Yttrium   | 89-1  | 19653332 | 19450780 | 19533219 | 19545777 | 0.52   | cps   |
| Yttrium   | 89-2  | 5564492  | 5537594  | 5533861  | 5545315  | 0.30   | cps   |
| Zinc      | 66-2  | 9436     | 9083     | 8959     | 9160     | 2.70   | cps   |
| Zirconium | 90-1  | 35165    | 36004    | 35767    | 35645    | 1.21   | cps   |
| Zirconium | 91-1  | 7739     | 8066     | 7889     | 7898     | 2.07   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BL Instrumnet Name : P7  
Client Sample ID : PB165237BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:47:40 DataFile Name : 026CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 2140     | 1767     | 1587     | 1831     | 15.41  | cps   |
| Antimony   | 121-1 | 307      | 327      | 330      | 321      | 3.93   | cps   |
| Arsenic    | 75-2  | 43       | 83       | 30       | 52       | 53.16  | cps   |
| Barium     | 135-1 | 237      | 173      | 177      | 196      | 18.23  | cps   |
| Barium     | 137-1 | 377      | 353      | 390      | 373      | 4.97   | cps   |
| Beryllium  | 9-1   | 200      | 163      | 150      | 171      | 15.13  | cps   |
| Bismuth    | 209-1 | 13024191 | 12905334 | 12880796 | 12936774 | 0.59   | cps   |
| Bismuth    | 209-2 | 9477410  | 9434121  | 9463861  | 9458464  | 0.23   | cps   |
| Bromine    | 81-1  | 16162    | 16516    | 16596    | 16425    | 1.41   | cps   |
| Bromine    | 81-2  | 90       | 90       | 107      | 96       | 10.07  | cps   |
| Cadmium    | 108-1 | 13       | 20       | 13       | 16       | 24.76  | cps   |
| Cadmium    | 106-1 | 5108     | 5048     | 5214     | 5123     | 1.65   | cps   |
| Cadmium    | 111-1 | 1096     | 1056     | 1107     | 1086     | 2.48   | cps   |
| Calcium    | 43-1  | 787      | 707      | 743      | 746      | 5.37   | cps   |
| Calcium    | 44-1  | 24460    | 22878    | 22731    | 23356    | 4.11   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2497     | 2790     | 2590     | 2626     | 5.71   | cps   |
| Cobalt     | 59-2  | 553      | 470      | 493      | 506      | 8.50   | cps   |
| Copper     | 63-2  | 2530     | 2197     | 2164     | 2297     | 8.83   | cps   |
| Dysprosium | 156-1 | 23       | 23       | 7        | 18       | 54.11  | cps   |
| Dysprosium | 156-2 | 7        | 13       | 20       | 13       | 49.99  | cps   |
| Erbium     | 164-1 | 113      | 80       | 100      | 98       | 17.16  | cps   |
| Erbium     | 164-2 | 47       | 53       | 53       | 51       | 7.52   | cps   |
| Gadolinium | 160-1 | 110      | 67       | 63       | 80       | 32.54  | cps   |
| Gadolinium | 160-2 | 777      | 803      | 787      | 789      | 1.71   | cps   |
| Holmium    | 165-1 | 20925874 | 20755432 | 20640253 | 20773853 | 0.69   | cps   |
| Holmium    | 165-2 | 13843417 | 13850661 | 13992528 | 13895535 | 0.61   | cps   |
| Indium     | 115-1 | 16930634 | 16768227 | 16814563 | 16837808 | 0.50   | cps   |
| Indium     | 115-2 | 6269516  | 6261692  | 6238345  | 6256518  | 0.26   | cps   |
| Iron       | 56-2  | 70712    | 65877    | 61810    | 66133    | 6.74   | cps   |
| Iron       | 57-2  | 2604     | 2530     | 2540     | 2558     | 1.56   | cps   |
| Iron       | 54-2  | 5821     | 5828     | 4944     | 5531     | 9.19   | cps   |
| Krypton    | 83-1  | 257      | 287      | 297      | 280      | 7.43   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BL Instrumnet Name : P7  
Client Sample ID : PB165237BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:47:40 DataFile Name : 026CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 4254     | 4231     | 3957     | 4147     | 3.98   | cps   |
| Lead       | 207-1 | 3634     | 3651     | 3300     | 3528     | 5.60   | cps   |
| Lead       | 208-1 | 16634    | 15954    | 15660    | 16083    | 3.11   | cps   |
| Lithium    | 6-1   | 1724547  | 1738507  | 1718386  | 1727147  | 0.60   | cps   |
| Magnesium  | 24-2  | 7262     | 6238     | 6065     | 6521     | 9.92   | cps   |
| Manganese  | 55-2  | 1460     | 1430     | 1320     | 1403     | 5.25   | cps   |
| Molybdenum | 94-1  | 1330     | 1100     | 1057     | 1162     | 12.64  | cps   |
| Molybdenum | 95-1  | 1497     | 1157     | 1103     | 1252     | 17.04  | cps   |
| Molybdenum | 96-1  | 1533     | 1373     | 1483     | 1463     | 5.59   | cps   |
| Molybdenum | 97-1  | 877      | 793      | 753      | 808      | 7.79   | cps   |
| Molybdenum | 98-1  | 2354     | 1910     | 2024     | 2096     | 10.99  | cps   |
| Neodymium  | 150-1 | 3        | 13       | 13       | 10       | 57.75  | cps   |
| Neodymium  | 150-2 | 7        | 20       | 7        | 11       | 69.25  | cps   |
| Nickel     | 60-2  | 960      | 940      | 907      | 936      | 2.88   | cps   |
| Phosphorus | 31-2  | 457      | 443      | 413      | 438      | 5.07   | cps   |
| Potassium  | 39-2  | 82485    | 81513    | 80501    | 81500    | 1.22   | cps   |
| Rhodium    | 103-1 | 16021339 | 15980969 | 15905490 | 15969266 | 0.37   | cps   |
| Rhodium    | 103-2 | 9899292  | 9801251  | 9762950  | 9821165  | 0.72   | cps   |
| Scandium   | 45-1  | 8747665  | 8509987  | 8550614  | 8602755  | 1.48   | cps   |
| Scandium   | 45-2  | 825625   | 827793   | 833480   | 828966   | 0.49   | cps   |
| Selenium   | 82-1  | 889      | 794      | 721      | 801      | 10.54  | cps   |
| Selenium   | 77-2  | 0        | 3        | 0        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 557      | 550      | 643      | 583      | 8.93   | cps   |
| Silicon    | 28-1  | 757525   | 760352   | 763567   | 760481   | 0.40   | cps   |
| Silver     | 107-1 | 593      | 507      | 497      | 532      | 9.99   | cps   |
| Silver     | 109-1 | 527      | 363      | 443      | 444      | 18.38  | cps   |
| Sodium     | 23-2  | 45681    | 43759    | 43922    | 44454    | 2.40   | cps   |
| Strontium  | 86-1  | 617      | 500      | 580      | 566      | 10.55  | cps   |
| Strontium  | 88-1  | 807      | 727      | 713      | 749      | 6.74   | cps   |
| Sulfur     | 34-1  | 235669   | 236573   | 237237   | 236493   | 0.33   | cps   |
| Terbium    | 159-1 | 21440705 | 21094213 | 21120838 | 21218586 | 0.91   | cps   |
| Terbium    | 159-2 | 14171133 | 13728916 | 13809957 | 13903335 | 1.69   | cps   |
| Thallium   | 203-1 | 3477     | 3664     | 3527     | 3556     | 2.72   | cps   |
| Thallium   | 205-1 | 8743     | 8363     | 8343     | 8483     | 2.66   | cps   |
| Tin        | 118-1 | 3954     | 3901     | 3727     | 3861     | 3.07   | cps   |
| Titanium   | 47-1  | 360      | 380      | 340      | 360      | 5.56   | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

PB165237BL

Instrumnet Name :

P7

Client Sample ID :

PB165237BL

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 14:47:40

DataFile Name :

026CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 517      | 437      | 360      | 438      | 17.89  | cps   |
| Vanadium  | 51-2  | 73       | 100      | 60       | 78       | 26.19  | cps   |
| Yttrium   | 89-1  | 19666831 | 19435064 | 19334449 | 19478781 | 0.88   | cps   |
| Yttrium   | 89-2  | 5569366  | 5479070  | 5505430  | 5517955  | 0.84   | cps   |
| Zinc      | 66-2  | 940      | 840      | 907      | 896      | 5.69   | cps   |
| Zirconium | 90-1  | 1343     | 1447     | 1110     | 1300     | 13.27  | cps   |
| Zirconium | 91-1  | 293      | 223      | 283      | 267      | 14.20  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BS Instrumnet Name : P7  
Client Sample ID : PB165237BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:50:57 DataFile Name : 027LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 20053    | 19719    | 19783    | 19852    | 0.89   | cps   |
| Antimony   | 121-1 | 84191    | 84181    | 83105    | 83826    | 0.74   | cps   |
| Arsenic    | 75-2  | 2517     | 2380     | 2250     | 2382     | 5.60   | cps   |
| Barium     | 135-1 | 99662    | 99646    | 99595    | 99634    | 0.03   | cps   |
| Barium     | 137-1 | 173633   | 174639   | 175016   | 174429   | 0.41   | cps   |
| Beryllium  | 9-1   | 3617     | 3794     | 3737     | 3716     | 2.43   | cps   |
| Bismuth    | 209-1 | 13019987 | 12761710 | 12901129 | 12894276 | 1.00   | cps   |
| Bismuth    | 209-2 | 9567068  | 9494330  | 9466484  | 9509294  | 0.55   | cps   |
| Bromine    | 81-1  | 16917    | 16469    | 17010    | 16799    | 1.72   | cps   |
| Bromine    | 81-2  | 127      | 93       | 140      | 120      | 20.03  | cps   |
| Cadmium    | 108-1 | 707      | 693      | 687      | 696      | 1.46   | cps   |
| Cadmium    | 106-1 | 6471     | 6175     | 6205     | 6284     | 2.60   | cps   |
| Cadmium    | 111-1 | 9999     | 10530    | 10007    | 10179    | 2.99   | cps   |
| Calcium    | 43-1  | 50430    | 50256    | 50591    | 50426    | 0.33   | cps   |
| Calcium    | 44-1  | 831372   | 836597   | 833845   | 833938   | 0.31   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 38399    | 36828    | 37654    | 37627    | 2.09   | cps   |
| Cobalt     | 59-2  | 27442    | 27839    | 28243    | 27841    | 1.44   | cps   |
| Copper     | 63-2  | 43496    | 43456    | 43155    | 43369    | 0.43   | cps   |
| Dysprosium | 156-1 | 10       | 23       | 23       | 19       | 40.75  | cps   |
| Dysprosium | 156-2 | 27       | 17       | 10       | 18       | 47.19  | cps   |
| Erbium     | 164-1 | 73       | 60       | 70       | 68       | 10.24  | cps   |
| Erbium     | 164-2 | 70       | 60       | 53       | 61       | 13.73  | cps   |
| Gadolinium | 160-1 | 130      | 63       | 87       | 93       | 36.25  | cps   |
| Gadolinium | 160-2 | 707      | 800      | 787      | 764      | 6.60   | cps   |
| Holmium    | 165-1 | 21064100 | 20939638 | 20807684 | 20937140 | 0.61   | cps   |
| Holmium    | 165-2 | 14292617 | 13971844 | 13814441 | 14026301 | 1.74   | cps   |
| Indium     | 115-1 | 17005074 | 16951677 | 17036486 | 16997746 | 0.25   | cps   |
| Indium     | 115-2 | 6334611  | 6305905  | 6257349  | 6299288  | 0.62   | cps   |
| Iron       | 56-2  | 3260346  | 3232852  | 3229908  | 3241035  | 0.52   | cps   |
| Iron       | 57-2  | 86112    | 85602    | 84436    | 85383    | 1.01   | cps   |
| Iron       | 54-2  | 187177   | 185103   | 184995   | 185759   | 0.66   | cps   |
| Krypton    | 83-1  | 287      | 263      | 323      | 291      | 10.39  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165237BS Instrumnet Name : P7  
Client Sample ID : PB165237BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:50:57 DataFile Name : 027LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 36165    | 36379    | 35289    | 35944    | 1.61   | cps   |
| Lead       | 207-1 | 31563    | 31009    | 31206    | 31259    | 0.90   | cps   |
| Lead       | 208-1 | 143615   | 144028   | 142449   | 143364   | 0.57   | cps   |
| Lithium    | 6-1   | 1759485  | 1739439  | 1768174  | 1755700  | 0.84   | cps   |
| Magnesium  | 24-2  | 751233   | 746933   | 750618   | 749595   | 0.31   | cps   |
| Manganese  | 55-2  | 14931    | 15131    | 14671    | 14911    | 1.55   | cps   |
| Molybdenum | 94-1  | 86557    | 87184    | 86382    | 86708    | 0.49   | cps   |
| Molybdenum | 95-1  | 106403   | 105530   | 104812   | 105582   | 0.75   | cps   |
| Molybdenum | 96-1  | 118116   | 115710   | 118014   | 117280   | 1.16   | cps   |
| Molybdenum | 97-1  | 65687    | 67036    | 65677    | 66133    | 1.18   | cps   |
| Molybdenum | 98-1  | 170134   | 170279   | 167427   | 169280   | 0.95   | cps   |
| Neodymium  | 150-1 | 17       | 33       | 10       | 20       | 60.08  | cps   |
| Neodymium  | 150-2 | 7        | 10       | 3        | 7        | 50.03  | cps   |
| Nickel     | 60-2  | 8216     | 8229     | 7782     | 8076     | 3.15   | cps   |
| Phosphorus | 31-2  | 387      | 490      | 370      | 416      | 15.64  | cps   |
| Potassium  | 39-2  | 1066391  | 1059665  | 1064733  | 1063596  | 0.33   | cps   |
| Rhodium    | 103-1 | 16097397 | 16233143 | 16064588 | 16131709 | 0.55   | cps   |
| Rhodium    | 103-2 | 9904188  | 9879923  | 9740019  | 9841376  | 0.90   | cps   |
| Scandium   | 45-1  | 8634852  | 8569883  | 8608814  | 8604516  | 0.38   | cps   |
| Scandium   | 45-2  | 842939   | 835487   | 833703   | 837376   | 0.59   | cps   |
| Selenium   | 82-1  | 4256     | 4095     | 4007     | 4119     | 3.07   | cps   |
| Selenium   | 77-2  | 333      | 440      | 347      | 373      | 15.57  | cps   |
| Selenium   | 78-2  | 1940     | 1773     | 1920     | 1878     | 4.85   | cps   |
| Silicon    | 28-1  | 921370   | 922402   | 926935   | 923569   | 0.32   | cps   |
| Silver     | 107-1 | 53495    | 53712    | 53615    | 53607    | 0.20   | cps   |
| Silver     | 109-1 | 50026    | 51003    | 51264    | 50764    | 1.29   | cps   |
| Sodium     | 23-2  | 1207822  | 1210734  | 1213828  | 1210795  | 0.25   | cps   |
| Strontium  | 86-1  | 13246    | 13967    | 13349    | 13521    | 2.88   | cps   |
| Strontium  | 88-1  | 114397   | 115435   | 115160   | 114997   | 0.47   | cps   |
| Sulfur     | 34-1  | 247452   | 243345   | 246371   | 245723   | 0.87   | cps   |
| Terbium    | 159-1 | 21436199 | 21332436 | 21201918 | 21323518 | 0.55   | cps   |
| Terbium    | 159-2 | 14055843 | 13774544 | 14076816 | 13969068 | 1.21   | cps   |
| Thallium   | 203-1 | 43091    | 42245    | 42235    | 42524    | 1.16   | cps   |
| Thallium   | 205-1 | 101512   | 102240   | 100575   | 101442   | 0.82   | cps   |
| Tin        | 118-1 | 4401     | 4121     | 4301     | 4274     | 3.32   | cps   |
| Titanium   | 47-1  | 23899    | 24390    | 23939    | 24076    | 1.13   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165237BSInstrumnet Name :P7

Client Sample ID :PB165237BSDilution Factor :1

Date & Time Acquired :2024-12-03 14:50:57DataFile Name :027LCSE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 121081   | 122449   | 120169   | 121233   | 0.95   | cps   |
| Vanadium  | 51-2  | 73501    | 73247    | 72463    | 73070    | 0.74   | cps   |
| Yttrium   | 89-1  | 19755823 | 19728696 | 19801306 | 19761942 | 0.19   | cps   |
| Yttrium   | 89-2  | 5596917  | 5527503  | 5417464  | 5513961  | 1.64   | cps   |
| Zinc      | 66-2  | 18231    | 18298    | 17907    | 18146    | 1.15   | cps   |
| Zirconium | 90-1  | 72317    | 71667    | 71155    | 71713    | 0.81   | cps   |
| Zirconium | 91-1  | 15965    | 15775    | 16393    | 16044    | 1.97   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BL Instrumnet Name : P7  
Client Sample ID : PB165238BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:54:10 DataFile Name : 028CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1533     | 1430     | 1387     | 1450     | 5.20   | cps   |
| Antimony   | 121-1 | 327      | 323      | 317      | 322      | 1.58   | cps   |
| Arsenic    | 75-2  | 40       | 33       | 47       | 40       | 16.68  | cps   |
| Barium     | 135-1 | 303      | 293      | 217      | 271      | 17.49  | cps   |
| Barium     | 137-1 | 473      | 380      | 347      | 400      | 16.42  | cps   |
| Beryllium  | 9-1   | 213      | 180      | 180      | 191      | 10.07  | cps   |
| Bismuth    | 209-1 | 12875073 | 12844230 | 12791638 | 12836980 | 0.33   | cps   |
| Bismuth    | 209-2 | 9259862  | 9232557  | 9379927  | 9290782  | 0.84   | cps   |
| Bromine    | 81-1  | 17320    | 16913    | 17240    | 17158    | 1.26   | cps   |
| Bromine    | 81-2  | 103      | 133      | 93       | 110      | 18.93  | cps   |
| Cadmium    | 108-1 | 17       | 13       | 20       | 17       | 20.01  | cps   |
| Cadmium    | 106-1 | 5124     | 5274     | 5194     | 5198     | 1.44   | cps   |
| Cadmium    | 111-1 | 1133     | 1152     | 1102     | 1129     | 2.27   | cps   |
| Calcium    | 43-1  | 940      | 1000     | 873      | 938      | 6.76   | cps   |
| Calcium    | 44-1  | 25108    | 24791    | 22918    | 24272    | 4.88   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2727     | 2910     | 2737     | 2791     | 3.69   | cps   |
| Cobalt     | 59-2  | 503      | 407      | 540      | 483      | 14.25  | cps   |
| Copper     | 63-2  | 1830     | 1700     | 1860     | 1797     | 4.73   | cps   |
| Dysprosium | 156-1 | 23       | 27       | 10       | 20       | 44.10  | cps   |
| Dysprosium | 156-2 | 3        | 7        | 20       | 10       | 88.20  | cps   |
| Erbium     | 164-1 | 90       | 83       | 87       | 87       | 3.85   | cps   |
| Erbium     | 164-2 | 73       | 73       | 73       | 73       | 0.00   | cps   |
| Gadolinium | 160-1 | 80       | 53       | 83       | 72       | 22.77  | cps   |
| Gadolinium | 160-2 | 730      | 790      | 787      | 769      | 4.39   | cps   |
| Holmium    | 165-1 | 21080494 | 20600621 | 20565336 | 20748817 | 1.39   | cps   |
| Holmium    | 165-2 | 13728486 | 13757195 | 13748712 | 13744798 | 0.11   | cps   |
| Indium     | 115-1 | 17141005 | 16942199 | 17031625 | 17038276 | 0.58   | cps   |
| Indium     | 115-2 | 6218999  | 6229925  | 6188281  | 6212402  | 0.35   | cps   |
| Iron       | 56-2  | 49588    | 45549    | 45321    | 46820    | 5.13   | cps   |
| Iron       | 57-2  | 2063     | 1853     | 2043     | 1987     | 5.83   | cps   |
| Iron       | 54-2  | 4611     | 4431     | 4401     | 4481     | 2.54   | cps   |
| Krypton    | 83-1  | 340      | 287      | 243      | 290      | 16.70  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BL Instrumnet Name : P7  
Client Sample ID : PB165238BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:54:10 DataFile Name : 028CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 3374     | 3204     | 3050     | 3209     | 5.04   | cps   |
| Lead       | 207-1 | 2800     | 2940     | 2690     | 2810     | 4.46   | cps   |
| Lead       | 208-1 | 13133    | 12772    | 11962    | 12622    | 4.75   | cps   |
| Lithium    | 6-1   | 1749746  | 1781513  | 1725725  | 1752328  | 1.60   | cps   |
| Magnesium  | 24-2  | 4327     | 4004     | 3884     | 4072     | 5.63   | cps   |
| Manganese  | 55-2  | 1153     | 1113     | 1023     | 1097     | 6.07   | cps   |
| Molybdenum | 94-1  | 1437     | 1357     | 1217     | 1337     | 8.33   | cps   |
| Molybdenum | 95-1  | 1763     | 1540     | 1527     | 1610     | 8.26   | cps   |
| Molybdenum | 96-1  | 1890     | 1757     | 1370     | 1672     | 16.15  | cps   |
| Molybdenum | 97-1  | 1053     | 963      | 780      | 932      | 14.94  | cps   |
| Molybdenum | 98-1  | 2757     | 2707     | 2187     | 2550     | 12.38  | cps   |
| Neodymium  | 150-1 | 0        | 0        | 10       | 3        | 173.21 | cps   |
| Neodymium  | 150-2 | 7        | 7        | 0        | 4        | 86.60  | cps   |
| Nickel     | 60-2  | 960      | 1070     | 887      | 972      | 9.49   | cps   |
| Phosphorus | 31-2  | 397      | 380      | 400      | 392      | 2.73   | cps   |
| Potassium  | 39-2  | 80562    | 79801    | 79948    | 80104    | 0.50   | cps   |
| Rhodium    | 103-1 | 16049113 | 16117574 | 15749901 | 15972196 | 1.22   | cps   |
| Rhodium    | 103-2 | 9740633  | 9797198  | 9668575  | 9735469  | 0.66   | cps   |
| Scandium   | 45-1  | 8571018  | 8576624  | 8543943  | 8563862  | 0.20   | cps   |
| Scandium   | 45-2  | 829738   | 829845   | 825675   | 828419   | 0.29   | cps   |
| Selenium   | 82-1  | 671      | 733      | 731      | 712      | 4.94   | cps   |
| Selenium   | 77-2  | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Selenium   | 78-2  | 540      | 613      | 580      | 578      | 6.35   | cps   |
| Silicon    | 28-1  | 764744   | 771596   | 773419   | 769920   | 0.59   | cps   |
| Silver     | 107-1 | 667      | 587      | 623      | 626      | 6.40   | cps   |
| Silver     | 109-1 | 623      | 610      | 507      | 580      | 11.01  | cps   |
| Sodium     | 23-2  | 39163    | 38575    | 38762    | 38833    | 0.77   | cps   |
| Strontium  | 86-1  | 573      | 587      | 563      | 574      | 2.04   | cps   |
| Strontium  | 88-1  | 1000     | 947      | 823      | 923      | 9.81   | cps   |
| Sulfur     | 34-1  | 245362   | 247577   | 248604   | 247181   | 0.67   | cps   |
| Terbium    | 159-1 | 21159951 | 21105930 | 21406681 | 21224187 | 0.76   | cps   |
| Terbium    | 159-2 | 13884577 | 13864918 | 13985842 | 13911779 | 0.47   | cps   |
| Thallium   | 203-1 | 3427     | 3500     | 3494     | 3474     | 1.17   | cps   |
| Thallium   | 205-1 | 8336     | 8760     | 8813     | 8636     | 3.03   | cps   |
| Tin        | 118-1 | 4174     | 3937     | 4054     | 4055     | 2.92   | cps   |
| Titanium   | 47-1  | 530      | 460      | 420      | 470      | 11.85  | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165238BLInstrumnet Name :P7

Client Sample ID :PB165238BLDilution Factor :1

Date & Time Acquired :2024-12-03 14:54:10DataFile Name :028CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 587      | 630      | 433      | 550      | 18.79  | cps   |
| Vanadium  | 51-2  | 53       | 67       | 53       | 58       | 13.33  | cps   |
| Yttrium   | 89-1  | 19881446 | 19581864 | 19470815 | 19644708 | 1.08   | cps   |
| Yttrium   | 89-2  | 5446205  | 5518928  | 5441298  | 5468810  | 0.79   | cps   |
| Zinc      | 66-2  | 860      | 850      | 890      | 867      | 2.40   | cps   |
| Zirconium | 90-1  | 1347     | 1433     | 1253     | 1345     | 6.70   | cps   |
| Zirconium | 91-1  | 273      | 283      | 337      | 298      | 11.43  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BS Instrumnet Name : P7  
Client Sample ID : PB165238BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:57:27 DataFile Name : 029LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 19976    | 19236    | 19723    | 19645    | 1.92   | cps   |
| Antimony   | 121-1 | 82827    | 83977    | 84285    | 83696    | 0.92   | cps   |
| Arsenic    | 75-2  | 2457     | 2350     | 2567     | 2458     | 4.41   | cps   |
| Barium     | 135-1 | 99699    | 101320   | 99743    | 100254   | 0.92   | cps   |
| Barium     | 137-1 | 174673   | 174010   | 175192   | 174625   | 0.34   | cps   |
| Beryllium  | 9-1   | 3540     | 3864     | 3677     | 3694     | 4.40   | cps   |
| Bismuth    | 209-1 | 12957239 | 13029706 | 12708369 | 12898438 | 1.31   | cps   |
| Bismuth    | 209-2 | 9280903  | 9432269  | 9311767  | 9341646  | 0.86   | cps   |
| Bromine    | 81-1  | 17210    | 16953    | 16890    | 17018    | 1.00   | cps   |
| Bromine    | 81-2  | 87       | 103      | 133      | 108      | 21.94  | cps   |
| Cadmium    | 108-1 | 633      | 743      | 743      | 707      | 8.99   | cps   |
| Cadmium    | 106-1 | 6485     | 6502     | 5855     | 6280     | 5.87   | cps   |
| Cadmium    | 111-1 | 10053    | 10116    | 9950     | 10040    | 0.84   | cps   |
| Calcium    | 43-1  | 50316    | 52226    | 50303    | 50948    | 2.17   | cps   |
| Calcium    | 44-1  | 824313   | 833641   | 829144   | 829033   | 0.56   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 37694    | 37750    | 38152    | 37865    | 0.66   | cps   |
| Cobalt     | 59-2  | 28520    | 28287    | 28043    | 28283    | 0.84   | cps   |
| Copper     | 63-2  | 43229    | 44132    | 43396    | 43586    | 1.10   | cps   |
| Dysprosium | 156-1 | 40       | 20       | 33       | 31       | 32.73  | cps   |
| Dysprosium | 156-2 | 13       | 17       | 20       | 17       | 20.01  | cps   |
| Erbium     | 164-1 | 73       | 97       | 63       | 78       | 22.00  | cps   |
| Erbium     | 164-2 | 37       | 53       | 40       | 43       | 20.34  | cps   |
| Gadolinium | 160-1 | 60       | 90       | 97       | 82       | 23.76  | cps   |
| Gadolinium | 160-2 | 777      | 843      | 753      | 791      | 5.90   | cps   |
| Holmium    | 165-1 | 20996178 | 20760941 | 20609123 | 20788747 | 0.94   | cps   |
| Holmium    | 165-2 | 13967364 | 13835487 | 13779041 | 13860631 | 0.70   | cps   |
| Indium     | 115-1 | 17167344 | 16628247 | 16733706 | 16843099 | 1.70   | cps   |
| Indium     | 115-2 | 6221855  | 6254758  | 6221449  | 6232687  | 0.31   | cps   |
| Iron       | 56-2  | 3220186  | 3262860  | 3181253  | 3221433  | 1.27   | cps   |
| Iron       | 57-2  | 84925    | 85357    | 86074    | 85452    | 0.68   | cps   |
| Iron       | 54-2  | 187478   | 185993   | 185110   | 186194   | 0.64   | cps   |
| Krypton    | 83-1  | 260      | 337      | 303      | 300      | 12.81  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165238BS Instrumnet Name : P7  
Client Sample ID : PB165238BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 14:57:27 DataFile Name : 029LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 34831    | 34377    | 34704    | 34637    | 0.68   | cps   |
| Lead       | 207-1 | 30735    | 31259    | 30528    | 30841    | 1.22   | cps   |
| Lead       | 208-1 | 139127   | 140005   | 140287   | 139806   | 0.43   | cps   |
| Lithium    | 6-1   | 1806798  | 1764242  | 1735379  | 1768806  | 2.03   | cps   |
| Magnesium  | 24-2  | 756694   | 754668   | 749467   | 753610   | 0.49   | cps   |
| Manganese  | 55-2  | 14964    | 14540    | 14854    | 14786    | 1.49   | cps   |
| Molybdenum | 94-1  | 86111    | 85578    | 86017    | 85902    | 0.33   | cps   |
| Molybdenum | 95-1  | 102680   | 104134   | 105315   | 104043   | 1.27   | cps   |
| Molybdenum | 96-1  | 115249   | 116925   | 115102   | 115759   | 0.88   | cps   |
| Molybdenum | 97-1  | 65144    | 65412    | 64642    | 65066    | 0.60   | cps   |
| Molybdenum | 98-1  | 167158   | 167263   | 167295   | 167238   | 0.04   | cps   |
| Neodymium  | 150-1 | 7        | 20       | 7        | 11       | 69.25  | cps   |
| Neodymium  | 150-2 | 7        | 7        | 7        | 7        | 0.00   | cps   |
| Nickel     | 60-2  | 8139     | 8062     | 8256     | 8152     | 1.19   | cps   |
| Phosphorus | 31-2  | 373      | 417      | 447      | 412      | 8.94   | cps   |
| Potassium  | 39-2  | 1068003  | 1068415  | 1064245  | 1066887  | 0.22   | cps   |
| Rhodium    | 103-1 | 16275075 | 15840345 | 15905524 | 16006982 | 1.46   | cps   |
| Rhodium    | 103-2 | 9764985  | 9799409  | 9613098  | 9725831  | 1.02   | cps   |
| Scandium   | 45-1  | 8765154  | 8553389  | 8461331  | 8593291  | 1.81   | cps   |
| Scandium   | 45-2  | 837816   | 835426   | 833752   | 835665   | 0.24   | cps   |
| Selenium   | 82-1  | 4084     | 4094     | 4076     | 4085     | 0.21   | cps   |
| Selenium   | 77-2  | 417      | 330      | 380      | 376      | 11.58  | cps   |
| Selenium   | 78-2  | 1907     | 1917     | 1807     | 1877     | 3.24   | cps   |
| Silicon    | 28-1  | 919584   | 1166633  | 929756   | 1005324  | 13.90  | cps   |
| Silver     | 107-1 | 53207    | 53291    | 54281    | 53593    | 1.11   | cps   |
| Silver     | 109-1 | 50695    | 52127    | 51474    | 51432    | 1.39   | cps   |
| Sodium     | 23-2  | 1205597  | 1229980  | 1230521  | 1222032  | 1.16   | cps   |
| Strontium  | 86-1  | 13096    | 13686    | 13156    | 13313    | 2.44   | cps   |
| Strontium  | 88-1  | 112661   | 114854   | 114649   | 114055   | 1.06   | cps   |
| Sulfur     | 34-1  | 250853   | 252093   | 248495   | 250480   | 0.73   | cps   |
| Terbium    | 159-1 | 21695866 | 21321002 | 20948822 | 21321897 | 1.75   | cps   |
| Terbium    | 159-2 | 13748294 | 13786505 | 13867603 | 13800800 | 0.44   | cps   |
| Thallium   | 203-1 | 41537    | 43058    | 41998    | 42197    | 1.85   | cps   |
| Thallium   | 205-1 | 100132   | 101061   | 102472   | 101222   | 1.16   | cps   |
| Tin        | 118-1 | 4144     | 4134     | 4254     | 4177     | 1.59   | cps   |
| Titanium   | 47-1  | 23321    | 24116    | 23505    | 23647    | 1.76   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165238BSInstrumnet Name :P7

Client Sample ID :PB165238BSDilution Factor :1

Date & Time Acquired :2024-12-03 14:57:27DataFile Name :029LCSE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 118790   | 121434   | 120388   | 120204   | 1.11   | cps   |
| Vanadium  | 51-2  | 73340    | 73789    | 73317    | 73482    | 0.36   | cps   |
| Yttrium   | 89-1  | 19843267 | 19452916 | 19478379 | 19591520 | 1.11   | cps   |
| Yttrium   | 89-2  | 5498322  | 5505120  | 5421165  | 5474869  | 0.85   | cps   |
| Zinc      | 66-2  | 18485    | 18468    | 18869    | 18607    | 1.22   | cps   |
| Zirconium | 90-1  | 71406    | 70984    | 72849    | 71746    | 1.36   | cps   |
| Zirconium | 91-1  | 15605    | 15909    | 15759    | 15757    | 0.96   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BL Instrumnet Name : P7  
Client Sample ID : PB165241BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:00:41 DataFile Name : 030CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 720      | 903      | 650      | 758      | 17.26  | cps   |
| Antimony   | 121-1 | 273      | 250      | 253      | 259      | 4.87   | cps   |
| Arsenic    | 75-2  | 53       | 60       | 57       | 57       | 5.89   | cps   |
| Barium     | 135-1 | 253      | 303      | 270      | 276      | 9.24   | cps   |
| Barium     | 137-1 | 503      | 577      | 510      | 530      | 7.65   | cps   |
| Beryllium  | 9-1   | 150      | 173      | 200      | 174      | 14.34  | cps   |
| Bismuth    | 209-1 | 12491113 | 12635714 | 12593237 | 12573355 | 0.59   | cps   |
| Bismuth    | 209-2 | 9203982  | 9105437  | 9184648  | 9164689  | 0.57   | cps   |
| Bromine    | 81-1  | 17901    | 17304    | 17494    | 17566    | 1.74   | cps   |
| Bromine    | 81-2  | 247      | 240      | 203      | 230      | 10.14  | cps   |
| Cadmium    | 108-1 | 27       | 23       | 27       | 26       | 7.55   | cps   |
| Cadmium    | 106-1 | 5541     | 5214     | 4991     | 5249     | 5.27   | cps   |
| Cadmium    | 111-1 | 1176     | 1123     | 1063     | 1121     | 5.06   | cps   |
| Calcium    | 43-1  | 1083     | 1080     | 990      | 1051     | 5.04   | cps   |
| Calcium    | 44-1  | 28103    | 28554    | 27599    | 28085    | 1.70   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 3124     | 2787     | 3004     | 2971     | 5.74   | cps   |
| Cobalt     | 59-2  | 557      | 510      | 533      | 533      | 4.37   | cps   |
| Copper     | 63-2  | 1963     | 1840     | 1780     | 1861     | 5.02   | cps   |
| Dysprosium | 156-1 | 27       | 10       | 27       | 21       | 45.58  | cps   |
| Dysprosium | 156-2 | 7        | 3        | 13       | 8        | 65.47  | cps   |
| Erbium     | 164-1 | 87       | 77       | 80       | 81       | 6.28   | cps   |
| Erbium     | 164-2 | 57       | 67       | 47       | 57       | 17.65  | cps   |
| Gadolinium | 160-1 | 70       | 77       | 87       | 78       | 10.79  | cps   |
| Gadolinium | 160-2 | 820      | 697      | 833      | 783      | 9.62   | cps   |
| Holmium    | 165-1 | 20274644 | 20084853 | 20239892 | 20199796 | 0.50   | cps   |
| Holmium    | 165-2 | 13631608 | 13459660 | 13589364 | 13560211 | 0.66   | cps   |
| Indium     | 115-1 | 16350733 | 16659284 | 16704810 | 16571609 | 1.16   | cps   |
| Indium     | 115-2 | 6167069  | 6164508  | 6154132  | 6161903  | 0.11   | cps   |
| Iron       | 56-2  | 45338    | 45913    | 40124    | 43792    | 7.28   | cps   |
| Iron       | 57-2  | 2134     | 2000     | 1833     | 1989     | 7.56   | cps   |
| Iron       | 54-2  | 4564     | 4444     | 4211     | 4406     | 4.08   | cps   |
| Krypton    | 83-1  | 330      | 270      | 317      | 306      | 10.31  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BL Instrumnet Name : P7  
Client Sample ID : PB165241BL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:00:41 DataFile Name : 030CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2584     | 2624     | 2577     | 2595     | 0.97   | cps   |
| Lead       | 207-1 | 2144     | 2317     | 2227     | 2229     | 3.89   | cps   |
| Lead       | 208-1 | 9818     | 10322    | 10165    | 10102    | 2.55   | cps   |
| Lithium    | 6-1   | 1755178  | 1729700  | 1718215  | 1734364  | 1.09   | cps   |
| Magnesium  | 24-2  | 3954     | 3971     | 3447     | 3791     | 7.85   | cps   |
| Manganese  | 55-2  | 1050     | 1257     | 1240     | 1182     | 9.71   | cps   |
| Molybdenum | 94-1  | 1000     | 1400     | 1233     | 1211     | 16.59  | cps   |
| Molybdenum | 95-1  | 1087     | 1413     | 1270     | 1257     | 13.03  | cps   |
| Molybdenum | 96-1  | 1253     | 1727     | 1483     | 1488     | 15.91  | cps   |
| Molybdenum | 97-1  | 677      | 927      | 733      | 779      | 16.83  | cps   |
| Molybdenum | 98-1  | 1790     | 2400     | 1943     | 2045     | 15.52  | cps   |
| Neodymium  | 150-1 | 7        | 7        | 13       | 9        | 43.25  | cps   |
| Neodymium  | 150-2 | 3        | 7        | 7        | 6        | 34.70  | cps   |
| Nickel     | 60-2  | 1100     | 1047     | 1067     | 1071     | 2.52   | cps   |
| Phosphorus | 31-2  | 327      | 353      | 260      | 313      | 15.34  | cps   |
| Potassium  | 39-2  | 79539    | 79613    | 78839    | 79331    | 0.54   | cps   |
| Rhodium    | 103-1 | 15696459 | 15571170 | 15614190 | 15627273 | 0.41   | cps   |
| Rhodium    | 103-2 | 9528110  | 9576342  | 9638258  | 9580903  | 0.58   | cps   |
| Scandium   | 45-1  | 8536166  | 8434592  | 8497655  | 8489471  | 0.60   | cps   |
| Scandium   | 45-2  | 821405   | 811391   | 815606   | 816134   | 0.62   | cps   |
| Selenium   | 82-1  | 661      | 742      | 597      | 667      | 10.93  | cps   |
| Selenium   | 77-2  | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Selenium   | 78-2  | 627      | 597      | 737      | 653      | 11.28  | cps   |
| Silicon    | 28-1  | 747229   | 749564   | 753653   | 750149   | 0.43   | cps   |
| Silver     | 107-1 | 483      | 577      | 477      | 512      | 10.91  | cps   |
| Silver     | 109-1 | 457      | 827      | 410      | 565      | 40.47  | cps   |
| Sodium     | 23-2  | 35133    | 34612    | 33446    | 34397    | 2.51   | cps   |
| Strontium  | 86-1  | 567      | 660      | 587      | 604      | 8.13   | cps   |
| Strontium  | 88-1  | 1287     | 1400     | 1317     | 1335     | 4.40   | cps   |
| Sulfur     | 34-1  | 253882   | 250998   | 248918   | 251266   | 0.99   | cps   |
| Terbium    | 159-1 | 20681420 | 20989720 | 20818585 | 20829908 | 0.74   | cps   |
| Terbium    | 159-2 | 13539813 | 13576785 | 13653846 | 13590148 | 0.43   | cps   |
| Thallium   | 203-1 | 3244     | 3260     | 3194     | 3233     | 1.07   | cps   |
| Thallium   | 205-1 | 8066     | 8039     | 7889     | 7998     | 1.19   | cps   |
| Tin        | 118-1 | 3961     | 3814     | 4374     | 4050     | 7.17   | cps   |
| Titanium   | 47-1  | 283      | 297      | 340      | 307      | 9.66   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165241BLInstrumnet Name :P7

Client Sample ID :PB165241BLDilution Factor :1

Date & Time Acquired :2024-12-03 15:00:41DataFile Name :030CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 350      | 610      | 450      | 470      | 27.90  | cps   |
| Vanadium  | 51-2  | 60       | 93       | 57       | 70       | 28.96  | cps   |
| Yttrium   | 89-1  | 19153448 | 19227312 | 18927746 | 19102836 | 0.82   | cps   |
| Yttrium   | 89-2  | 5285581  | 5403493  | 5359886  | 5349653  | 1.11   | cps   |
| Zinc      | 66-2  | 1307     | 1307     | 1267     | 1293     | 1.79   | cps   |
| Zirconium | 90-1  | 1190     | 1223     | 1373     | 1262     | 7.74   | cps   |
| Zirconium | 91-1  | 273      | 283      | 350      | 302      | 13.79  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BS Instrumnet Name : P7  
Client Sample ID : PB165241BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:03:58 DataFile Name : 031LCSS.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 4288363   | 4294913   | 4271163   | 4284813   | 0.29   | cps   |
| Antimony   | 121-1 | 9659198   | 9560303   | 9616099   | 9611867   | 0.52   | cps   |
| Arsenic    | 75-2  | 515619    | 515692    | 513078    | 514796    | 0.29   | cps   |
| Barium     | 135-1 | 11916424  | 11849246  | 11980782  | 11915484  | 0.55   | cps   |
| Barium     | 137-1 | 20338620  | 20676829  | 20613743  | 20543064  | 0.88   | cps   |
| Beryllium  | 9-1   | 813552    | 820947    | 817940    | 817480    | 0.45   | cps   |
| Bismuth    | 209-1 | 12214646  | 12205239  | 12233855  | 12217913  | 0.12   | cps   |
| Bismuth    | 209-2 | 8795984   | 8802040   | 8856172   | 8818065   | 0.38   | cps   |
| Bromine    | 81-1  | 15588     | 14931     | 15148     | 15222     | 2.20   | cps   |
| Bromine    | 81-2  | 143       | 87        | 113       | 114       | 24.77  | cps   |
| Cadmium    | 108-1 | 186111    | 186725    | 184788    | 185875    | 0.53   | cps   |
| Cadmium    | 106-1 | 265587    | 267969    | 267690    | 267082    | 0.49   | cps   |
| Cadmium    | 111-1 | 2378242   | 2364477   | 2385283   | 2376001   | 0.45   | cps   |
| Calcium    | 43-1  | 2376462   | 2338019   | 2302695   | 2339059   | 1.58   | cps   |
| Calcium    | 44-1  | 37669987  | 37416659  | 37403356  | 37496667  | 0.40   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 3866854   | 3801648   | 3781518   | 3816674   | 1.17   | cps   |
| Cobalt     | 59-2  | 6075719   | 6076526   | 5992419   | 6048222   | 0.80   | cps   |
| Copper     | 63-2  | 44669193  | 44513093  | 43788046  | 44323444  | 1.06   | cps   |
| Dysprosium | 156-1 | 243       | 243       | 257       | 248       | 3.11   | cps   |
| Dysprosium | 156-2 | 610       | 657       | 627       | 631       | 3.75   | cps   |
| Erbium     | 164-1 | 190       | 217       | 197       | 201       | 6.90   | cps   |
| Erbium     | 164-2 | 187       | 157       | 103       | 149       | 28.35  | cps   |
| Gadolinium | 160-1 | 180       | 187       | 180       | 182       | 2.11   | cps   |
| Gadolinium | 160-2 | 727       | 737       | 873       | 779       | 10.52  | cps   |
| Holmium    | 165-1 | 20363306  | 20239549  | 19859166  | 20154007  | 1.30   | cps   |
| Holmium    | 165-2 | 13346635  | 13467438  | 13521671  | 13445248  | 0.67   | cps   |
| Indium     | 115-1 | 16043440  | 15811569  | 15586000  | 15813670  | 1.45   | cps   |
| Indium     | 115-2 | 5739250   | 5834081   | 5783783   | 5785705   | 0.82   | cps   |
| Iron       | 56-2  | 180262317 | 177728251 | 179705971 | 179232180 | 0.74   | cps   |
| Iron       | 57-2  | 4511861   | 4523100   | 4454696   | 4496552   | 0.82   | cps   |
| Iron       | 54-2  | 9981204   | 9874499   | 9837851   | 9897851   | 0.75   | cps   |
| Krypton    | 83-1  | 260       | 380       | 297       | 312       | 19.70  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : PB165241BS Instrumnet Name : P7  
Client Sample ID : PB165241BS Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:03:58 DataFile Name : 031LCSS.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 37660861  | 37541039  | 36834619  | 37345507  | 1.20   | cps   |
| Lead       | 207-1 | 33025437  | 33176696  | 32691288  | 32964474  | 0.75   | cps   |
| Lead       | 208-1 | 149695485 | 150041504 | 148301794 | 149346261 | 0.62   | cps   |
| Lithium    | 6-1   | 1701072   | 1747635   | 1691858   | 1713522   | 1.74   | cps   |
| Magnesium  | 24-2  | 36002924  | 35420102  | 35188014  | 35537014  | 1.18   | cps   |
| Manganese  | 55-2  | 30740307  | 30662520  | 30349998  | 30584275  | 0.68   | cps   |
| Molybdenum | 94-1  | 33516914  | 33586955  | 33205744  | 33436538  | 0.61   | cps   |
| Molybdenum | 95-1  | 48017403  | 48477551  | 47814116  | 48103023  | 0.71   | cps   |
| Molybdenum | 96-1  | 52723958  | 52995444  | 52472116  | 52730506  | 0.50   | cps   |
| Molybdenum | 97-1  | 30060302  | 30251485  | 29876256  | 30062681  | 0.62   | cps   |
| Molybdenum | 98-1  | 77583546  | 77831207  | 77375086  | 77596613  | 0.29   | cps   |
| Neodymium  | 150-1 | 587       | 580       | 567       | 578       | 1.76   | cps   |
| Neodymium  | 150-2 | 153       | 150       | 120       | 141       | 13.01  | cps   |
| Nickel     | 60-2  | 1586656   | 1545899   | 1526482   | 1553012   | 1.98   | cps   |
| Phosphorus | 31-2  | 205849    | 205427    | 204136    | 205137    | 0.43   | cps   |
| Potassium  | 39-2  | 21503567  | 21608399  | 21489100  | 21533689  | 0.30   | cps   |
| Rhodium    | 103-1 | 14983570  | 14813121  | 14529646  | 14775445  | 1.55   | cps   |
| Rhodium    | 103-2 | 8911140   | 8982233   | 8899157   | 8930843   | 0.50   | cps   |
| Scandium   | 45-1  | 8340320   | 8203431   | 8126592   | 8223448   | 1.32   | cps   |
| Scandium   | 45-2  | 777806    | 784946    | 780411    | 781055    | 0.46   | cps   |
| Selenium   | 82-1  | 149168    | 147709    | 147704    | 148193    | 0.57   | cps   |
| Selenium   | 77-2  | 16146     | 15902     | 16279     | 16109     | 1.19   | cps   |
| Selenium   | 78-2  | 55537     | 54844     | 55182     | 55188     | 0.63   | cps   |
| Silicon    | 28-1  | 22366111  | 21988895  | 21828404  | 22061136  | 1.25   | cps   |
| Silver     | 107-1 | 12300751  | 12345984  | 12273187  | 12306641  | 0.30   | cps   |
| Silver     | 109-1 | 11732231  | 11780483  | 11760284  | 11757666  | 0.21   | cps   |
| Sodium     | 23-2  | 55930678  | 55542226  | 55514913  | 55662605  | 0.42   | cps   |
| Strontium  | 86-1  | 2929821   | 2957013   | 2950186   | 2945673   | 0.48   | cps   |
| Strontium  | 88-1  | 25743285  | 25754741  | 25848850  | 25782292  | 0.22   | cps   |
| Sulfur     | 34-1  | 847490    | 836172    | 825264    | 836309    | 1.33   | cps   |
| Terbium    | 159-1 | 20881206  | 20714711  | 20180486  | 20592135  | 1.78   | cps   |
| Terbium    | 159-2 | 13522332  | 13523796  | 13428559  | 13491562  | 0.40   | cps   |
| Thallium   | 203-1 | 9409372   | 9389257   | 9191230   | 9329953   | 1.29   | cps   |
| Thallium   | 205-1 | 22292117  | 22314246  | 21794771  | 22133712  | 1.33   | cps   |
| Tin        | 118-1 | 8158422   | 8068455   | 8009895   | 8078924   | 0.93   | cps   |
| Titanium   | 47-1  | 10870384  | 10963184  | 10899386  | 10910984  | 0.44   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :PB165241BSInstrumnet Name :P7

Client Sample ID :PB165241BSDilution Factor :1

Date & Time Acquired :2024-12-03 15:03:58DataFile Name :031LCSS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 29082987 | 29711990 | 29689848 | 29494942 | 1.21   | cps   |
| Vanadium  | 51-2  | 3374121  | 3328143  | 3309872  | 3337379  | 0.99   | cps   |
| Yttrium   | 89-1  | 18709316 | 18579226 | 18460010 | 18582851 | 0.67   | cps   |
| Yttrium   | 89-2  | 5115421  | 5165272  | 5238159  | 5172951  | 1.19   | cps   |
| Zinc      | 66-2  | 7464231  | 7444635  | 7440902  | 7449923  | 0.17   | cps   |
| Zirconium | 90-1  | 16118361 | 16199551 | 16151933 | 16156615 | 0.25   | cps   |
| Zirconium | 91-1  | 3592174  | 3626453  | 3590004  | 3602877  | 0.57   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04 Instrumnet Name : P7  
Client Sample ID : MX1010 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:09:05 DataFile Name : 032SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 732922   | 728059   | 723101   | 728027   | 0.67   | cps   |
| Antimony   | 121-1 | 490360   | 493037   | 491537   | 491645   | 0.27   | cps   |
| Arsenic    | 75-2  | 29336    | 28150    | 29005    | 28830    | 2.12   | cps   |
| Barium     | 135-1 | 14489494 | 14609919 | 14745969 | 14615127 | 0.88   | cps   |
| Barium     | 137-1 | 25176988 | 25419369 | 25413786 | 25336714 | 0.55   | cps   |
| Beryllium  | 9-1   | 55124    | 54823    | 54488    | 54812    | 0.58   | cps   |
| Bismuth    | 209-1 | 12690575 | 12580438 | 12525681 | 12598898 | 0.67   | cps   |
| Bismuth    | 209-2 | 9466151  | 9325732  | 9330019  | 9373967  | 0.85   | cps   |
| Bromine    | 81-1  | 14904    | 14981    | 15602    | 15162    | 2.52   | cps   |
| Bromine    | 81-2  | 143      | 200      | 220      | 188      | 21.18  | cps   |
| Cadmium    | 108-1 | 25850    | 26531    | 27049    | 26476    | 2.27   | cps   |
| Cadmium    | 106-1 | 40560    | 40640    | 40948    | 40716    | 0.50   | cps   |
| Cadmium    | 111-1 | 383603   | 385069   | 386523   | 385065   | 0.38   | cps   |
| Calcium    | 43-1  | 1577     | 1453     | 1450     | 1493     | 4.83   | cps   |
| Calcium    | 44-1  | 34346    | 32569    | 31356    | 32757    | 4.59   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1475591  | 1482406  | 1461293  | 1473097  | 0.73   | cps   |
| Cobalt     | 59-2  | 6955     | 6785     | 6788     | 6843     | 1.42   | cps   |
| Copper     | 63-2  | 27291735 | 27066980 | 27261555 | 27206757 | 0.45   | cps   |
| Dysprosium | 156-1 | 107      | 93       | 160      | 120      | 29.40  | cps   |
| Dysprosium | 156-2 | 683      | 730      | 743      | 719      | 4.38   | cps   |
| Erbium     | 164-1 | 60       | 87       | 130      | 92       | 38.31  | cps   |
| Erbium     | 164-2 | 47       | 87       | 83       | 72       | 30.73  | cps   |
| Gadolinium | 160-1 | 60       | 60       | 60       | 60       | 0.00   | cps   |
| Gadolinium | 160-2 | 670      | 773      | 833      | 759      | 10.89  | cps   |
| Holmium    | 165-1 | 20410125 | 20189985 | 20056392 | 20218834 | 0.88   | cps   |
| Holmium    | 165-2 | 13934119 | 13651186 | 13679761 | 13755022 | 1.13   | cps   |
| Indium     | 115-1 | 16136561 | 16086118 | 15926631 | 16049770 | 0.68   | cps   |
| Indium     | 115-2 | 6125999  | 6000213  | 6051880  | 6059364  | 1.04   | cps   |
| Iron       | 56-2  | 18301404 | 18114974 | 18120831 | 18179070 | 0.58   | cps   |
| Iron       | 57-2  | 472201   | 466356   | 472301   | 470286   | 0.72   | cps   |
| Iron       | 54-2  | 1075906  | 1071008  | 1083377  | 1076764  | 0.58   | cps   |
| Krypton    | 83-1  | 303      | 317      | 297      | 306      | 3.33   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04 Instrumnet Name : P7  
Client Sample ID : MX1010 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:09:05 DataFile Name : 032SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2398913  | 2436122  | 2444074  | 2426370  | 0.99   | cps   |
| Lead       | 207-1 | 2063994  | 2059112  | 2073085  | 2065397  | 0.34   | cps   |
| Lead       | 208-1 | 9491245  | 9502704  | 9527846  | 9507265  | 0.20   | cps   |
| Lithium    | 6-1   | 1718354  | 1702026  | 1710565  | 1710315  | 0.48   | cps   |
| Magnesium  | 24-2  | 8696     | 7529     | 7392     | 7872     | 9.10   | cps   |
| Manganese  | 55-2  | 5671237  | 5624280  | 5689144  | 5661554  | 0.59   | cps   |
| Molybdenum | 94-1  | 689302   | 701881   | 698496   | 696560   | 0.93   | cps   |
| Molybdenum | 95-1  | 1206517  | 1213872  | 1217914  | 1212767  | 0.48   | cps   |
| Molybdenum | 96-1  | 1293147  | 1317334  | 1310711  | 1307064  | 0.96   | cps   |
| Molybdenum | 97-1  | 755412   | 766390   | 766010   | 762604   | 0.82   | cps   |
| Molybdenum | 98-1  | 1949462  | 1962140  | 1954956  | 1955519  | 0.33   | cps   |
| Neodymium  | 150-1 | 557      | 573      | 637      | 589      | 7.17   | cps   |
| Neodymium  | 150-2 | 163      | 113      | 120      | 132      | 20.53  | cps   |
| Nickel     | 60-2  | 3062571  | 3004728  | 3037517  | 3034939  | 0.96   | cps   |
| Phosphorus | 31-2  | 403      | 340      | 377      | 373      | 8.52   | cps   |
| Potassium  | 39-2  | 86460    | 85488    | 86098    | 86016    | 0.57   | cps   |
| Rhodium    | 103-1 | 15216726 | 15006045 | 15086542 | 15103104 | 0.70   | cps   |
| Rhodium    | 103-2 | 9515110  | 9435280  | 9507653  | 9486014  | 0.46   | cps   |
| Scandium   | 45-1  | 8187063  | 8149744  | 8212316  | 8183041  | 0.38   | cps   |
| Scandium   | 45-2  | 800582   | 794844   | 796625   | 797351   | 0.37   | cps   |
| Selenium   | 82-1  | 42909    | 43028    | 43125    | 43020    | 0.25   | cps   |
| Selenium   | 77-2  | 4968     | 4744     | 4784     | 4832     | 2.47   | cps   |
| Selenium   | 78-2  | 16262    | 16659    | 16523    | 16482    | 1.22   | cps   |
| Silicon    | 28-1  | 1861020  | 1832203  | 1818565  | 1837263  | 1.18   | cps   |
| Silver     | 107-1 | 4566784  | 4647485  | 4617047  | 4610439  | 0.88   | cps   |
| Silver     | 109-1 | 4329531  | 4380314  | 4408385  | 4372744  | 0.91   | cps   |
| Sodium     | 23-2  | 71622    | 69747    | 70186    | 70518    | 1.39   | cps   |
| Strontium  | 86-1  | 1170     | 1037     | 1053     | 1087     | 6.69   | cps   |
| Strontium  | 88-1  | 6215     | 6411     | 5971     | 6199     | 3.56   | cps   |
| Sulfur     | 34-1  | 213456   | 206816   | 203884   | 208052   | 2.36   | cps   |
| Terbium    | 159-1 | 20787003 | 20153523 | 20639152 | 20526559 | 1.61   | cps   |
| Terbium    | 159-2 | 13775558 | 13750904 | 13671966 | 13732809 | 0.39   | cps   |
| Thallium   | 203-1 | 284815   | 286317   | 286297   | 285810   | 0.30   | cps   |
| Thallium   | 205-1 | 671650   | 676913   | 679821   | 676128   | 0.61   | cps   |
| Tin        | 118-1 | 4494     | 4207     | 4157     | 4286     | 4.24   | cps   |
| Titanium   | 47-1  | 1027     | 1130     | 847      | 1001     | 14.32  | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4917-04Instrumnet Name :P7

Client Sample ID :MX1010Dilution Factor :1

Date & Time Acquired :2024-12-03 15:09:05DataFile Name :032SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 1417     | 1213     | 1033     | 1221     | 15.71  | cps   |
| Vanadium  | 51-2  | 7784725  | 7792183  | 7887289  | 7821399  | 0.73   | cps   |
| Yttrium   | 89-1  | 18715201 | 18520881 | 18376625 | 18537569 | 0.92   | cps   |
| Yttrium   | 89-2  | 5297449  | 5282093  | 5361369  | 5313637  | 0.79   | cps   |
| Zinc      | 66-2  | 1321282  | 1326535  | 1312894  | 1320237  | 0.52   | cps   |
| Zirconium | 90-1  | 3841     | 3871     | 3784     | 3832     | 1.15   | cps   |
| Zirconium | 91-1  | 970      | 1120     | 920      | 1003     | 10.37  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04DLX2 Instrumnet Name : P7  
Client Sample ID : MX1010DL Dilution Factor : 2  
Date & Time Acquired : 2024-12-03 15:12:17 DataFile Name : 033SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 368247   | 368626   | 364831   | 367235   | 0.57   | cps   |
| Antimony   | 121-1 | 246339   | 249776   | 248414   | 248176   | 0.70   | cps   |
| Arsenic    | 75-2  | 14898    | 14587    | 14444    | 14643    | 1.58   | cps   |
| Barium     | 135-1 | 7318797  | 7396403  | 7397766  | 7370989  | 0.61   | cps   |
| Barium     | 137-1 | 12773297 | 12943194 | 12765834 | 12827442 | 0.78   | cps   |
| Beryllium  | 9-1   | 27708    | 27758    | 28196    | 27887    | 0.96   | cps   |
| Bismuth    | 209-1 | 12679211 | 12678212 | 12627327 | 12661584 | 0.23   | cps   |
| Bismuth    | 209-2 | 9339593  | 9434142  | 9471562  | 9415099  | 0.72   | cps   |
| Bromine    | 81-1  | 16269    | 15652    | 16022    | 15981    | 1.94   | cps   |
| Bromine    | 81-2  | 177      | 140      | 190      | 169      | 15.33  | cps   |
| Cadmium    | 108-1 | 13279    | 13516    | 13223    | 13340    | 1.17   | cps   |
| Cadmium    | 106-1 | 22858    | 23830    | 23449    | 23379    | 2.09   | cps   |
| Cadmium    | 111-1 | 192737   | 194772   | 197281   | 194930   | 1.17   | cps   |
| Calcium    | 43-1  | 1587     | 1500     | 1400     | 1496     | 6.25   | cps   |
| Calcium    | 44-1  | 34440    | 33093    | 34075    | 33869    | 2.06   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 759344   | 748777   | 756218   | 754780   | 0.72   | cps   |
| Cobalt     | 59-2  | 3657     | 3604     | 3464     | 3575     | 2.79   | cps   |
| Copper     | 63-2  | 13831990 | 13776634 | 13690751 | 13766458 | 0.52   | cps   |
| Dysprosium | 156-1 | 60       | 80       | 83       | 74       | 16.95  | cps   |
| Dysprosium | 156-2 | 443      | 323      | 357      | 374      | 16.54  | cps   |
| Erbium     | 164-1 | 77       | 77       | 117      | 90       | 25.66  | cps   |
| Erbium     | 164-2 | 63       | 60       | 37       | 53       | 27.24  | cps   |
| Gadolinium | 160-1 | 73       | 77       | 63       | 71       | 9.76   | cps   |
| Gadolinium | 160-2 | 743      | 723      | 740      | 736      | 1.46   | cps   |
| Holmium    | 165-1 | 20213166 | 20232267 | 20180091 | 20208508 | 0.13   | cps   |
| Holmium    | 165-2 | 13853463 | 13669829 | 13792576 | 13771956 | 0.68   | cps   |
| Indium     | 115-1 | 16317133 | 16165030 | 16389701 | 16290621 | 0.70   | cps   |
| Indium     | 115-2 | 6073306  | 6172374  | 6064425  | 6103368  | 0.98   | cps   |
| Iron       | 56-2  | 9201059  | 9065246  | 9048179  | 9104828  | 0.92   | cps   |
| Iron       | 57-2  | 238788   | 239441   | 235369   | 237866   | 0.92   | cps   |
| Iron       | 54-2  | 548164   | 544195   | 542479   | 544946   | 0.54   | cps   |
| Krypton    | 83-1  | 260      | 277      | 330      | 289      | 12.66  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-04DLX2 Instrumnet Name : P7  
Client Sample ID : MX1010DL Dilution Factor : 2  
Date & Time Acquired : 2024-12-03 15:12:17 DataFile Name : 033SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1231136  | 1238546  | 1240748  | 1236810  | 0.41   | cps   |
| Lead       | 207-1 | 1038978  | 1035653  | 1041925  | 1038852  | 0.30   | cps   |
| Lead       | 208-1 | 4834257  | 4843568  | 4800709  | 4826178  | 0.47   | cps   |
| Lithium    | 6-1   | 1771581  | 1766267  | 1704287  | 1747378  | 2.14   | cps   |
| Magnesium  | 24-2  | 4717     | 6001     | 4814     | 5178     | 13.81  | cps   |
| Manganese  | 55-2  | 2863910  | 2779406  | 2832848  | 2825388  | 1.51   | cps   |
| Molybdenum | 94-1  | 352129   | 358981   | 355025   | 355378   | 0.97   | cps   |
| Molybdenum | 95-1  | 615407   | 618882   | 612601   | 615630   | 0.51   | cps   |
| Molybdenum | 96-1  | 664453   | 668841   | 667242   | 666845   | 0.33   | cps   |
| Molybdenum | 97-1  | 386291   | 389945   | 385778   | 387338   | 0.59   | cps   |
| Molybdenum | 98-1  | 990434   | 1007490  | 996534   | 998153   | 0.87   | cps   |
| Neodymium  | 150-1 | 300      | 287      | 337      | 308      | 8.41   | cps   |
| Neodymium  | 150-2 | 60       | 60       | 83       | 68       | 19.87  | cps   |
| Nickel     | 60-2  | 1508442  | 1510383  | 1494993  | 1504606  | 0.56   | cps   |
| Phosphorus | 31-2  | 343      | 407      | 417      | 389      | 10.23  | cps   |
| Potassium  | 39-2  | 80304    | 80783    | 79017    | 80034    | 1.14   | cps   |
| Rhodium    | 103-1 | 15331136 | 15463882 | 15333769 | 15376262 | 0.49   | cps   |
| Rhodium    | 103-2 | 9675313  | 9595957  | 9501653  | 9590974  | 0.91   | cps   |
| Scandium   | 45-1  | 8287011  | 8215245  | 8290878  | 8264378  | 0.52   | cps   |
| Scandium   | 45-2  | 808303   | 807893   | 809201   | 808465   | 0.08   | cps   |
| Selenium   | 82-1  | 22065    | 22286    | 21821    | 22058    | 1.05   | cps   |
| Selenium   | 77-2  | 2344     | 2567     | 2430     | 2447     | 4.60   | cps   |
| Selenium   | 78-2  | 8643     | 8599     | 8432     | 8558     | 1.30   | cps   |
| Silicon    | 28-1  | 1386235  | 1356632  | 1361111  | 1367993  | 1.17   | cps   |
| Silver     | 107-1 | 2309229  | 2302709  | 2349066  | 2320334  | 1.08   | cps   |
| Silver     | 109-1 | 2197512  | 2238575  | 2215287  | 2217125  | 0.93   | cps   |
| Sodium     | 23-2  | 66463    | 66074    | 64009    | 65515    | 2.01   | cps   |
| Strontium  | 86-1  | 820      | 893      | 980      | 898      | 8.92   | cps   |
| Strontium  | 88-1  | 3957     | 3994     | 3971     | 3974     | 0.47   | cps   |
| Sulfur     | 34-1  | 205678   | 203657   | 203374   | 204237   | 0.62   | cps   |
| Terbium    | 159-1 | 20795846 | 20843070 | 20636880 | 20758599 | 0.52   | cps   |
| Terbium    | 159-2 | 13826706 | 13766132 | 13780064 | 13790968 | 0.23   | cps   |
| Thallium   | 203-1 | 143756   | 143964   | 143776   | 143832   | 0.08   | cps   |
| Thallium   | 205-1 | 341087   | 343204   | 344837   | 343043   | 0.55   | cps   |
| Tin        | 118-1 | 4047     | 4057     | 4281     | 4128     | 3.20   | cps   |
| Titanium   | 47-1  | 750      | 793      | 977      | 840      | 14.32  | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4917-04DLX2Instrumnet Name :P7

Client Sample ID :MX1010DLDilution Factor :2

Date & Time Acquired :2024-12-03 15:12:17DataFile Name :033SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 737      | 847      | 753      | 779      | 7.61   | cps   |
| Vanadium  | 51-2  | 4037695  | 3925051  | 3932523  | 3965090  | 1.59   | cps   |
| Yttrium   | 89-1  | 18834352 | 18777980 | 18882117 | 18831483 | 0.28   | cps   |
| Yttrium   | 89-2  | 5377752  | 5405743  | 5360652  | 5381382  | 0.42   | cps   |
| Zinc      | 66-2  | 660855   | 660196   | 655029   | 658694   | 0.48   | cps   |
| Zirconium | 90-1  | 2564     | 2500     | 2487     | 2517     | 1.63   | cps   |
| Zirconium | 91-1  | 573      | 637      | 710      | 640      | 10.69  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-01 Instrumnet Name : P7  
Client Sample ID : MX1007 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:15:21 DataFile Name : 034SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 6906301   | 7007482   | 6974391   | 6962725   | 0.74   | cps   |
| Antimony   | 121-1 | 3051417   | 3138034   | 3143025   | 3110825   | 1.66   | cps   |
| Arsenic    | 75-2  | 527257    | 523174    | 523652    | 524694    | 0.43   | cps   |
| Barium     | 135-1 | 4640778   | 4709338   | 4680447   | 4676855   | 0.74   | cps   |
| Barium     | 137-1 | 7919747   | 8164081   | 8092720   | 8058849   | 1.56   | cps   |
| Beryllium  | 9-1   | 675540    | 675450    | 672700    | 674563    | 0.24   | cps   |
| Bismuth    | 209-1 | 13470900  | 13316808  | 12826040  | 13204582  | 2.55   | cps   |
| Bismuth    | 209-2 | 9549794   | 9597579   | 9559722   | 9569031   | 0.26   | cps   |
| Bromine    | 81-1  | 17804     | 18588     | 18485     | 18293     | 2.33   | cps   |
| Bromine    | 81-2  | 797       | 853       | 733       | 794       | 7.56   | cps   |
| Cadmium    | 108-1 | 95955     | 97159     | 95958     | 96357     | 0.72   | cps   |
| Cadmium    | 106-1 | 138022    | 142319    | 140902    | 140414    | 1.56   | cps   |
| Cadmium    | 111-1 | 1387691   | 1412675   | 1418194   | 1406187   | 1.16   | cps   |
| Calcium    | 43-1  | 691036    | 703781    | 701530    | 698782    | 0.97   | cps   |
| Calcium    | 44-1  | 10594324  | 10808859  | 10776399  | 10726527  | 1.08   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 4972978   | 4999769   | 4928342   | 4967030   | 0.73   | cps   |
| Cobalt     | 59-2  | 5675806   | 5603054   | 5669059   | 5649306   | 0.71   | cps   |
| Copper     | 63-2  | 2944133   | 2898360   | 2901566   | 2914687   | 0.88   | cps   |
| Dysprosium | 156-1 | 120397    | 123110    | 123339    | 122282    | 1.34   | cps   |
| Dysprosium | 156-2 | 106513    | 106845    | 106244    | 106534    | 0.28   | cps   |
| Erbium     | 164-1 | 91450     | 95399     | 92523     | 93124     | 2.19   | cps   |
| Erbium     | 164-2 | 62720     | 61632     | 61839     | 62064     | 0.93   | cps   |
| Gadolinium | 160-1 | 109829    | 111976    | 110686    | 110830    | 0.97   | cps   |
| Gadolinium | 160-2 | 80114     | 79078     | 78062     | 79085     | 1.30   | cps   |
| Holmium    | 165-1 | 21643291  | 21316075  | 21092885  | 21350750  | 1.30   | cps   |
| Holmium    | 165-2 | 14284840  | 13924549  | 14195529  | 14134973  | 1.33   | cps   |
| Indium     | 115-1 | 17015583  | 16422488  | 16368759  | 16602277  | 2.16   | cps   |
| Indium     | 115-2 | 6186960   | 6096531   | 6129670   | 6137720   | 0.75   | cps   |
| Iron       | 56-2  | 142938515 | 143518758 | 141998981 | 142818751 | 0.54   | cps   |
| Iron       | 57-2  | 3557396   | 3545175   | 3561996   | 3554856   | 0.24   | cps   |
| Iron       | 54-2  | 7959548   | 7989974   | 7895182   | 7948235   | 0.61   | cps   |
| Krypton    | 83-1  | 413       | 357       | 323       | 364       | 12.48  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4917-01 Instrumnet Name : P7  
Client Sample ID : MX1007 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:15:21 DataFile Name : 034SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 6184836  | 6314410  | 6350507  | 6283251  | 1.39   | cps   |
| Lead       | 207-1 | 5316827  | 5373243  | 5357712  | 5349260  | 0.54   | cps   |
| Lead       | 208-1 | 24341400 | 24629328 | 24763593 | 24578107 | 0.88   | cps   |
| Lithium    | 6-1   | 1961637  | 1950901  | 1957941  | 1956826  | 0.28   | cps   |
| Magnesium  | 24-2  | 3322700  | 3386204  | 3388403  | 3365769  | 1.11   | cps   |
| Manganese  | 55-2  | 6844533  | 6840431  | 6760415  | 6815127  | 0.70   | cps   |
| Molybdenum | 94-1  | 867314   | 885916   | 884303   | 879178   | 1.17   | cps   |
| Molybdenum | 95-1  | 1196227  | 1222120  | 1212388  | 1210245  | 1.08   | cps   |
| Molybdenum | 96-1  | 1314536  | 1348108  | 1353884  | 1338843  | 1.59   | cps   |
| Molybdenum | 97-1  | 750515   | 766168   | 755721   | 757468   | 1.05   | cps   |
| Molybdenum | 98-1  | 1918968  | 1986936  | 1942772  | 1949559  | 1.77   | cps   |
| Neodymium  | 150-1 | 232363   | 235011   | 237823   | 235066   | 1.16   | cps   |
| Neodymium  | 150-2 | 138906   | 139445   | 137997   | 138783   | 0.53   | cps   |
| Nickel     | 60-2  | 954736   | 958146   | 956950   | 956611   | 0.18   | cps   |
| Phosphorus | 31-2  | 12906    | 13126    | 12909    | 12980    | 0.97   | cps   |
| Potassium  | 39-2  | 3295724  | 3269689  | 3264384  | 3276599  | 0.51   | cps   |
| Rhodium    | 103-1 | 16084817 | 15753304 | 15298450 | 15712191 | 2.51   | cps   |
| Rhodium    | 103-2 | 9770038  | 9499442  | 9670190  | 9646557  | 1.42   | cps   |
| Scandium   | 45-1  | 8713961  | 8610313  | 8419597  | 8581291  | 1.74   | cps   |
| Scandium   | 45-2  | 827141   | 819207   | 829103   | 825150   | 0.63   | cps   |
| Selenium   | 82-1  | 83568    | 84029    | 83756    | 83785    | 0.28   | cps   |
| Selenium   | 77-2  | 9370     | 9603     | 9550     | 9508     | 1.29   | cps   |
| Selenium   | 78-2  | 30979    | 31146    | 31326    | 31151    | 0.56   | cps   |
| Silicon    | 28-1  | 46240694 | 47261298 | 46287838 | 46596610 | 1.24   | cps   |
| Silver     | 107-1 | 3254039  | 3285288  | 3322267  | 3287198  | 1.04   | cps   |
| Silver     | 109-1 | 3107320  | 3152558  | 3147199  | 3135693  | 0.79   | cps   |
| Sodium     | 23-2  | 1406804  | 1406274  | 1405762  | 1406280  | 0.04   | cps   |
| Strontium  | 86-1  | 3445988  | 3495222  | 3511695  | 3484302  | 0.98   | cps   |
| Strontium  | 88-1  | 30107935 | 30932630 | 30587918 | 30542828 | 1.36   | cps   |
| Sulfur     | 34-1  | 206164   | 203296   | 196884   | 202115   | 2.35   | cps   |
| Terbium    | 159-1 | 22123042 | 21703076 | 21279355 | 21701824 | 1.94   | cps   |
| Terbium    | 159-2 | 14367015 | 14084176 | 14093002 | 14181398 | 1.13   | cps   |
| Thallium   | 203-1 | 8798696  | 8958783  | 8928007  | 8895162  | 0.95   | cps   |
| Thallium   | 205-1 | 20933688 | 21262975 | 21158536 | 21118400 | 0.80   | cps   |
| Tin        | 118-1 | 4102383  | 4124039  | 4183950  | 4136791  | 1.02   | cps   |
| Titanium   | 47-1  | 1390084  | 1448575  | 1421359  | 1420006  | 2.06   | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

P4917-01

Instrumnet Name :

P7

Client Sample ID :

MX1007

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:15:21

DataFile Name :

034SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 27504385 | 28224279 | 28282440 | 28003701 | 1.55   | cps   |
| Vanadium  | 51-2  | 2141800  | 2116247  | 2119881  | 2125976  | 0.65   | cps   |
| Yttrium   | 89-1  | 20789207 | 20404659 | 20246008 | 20479958 | 1.36   | cps   |
| Yttrium   | 89-2  | 5733478  | 5728849  | 5704217  | 5722181  | 0.27   | cps   |
| Zinc      | 66-2  | 1542029  | 1568600  | 1550798  | 1553809  | 0.87   | cps   |
| Zirconium | 90-1  | 502625   | 517772   | 512795   | 511064   | 1.51   | cps   |
| Zirconium | 91-1  | 113807   | 117324   | 115923   | 115685   | 1.53   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV02 Instrumnet Name : P7  
Client Sample ID : CCV02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:18:05 DataFile Name : 035CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 21626092  | 21655466  | 21723312  | 21668290  | 0.23   | cps   |
| Antimony   | 121-1 | 10316577  | 10345704  | 10298762  | 10320347  | 0.23   | cps   |
| Arsenic    | 75-2  | 558016    | 555607    | 555058    | 556227    | 0.28   | cps   |
| Barium     | 135-1 | 12373640  | 12389375  | 12263477  | 12342164  | 0.56   | cps   |
| Barium     | 137-1 | 21213918  | 21380093  | 21217991  | 21270667  | 0.45   | cps   |
| Beryllium  | 9-1   | 804363    | 808235    | 811308    | 807969    | 0.43   | cps   |
| Bismuth    | 209-1 | 12041740  | 12038909  | 11772224  | 11950958  | 1.30   | cps   |
| Bismuth    | 209-2 | 8625179   | 8575022   | 8558976   | 8586393   | 0.40   | cps   |
| Bromine    | 81-1  | 16636     | 16529     | 16556     | 16574     | 0.34   | cps   |
| Bromine    | 81-2  | 113       | 120       | 100       | 111       | 9.16   | cps   |
| Cadmium    | 108-1 | 194320    | 195634    | 194496    | 194817    | 0.37   | cps   |
| Cadmium    | 106-1 | 279870    | 279092    | 278149    | 279037    | 0.31   | cps   |
| Cadmium    | 111-1 | 2475350   | 2465960   | 2490615   | 2477308   | 0.50   | cps   |
| Calcium    | 43-1  | 11435427  | 11506452  | 11277694  | 11406524  | 1.03   | cps   |
| Calcium    | 44-1  | 185161691 | 183652577 | 185413891 | 184742719 | 0.52   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 3908630   | 3937751   | 3940809   | 3929063   | 0.45   | cps   |
| Cobalt     | 59-2  | 6430511   | 6497026   | 6486692   | 6471410   | 0.55   | cps   |
| Copper     | 63-2  | 45210089  | 45882028  | 45388721  | 45493613  | 0.77   | cps   |
| Dysprosium | 156-1 | 547       | 577       | 573       | 566       | 2.91   | cps   |
| Dysprosium | 156-2 | 890       | 910       | 940       | 913       | 2.76   | cps   |
| Erbium     | 164-1 | 693       | 560       | 560       | 604       | 12.74  | cps   |
| Erbium     | 164-2 | 390       | 430       | 407       | 409       | 4.91   | cps   |
| Gadolinium | 160-1 | 470       | 440       | 517       | 476       | 8.12   | cps   |
| Gadolinium | 160-2 | 970       | 987       | 937       | 964       | 2.64   | cps   |
| Holmium    | 165-1 | 21076796  | 20686119  | 20485195  | 20749370  | 1.45   | cps   |
| Holmium    | 165-2 | 13830378  | 13795188  | 13632409  | 13752658  | 0.77   | cps   |
| Indium     | 115-1 | 15546703  | 15535571  | 15326452  | 15469575  | 0.80   | cps   |
| Indium     | 115-2 | 5659287   | 5679569   | 5682251   | 5673702   | 0.22   | cps   |
| Iron       | 56-2  | 888868707 | 878838707 | 872015694 | 879907702 | 0.96   | cps   |
| Iron       | 57-2  | 22140716  | 22076773  | 22274460  | 22163983  | 0.46   | cps   |
| Iron       | 54-2  | 47764729  | 48131286  | 47672601  | 47856205  | 0.51   | cps   |
| Krypton    | 83-1  | 267       | 307       | 313       | 296       | 8.54   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV02 Instrumnet Name : P7  
Client Sample ID : CCV02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:18:05 DataFile Name : 035CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 38313390  | 38042313  | 38374072  | 38243258  | 0.46   | cps   |
| Lead       | 207-1 | 33522830  | 33524320  | 33760497  | 33602549  | 0.41   | cps   |
| Lead       | 208-1 | 153301881 | 152814197 | 153065494 | 153060524 | 0.16   | cps   |
| Lithium    | 6-1   | 1686148   | 1651360   | 1655774   | 1664427   | 1.14   | cps   |
| Magnesium  | 24-2  | 176994844 | 178850551 | 177974751 | 177940048 | 0.52   | cps   |
| Manganese  | 55-2  | 31182968  | 31169065  | 30900280  | 31084105  | 0.51   | cps   |
| Molybdenum | 94-1  | 34596168  | 34816318  | 34864244  | 34758910  | 0.41   | cps   |
| Molybdenum | 95-1  | 49719298  | 49662369  | 49853769  | 49745145  | 0.20   | cps   |
| Molybdenum | 96-1  | 55152426  | 54697029  | 54239426  | 54696294  | 0.83   | cps   |
| Molybdenum | 97-1  | 31485781  | 31441664  | 31092729  | 31340058  | 0.69   | cps   |
| Molybdenum | 98-1  | 81509975  | 81053112  | 80621849  | 81061645  | 0.55   | cps   |
| Neodymium  | 150-1 | 910       | 873       | 823       | 869       | 5.01   | cps   |
| Neodymium  | 150-2 | 303       | 260       | 260       | 274       | 9.12   | cps   |
| Nickel     | 60-2  | 1662266   | 1644610   | 1646146   | 1651007   | 0.59   | cps   |
| Phosphorus | 31-2  | 210014    | 210869    | 209853    | 210245    | 0.26   | cps   |
| Potassium  | 39-2  | 108423112 | 107072665 | 108471645 | 107989141 | 0.74   | cps   |
| Rhodium    | 103-1 | 14466308  | 14163675  | 14089564  | 14239849  | 1.40   | cps   |
| Rhodium    | 103-2 | 8636579   | 8527888   | 8590979   | 8585149   | 0.64   | cps   |
| Scandium   | 45-1  | 8154985   | 8189487   | 8195611   | 8180028   | 0.27   | cps   |
| Scandium   | 45-2  | 787363    | 782012    | 791151    | 786842    | 0.58   | cps   |
| Selenium   | 82-1  | 154180    | 154573    | 154555    | 154436    | 0.14   | cps   |
| Selenium   | 77-2  | 16933     | 16703     | 17033     | 16890     | 1.00   | cps   |
| Selenium   | 78-2  | 56755     | 57558     | 55704     | 56672     | 1.64   | cps   |
| Silicon    | 28-1  | 22959358  | 22799733  | 23164695  | 22974595  | 0.80   | cps   |
| Silver     | 107-1 | 12731417  | 12871557  | 12768911  | 12790629  | 0.57   | cps   |
| Silver     | 109-1 | 12145666  | 12173201  | 12146756  | 12155208  | 0.13   | cps   |
| Sodium     | 23-2  | 271561063 | 274105389 | 273434063 | 273033505 | 0.48   | cps   |
| Strontium  | 86-1  | 3062897   | 3114883   | 3023912   | 3067230   | 1.49   | cps   |
| Strontium  | 88-1  | 26413177  | 26790414  | 26665155  | 26622915  | 0.72   | cps   |
| Sulfur     | 34-1  | 819959    | 818221    | 820708    | 819629    | 0.16   | cps   |
| Terbium    | 159-1 | 21408221  | 21155763  | 21066216  | 21210067  | 0.84   | cps   |
| Terbium    | 159-2 | 13519402  | 13647574  | 13485867  | 13550948  | 0.63   | cps   |
| Thallium   | 203-1 | 9632657   | 9506012   | 9595322   | 9577997   | 0.68   | cps   |
| Thallium   | 205-1 | 22769850  | 22736300  | 22649694  | 22718615  | 0.27   | cps   |
| Tin        | 118-1 | 8356178   | 8231863   | 8165287   | 8251109   | 1.17   | cps   |
| Titanium   | 47-1  | 11042312  | 10979718  | 11152780  | 11058270  | 0.79   | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CCV02

Instrumnet Name :

P7

Client Sample ID :

CCV02

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:18:05

DataFile Name :

035CCV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 31475848 | 31554980 | 31347684 | 31459504 | 0.33   | cps   |
| Vanadium  | 51-2  | 3479806  | 3473916  | 3482912  | 3478878  | 0.13   | cps   |
| Yttrium   | 89-1  | 18899854 | 18748457 | 18577857 | 18742056 | 0.86   | cps   |
| Yttrium   | 89-2  | 5248413  | 5195855  | 5192040  | 5212102  | 0.60   | cps   |
| Zinc      | 66-2  | 7525924  | 7624107  | 7553932  | 7567988  | 0.67   | cps   |
| Zirconium | 90-1  | 16793729 | 17040194 | 16986597 | 16940173 | 0.77   | cps   |
| Zirconium | 91-1  | 3750827  | 3832917  | 3853054  | 3812266  | 1.42   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCB02Instrumnet Name :P7

Client Sample ID :CCB02Dilution Factor :1

Date & Time Acquired :2024-12-03 15:27:22DataFile Name :037CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1310     | 1460     | 1517     | 1429     | 7.47   | cps   |
| Antimony   | 121-1 | 677      | 583      | 597      | 619      | 8.16   | cps   |
| Arsenic    | 75-2  | 77       | 63       | 67       | 69       | 10.08  | cps   |
| Barium     | 135-1 | 570      | 383      | 537      | 497      | 20.05  | cps   |
| Barium     | 137-1 | 873      | 690      | 810      | 791      | 11.77  | cps   |
| Beryllium  | 9-1   | 230      | 223      | 320      | 258      | 20.95  | cps   |
| Bismuth    | 209-1 | 12888351 | 12560270 | 12446949 | 12631857 | 1.81   | cps   |
| Bismuth    | 209-2 | 9314556  | 9221485  | 9369313  | 9301785  | 0.80   | cps   |
| Bromine    | 81-1  | 17140    | 16806    | 16473    | 16806    | 1.99   | cps   |
| Bromine    | 81-2  | 237      | 270      | 327      | 278      | 16.38  | cps   |
| Cadmium    | 108-1 | 13       | 23       | 27       | 21       | 32.88  | cps   |
| Cadmium    | 106-1 | 5504     | 4831     | 5108     | 5148     | 6.58   | cps   |
| Cadmium    | 111-1 | 1245     | 1040     | 1170     | 1151     | 9.01   | cps   |
| Calcium    | 43-1  | 1070     | 1110     | 3510     | 1897     | 73.66  | cps   |
| Calcium    | 44-1  | 28250    | 27081    | 53810    | 36380    | 41.52  | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2890     | 2860     | 2804     | 2851     | 1.54   | cps   |
| Cobalt     | 59-2  | 533      | 577      | 597      | 569      | 5.69   | cps   |
| Copper     | 63-2  | 2947     | 2747     | 2970     | 2888     | 4.25   | cps   |
| Dysprosium | 156-1 | 30       | 10       | 20       | 20       | 50.00  | cps   |
| Dysprosium | 156-2 | 7        | 27       | 0        | 11       | 124.89 | cps   |
| Erbium     | 164-1 | 103      | 83       | 73       | 87       | 17.63  | cps   |
| Erbium     | 164-2 | 27       | 77       | 60       | 54       | 46.76  | cps   |
| Gadolinium | 160-1 | 80       | 70       | 70       | 73       | 7.87   | cps   |
| Gadolinium | 160-2 | 773      | 973      | 803      | 850      | 12.69  | cps   |
| Holmium    | 165-1 | 20937788 | 20113810 | 20004197 | 20351932 | 2.51   | cps   |
| Holmium    | 165-2 | 13745681 | 13443895 | 13632009 | 13607195 | 1.12   | cps   |
| Indium     | 115-1 | 16719903 | 16274630 | 16434056 | 16476196 | 1.37   | cps   |
| Indium     | 115-2 | 6122850  | 6114520  | 6169753  | 6135708  | 0.49   | cps   |
| Iron       | 56-2  | 58773    | 60676    | 64617    | 61355    | 4.86   | cps   |
| Iron       | 57-2  | 2290     | 2387     | 2464     | 2380     | 3.65   | cps   |
| Iron       | 54-2  | 5088     | 5478     | 5498     | 5354     | 4.32   | cps   |
| Krypton    | 83-1  | 450      | 320      | 273      | 348      | 26.32  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB02 Instrumnet Name : P7  
Client Sample ID : CCB02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:27:22 DataFile Name : 037CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 6195     | 6148     | 6185     | 6176     | 0.40   | cps   |
| Lead       | 207-1 | 5108     | 5241     | 5174     | 5174     | 1.29   | cps   |
| Lead       | 208-1 | 23842    | 23748    | 23692    | 23761    | 0.32   | cps   |
| Lithium    | 6-1   | 1811545  | 1735861  | 1724911  | 1757439  | 2.68   | cps   |
| Magnesium  | 24-2  | 5518     | 5945     | 6435     | 5966     | 7.69   | cps   |
| Manganese  | 55-2  | 1687     | 1697     | 1697     | 1693     | 0.34   | cps   |
| Molybdenum | 94-1  | 1643     | 1317     | 1907     | 1622     | 18.23  | cps   |
| Molybdenum | 95-1  | 1773     | 1537     | 2318     | 1876     | 21.34  | cps   |
| Molybdenum | 96-1  | 2010     | 1763     | 2785     | 2186     | 24.38  | cps   |
| Molybdenum | 97-1  | 1157     | 803      | 1214     | 1058     | 21.01  | cps   |
| Molybdenum | 98-1  | 2910     | 2280     | 2951     | 2714     | 13.86  | cps   |
| Neodymium  | 150-1 | 17       | 13       | 13       | 14       | 13.35  | cps   |
| Neodymium  | 150-2 | 7        | 3        | 7        | 6        | 34.70  | cps   |
| Nickel     | 60-2  | 1030     | 927      | 1023     | 993      | 5.82   | cps   |
| Phosphorus | 31-2  | 417      | 377      | 370      | 388      | 6.51   | cps   |
| Potassium  | 39-2  | 78641    | 78689    | 79851    | 79060    | 0.87   | cps   |
| Rhodium    | 103-1 | 15852802 | 15423494 | 15421055 | 15565784 | 1.60   | cps   |
| Rhodium    | 103-2 | 9535988  | 9424981  | 9570324  | 9510431  | 0.80   | cps   |
| Scandium   | 45-1  | 8586097  | 8281391  | 8354039  | 8407176  | 1.89   | cps   |
| Scandium   | 45-2  | 805032   | 808567   | 802251   | 805283   | 0.39   | cps   |
| Selenium   | 82-1  | 641      | 639      | 698      | 660      | 5.08   | cps   |
| Selenium   | 77-2  | 7        | 0        | 3        | 3        | 100.05 | cps   |
| Selenium   | 78-2  | 593      | 597      | 593      | 594      | 0.32   | cps   |
| Silicon    | 28-1  | 708139   | 707369   | 726265   | 713924   | 1.50   | cps   |
| Silver     | 107-1 | 713      | 667      | 703      | 694      | 3.54   | cps   |
| Silver     | 109-1 | 603      | 590      | 560      | 584      | 3.80   | cps   |
| Sodium     | 23-2  | 42084    | 42539    | 42963    | 42529    | 1.03   | cps   |
| Strontium  | 86-1  | 763      | 733      | 750      | 749      | 2.01   | cps   |
| Strontium  | 88-1  | 1573     | 1463     | 2702     | 1913     | 35.84  | cps   |
| Sulfur     | 34-1  | 233513   | 234562   | 234861   | 234312   | 0.30   | cps   |
| Terbium    | 159-1 | 21252203 | 20787435 | 20478496 | 20839378 | 1.87   | cps   |
| Terbium    | 159-2 | 13960436 | 13792175 | 13687513 | 13813375 | 1.00   | cps   |
| Thallium   | 203-1 | 4034     | 3754     | 3797     | 3862     | 3.90   | cps   |
| Thallium   | 205-1 | 9257     | 9583     | 8996     | 9279     | 3.17   | cps   |
| Tin        | 118-1 | 4117     | 4137     | 3867     | 4041     | 3.72   | cps   |
| Titanium   | 47-1  | 430      | 340      | 1949     | 906      | 99.76  | cps   |

LB Number :

LB133721

Operator :

Jaswal

Lab Sample ID :

CCB02

Instrumnet Name :

P7

Client Sample ID :

CCB02

Dilution Factor :

1

Date & Time Acquired :

2024-12-03 15:27:22

DataFile Name :

037CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 797      | 630      | 987      | 805      | 22.19  | cps   |
| Vanadium  | 51-2  | 170      | 150      | 213      | 178      | 18.21  | cps   |
| Yttrium   | 89-1  | 19376476 | 18962437 | 19016951 | 19118621 | 1.18   | cps   |
| Yttrium   | 89-2  | 5344399  | 5325880  | 5372422  | 5347567  | 0.44   | cps   |
| Zinc      | 66-2  | 1330     | 1353     | 1457     | 1380     | 4.89   | cps   |
| Zirconium | 90-1  | 1567     | 1560     | 1720     | 1616     | 5.60   | cps   |
| Zirconium | 91-1  | 347      | 303      | 333      | 328      | 6.77   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOIL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:33:14 DataFile Name : 038SMPL.d

| Parameter  | Mass  | CPS1       | CPS2       | CPS3       | CPSMean    | CPSRSD | Units |
|------------|-------|------------|------------|------------|------------|--------|-------|
| Aluminium  | 27-2  | 62260391   | 61485592   | 60534376   | 61426786   | 1.41   | cps   |
| Antimony   | 121-1 | 13249498   | 13247859   | 13105847   | 13201068   | 0.62   | cps   |
| Arsenic    | 75-2  | 1287794    | 1272359    | 1267795    | 1275983    | 0.82   | cps   |
| Barium     | 135-1 | 20596128   | 20835321   | 20430616   | 20620688   | 0.99   | cps   |
| Barium     | 137-1 | 35695270   | 36127646   | 35527493   | 35783470   | 0.87   | cps   |
| Beryllium  | 9-1   | 2711924    | 2525901    | 2398226    | 2545351    | 6.20   | cps   |
| Bismuth    | 209-1 | 13927411   | 13744744   | 13650445   | 13774200   | 1.02   | cps   |
| Bismuth    | 209-2 | 9216511    | 9180943    | 9093408    | 9163621    | 0.69   | cps   |
| Bromine    | 81-1  | 46142      | 49105      | 50365      | 48537      | 4.47   | cps   |
| Bromine    | 81-2  | 7045       | 7275       | 7522       | 7281       | 3.28   | cps   |
| Cadmium    | 108-1 | 338003     | 336715     | 338723     | 337814     | 0.30   | cps   |
| Cadmium    | 106-1 | 471770     | 476797     | 473307     | 473958     | 0.54   | cps   |
| Cadmium    | 111-1 | 4808351    | 4779324    | 4823869    | 4803848    | 0.47   | cps   |
| Calcium    | 43-1  | 3647660    | 3546863    | 3495668    | 3563397    | 2.17   | cps   |
| Calcium    | 44-1  | 58783939   | 57520319   | 56194858   | 57499705   | 2.25   | cps   |
| Carbon     | 12-1  |            |            |            |            |        | cps   |
| Carbon     | 12-2  |            |            |            |            |        | cps   |
| Chlorine   | 35-1  |            |            |            |            |        | cps   |
| Chlorine   | 35-2  |            |            |            |            |        | cps   |
| Chromium   | 52-2  | 30249357   | 29980116   | 29986140   | 30071871   | 0.51   | cps   |
| Cobalt     | 59-2  | 16071407   | 15783048   | 15738666   | 15864374   | 1.14   | cps   |
| Copper     | 63-2  | 31835531   | 31807425   | 31692863   | 31778606   | 0.24   | cps   |
| Dysprosium | 156-1 | 658344     | 666618     | 658293     | 661085     | 0.72   | cps   |
| Dysprosium | 156-2 | 524845     | 522831     | 521134     | 522936     | 0.36   | cps   |
| Erbium     | 164-1 | 545874     | 550752     | 551125     | 549250     | 0.53   | cps   |
| Erbium     | 164-2 | 346265     | 340413     | 341543     | 342740     | 0.91   | cps   |
| Gadolinium | 160-1 | 615440     | 623831     | 619705     | 619658     | 0.68   | cps   |
| Gadolinium | 160-2 | 410813     | 407643     | 409739     | 409398     | 0.39   | cps   |
| Holmium    | 165-1 | 23549610   | 23751220   | 23786335   | 23695721   | 0.54   | cps   |
| Holmium    | 165-2 | 14580984   | 14672829   | 14645817   | 14633210   | 0.32   | cps   |
| Indium     | 115-1 | 17384628   | 17295840   | 17244887   | 17308451   | 0.41   | cps   |
| Indium     | 115-2 | 5890501    | 5852097    | 5816340    | 5852979    | 0.63   | cps   |
| Iron       | 56-2  | 1163079183 | 1153672996 | 1145967316 | 1154239832 | 0.74   | cps   |
| Iron       | 57-2  | 29140380   | 28424023   | 28720995   | 28761799   | 1.25   | cps   |
| Iron       | 54-2  | 64285087   | 62788159   | 63237881   | 63437042   | 1.21   | cps   |
| Krypton    | 83-1  | 1067       | 1060       | 1090       | 1072       | 1.47   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOIL Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:33:14 DataFile Name : 038SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 39999051  | 40668249  | 40378059  | 40348453  | 0.83   | cps   |
| Lead       | 207-1 | 34897000  | 35227814  | 34610404  | 34911739  | 0.88   | cps   |
| Lead       | 208-1 | 159874353 | 161099492 | 159780174 | 160251340 | 0.46   | cps   |
| Lithium    | 6-1   | 4367583   | 4221873   | 4069541   | 4219666   | 3.53   | cps   |
| Magnesium  | 24-2  | 66023307  | 66175119  | 64535659  | 65578028  | 1.38   | cps   |
| Manganese  | 55-2  | 87491092  | 86431015  | 85851129  | 86591079  | 0.96   | cps   |
| Molybdenum | 94-1  | 12840507  | 12779994  | 12658870  | 12759790  | 0.72   | cps   |
| Molybdenum | 95-1  | 19002123  | 18801723  | 18697236  | 18833694  | 0.82   | cps   |
| Molybdenum | 96-1  | 20698158  | 20747574  | 20533677  | 20659803  | 0.54   | cps   |
| Molybdenum | 97-1  | 11770424  | 11866302  | 11801180  | 11812635  | 0.41   | cps   |
| Molybdenum | 98-1  | 30653501  | 30626418  | 30117801  | 30465907  | 0.99   | cps   |
| Neodymium  | 150-1 | 1188029   | 1205333   | 1191668   | 1195010   | 0.76   | cps   |
| Neodymium  | 150-2 | 654307    | 654973    | 649987    | 653089    | 0.41   | cps   |
| Nickel     | 60-2  | 3979974   | 3909303   | 3926383   | 3938554   | 0.94   | cps   |
| Phosphorus | 31-2  | 167186    | 167688    | 164177    | 166350    | 1.14   | cps   |
| Potassium  | 39-2  | 88728192  | 87544309  | 87389352  | 87887284  | 0.83   | cps   |
| Rhodium    | 103-1 | 15889208  | 15834222  | 15641981  | 15788470  | 0.82   | cps   |
| Rhodium    | 103-2 | 9383434   | 9346151   | 9244109   | 9324565   | 0.77   | cps   |
| Scandium   | 45-1  | 9712585   | 9429362   | 9202741   | 9448229   | 2.70   | cps   |
| Scandium   | 45-2  | 915924    | 903448    | 900890    | 906754    | 0.89   | cps   |
| Selenium   | 82-1  | 827225    | 828672    | 825050    | 826982    | 0.22   | cps   |
| Selenium   | 77-2  | 88851     | 86222     | 86605     | 87226     | 1.63   | cps   |
| Selenium   | 78-2  | 289980    | 284871    | 283334    | 286062    | 1.22   | cps   |
| Silicon    | 28-1  | 227520830 | 213573590 | 207284197 | 216126206 | 4.79   | cps   |
| Silver     | 107-1 | 10396877  | 10399623  | 10383980  | 10393493  | 0.08   | cps   |
| Silver     | 109-1 | 9906925   | 9982046   | 9988348   | 9959106   | 0.45   | cps   |
| Sodium     | 23-2  | 121779248 | 122131365 | 121199918 | 121703510 | 0.39   | cps   |
| Strontium  | 86-1  | 23048967  | 22934109  | 22582891  | 22855322  | 1.06   | cps   |
| Strontium  | 88-1  | 202877250 | 199884817 | 200202657 | 200988241 | 0.82   | cps   |
| Sulfur     | 34-1  | 470497    | 452406    | 433401    | 452101    | 4.10   | cps   |
| Terbium    | 159-1 | 24059270  | 24114118  | 23862938  | 24012109  | 0.55   | cps   |
| Terbium    | 159-2 | 14942380  | 14731383  | 14316805  | 14663523  | 2.17   | cps   |
| Thallium   | 203-1 | 51389331  | 51538529  | 51633713  | 51520524  | 0.24   | cps   |
| Thallium   | 205-1 | 121745362 | 123466521 | 121922378 | 122378087 | 0.77   | cps   |
| Tin        | 118-1 | 16279721  | 16245301  | 16072269  | 16199097  | 0.69   | cps   |
| Titanium   | 47-1  | 11695939  | 11496127  | 11150768  | 11447611  | 2.41   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10Instrumnet Name :P7

Client Sample ID :PT-MET-SOILDilution Factor :1

Date & Time Acquired :2024-12-03 15:33:14DataFile Name :038SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 29848707 | 30156208 | 30104934 | 30036616 | 0.55   | cps   |
| Vanadium  | 51-2  | 22039876 | 21851480 | 21982645 | 21958000 | 0.44   | cps   |
| Yttrium   | 89-1  | 28386786 | 27939347 | 27496860 | 27940998 | 1.59   | cps   |
| Yttrium   | 89-2  | 7255270  | 7186248  | 7210423  | 7217314  | 0.49   | cps   |
| Zinc      | 66-2  | 6121372  | 6171849  | 6067232  | 6120151  | 0.85   | cps   |
| Zirconium | 90-1  | 5418900  | 5256422  | 5232557  | 5302626  | 1.91   | cps   |
| Zirconium | 91-1  | 1193529  | 1184133  | 1179532  | 1185732  | 0.60   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10DLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILDL Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:38:03 DataFile Name : 039SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 12576128  | 12485922  | 12485622  | 12515891  | 0.42   | cps   |
| Antimony   | 121-1 | 2471146   | 2517615   | 2506604   | 2498455   | 0.97   | cps   |
| Arsenic    | 75-2  | 244743    | 244807    | 245827    | 245126    | 0.25   | cps   |
| Barium     | 135-1 | 3785914   | 3895800   | 3906339   | 3862684   | 1.73   | cps   |
| Barium     | 137-1 | 6625814   | 6727999   | 6754881   | 6702898   | 1.02   | cps   |
| Beryllium  | 9-1   | 510668    | 503280    | 503753    | 505900    | 0.82   | cps   |
| Bismuth    | 209-1 | 13355872  | 13106649  | 12997323  | 13153281  | 1.40   | cps   |
| Bismuth    | 209-2 | 9181775   | 9278198   | 9125625   | 9195199   | 0.84   | cps   |
| Bromine    | 81-1  | 21542     | 22190     | 22324     | 22019     | 1.90   | cps   |
| Bromine    | 81-2  | 1617      | 1523      | 1613      | 1585      | 3.34   | cps   |
| Cadmium    | 108-1 | 63618     | 65303     | 65116     | 64679     | 1.43   | cps   |
| Cadmium    | 106-1 | 93709     | 95323     | 94525     | 94519     | 0.85   | cps   |
| Cadmium    | 111-1 | 912246    | 935092    | 933830    | 927056    | 1.39   | cps   |
| Calcium    | 43-1  | 712813    | 726813    | 719286    | 719638    | 0.97   | cps   |
| Calcium    | 44-1  | 10914437  | 11147531  | 11041857  | 11034608  | 1.06   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 5956243   | 5954729   | 6038704   | 5983225   | 0.80   | cps   |
| Cobalt     | 59-2  | 3135641   | 3186803   | 3172289   | 3164911   | 0.83   | cps   |
| Copper     | 63-2  | 6454303   | 6408704   | 6501661   | 6454889   | 0.72   | cps   |
| Dysprosium | 156-1 | 119366    | 122653    | 122650    | 121556    | 1.56   | cps   |
| Dysprosium | 156-2 | 102353    | 100177    | 101282    | 101271    | 1.07   | cps   |
| Erbium     | 164-1 | 98974     | 101542    | 100609    | 100375    | 1.29   | cps   |
| Erbium     | 164-2 | 66293     | 64973     | 66752     | 66006     | 1.40   | cps   |
| Gadolinium | 160-1 | 112033    | 113901    | 115340    | 113758    | 1.46   | cps   |
| Gadolinium | 160-2 | 79869     | 80285     | 79946     | 80033     | 0.28   | cps   |
| Holmium    | 165-1 | 21799111  | 21392232  | 21507811  | 21566385  | 0.97   | cps   |
| Holmium    | 165-2 | 14109613  | 13990202  | 13903065  | 14000960  | 0.74   | cps   |
| Indium     | 115-1 | 16918752  | 16579229  | 16492513  | 16663498  | 1.35   | cps   |
| Indium     | 115-2 | 5878247   | 5936467   | 5945812   | 5920175   | 0.62   | cps   |
| Iron       | 56-2  | 230871263 | 230852270 | 231740363 | 231154632 | 0.22   | cps   |
| Iron       | 57-2  | 5686921   | 5731573   | 5721023   | 5713172   | 0.41   | cps   |
| Iron       | 54-2  | 12818595  | 12793053  | 12799396  | 12803681  | 0.10   | cps   |
| Krypton    | 83-1  | 453       | 417       | 443       | 438       | 4.33   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10DLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILDL Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:38:03 DataFile Name : 039SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 7590895  | 7861136  | 7798971  | 7750334  | 1.83   | cps   |
| Lead       | 207-1 | 6549284  | 6726087  | 6713746  | 6663039  | 1.48   | cps   |
| Lead       | 208-1 | 30091437 | 30860987 | 30789217 | 30580547 | 1.39   | cps   |
| Lithium    | 6-1   | 2134207  | 2083937  | 2037856  | 2085334  | 2.31   | cps   |
| Magnesium  | 24-2  | 13283683 | 13134581 | 13259882 | 13226049 | 0.61   | cps   |
| Manganese  | 55-2  | 17117980 | 17168775 | 17171066 | 17152607 | 0.17   | cps   |
| Molybdenum | 94-1  | 2359145  | 2400036  | 2379158  | 2379446  | 0.86   | cps   |
| Molybdenum | 95-1  | 3511525  | 3531586  | 3578314  | 3540475  | 0.97   | cps   |
| Molybdenum | 96-1  | 3835698  | 3843789  | 3870770  | 3850086  | 0.48   | cps   |
| Molybdenum | 97-1  | 2191855  | 2212649  | 2222135  | 2208880  | 0.70   | cps   |
| Molybdenum | 98-1  | 5608694  | 5709467  | 5763519  | 5693893  | 1.38   | cps   |
| Neodymium  | 150-1 | 215100   | 224621   | 223904   | 221208   | 2.40   | cps   |
| Neodymium  | 150-2 | 127393   | 127167   | 129410   | 127990   | 0.97   | cps   |
| Nickel     | 60-2  | 785119   | 790872   | 792484   | 789492   | 0.49   | cps   |
| Phosphorus | 31-2  | 32662    | 33624    | 33283    | 33189    | 1.47   | cps   |
| Potassium  | 39-2  | 17796712 | 17861390 | 17826176 | 17828093 | 0.18   | cps   |
| Rhodium    | 103-1 | 15820976 | 15270097 | 15488971 | 15526681 | 1.79   | cps   |
| Rhodium    | 103-2 | 9374030  | 9417770  | 9437385  | 9409728  | 0.34   | cps   |
| Scandium   | 45-1  | 8389257  | 8156400  | 8207593  | 8251083  | 1.48   | cps   |
| Scandium   | 45-2  | 812930   | 803402   | 808055   | 808129   | 0.59   | cps   |
| Selenium   | 82-1  | 145309   | 148264   | 147403   | 146992   | 1.03   | cps   |
| Selenium   | 77-2  | 15839    | 16780    | 16259    | 16292    | 2.89   | cps   |
| Selenium   | 78-2  | 53279    | 53085    | 53874    | 53413    | 0.77   | cps   |
| Silicon    | 28-1  | 43238903 | 44037646 | 43322428 | 43532992 | 1.01   | cps   |
| Silver     | 107-1 | 1979359  | 2042960  | 2049521  | 2023947  | 1.91   | cps   |
| Silver     | 109-1 | 1920267  | 1927972  | 1917229  | 1921823  | 0.29   | cps   |
| Sodium     | 23-2  | 24538475 | 24884407 | 24458815 | 24627232 | 0.92   | cps   |
| Strontium  | 86-1  | 4245098  | 4340783  | 4317382  | 4301088  | 1.16   | cps   |
| Strontium  | 88-1  | 37054464 | 37677924 | 37530203 | 37420864 | 0.87   | cps   |
| Sulfur     | 34-1  | 225891   | 221894   | 217846   | 221877   | 1.81   | cps   |
| Terbium    | 159-1 | 22094144 | 21905135 | 22044705 | 22014661 | 0.45   | cps   |
| Terbium    | 159-2 | 14071277 | 14025517 | 13882831 | 13993208 | 0.70   | cps   |
| Thallium   | 203-1 | 9572895  | 9895631  | 9827810  | 9765446  | 1.74   | cps   |
| Thallium   | 205-1 | 22651810 | 23508638 | 23610082 | 23256843 | 2.26   | cps   |
| Tin        | 118-1 | 3088862  | 3144847  | 3113257  | 3115655  | 0.90   | cps   |
| Titanium   | 47-1  | 2154287  | 2165239  | 2170183  | 2163236  | 0.38   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10DLX5Instrumnet Name :P7

Client Sample ID :PT-MET-SOILDLDilution Factor :5

Date & Time Acquired :2024-12-03 15:38:03DataFile Name :039SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 5425746  | 5618240  | 5491864  | 5511950  | 1.77   | cps   |
| Vanadium  | 51-2  | 4382545  | 4429168  | 4380230  | 4397314  | 0.63   | cps   |
| Yttrium   | 89-1  | 20932746 | 20505894 | 20501672 | 20646771 | 1.20   | cps   |
| Yttrium   | 89-2  | 5706091  | 5689675  | 5643703  | 5679823  | 0.57   | cps   |
| Zinc      | 66-2  | 1284935  | 1270087  | 1276481  | 1277168  | 0.58   | cps   |
| Zirconium | 90-1  | 963974   | 988090   | 987591   | 979885   | 1.41   | cps   |
| Zirconium | 91-1  | 215691   | 220356   | 221824   | 219291   | 1.46   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10RE Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:40:48 DataFile Name : 040SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 52541309  | 51794211  | 51240896  | 51858805  | 1.26   | cps   |
| Antimony   | 121-1 | 9329907   | 9501593   | 9398818   | 9410106   | 0.92   | cps   |
| Arsenic    | 75-2  | 1076198   | 1065902   | 1053981   | 1065360   | 1.04   | cps   |
| Barium     | 135-1 | 17064277  | 17279278  | 17288804  | 17210786  | 0.74   | cps   |
| Barium     | 137-1 | 29216080  | 29739480  | 29696679  | 29550746  | 0.98   | cps   |
| Beryllium  | 9-1   | 2137631   | 2040139   | 1986360   | 2054710   | 3.73   | cps   |
| Bismuth    | 209-1 | 13185484  | 13092517  | 13132684  | 13136895  | 0.35   | cps   |
| Bismuth    | 209-2 | 9116697   | 9035155   | 8883748   | 9011866   | 1.31   | cps   |
| Bromine    | 81-1  | 36655     | 38219     | 39279     | 38051     | 3.47   | cps   |
| Bromine    | 81-2  | 5391      | 5531      | 5404      | 5442      | 1.42   | cps   |
| Cadmium    | 108-1 | 280868    | 282151    | 280521    | 281180    | 0.31   | cps   |
| Cadmium    | 106-1 | 395567    | 395640    | 395446    | 395551    | 0.02   | cps   |
| Cadmium    | 111-1 | 3955157   | 3935593   | 3913984   | 3934911   | 0.52   | cps   |
| Calcium    | 43-1  | 2999397   | 2971044   | 2956820   | 2975754   | 0.73   | cps   |
| Calcium    | 44-1  | 47951873  | 47126601  | 47818331  | 47632268  | 0.93   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 26358647  | 25635194  | 25703062  | 25898968  | 1.54   | cps   |
| Cobalt     | 59-2  | 13761346  | 13543716  | 13609359  | 13638140  | 0.82   | cps   |
| Copper     | 63-2  | 27355680  | 27197209  | 27325327  | 27292739  | 0.31   | cps   |
| Dysprosium | 156-1 | 515100    | 527730    | 523610    | 522147    | 1.23   | cps   |
| Dysprosium | 156-2 | 429315    | 424346    | 423338    | 425666    | 0.75   | cps   |
| Erbium     | 164-1 | 446214    | 452550    | 454340    | 451035    | 0.95   | cps   |
| Erbium     | 164-2 | 288871    | 287035    | 285617    | 287174    | 0.57   | cps   |
| Gadolinium | 160-1 | 491251    | 503148    | 500936    | 498445    | 1.27   | cps   |
| Gadolinium | 160-2 | 339503    | 332836    | 335037    | 335792    | 1.01   | cps   |
| Holmium    | 165-1 | 22656318  | 22456004  | 22390771  | 22501031  | 0.62   | cps   |
| Holmium    | 165-2 | 14450231  | 14387094  | 14258895  | 14365406  | 0.68   | cps   |
| Indium     | 115-1 | 16491282  | 16221086  | 16184984  | 16299118  | 1.03   | cps   |
| Indium     | 115-2 | 5772729   | 5747310   | 5720715   | 5746918   | 0.45   | cps   |
| Iron       | 56-2  | 995531852 | 983411372 | 972025586 | 983656270 | 1.20   | cps   |
| Iron       | 57-2  | 24945521  | 24570450  | 24309665  | 24608545  | 1.30   | cps   |
| Iron       | 54-2  | 55415578  | 54014904  | 53949196  | 54459893  | 1.52   | cps   |
| Krypton    | 83-1  | 837       | 950       | 850       | 879       | 7.05   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10RE Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:40:48 DataFile Name : 040SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 34420709  | 35206862  | 35078395  | 34901989  | 1.21   | cps   |
| Lead       | 207-1 | 29483375  | 29850455  | 30161414  | 29831748  | 1.14   | cps   |
| Lead       | 208-1 | 136093525 | 137478176 | 138521633 | 137364445 | 0.89   | cps   |
| Lithium    | 6-1   | 3611593   | 3564666   | 3533873   | 3570044   | 1.10   | cps   |
| Magnesium  | 24-2  | 55482171  | 54345713  | 54345213  | 54724365  | 1.20   | cps   |
| Manganese  | 55-2  | 74709924  | 73774261  | 73160924  | 73881703  | 1.06   | cps   |
| Molybdenum | 94-1  | 10249252  | 10398257  | 10230740  | 10292750  | 0.89   | cps   |
| Molybdenum | 95-1  | 15484239  | 15501104  | 15328764  | 15438036  | 0.62   | cps   |
| Molybdenum | 96-1  | 16860786  | 17005836  | 16818345  | 16894989  | 0.58   | cps   |
| Molybdenum | 97-1  | 9633302   | 9740571   | 9669655   | 9681176   | 0.56   | cps   |
| Molybdenum | 98-1  | 24782242  | 24882604  | 24987207  | 24884018  | 0.41   | cps   |
| Neodymium  | 150-1 | 931275    | 937713    | 937749    | 935579    | 0.40   | cps   |
| Neodymium  | 150-2 | 527547    | 525495    | 524338    | 525793    | 0.31   | cps   |
| Nickel     | 60-2  | 3419013   | 3377410   | 3368578   | 3388334   | 0.79   | cps   |
| Phosphorus | 31-2  | 140347    | 136923    | 136126    | 137798    | 1.63   | cps   |
| Potassium  | 39-2  | 75363087  | 74571557  | 74032059  | 74655568  | 0.90   | cps   |
| Rhodium    | 103-1 | 15162266  | 14734151  | 15048311  | 14981576  | 1.48   | cps   |
| Rhodium    | 103-2 | 9116820   | 9088240   | 9059904   | 9088321   | 0.31   | cps   |
| Scandium   | 45-1  | 8778580   | 8621637   | 8442048   | 8614088   | 1.95   | cps   |
| Scandium   | 45-2  | 862354    | 863336    | 850959    | 858883    | 0.80   | cps   |
| Selenium   | 82-1  | 632805    | 638085    | 640749    | 637213    | 0.63   | cps   |
| Selenium   | 77-2  | 68142     | 69773     | 68143     | 68686     | 1.37   | cps   |
| Selenium   | 78-2  | 228920    | 227756    | 224304    | 226993    | 1.06   | cps   |
| Silicon    | 28-1  | 135416538 | 133597655 | 132770288 | 133928160 | 1.01   | cps   |
| Silver     | 107-1 | 8783639   | 8849048   | 8860417   | 8831035   | 0.47   | cps   |
| Silver     | 109-1 | 8389402   | 8545300   | 8389051   | 8441251   | 1.07   | cps   |
| Sodium     | 23-2  | 105474982 | 103809245 | 102929125 | 104071117 | 1.24   | cps   |
| Strontium  | 86-1  | 19121755  | 19313225  | 19050394  | 19161791  | 0.71   | cps   |
| Strontium  | 88-1  | 167809058 | 170438377 | 167415661 | 168554365 | 0.98   | cps   |
| Sulfur     | 34-1  | 381358    | 374947    | 372467    | 376257    | 1.22   | cps   |
| Terbium    | 159-1 | 22988793  | 22813660  | 22952085  | 22918179  | 0.40   | cps   |
| Terbium    | 159-2 | 14349609  | 14244420  | 14160862  | 14251630  | 0.66   | cps   |
| Thallium   | 203-1 | 43600967  | 44696633  | 43987608  | 44095069  | 1.26   | cps   |
| Thallium   | 205-1 | 104160558 | 104868535 | 105219358 | 104749484 | 0.51   | cps   |
| Tin        | 118-1 | 13244197  | 13405360  | 13446299  | 13365285  | 0.80   | cps   |
| Titanium   | 47-1  | 8379848   | 8410564   | 8234725   | 8341712   | 1.13   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10REInstrumnet Name :P7

Client Sample ID :PT-MET-SOILREDilution Factor :1

Date & Time Acquired :2024-12-03 15:40:48DataFile Name :040SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 25402001 | 26220393 | 25551300 | 25724565 | 1.69   | cps   |
| Vanadium  | 51-2  | 19154632 | 18737124 | 18777783 | 18889846 | 1.22   | cps   |
| Yttrium   | 89-1  | 25469006 | 25717512 | 25201344 | 25462621 | 1.01   | cps   |
| Yttrium   | 89-2  | 6850508  | 6825354  | 6775013  | 6816958  | 0.56   | cps   |
| Zinc      | 66-2  | 5230687  | 5192339  | 5176460  | 5199829  | 0.54   | cps   |
| Zirconium | 90-1  | 4090648  | 4149725  | 4109451  | 4116608  | 0.73   | cps   |
| Zirconium | 91-1  | 918977   | 935807   | 935328   | 930037   | 1.03   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10REDLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:43:24 DataFile Name : 041SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 10858680  | 10944147  | 10800967  | 10867931  | 0.66   | cps   |
| Antimony   | 121-1 | 1839135   | 1888193   | 1878295   | 1868541   | 1.39   | cps   |
| Arsenic    | 75-2  | 217694    | 216459    | 217808    | 217320    | 0.34   | cps   |
| Barium     | 135-1 | 3320461   | 3356501   | 3396980   | 3357981   | 1.14   | cps   |
| Barium     | 137-1 | 5801259   | 5832084   | 5855981   | 5829774   | 0.47   | cps   |
| Beryllium  | 9-1   | 437344    | 443152    | 442685    | 441060    | 0.73   | cps   |
| Bismuth    | 209-1 | 13134952  | 13086148  | 13006688  | 13075930  | 0.50   | cps   |
| Bismuth    | 209-2 | 9346211   | 9337262   | 9119964   | 9267812   | 1.38   | cps   |
| Bromine    | 81-1  | 20398     | 20798     | 20942     | 20712     | 1.36   | cps   |
| Bromine    | 81-2  | 1280      | 1240      | 1227      | 1249      | 2.22   | cps   |
| Cadmium    | 108-1 | 56908     | 58306     | 57400     | 57538     | 1.23   | cps   |
| Cadmium    | 106-1 | 83183     | 83508     | 84550     | 83747     | 0.85   | cps   |
| Cadmium    | 111-1 | 808812    | 818388    | 831253    | 819485    | 1.37   | cps   |
| Calcium    | 43-1  | 626997    | 636370    | 633937    | 632435    | 0.77   | cps   |
| Calcium    | 44-1  | 9650642   | 9727084   | 9802620   | 9726782   | 0.78   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 5293528   | 5350879   | 5319290   | 5321232   | 0.54   | cps   |
| Cobalt     | 59-2  | 2846904   | 2815194   | 2867014   | 2843037   | 0.92   | cps   |
| Copper     | 63-2  | 5720648   | 5699565   | 5721083   | 5713765   | 0.22   | cps   |
| Dysprosium | 156-1 | 100046    | 103253    | 103085    | 102128    | 1.77   | cps   |
| Dysprosium | 156-2 | 85438     | 86813     | 85967     | 86073     | 0.81   | cps   |
| Erbium     | 164-1 | 86753     | 86978     | 87817     | 87183     | 0.64   | cps   |
| Erbium     | 164-2 | 58093     | 57749     | 56490     | 57444     | 1.47   | cps   |
| Gadolinium | 160-1 | 95556     | 95999     | 97738     | 96431     | 1.20   | cps   |
| Gadolinium | 160-2 | 67689     | 69223     | 67719     | 68211     | 1.29   | cps   |
| Holmium    | 165-1 | 21115303  | 21360301  | 21603182  | 21359596  | 1.14   | cps   |
| Holmium    | 165-2 | 14186818  | 14107268  | 13939743  | 14077943  | 0.90   | cps   |
| Indium     | 115-1 | 16712777  | 16455076  | 16676421  | 16614758  | 0.84   | cps   |
| Indium     | 115-2 | 6053787   | 6049962   | 5901924   | 6001891   | 1.44   | cps   |
| Iron       | 56-2  | 204901884 | 202591444 | 204491910 | 203995079 | 0.60   | cps   |
| Iron       | 57-2  | 5069052   | 4982676   | 5011504   | 5021077   | 0.88   | cps   |
| Iron       | 54-2  | 11344319  | 11181966  | 11219116  | 11248467  | 0.76   | cps   |
| Krypton    | 83-1  | 390       | 363       | 357       | 370       | 4.77   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : P4495-10REDLX5 Instrumnet Name : P7  
Client Sample ID : PT-MET-SOILRE Dilution Factor : 5  
Date & Time Acquired : 2024-12-03 15:43:24 DataFile Name : 041SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 6809772  | 6897924  | 6884806  | 6864167  | 0.69   | cps   |
| Lead       | 207-1 | 5837476  | 5967707  | 5944179  | 5916454  | 1.17   | cps   |
| Lead       | 208-1 | 26876814 | 27401158 | 27230989 | 27169654 | 0.98   | cps   |
| Lithium    | 6-1   | 1971847  | 1938752  | 1956248  | 1955616  | 0.85   | cps   |
| Magnesium  | 24-2  | 11317822 | 11558186 | 11449137 | 11441715 | 1.05   | cps   |
| Manganese  | 55-2  | 15339425 | 15157384 | 15190196 | 15229001 | 0.64   | cps   |
| Molybdenum | 94-1  | 2015981  | 2025319  | 2054252  | 2031851  | 0.98   | cps   |
| Molybdenum | 95-1  | 2997452  | 3089581  | 3099742  | 3062258  | 1.84   | cps   |
| Molybdenum | 96-1  | 3321608  | 3359799  | 3373963  | 3351790  | 0.81   | cps   |
| Molybdenum | 97-1  | 1901833  | 1925932  | 1894934  | 1907566  | 0.85   | cps   |
| Molybdenum | 98-1  | 4898630  | 4972255  | 4987423  | 4952769  | 0.96   | cps   |
| Neodymium  | 150-1 | 180081   | 182407   | 184474   | 182321   | 1.21   | cps   |
| Neodymium  | 150-2 | 105743   | 105383   | 106035   | 105720   | 0.31   | cps   |
| Nickel     | 60-2  | 700149   | 696976   | 700088   | 699071   | 0.26   | cps   |
| Phosphorus | 31-2  | 29281    | 28757    | 28987    | 29009    | 0.91   | cps   |
| Potassium  | 39-2  | 15473433 | 15474149 | 15529364 | 15492315 | 0.21   | cps   |
| Rhodium    | 103-1 | 15446724 | 15375455 | 15439477 | 15420552 | 0.25   | cps   |
| Rhodium    | 103-2 | 9466124  | 9520952  | 9387329  | 9458135  | 0.71   | cps   |
| Scandium   | 45-1  | 8048394  | 7998532  | 7931559  | 7992829  | 0.73   | cps   |
| Scandium   | 45-2  | 802485   | 801826   | 802233   | 802181   | 0.04   | cps   |
| Selenium   | 82-1  | 126738   | 128135   | 128492   | 127788   | 0.73   | cps   |
| Selenium   | 77-2  | 13787    | 14507    | 14037    | 14110    | 2.59   | cps   |
| Selenium   | 78-2  | 46807    | 46673    | 46356    | 46612    | 0.50   | cps   |
| Silicon    | 28-1  | 28346537 | 29141271 | 29067599 | 28851802 | 1.52   | cps   |
| Silver     | 107-1 | 1810494  | 1825141  | 1833997  | 1823211  | 0.65   | cps   |
| Silver     | 109-1 | 1737194  | 1740047  | 1745205  | 1740815  | 0.23   | cps   |
| Sodium     | 23-2  | 21809453 | 21826167 | 21738366 | 21791329 | 0.21   | cps   |
| Strontium  | 86-1  | 3730055  | 3811565  | 3849309  | 3796976  | 1.61   | cps   |
| Strontium  | 88-1  | 32829260 | 33204170 | 33049215 | 33027548 | 0.57   | cps   |
| Sulfur     | 34-1  | 204756   | 209185   | 203921   | 205954   | 1.37   | cps   |
| Terbium    | 159-1 | 22027054 | 21738376 | 21855076 | 21873502 | 0.66   | cps   |
| Terbium    | 159-2 | 14151173 | 13898698 | 14063278 | 14037716 | 0.91   | cps   |
| Thallium   | 203-1 | 8595276  | 8738726  | 8779060  | 8704354  | 1.11   | cps   |
| Thallium   | 205-1 | 20623303 | 20827132 | 20750876 | 20733771 | 0.50   | cps   |
| Tin        | 118-1 | 2676094  | 2692948  | 2707301  | 2692114  | 0.58   | cps   |
| Titanium   | 47-1  | 1697633  | 1708745  | 1737549  | 1714642  | 1.20   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :P4495-10REDLX5Instrumnet Name :P7

Client Sample ID :PT-MET-SOILREDilution Factor :5

Date & Time Acquired :2024-12-03 15:43:24DataFile Name :041SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 4910311  | 4970323  | 5044706  | 4975113  | 1.35   | cps   |
| Vanadium  | 51-2  | 3864172  | 3850458  | 3822443  | 3845691  | 0.55   | cps   |
| Yttrium   | 89-1  | 20244867 | 20131128 | 20308135 | 20228043 | 0.44   | cps   |
| Yttrium   | 89-2  | 5639025  | 5670944  | 5586923  | 5632297  | 0.75   | cps   |
| Zinc      | 66-2  | 1115459  | 1110168  | 1114815  | 1113481  | 0.26   | cps   |
| Zirconium | 90-1  | 797483   | 816125   | 821485   | 811698   | 1.55   | cps   |
| Zirconium | 91-1  | 180859   | 183714   | 182462   | 182345   | 0.78   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV03 Instrumnet Name : P7  
Client Sample ID : CCV03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:46:11 DataFile Name : 042CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 21152990  | 20727945  | 20858404  | 20913113  | 1.04   | cps   |
| Antimony   | 121-1 | 10229851  | 10316085  | 10288615  | 10278184  | 0.43   | cps   |
| Arsenic    | 75-2  | 557160    | 552367    | 551866    | 553798    | 0.53   | cps   |
| Barium     | 135-1 | 12350923  | 12429744  | 12329218  | 12369962  | 0.43   | cps   |
| Barium     | 137-1 | 21370678  | 21527585  | 21751836  | 21550033  | 0.89   | cps   |
| Beryllium  | 9-1   | 698074    | 715403    | 717722    | 710400    | 1.51   | cps   |
| Bismuth    | 209-1 | 12270692  | 12138016  | 12173979  | 12194229  | 0.56   | cps   |
| Bismuth    | 209-2 | 8650508   | 8638957   | 8568842   | 8619435   | 0.51   | cps   |
| Bromine    | 81-1  | 16679     | 16623     | 16599     | 16634     | 0.25   | cps   |
| Bromine    | 81-2  | 163       | 133       | 153       | 150       | 10.18  | cps   |
| Cadmium    | 108-1 | 191115    | 194647    | 192931    | 192898    | 0.92   | cps   |
| Cadmium    | 106-1 | 273848    | 277080    | 279927    | 276952    | 1.10   | cps   |
| Cadmium    | 111-1 | 2471500   | 2513977   | 2525876   | 2503784   | 1.14   | cps   |
| Calcium    | 43-1  | 10896687  | 11118205  | 11111059  | 11041984  | 1.14   | cps   |
| Calcium    | 44-1  | 176527717 | 179769957 | 180690631 | 178996102 | 1.22   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 3869019   | 3842849   | 3894296   | 3868721   | 0.66   | cps   |
| Cobalt     | 59-2  | 6414565   | 6519719   | 6427137   | 6453807   | 0.89   | cps   |
| Copper     | 63-2  | 45401788  | 45724163  | 45468538  | 45531496  | 0.37   | cps   |
| Dysprosium | 156-1 | 563       | 607       | 607       | 592       | 4.23   | cps   |
| Dysprosium | 156-2 | 943       | 923       | 897       | 921       | 2.54   | cps   |
| Erbium     | 164-1 | 600       | 647       | 637       | 628       | 3.91   | cps   |
| Erbium     | 164-2 | 347       | 403       | 397       | 382       | 8.10   | cps   |
| Gadolinium | 160-1 | 523       | 590       | 483       | 532       | 10.12  | cps   |
| Gadolinium | 160-2 | 987       | 977       | 950       | 971       | 1.95   | cps   |
| Holmium    | 165-1 | 21350045  | 20985656  | 21215270  | 21183657  | 0.87   | cps   |
| Holmium    | 165-2 | 13880991  | 13854511  | 13710491  | 13815331  | 0.66   | cps   |
| Indium     | 115-1 | 15816661  | 15704616  | 15731330  | 15750869  | 0.37   | cps   |
| Indium     | 115-2 | 5764925   | 5696983   | 5647325   | 5703078   | 1.04   | cps   |
| Iron       | 56-2  | 869676254 | 867886227 | 864520014 | 867360832 | 0.30   | cps   |
| Iron       | 57-2  | 21770661  | 21855473  | 21881464  | 21835866  | 0.27   | cps   |
| Iron       | 54-2  | 47926018  | 47208769  | 47476836  | 47537208  | 0.76   | cps   |
| Krypton    | 83-1  | 350       | 273       | 307       | 310       | 12.40  | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCV03 Instrumnet Name : P7  
Client Sample ID : CCV03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:46:11 DataFile Name : 042CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 38363818  | 39120939  | 38730438  | 38738398  | 0.98   | cps   |
| Lead       | 207-1 | 33874526  | 34209284  | 34320730  | 34134847  | 0.68   | cps   |
| Lead       | 208-1 | 154310809 | 155348781 | 155421697 | 155027096 | 0.40   | cps   |
| Lithium    | 6-1   | 1501996   | 1466607   | 1502381   | 1490328   | 1.38   | cps   |
| Magnesium  | 24-2  | 171820484 | 172119984 | 171159431 | 171699966 | 0.29   | cps   |
| Manganese  | 55-2  | 30778430  | 30649877  | 30681680  | 30703329  | 0.22   | cps   |
| Molybdenum | 94-1  | 34604524  | 34979804  | 35110165  | 34898164  | 0.75   | cps   |
| Molybdenum | 95-1  | 49704366  | 50028803  | 50622906  | 50118691  | 0.93   | cps   |
| Molybdenum | 96-1  | 54463384  | 55363719  | 55145256  | 54990786  | 0.85   | cps   |
| Molybdenum | 97-1  | 31149793  | 31417932  | 31686450  | 31418058  | 0.85   | cps   |
| Molybdenum | 98-1  | 79904060  | 81349749  | 81686097  | 80979969  | 1.17   | cps   |
| Neodymium  | 150-1 | 850       | 830       | 840       | 840       | 1.19   | cps   |
| Neodymium  | 150-2 | 243       | 240       | 267       | 250       | 5.81   | cps   |
| Nickel     | 60-2  | 1629228   | 1627112   | 1642517   | 1632952   | 0.51   | cps   |
| Phosphorus | 31-2  | 204071    | 199898    | 201269    | 201746    | 1.05   | cps   |
| Potassium  | 39-2  | 106371242 | 104878892 | 104267192 | 105172442 | 1.03   | cps   |
| Rhodium    | 103-1 | 14427656  | 14256137  | 14212783  | 14298859  | 0.79   | cps   |
| Rhodium    | 103-2 | 8774325   | 8710531   | 8605735   | 8696863   | 0.98   | cps   |
| Scandium   | 45-1  | 7981688   | 7874354   | 7927818   | 7927953   | 0.68   | cps   |
| Scandium   | 45-2  | 776926    | 777619    | 771303    | 775283    | 0.45   | cps   |
| Selenium   | 82-1  | 151613    | 153334    | 153090    | 152679    | 0.61   | cps   |
| Selenium   | 77-2  | 16556     | 16509     | 16533     | 16533     | 0.14   | cps   |
| Selenium   | 78-2  | 57046     | 57023     | 55082     | 56384     | 2.00   | cps   |
| Silicon    | 28-1  | 21116008  | 22025663  | 21954445  | 21698705  | 2.33   | cps   |
| Silver     | 107-1 | 12712513  | 13009874  | 12925506  | 12882631  | 1.19   | cps   |
| Silver     | 109-1 | 12068734  | 12237123  | 12329486  | 12211781  | 1.08   | cps   |
| Sodium     | 23-2  | 265077249 | 261983963 | 261999323 | 263020178 | 0.68   | cps   |
| Strontium  | 86-1  | 3034228   | 3088261   | 3033054   | 3051848   | 1.03   | cps   |
| Strontium  | 88-1  | 26658729  | 26582519  | 26811951  | 26684400  | 0.44   | cps   |
| Sulfur     | 34-1  | 765045    | 772528    | 783854    | 773809    | 1.22   | cps   |
| Terbium    | 159-1 | 21641187  | 21338408  | 21380525  | 21453373  | 0.76   | cps   |
| Terbium    | 159-2 | 14055880  | 13762677  | 13645941  | 13821499  | 1.53   | cps   |
| Thallium   | 203-1 | 9723883   | 9537642   | 9759594   | 9673706   | 1.23   | cps   |
| Thallium   | 205-1 | 23111541  | 23186330  | 23037402  | 23111758  | 0.32   | cps   |
| Tin        | 118-1 | 8184789   | 8368193   | 8291154   | 8281378   | 1.11   | cps   |
| Titanium   | 47-1  | 10496972  | 10805168  | 10644957  | 10649032  | 1.45   | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCV03Instrumnet Name :P7

Client Sample ID :CCV03Dilution Factor :1

Date & Time Acquired :2024-12-03 15:46:11DataFile Name :042CCV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 31894390 | 32066181 | 32167804 | 32042792 | 0.43   | cps   |
| Vanadium  | 51-2  | 3427660  | 3405359  | 3413667  | 3415562  | 0.33   | cps   |
| Yttrium   | 89-1  | 18946168 | 18681439 | 18913645 | 18847084 | 0.77   | cps   |
| Yttrium   | 89-2  | 5293553  | 5235241  | 5193491  | 5240761  | 0.96   | cps   |
| Zinc      | 66-2  | 7656881  | 7522432  | 7508668  | 7562660  | 1.08   | cps   |
| Zirconium | 90-1  | 16811857 | 16998425 | 17023641 | 16944641 | 0.68   | cps   |
| Zirconium | 91-1  | 3768714  | 3754555  | 3752546  | 3758605  | 0.23   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB03 Instrumnet Name : P7  
Client Sample ID : CCB03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:53:54 DataFile Name : 043CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1327     | 1640     | 2624     | 1863     | 36.31  | cps   |
| Antimony   | 121-1 | 1980     | 1660     | 1587     | 1742     | 12.01  | cps   |
| Arsenic    | 75-2  | 33       | 43       | 83       | 53       | 49.61  | cps   |
| Barium     | 135-1 | 897      | 490      | 563      | 650      | 33.35  | cps   |
| Barium     | 137-1 | 1487     | 857      | 960      | 1101     | 30.69  | cps   |
| Beryllium  | 9-1   | 327      | 313      | 310      | 317      | 2.78   | cps   |
| Bismuth    | 209-1 | 12663415 | 12793511 | 12619356 | 12692094 | 0.71   | cps   |
| Bismuth    | 209-2 | 9321507  | 9501260  | 9326523  | 9383097  | 1.09   | cps   |
| Bromine    | 81-1  | 16252    | 16393    | 15819    | 16155    | 1.85   | cps   |
| Bromine    | 81-2  | 263      | 253      | 213      | 243      | 10.87  | cps   |
| Cadmium    | 108-1 | 30       | 17       | 10       | 19       | 53.91  | cps   |
| Cadmium    | 106-1 | 4781     | 4754     | 4364     | 4633     | 5.04   | cps   |
| Cadmium    | 111-1 | 1199     | 1159     | 1022     | 1127     | 8.20   | cps   |
| Calcium    | 43-1  | 1307     | 1127     | 1097     | 1177     | 9.65   | cps   |
| Calcium    | 44-1  | 31096    | 26196    | 27158    | 28150    | 9.22   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 2990     | 3294     | 3224     | 3169     | 5.01   | cps   |
| Cobalt     | 59-2  | 457      | 650      | 653      | 587      | 19.19  | cps   |
| Copper     | 63-2  | 3060     | 3070     | 4001     | 3377     | 15.99  | cps   |
| Dysprosium | 156-1 | 40       | 30       | 33       | 34       | 14.78  | cps   |
| Dysprosium | 156-2 | 7        | 20       | 27       | 18       | 57.27  | cps   |
| Erbium     | 164-1 | 67       | 90       | 100      | 86       | 19.99  | cps   |
| Erbium     | 164-2 | 93       | 60       | 60       | 71       | 27.06  | cps   |
| Gadolinium | 160-1 | 87       | 67       | 87       | 80       | 14.43  | cps   |
| Gadolinium | 160-2 | 780      | 747      | 697      | 741      | 5.66   | cps   |
| Holmium    | 165-1 | 20256248 | 20221649 | 20168006 | 20215301 | 0.22   | cps   |
| Holmium    | 165-2 | 13611878 | 13744842 | 13658468 | 13671729 | 0.49   | cps   |
| Indium     | 115-1 | 16456909 | 16191888 | 16467584 | 16372127 | 0.95   | cps   |
| Indium     | 115-2 | 5984340  | 6089165  | 6021892  | 6031799  | 0.88   | cps   |
| Iron       | 56-2  | 58010    | 64603    | 85407    | 69340    | 20.62  | cps   |
| Iron       | 57-2  | 2033     | 2294     | 2664     | 2330     | 13.59  | cps   |
| Iron       | 54-2  | 4914     | 5608     | 6902     | 5808     | 17.37  | cps   |
| Krypton    | 83-1  | 327      | 273      | 297      | 299      | 8.94   | cps   |

LB Number : LB133721 Operator : Jaswal  
Lab Sample ID : CCB03 Instrumnet Name : P7  
Client Sample ID : CCB03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-03 15:53:54 DataFile Name : 043CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 11108    | 11412    | 11248    | 11256    | 1.35   | cps   |
| Lead       | 207-1 | 10201    | 9277     | 9724     | 9734     | 4.75   | cps   |
| Lead       | 208-1 | 46048    | 43197    | 44238    | 44494    | 3.24   | cps   |
| Lithium    | 6-1   | 1591029  | 1571112  | 1593600  | 1585247  | 0.78   | cps   |
| Magnesium  | 24-2  | 4777     | 5631     | 8192     | 6200     | 28.66  | cps   |
| Manganese  | 55-2  | 2100     | 2277     | 2910     | 2429     | 17.54  | cps   |
| Molybdenum | 94-1  | 2394     | 1667     | 1637     | 1899     | 22.57  | cps   |
| Molybdenum | 95-1  | 2787     | 1690     | 1927     | 2135     | 27.04  | cps   |
| Molybdenum | 96-1  | 3220     | 1867     | 2124     | 2404     | 29.91  | cps   |
| Molybdenum | 97-1  | 1797     | 1047     | 1023     | 1289     | 34.13  | cps   |
| Molybdenum | 98-1  | 4494     | 2774     | 2807     | 3358     | 29.30  | cps   |
| Neodymium  | 150-1 | 23       | 7        | 23       | 18       | 54.11  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 17       | 7        | 132.33 | cps   |
| Nickel     | 60-2  | 903      | 1033     | 987      | 974      | 6.76   | cps   |
| Phosphorus | 31-2  | 317      | 403      | 370      | 363      | 12.03  | cps   |
| Potassium  | 39-2  | 73185    | 75408    | 76330    | 74974    | 2.16   | cps   |
| Rhodium    | 103-1 | 15156389 | 15382421 | 15426774 | 15321861 | 0.95   | cps   |
| Rhodium    | 103-2 | 9507635  | 9468247  | 9371486  | 9449123  | 0.74   | cps   |
| Scandium   | 45-1  | 8074068  | 8051772  | 8118142  | 8081327  | 0.42   | cps   |
| Scandium   | 45-2  | 783118   | 784661   | 786801   | 784860   | 0.24   | cps   |
| Selenium   | 82-1  | 735      | 732      | 775      | 747      | 3.22   | cps   |
| Selenium   | 77-2  | 10       | 0        | 7        | 6        | 91.64  | cps   |
| Selenium   | 78-2  | 560      | 623      | 550      | 578      | 6.88   | cps   |
| Silicon    | 28-1  | 691941   | 689675   | 698575   | 693397   | 0.67   | cps   |
| Silver     | 107-1 | 1063     | 723      | 720      | 836      | 23.61  | cps   |
| Silver     | 109-1 | 777      | 743      | 590      | 703      | 14.16  | cps   |
| Sodium     | 23-2  | 44003    | 44996    | 48857    | 45952    | 5.58   | cps   |
| Strontium  | 86-1  | 900      | 747      | 840      | 829      | 9.32   | cps   |
| Strontium  | 88-1  | 4174     | 2460     | 2700     | 3111     | 29.82  | cps   |
| Sulfur     | 34-1  | 214456   | 216653   | 217370   | 216160   | 0.70   | cps   |
| Terbium    | 159-1 | 20825401 | 20861941 | 20412871 | 20700071 | 1.20   | cps   |
| Terbium    | 159-2 | 13709989 | 13733366 | 13772309 | 13738555 | 0.23   | cps   |
| Thallium   | 203-1 | 3977     | 3394     | 3494     | 3622     | 8.62   | cps   |
| Thallium   | 205-1 | 9587     | 7966     | 8283     | 8612     | 9.98   | cps   |
| Tin        | 118-1 | 3911     | 3787     | 3791     | 3829     | 1.84   | cps   |
| Titanium   | 47-1  | 827      | 417      | 417      | 553      | 42.78  | cps   |

LB Number :LB133721Operator :Jaswal

Lab Sample ID :CCB03Instrumnet Name :P7

Client Sample ID :CCB03Dilution Factor :1

Date & Time Acquired :2024-12-03 15:53:54DataFile Name :043CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 1540     | 760      | 907      | 1069     | 38.78  | cps   |
| Vanadium  | 51-2  | 317      | 317      | 480      | 371      | 25.41  | cps   |
| Yttrium   | 89-1  | 18845128 | 18930583 | 18873151 | 18882954 | 0.23   | cps   |
| Yttrium   | 89-2  | 5250124  | 5295949  | 5240001  | 5262025  | 0.57   | cps   |
| Zinc      | 66-2  | 1287     | 1513     | 1573     | 1458     | 10.37  | cps   |
| Zirconium | 90-1  | 2150     | 1783     | 1783     | 1906     | 11.11  | cps   |
| Zirconium | 91-1  | 437      | 380      | 453      | 423      | 9.08   | cps   |

**SOP ID :** M200.8-Trace Elements-22

**SDG No :** N/A

**Matrix :** SOIL

**Pipette ID:** ICP A

**Balance ID :** M SC-2

**Filter paper ID :** N/A

**pH Strip ID :** N/A

**Hood ID :** #3

**Block ID:** 1. HOT BLOCK #5 2. N/A

**Start Digest Date:** 11/26/2024 **Time :** 12:45 **Temp :** 96 °C

**End Digest Date:** 11/26/2024 **Time :** 14:50 **Temp :** 96 °C

**Digestion tube ID:** M5595

**Block thermometer ID:** MET-DIG. #5

**Dig Technician Signature:** *Jep*

**Supervisor Signature:** *[Signature]*

**Temp :** 1. 96°C 2. N/A

| Standard Name | MLS USED | STD REF. # FROM LOG |
|---------------|----------|---------------------|
| Spike Sol 1   | 0.50     | MP83051             |
| Spike Sol 2   | 1.00     | MP83052             |
| Spike Sol 3   | 1.00     | MP83053             |
| Spike Sol 4   | 1.00     | MP83054             |
| N/A           | N/A      | N/A                 |

| Chemical Used | ML/SAMPLE USED | Lot Number |
|---------------|----------------|------------|
| Conc. HNO3    | 3.00           | M6126      |
| 1:1 HCL       | 5.00           | MP83105    |
| 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 #5 CELL #34 :96

| Date / Time    | Prepped Sample Relinquished By/Location | Received By/Location |
|----------------|-----------------------------------------|----------------------|
| 11/26/24 15:00 | <i>Jep Metdig.</i>                      | <i>[Signature]</i>   |
|                | Preparation Group                       | Analysis Group       |

| Lab Sample ID | Client Sample ID | pH  | Initial Weight (g) | Final Vol (ml) | Color Before | Color After | Texture | Artifact | Comment                   | Prep Pos |
|---------------|------------------|-----|--------------------|----------------|--------------|-------------|---------|----------|---------------------------|----------|
| P4495-10      | PT-MET-SOIL      | N/A | 1.26               | 100            | Gray         | Light Gray  | Medium  | N/A      | N/A                       | 24       |
| PB165241BL    | PBS241           | N/A | 1.00               | 100            | Colorless    | Colorless   | Fine    | N/A      | N/A                       | 25       |
| PB165241BS    | LCS241           | N/A | 1.00               | 100            | Colorless    | Colorless   | Fine    | N/A      | MP83051,MP83052,MP83053,N | 26       |

WORKLIST(Hardcopy Internal Chain)

Worklist Name : PB165241

Worklist ID : 185748

Department : Digestion

Date : 11-25-2024 11:58:35

| Sample   | Customer Sample | Matrix | Test          | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|---------------|--------------|----------|-----------------------------|--------------|--------|
| P4495-10 | PT-MET-SOIL     | Solid  | Metals Group3 | Cool 4 deg C | CHEM02   | QA 01                       | 10/21/2024   | 6020B  |

7

Date/Time

11/28/24 12:25

Raw Sample Received by:

Raw Sample Relinquished by:

JP (initials)  
SA Webster

Date/Time

11/26/2024

13:14

Raw Sample Received by:

Raw Sample Relinquished by:

JP (initials)  
JP (initials)

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| Lab ID   | Client SampleID  | Dish # | Dish Wt (g) (A) | Sample Wt (g) | Dish + Sample Wt (g) (B) | Dish+Dry Sample Wt (g) (C) | % Solid | Comments   |
|----------|------------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|------------|
| P4488-09 | HCC-1            | 1      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oil sample |
| P4488-10 | HCC-2            | 2      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oil sample |
| P4495-01 | PT-AN-SOIL       | 3      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-02 | PT-CORR-SOIL     | 4      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-03 | PT-CN-SOIL       | 5      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-04 | PT-CN-SOIL       | 6      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-05 | PT-FP-SOIL       | 7      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-06 | PT-CR6-SOIL      | 8      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-07 | PT-NUT-SOIL      | 9      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-08 | PT-NUT-SOIL      | 10     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-09 | PT-OGP-SOIL      | 11     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-10 | PT-MET-SOIL      | 12     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-11 | PT-BNA-SOIL      | 13     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-12 | PT-TRIAZINE-SOIL | 14     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-13 | PT-PAH-SOIL      | 15     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-14 | PT-DIES-SOIL     | 16     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-15 | PT-GAS-SOIL      | 17     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-16 | PT-NJEPH-SOIL    | 18     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-17 | PT-HERB-SOIL     | 19     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-18 | PT-PCB-SOIL      | 20     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-19 | PT-PCBO-SOIL     | 21     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-20 | PT-PEST-SOIL     | 22     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-21 | PT-CHLR-SOIL     | 23     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-22 | PT-TXP-SOIL      | 24     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-23 | PT-VOA-SOIL      | 25     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4495-24 | PT-SOL-SOIL      | 26     | 0.92            | 8.80          | 9.72                     | 7.58                       | 75.7    |            |
| P4495-25 | PT-NO2-SOIL      | 27     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   |            |
| P4508-01 | TP-3             | 28     | 1.14            | 8.38          | 9.52                     | 8.64                       | 89.5    |            |

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| Lab ID   | Client SampleID | Dish # | Dish Wt (g) (A) | Sample Wt (g) | Dish + Sample Wt (g) (B) | Dish+Dry Sample Wt (g) (C) | % Solid | Comments |
|----------|-----------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|----------|
| P4508-02 | TP-3-EPH        | 29     | 1.15            | 8.81          | 9.96                     | 9.22                       | 91.6    |          |
| P4508-03 | TP-3-VOC        | 30     | 1.15            | 8.66          | 9.81                     | 8.88                       | 89.3    |          |
| P4508-05 | BP-F23          | 31     | 1.15            | 8.82          | 9.97                     | 9.22                       | 91.5    |          |
| P4508-06 | BP-F23-EPH      | 32     | 1.14            | 8.83          | 9.97                     | 9.29                       | 92.3    |          |
| P4508-07 | BP-F23-VOC      | 33     | 1.15            | 8.40          | 9.55                     | 8.61                       | 88.8    |          |
| P4508-09 | BP-F22          | 34     | 1.18            | 8.78          | 9.96                     | 9.15                       | 90.8    |          |
| P4508-10 | BP-F22-EPH      | 35     | 1.15            | 8.70          | 9.85                     | 8.98                       | 90.0    |          |
| P4508-11 | BP-F22-VOC      | 36     | 1.16            | 8.60          | 9.76                     | 8.68                       | 87.4    |          |
| P4509-02 | AU-06-10232024  | 37     | 1.12            | 8.82          | 9.94                     | 9.44                       | 94.3    |          |
| P4510-01 | FDH119M-1-1     | 38     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-02 | FDH119M-1-2     | 39     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-03 | BC271327-1-1    | 40     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-04 | BC271327-1-2    | 41     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-05 | BC271327-2-1    | 42     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-06 | BC271327-2-2    | 43     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-07 | FDA886K-1-1     | 44     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-08 | FDA886K-1-2     | 45     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-09 | FDA886K-2-1     | 46     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-10 | FDA886K-2-2     | 47     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-11 | HID111K-1-1     | 48     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-12 | HID111K-1-2     | 49     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-13 | HID111K-2-1     | 50     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-14 | HID111K-2-2     | 51     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-15 | HID111K-3-1     | 52     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-16 | HID111K-3-2     | 53     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-17 | FDA563W-1-1     | 54     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-18 | FDA563W-1-2     | 55     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |
| P4510-19 | FDA563W-2-1     | 56     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc     |

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/25/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:20  
Out Date: 10/24/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133085

| Lab ID   | Client SampleID  | Dish # | Dish Wt(g) (A) | Sample Wt(g) | Dish + Sample Wt(g) (B) | Dish+Dry Sample Wt(g) (C) | % Solid | Comments        |
|----------|------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|-----------------|
| P4510-20 | FDA563W-2-2      | 57     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-21 | JEC128C-1-1      | 58     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-22 | JEC128C-1-2      | 59     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-23 | JEC128C-2-1      | 60     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4510-24 | JEC128C-2-2      | 61     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4511-02 | 267              | 62     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4512-03 | VNJ-212          | 63     | 1.15           | 8.81         | 9.96                    | 9.66                      | 96.6    |                 |
| P4512-04 | VNJ-212-E2       | 64     | 1.16           | 8.48         | 9.64                    | 9.39                      | 97.1    |                 |
| P4513-01 | D3683            | 65     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oil sample      |
| P4513-02 | D3694            | 66     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4513-03 | D3695            | 67     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | debris          |
| P4514-01 | BC274653-1-1     | 68     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-02 | BC274653-1-2     | 69     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-03 | BC274767-1-1     | 70     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-04 | BC274767-1-2     | 71     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-05 | BC274767-2-1     | 72     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4514-06 | BC274767-2-2     | 73     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | oilc            |
| P4515-01 | CHVB0783         | 74     | 1.15           | 8.83         | 9.98                    | 5.28                      | 46.8    |                 |
| P4516-01 | 72-11986         | 75     | 1.12           | 8.67         | 9.79                    | 8.93                      | 90.1    |                 |
| P4517-01 | NASSAU-ST-CO     | 76     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-03 | S.JEFFERSON-CO-1 | 77     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-05 | S.JEFFERSON-CO-2 | 78     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |
| P4517-07 | FOREST-ST-CO     | 79     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | CONCRETE sample |

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102324

WorkList ID : 184679

Department : Wet-Chemistry

Date : 10-23-2024 08:16:39

133085

| Sample   | Customer Sample  | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4488-09 | HCC-1            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/22/2024   | Chemtech -SO |
| P4488-10 | HCC-2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/22/2024   | Chemtech -SO |
| P4495-01 | PT-AN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-02 | PT-CORR-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-03 | PT-CN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-04 | PT-CN-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-05 | PT-FP-SOIL       | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-06 | PT-CR6-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-07 | PT-NUT-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-08 | PT-NUT-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-09 | PT-OGH-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-10 | PT-MET-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-11 | PT-BNA-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-12 | PT-TRIAZINE-SOIL | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-13 | PT-PAH-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-14 | PT-DIES-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-15 | PT-GAS-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-16 | PT-NJEPH-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-17 | PT-HERB-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-18 | PT-PCB-SOIL      | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-19 | PT-PCBO-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |

Date/Time 10/23/24 16:00

Raw Sample Received by: JH WCI

Raw Sample Relinquished by: JH WCI

Date/Time 10/23/24 17:30

Raw Sample Received by: JH WCI

Raw Sample Relinquished by: JH WCI

## WORKLIST(Hardcopy Internal Chain)

W 133085

WorkList Name : %1-102324

WorkList ID : 184679

Department : Wet-Chemistry

Date : 10-23-2024 08:16:39

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4495-20 | PT-PEST-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-21 | PT-CHLR-SOIL    | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-22 | PT-TXP-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-23 | PT-VOA-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-24 | PT-SOL-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4495-25 | PT-NO2-SOIL     | Solid  | Percent Solids | Cool 4 deg C | CHEM02   | QA Of                       | 10/21/2024   | Chemtech -SO |
| P4508-01 | TP-3            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-02 | TP-3-EPH        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-03 | TP-3-VOC        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-05 | BP-F23          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-06 | BP-F23-EPH      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-07 | BP-F23-VOC      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-09 | BP-F22          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-10 | BP-F22-EPH      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4508-11 | BP-F22-VOC      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K63                         | 10/23/2024   | Chemtech -SO |
| P4509-02 | AU-06-10232024  | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-01 | FDH119M-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-02 | FDH119M-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-03 | BC271327-1-1    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-04 | BC271327-1-2    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-05 | BC271327-2-1    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

Date/Time

10/23/24

16:00

Raw Sample Received by:

JP WWC

Raw Sample Relinquished by:

JP WWC

Date/Time

10/23/24

17:30

Raw Sample Received by:

JP WWC

Raw Sample Relinquished by:

JP WWC

133085

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102324      WorkList ID : 184679      Department : Wet-Chemistry      Date : 10-23-2024 08:16:39

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4510-06 | BC271327-2-2    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-07 | FDA886K-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-08 | FDA886K-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-09 | FDA886K-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-10 | FDA886K-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-11 | HID111K-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-12 | HID111K-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-13 | HID111K-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-14 | HID111K-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-15 | HID111K-3-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-16 | HID111K-3-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-17 | FDA563W-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-18 | FDA563W-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-19 | FDA563W-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-20 | FDA563W-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-21 | JEC128C-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-22 | JEC128C-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-23 | JEC128C-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4510-24 | JEC128C-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4511-02 | 267             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4512-03 | VNJ-212         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

Date/Time      10/23/24      16:00      Date/Time      10/23/24      17:130

Raw Sample Received by:      JH WWC      Raw Sample Received by:      CP Sin

Raw Sample Relinquished by:      CP Sin      Raw Sample Relinquished by:      JH WWC

## WORKLIST(Hardcopy Internal Chain)

W 133085

WorkList Name : %1-102324

WorkList ID : 184679

Department : Wet-Chemistry

Date : 10-23-2024 08:16:39

| Sample   | Customer Sample  | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P4512-04 | VNJ-212-E2       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-01 | D3683            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-02 | D3694            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4513-03 | D3695            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4514-01 | BC274653-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-02 | BC274653-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-03 | BC274767-1-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-04 | BC274767-1-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-05 | BC274767-2-1     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4514-06 | BC274767-2-2     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K31                         | 10/23/2024   | Chemtech -SO |
| P4515-01 | CHVB0783         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K62                         | 10/23/2024   | Chemtech -SO |
| P4516-01 | 72-11986         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K62                         | 10/23/2024   | Chemtech -SO |
| P4517-01 | NASSAU-ST-CO     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-03 | S.JEFFERSON-CO-1 | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-05 | S.JEFFERSON-CO-2 | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |
| P4517-07 | FOREST-ST-CO     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | K61                         | 10/23/2024   | Chemtech -SO |

Date/Time

10/23/24 16:00

Raw Sample Received by:

W. C. C.

Raw Sample Relinquished by:

C. S.

Date/Time

10/23/24

Raw Sample Received by:

C. S.

Raw Sample Relinquished by:

W. C. C.

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133721**

|                  |                                                                         |              |                       |
|------------------|-------------------------------------------------------------------------|--------------|-----------------------|
| Review By        | Jaswal                                                                  | Review On    | 12/4/2024 11:33:48 AM |
| Supervise By     | Mohan                                                                   | Supervise On | 12/11/2024 3:43:35 AM |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                                        |              |                       |
| ICAL Standard    | MP83014,MP83039,MP83038,MP83036,MP83034,MP83035,MP83035,MP83032,MP83016 |              |                       |
| ICV Standard     | MP83041                                                                 |              |                       |
| CCV Standard     | MP83042                                                                 |              |                       |
| ICSA Standard    | MP83043,MP83044                                                         |              |                       |
| CRI Standard     | MP83038                                                                 |              |                       |
| LCS Standard     |                                                                         |              |                       |
| Chk Standard     | MP83049,MP83050                                                         |              |                       |

| Sr# | SampleId   | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|------------|------------|--------|----------------|---------|----------|--------|
| 1   | TUNE       | TUNE       | TUNE   | 12/03/24 12:33 |         | Jaswal   | OK     |
| 2   | S0         | S0         | CAL1   | 12/03/24 13:12 |         | Jaswal   | OK     |
| 3   | S2         | S2         | CAL3   | 12/03/24 13:15 |         | Jaswal   | OK     |
| 4   | S3         | S3         | CAL4   | 12/03/24 13:18 |         | Jaswal   | OK     |
| 5   | S4         | S4         | CAL5   | 12/03/24 13:21 |         | Jaswal   | OK     |
| 6   | S5         | S5         | CAL6   | 12/03/24 13:24 |         | Jaswal   | OK     |
| 7   | S6         | S6         | CAL7   | 12/03/24 13:27 |         | Jaswal   | OK     |
| 8   | S7         | S7         | CAL8   | 12/03/24 13:29 |         | Jaswal   | OK     |
| 9   | S8         | S8         | CAL9   | 12/03/24 13:32 |         | Jaswal   | OK     |
| 10  | ICV01      | ICV01      | ICV    | 12/03/24 13:47 |         | Jaswal   | OK     |
| 11  | LLICV      | LLICV      | LLICV  | 12/03/24 13:51 |         | Jaswal   | OK     |
| 12  | ICB01      | ICB01      | ICB    | 12/03/24 13:58 |         | Jaswal   | OK     |
| 13  | ICSA01     | ICSA01     | ICSA   | 12/03/24 14:26 |         | Jaswal   | OK     |
| 14  | ICSAB01    | ICSAB01    | ICSAB  | 12/03/24 14:29 |         | Jaswal   | OK     |
| 15  | CCV01      | CCV01      | CCV    | 12/03/24 14:32 |         | Jaswal   | OK     |
| 16  | CCB01      | CCB01      | CCB    | 12/03/24 14:36 |         | Jaswal   | OK     |
| 17  | CRI        | CRI        | CRDL   | 12/03/24 14:44 |         | Jaswal   | OK     |
| 18  | PB165237BL | PB165237BL | MB     | 12/03/24 14:47 | Not USe | Jaswal   | Not Ok |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133721**

|              |        |              |                       |
|--------------|--------|--------------|-----------------------|
| Review By    | Jaswal | Review On    | 12/4/2024 11:33:48 AM |
| Supervise By | Mohan  | Supervise On | 12/11/2024 3:43:35 AM |

| STD. NAME     | STD REF.#                                                               |
|---------------|-------------------------------------------------------------------------|
| ICAL Standard | MP83014,MP83039,MP83038,MP83036,MP83034,MP83035,MP83035,MP83032,MP83016 |
| ICV Standard  | MP83041                                                                 |
| CCV Standard  | MP83042                                                                 |
| ICSA Standard | MP83043,MP83044                                                         |
| CRI Standard  | MP83038                                                                 |
| LCS Standard  |                                                                         |
| Chk Standard  | MP83049,MP83050                                                         |

|    |              |               |     |                |                                       |        |        |
|----|--------------|---------------|-----|----------------|---------------------------------------|--------|--------|
| 19 | PB165237BS   | PB165237BS    | LCS | 12/03/24 14:50 | Not USe                               | Jaswal | Not Ok |
| 20 | PB165238BL   | PB165238BL    | MB  | 12/03/24 14:54 | Not USe                               | Jaswal | Not Ok |
| 21 | PB165238BS   | PB165238BS    | LCS | 12/03/24 14:57 | Not USe                               | Jaswal | Not Ok |
| 22 | PB165241BL   | PB165241BL    | MB  | 12/03/24 15:00 |                                       | Jaswal | OK     |
| 23 | PB165241BS   | PB165241BS    | LCS | 12/03/24 15:03 |                                       | Jaswal | OK     |
| 24 | P4917-04     | MX1010        | SAM | 12/03/24 15:09 | Not USe                               | Jaswal | Not Ok |
| 25 | P4917-04DL   | MX1010DL      | SAM | 12/03/24 15:12 | Not USe                               | Jaswal | Not Ok |
| 26 | P4917-01     | MX1007        | SAM | 12/03/24 15:15 | Not USe                               | Jaswal | Not Ok |
| 27 | CCV02        | CCV02         | CCV | 12/03/24 15:18 |                                       | Jaswal | OK     |
| 28 | CCB02        | CCB02         | CCB | 12/03/24 15:27 |                                       | Jaswal | OK     |
| 29 | P4495-10     | PT-MET-SOIL   | SAM | 12/03/24 15:33 | NOT USE                               | Jaswal | Not Ok |
| 30 | P4495-10DL   | PT-MET-SOILDL | SAM | 12/03/24 15:38 | Straight 5X Dilution For All elements | Jaswal | OK     |
| 31 | P4495-10RE   | PT-MET-SOILRE | SAM | 12/03/24 15:40 | Not USe                               | Jaswal | Not Ok |
| 32 | P4495-10REDL | PT-MET-SOILRE | SAM | 12/03/24 15:43 | Not USe                               | Jaswal | Not Ok |
| 33 | CCV03        | CCV03         | CCV | 12/03/24 15:46 |                                       | Jaswal | OK     |
| 34 | CCB03        | CCB03         | CCB | 12/03/24 15:53 |                                       | Jaswal | OK     |

## Prep Standard - Chemical Standard Summary

**Order ID :** P4495  
**Test :** Metals Group3  
**Prepbatch ID :** PB165241,  
**Sequence ID/Qc Batch ID:** LB133721,

**Standard ID :**  
 MP83014,MP83016,MP83032,MP83033,MP83034,MP83035,MP83036,MP83037,MP83038,MP83039,MP83041,MP83042,MP83043,MP83044,MP83048,MP83049,MP83050,MP83051,MP83052,MP83053,MP83054,MP83105,

**Chemical ID :**  
 M5288,M5294,M5304,M5390,M5476,M5496,M5498,M5513,M5515,M5519,M5658,M5698,M5739,M5751,M5768,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5817,M5818,M5819,M5873,M5874,M5961,M5962,M5976,M5978,M5981,M5982,M5983,M6021,M6023,M6025,M6028,M6030,M6033,M6055,M6095,M6111,M6115,M6126,W3112,

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                      | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>     |
|------------------|----------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|--------------------------|
| 1122             | ICPMS CALIB<br>BLANK(S0/ICB/CCB) | <a href="#">MP83014</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | None             | Mohan Bera<br>11/04/2024 |

**FROM** 25.00000ml of M6095 + 4925.00000ml of W3112 + 50.00000ml of M6115 = Final Quantity: 5000.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>         | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|--------------------------|--------------------------|
| 2902             | S8 ICPMS    | <a href="#">MP83016</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIP<br>ETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 1.00000ml of M6033 + 2.50000ml of M5288 + 2.50000ml of M5515 + 5.00000ml of M5498 + 5.00000ml of M5769 + 5.00000ml of M5806 + 79.00000ml of MP83014 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3947             | S7(SFAM,6020,200.8) | <a href="#">MP83032</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.40000ml of M5513 + 1.00000ml of M5799 + 1.00000ml of M5818 + 1.00000ml of M5981 + 1.00000ml of M5983 + 1.90000ml of M6033 + 10.00000ml of M6115 + 2.00000ml of M5815 + 2.00000ml of M5817 + 2.50000ml of M5476 + 4.00000ml of M5390 + 4.90000ml of M5515 + 4.90000ml of M5519 + 5.00000ml of M6095 + 50.00000ml of M5304 + 832.80000ml of W3112 + 9.00000ml of M5698 + 9.00000ml of M5819 + 9.00000ml of M5976 + 9.00000ml of M5978 + 9.90000ml of M5498 + 9.90000ml of M5751 + 9.90000ml of M5769 + 9.90000ml of M5806 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3948             | S6(SFAM,6020,200.8) | <a href="#">MP83033</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 48.50000ml of W3112 + 50.00000ml of MP83032 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3954             | S4(SFAM,6020,200.8) | <a href="#">MP83034</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 86.00000ml of W3112 + 12.50000ml of MP83032 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3949             | S5(SFAM,6020,200.8) | <a href="#">MP83035</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 73.50000ml of W3112 + 25.00000ml of MP83032 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>          | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|----------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3951             | S3(SFAM, 6020,200.8) | <a href="#">MP83036</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 48.50000ml of W3112 + 10.00000ml of MP83033 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u>             | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3955             | S2CONC(SFAM,6020,200.8) | <a href="#">MP83037</a> | 11/02/2024       | 12/06/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.05000ml of M5698 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5982 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.10000ml of M6033 + 0.25000ml of M5515 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5976 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.50000ml of M5390 + 0.50000ml of M5818 + 1.25000ml of M5815 + 1.25000ml of M5817 + 2.50000ml of M5498 + 2.50000ml of M5519 + 2.50000ml of M5769 + 2.50000ml of M5806 + 2.50000ml of M6095 + 226.25000ml of W3112 + 5.00000ml of M6115 = Final Quantity: 250.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3956             | S2(SFAM,6020,200.8) | <a href="#">MP83038</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 88.50000ml of W3112 + 0.50000ml of MP83037 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3957             | S1(SFAM,6020,200.8) | <a href="#">MP83039</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.50000ml of M6095 + 1.00000ml of M6115 + 88.50000ml of W3112 + 10.00000ml of MP83038 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3958             | ICV(SFAM)   | <a href="#">MP83041</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 2.00000ml of M5294 + 98.00000ml of MP83014 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3961             | CCV         | <a href="#">MP83042</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.20000ml of M5513 + 0.50000ml of M5799 + 0.50000ml of M5818 + 0.50000ml of M5981 + 0.50000ml of M5983 + 1.00000ml of M5815 + 1.00000ml of M5817 + 1.25000ml of M5476 + 10.00000ml of M6115 + 12.45000ml of M5515 + 12.45000ml of M5519 + 2.00000ml of M5390 + 24.95000ml of M5498 + 24.95000ml of M5769 + 24.95000ml of M5806 + 25.00000ml of M5304 + 4.50000ml of M5698 + 4.50000ml of M5751 + 4.50000ml of M5819 + 4.95000ml of M6033 + 5.00000ml of M5976 + 5.00000ml of M5978 + 5.00000ml of M6095 + 823.45000ml of W3112 = Final Quantity: 1000.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 1142             | ICSA ICPMS  | <a href="#">MP83043</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 10.00000ml of M5873 + 90.00000ml of MP83014 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 1143             | ICSAB ICPMS | <a href="#">MP83044</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP83014 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>       | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3962             | MG 10PPM FOR TUNE | <a href="#">MP83048</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.01000ml of M5769 + 9.99000ml of MP83014 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3894             | TUNE 200PPB | <a href="#">MP83049</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 2.00000ml of M6055 + 2.00000ml of MP83048 + 98.00000ml of MP83014 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3903             | ISS 3PPM    | <a href="#">MP83050</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 5.00000ml of M6115 + 75.00000ml of M5739 + 30.00000ml of MP83014 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3880             | M&B SPIKE-1 | <a href="#">MP83051</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 5.00000ml of M5658 + 5.00000ml of M5798 + 5.00000ml of M5800 + 5.00000ml of M5802 + 5.00000ml of M5961 + 5.00000ml of M5962 + 5.00000ml of M5981 + 5.00000ml of M5982 + 5.00000ml of M5983 + 5.00000ml of M6021 + 5.00000ml of M6023 + 5.00000ml of M6028 + 5.00000ml of M6030 + 30.00000ml of MP83014 = Final Quantity: 100.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3881             | M&B SPIKE-2 | <a href="#">MP83052</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 10.00000ml of M5976 + 12.50000ml of M5390 + 12.50000ml of M5515 + 12.50000ml of M5519 + 2.50000ml of M5799 + 2.50000ml of M5818 + 5.00000ml of M5496 + 30.00000ml of MP83014 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3882             | M&B SPIKE-3 | <a href="#">MP83053</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 0.62500ml of M5513 + 12.50000ml of M5698 + 12.50000ml of M5751 + 12.50000ml of M5819 + 11.87500ml of MP83014 = Final Quantity: 50.000 ml

## Metals STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>     | <u>Supervised By</u>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3900             | M&B SPIKE-4 | <a href="#">MP83054</a> | 11/02/2024       | 12/13/2024             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>11/04/2024 |

**FROM** 6.25000ml of M5498 + 6.25000ml of M5768 + 6.25000ml of M5806 + 6.25000ml of MP83014 = Final Quantity: 25.000 ml

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>          |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|-------------------------------|
| 170              | 1:1HCL      | <a href="#">MP83105</a> | 11/07/2024       | 12/06/2024             | Janvi Patel        | None           | None             | Sarabjit Jaswal<br>11/07/2024 |

**FROM** 1000.00000ml of M6111 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58119 / K, 10000 PPM, 500 ml | 071122 | 07/11/2025      | 09/01/2022 / jaswal     | 07/21/2022 / jaswal         | M5288          |

| Supplier | ItemCode / ItemName                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | ICV-1 / ICV ( ICP/ICPMS ) STOCK SOLN | ICV-1014 | 01/01/2025      | 12/13/2023 / bin        | 02/20/2020 / bin            | M5294          |

| Supplier           | ItemCode / ItemName                          | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|----------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 6020CAL-1 / Calibration Standard Method 6020 | S2-MEB711244 | 10/20/2026      | 08/07/2024 / jaswal     | 04/01/2022 / jaswal         | M5304          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57056 / Ba, 1000 PPM, 125 ml | 072122 | 07/21/2025      | 08/07/2024 / jaswal     | 09/18/2022 / bin            | M5390          |

| 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 | 08/09/2025      | 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          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58120 / Ca, 10000 PPM, 500 ml | 031523 | 03/15/2026      | 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. | 58126 / Fe, 10000 PPM, 500 ml | 092122 | 09/21/2025      | 08/01/2024 / Jaswal     | 03/17/2023 / bin            | M5515          |

| Supplier                 | ItemCode / ItemName             | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57119 / Potassium (K) 10,000PPM | 120822 | 12/08/2025      | 01/08/2024 / bin        | 03/17/2023 / bin            | M5519          |

| Supplier                 | ItemCode / ItemName                    | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|----------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58024 / Chromium, Cr, 500 ml, 1000 PPM | 060523 | 06/05/2026      | 08/28/2023 / jaswal     | 08/25/2023 / jaswal         | M5658          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58025 / Mn, 1000 PPM, 500 ml | 102623 | 10/26/2026      | 04/18/2024 / jaswal     | 10/27/2023 / jaswal         | M5698          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier           | ItemCode / ItemName                                         | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|-------------------------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y | T2-MEB709511 | 09/03/2026      | 08/07/2024 / jaswal     | 04/11/2022 / jaswal         | M5739          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58029 / Cu, 1000 PPM, 500 ml | 071723 | 07/17/2026      | 10/01/2024 / Jaswal     | 08/25/2023 / jaswal         | M5751          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58112 / Mg, 10000 PPM, 500 ml | 091823 | 09/18/2026      | 01/08/2024 / bin        | 01/03/2024 / bin            | M5768          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58112 / Mg, 10000 PPM, 500 ml | 091823 | 09/18/2026      | 05/24/2024 / Jaswal     | 01/03/2024 / bin            | M5769          |

| 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          |

## 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. | 57051 / Sb, 1000 PPM, 125 ml | 120523 | 12/05/2026      | 08/07/2024 / jaswal     | 01/03/2024 / jaswal         | M5802          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58111 / Na, 10000 PPM, 500 ml | 122223 | 12/22/2026      | 08/01/2024 / Jaswal     | 01/03/2024 / jaswal         | M5806          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57115 / P, 10000 PPM, 125 ml | 041723 | 04/17/2026      | 05/21/2024 / Jaswal     | 02/09/2024 / jaswal         | M5815          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57116 / S, 10000 PPM, 125 ml | 071123 | 07/11/2026      | 03/01/2024 / jaswal     | 02/09/2024 / jaswal         | M5817          |

## 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 | 122023 | 12/20/2026      | 03/06/2024 / jaswal     | 02/09/2024 / jaswal         | M5818          |

| Supplier                 | ItemCode / ItemName                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58030 / Zinc, Zn, 500 ml, 1000 PPM | 111623 | 11/16/2026      | 03/20/2024 / jaswal     | 02/09/2024 / jaswal         | M5819          |

| Supplier | ItemCode / ItemName                | Lot #           | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------|-----------------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | PART A / ICSA ( ICPMS ) STOCK SOLN | CP-MS ICSA-0803 | 04/30/2025      | 04/17/2024 / jaswal     | 07/14/2022 / jaswal         | M5873          |

| Supplier | ItemCode / ItemName                  | Lot #           | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------|-----------------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | PART B / ICSB (ICPMS) STOCK SOLUTION | CP-MS ICSB-0803 | 04/30/2025      | 04/17/2024 / jaswal     | 07/14/2022 / jaswal         | M5874          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57028 / Ni, 1000 PPM, 125 ml | 041124 | 04/11/2027      | 07/02/2024 / Jaswal     | 06/11/2024 / Jaswal         | M5961          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57034 / Se, 1000 PPM, 125 ml | 060624 | 06/06/2027      | 07/02/2024 / Jaswal     | 06/14/2024 / Jaswal         | M5962          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier           | ItemCode / ItemName                  | Lot #       | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|--------------------------------------|-------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL | T2-MO720876 | 07/17/2027      | 08/07/2024 / jaswal     | 02/22/2024 / Jaswal         | M5976          |

| Supplier           | ItemCode / ItemName                | Lot #       | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|------------------------------------|-------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CGTI1-1 / TITANIUM 125mL 1000ug/mL | T2-TI719972 | 06/17/2027      | 08/07/2024 / jaswal     | 02/22/2024 / Jaswal         | M5978          |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57092 / U, 1000 PPM, 125 ml | 060724 | 06/07/2027      | 07/29/2024 / Jaswal     | 06/11/2024 / Jaswal         | M5981          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57038 / Sr, 1000 PPM, 125 ml | 031524 | 03/15/2027      | 07/01/2024 / Jaswal     | 06/11/2024 / Jaswal         | M5982          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57040 / Zr, 1000 PPM, 125 ml | 071423 | 07/14/2026      | 07/29/2024 / Jaswal     | 06/11/2024 / Jaswal         | M5983          |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57023 / V, 1000 PPM, 125 ml | 062424 | 06/24/2027      | 09/28/2024 / jaswal     | 08/05/2024 / Jaswal         | M6021          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57081 / TI, 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 | 06/12/2027      | 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     | 01/25/2019 / Jaswal         | M6028          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57047 / Ag, 1000 PPM, 125 ml | 122823 | 12/28/2026      | 08/05/2024 / kareem     | 08/05/2024 / Jaswal         | M6030          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58113 / Al, 10000 PPM, 500 ml | 011623 | 01/16/2026      | 08/07/2024 / Jaswal     | 01/03/2024 / Jaswal         | M6033          |

| 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          |

## CHEMICAL RECEIPT LOG BOOK

| 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) |       | 03/17/2029      | 10/26/2024 / Janvi      | 10/21/2024 / Janvi          | M6095          |

| 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) | 22F0762009 | 05/09/2027      | 11/04/2024 / Eman       | 09/29/2024 / Janvi          | M6111          |

| 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) | 24B1362001 | 05/04/2025      | 11/02/2024 / Janvi      | 09/29/2024 / Eman           | M6115          |

| Supplier         | ItemCode / ItemName                                   | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24D1062002 | 06/03/2025      | 12/03/2024 / Janvi      | 11/12/2024 / Janvi          | M6126          |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 / Iwona      | 07/03/2024 / Iwona          | W3112          |



M6028



**CERTIFIED WEIGHT REPORT:**

**Part Number:**  
**Lot Number:**  
**Description:**

57048  
070124  
Cadmium (Cd)

**Lot #**  
**Solvent:** 24002546 Nitric Acid

**Expiration Date:**

070127

2% 40.0 (mL) Nitric Acid

**Recommended Storage:**  
**Nominal Concentration (µg/mL):**

Ambient (20 °C)  
1000

**NIST Test Number:**

6UTB

**Weight shown below was diluted to (mL):**

2000.07

SE-05 Balance Uncertainty  
0.100 Flask Uncertainty

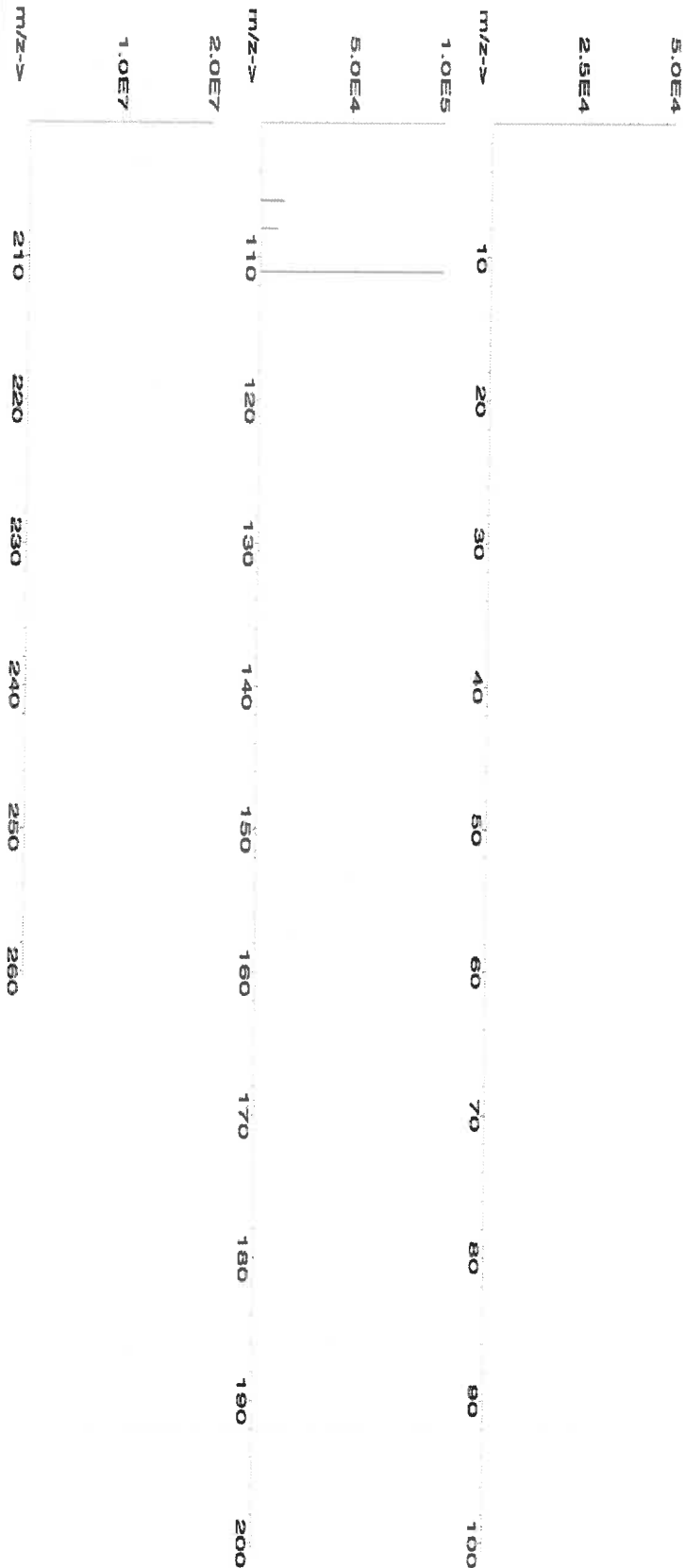
|                        |                 |
|------------------------|-----------------|
| <i>Aleah O'Brady</i>   |                 |
| Formulated By:         | Aleah O'Brady   |
|                        | 070124          |
| <i>Pedro L. Rentas</i> |                 |
| Reviewed By:           | Pedro L. Rentas |
|                        | 070124          |

**Compound**

| Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|--------|---------------|--------|-------------|-------|------------|------------|---------------|-------------|----------------------------------------|------|
| Number | Conc. (µg/mL) | (%)    | Purity (%)  | (%)   | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | (Solvent Safety Info. On Attached pg.) | SRM  |

1. Cadmium nitrate tetrahydrate (Cd) IN024 CDM09221A1 1000 99.999 0.10 36.5 5.4797 5.4804 1000.1 2.0 10022-68-1 0.01 mg/m3 or-rat 60.2mg/kg 3108

[1] Spectrum No.1 [12.514 sec]:\$8148.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

**Trace Metals Verification by ICP-MS (µg/mL)**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.2  | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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 | Ba | <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 | Cd | <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 | Pr | <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 certified (+/-) 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).



**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT:**

Part Number: **57182** Lot #  
Lot Number: **110923** Solvent: **24002546 Nitric Acid**  
Description: **Lead (Pb)**

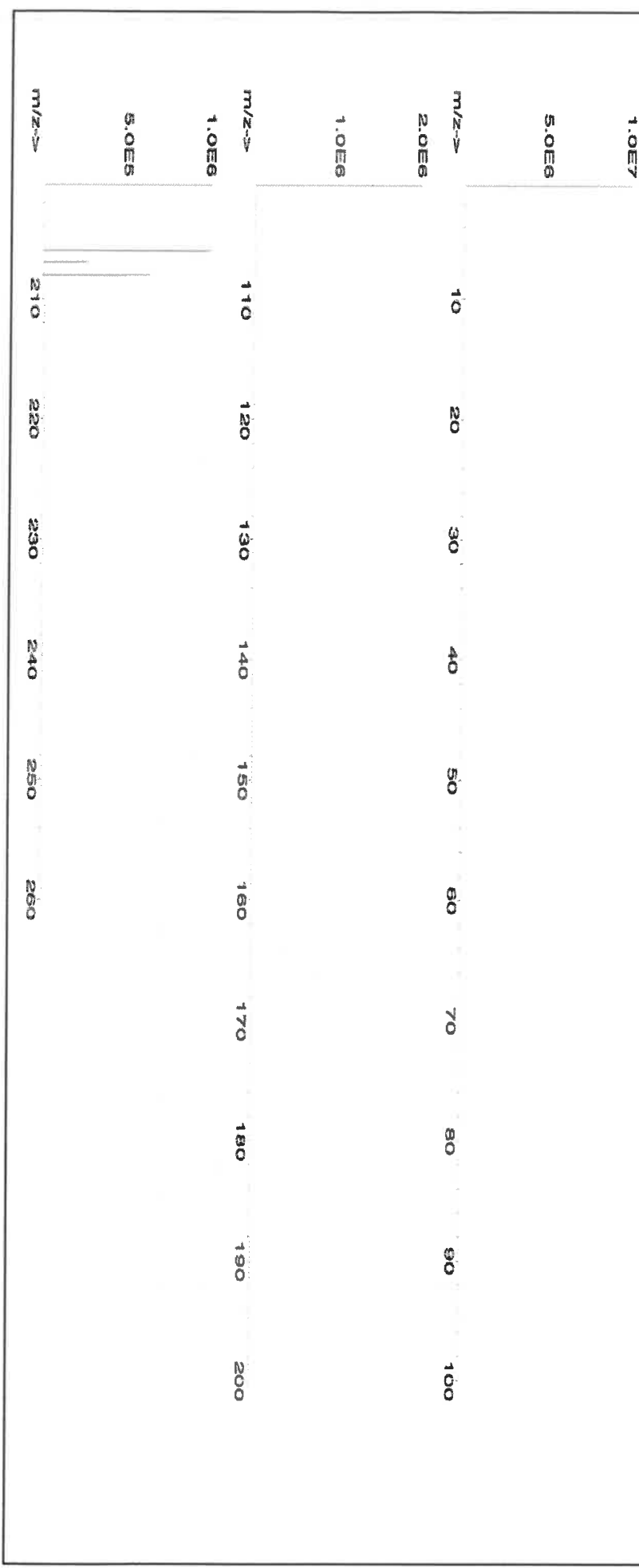
Expiration Date: **110926** 2% 40.0 Nitric Acid (mL)  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test Number: **6UTB** 5E-05 Balance Uncertainty  
Weight shown below was diluted to (mL): **2000.02** 0.058 Flask Uncertainty

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
| 110923         |                 |

| Compound | SDS Information |            |                       |            |                        |           |                   |                   |                      |                                  |
|----------|-----------------|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|
|          | 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) |

1. Lead(II) nitrate (Pb) IN029 PED12016A1 10000 99.999 0.10 62.5 32.0006 32.0040 10001.1 20.0 10099-74-8 0.05 mg/m3 Inverse rat 83 mg/kg 3128

[1] Spectrum No.1 [ 17.284 sec]:58182.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

**Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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 |

**Physical Characterization:**

(T)= Target analyte

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 certified (+/-) 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).



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58119  
**Lot Number:** 071122  
**Description:** Potassium (K)

**Solvent:** 20510011 Nitric Acid  
**Lot #**

**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  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                | 071122          |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
|                | 071122          |

**Compound**

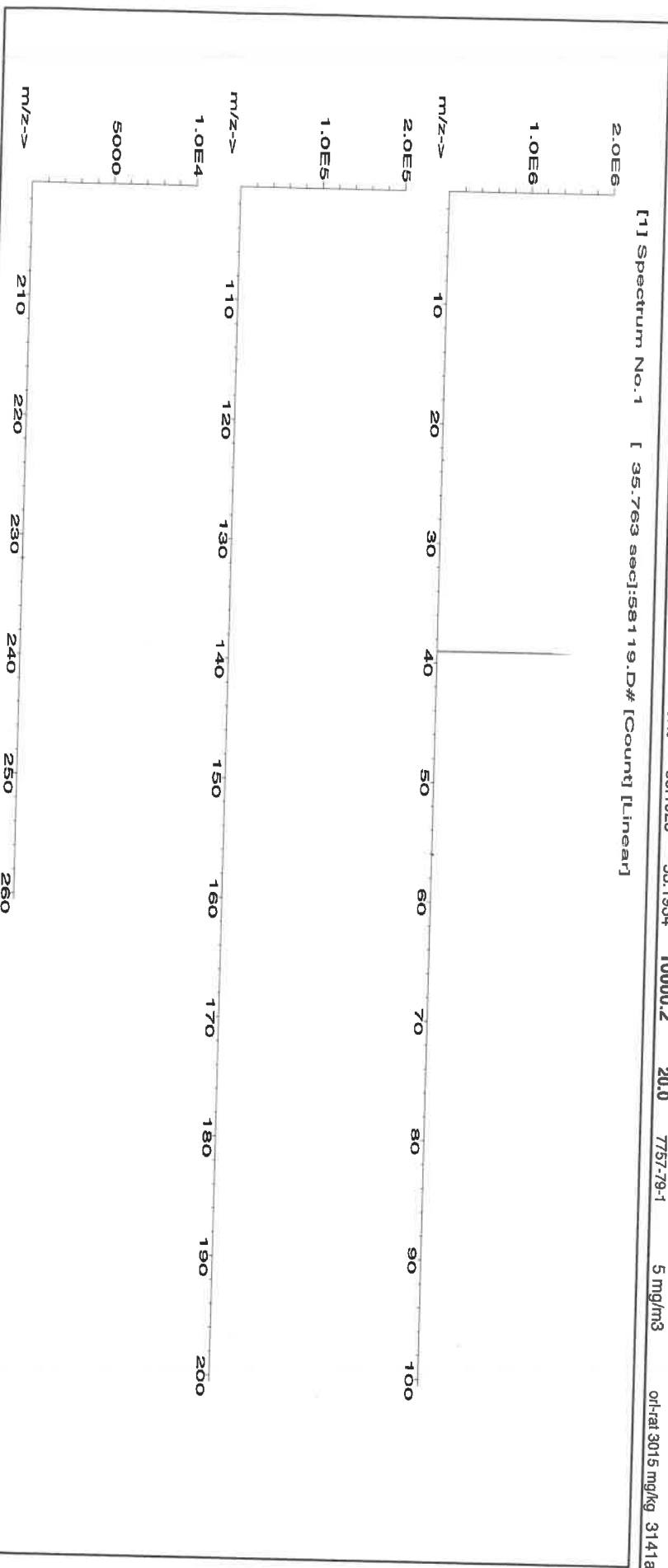
1. Potassium nitrate (K)

| 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) | CAS#      | OSHA PEL (TWA) | LD50              | NIST SRM |
|-------|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|-----------|----------------|-------------------|----------|
| IN034 | KD022021A1 | 10000                 | 99.999     | 0.10                   | 37.6      | 53.1925           | 53.1934           | 10000.2              | 20.0                             | 7757-79-1 | 5 mg/m3        | or-rat 3015 mg/kg | 3141a    |

**SDS Information**

(Solvent Safety Info. On Attached pg.)  
CAS# OSHA PEL (TWA)

[1] Spectrum No. 1 [ 35.763 sec]:58119.D# [Count] [Linear]





**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 | Pt | <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  | <0.02 | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

**Certified by:**

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
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R: 4/20/21

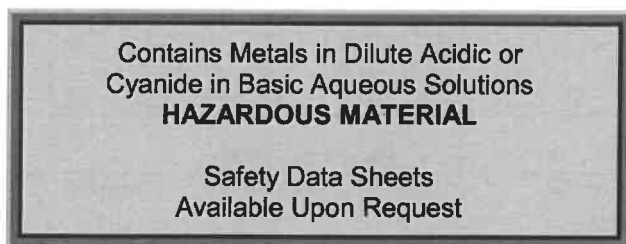
Instructions for QATS Reference Material: *Inorganic ICV Solutions*

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.



M5291  
M5292  
M5293  
M5294  
M5295

(A) **SAMPLE DESCRIPTION**

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) **BREAKAGE OR MISSING ITEMS**

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY  
APTIM Federal Services, LLC  
2700 Chandler Avenue - Building C  
Las Vegas, NV 89120

(C) **ANALYSIS OF SAMPLES**

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

**ICV1-1014** For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.





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)<br>(after 10-fold dilution) | Concentration (µg/L)<br>(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)<br>(after 100-fold dilution) | Analyte         | Concentration (µg/L)<br>(after 100-fold dilution) |
| Hg        | 4.0                                               | CN <sup>-</sup> | 99                                                |



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).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: 6020CAL-1  
Lot Number: S2-MEB711244  
Matrix: 5% (v/v) HNO<sub>3</sub>  
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 °C)

**Assay Information:**

| ANALYTE | METHOD      | NIST SRM# | SRM LOT#     |
|---------|-------------|-----------|--------------|
| Ag      | ICP Assay   | 3151      | 160729       |
| Ag      | Volhard     | 999c      | 999c         |
| Al      | ICP Assay   | 3101a     | 140903       |
| Al      | EDTA        | 928       | 928          |
| As      | ICP Assay   | 3103a     | 100818       |
| 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,  $X_{\text{CRM/RM}}$ , where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

$X_i$  = mean of Assay Method  $i$  with standard uncertainty  $u_{\text{char } i}$

$w_i$  = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$  where  $u_{\text{char } i}$  are the errors from each characterization method

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{Its}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = transport stability standard uncertainty

#### Characterization of CRM/RM by One Method

Certified Value,  $X_{\text{CRM/RM}}$ , where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

$X_a$  = mean of Assay Method A with

$u_{\text{char } a}$  = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char } a}$  = the errors from characterization

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{Its}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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](http://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





*Ridgely 11/12* (B1)  
**Certified Reference Material CRM**

*M5387 - M5389 - M5390 - M5391 - M5392*



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57056  
**Lot Number:** 072122  
**Description:** Barium (Ba)

**Solvent:** 20510011 Nitric Acid

**Lot #**

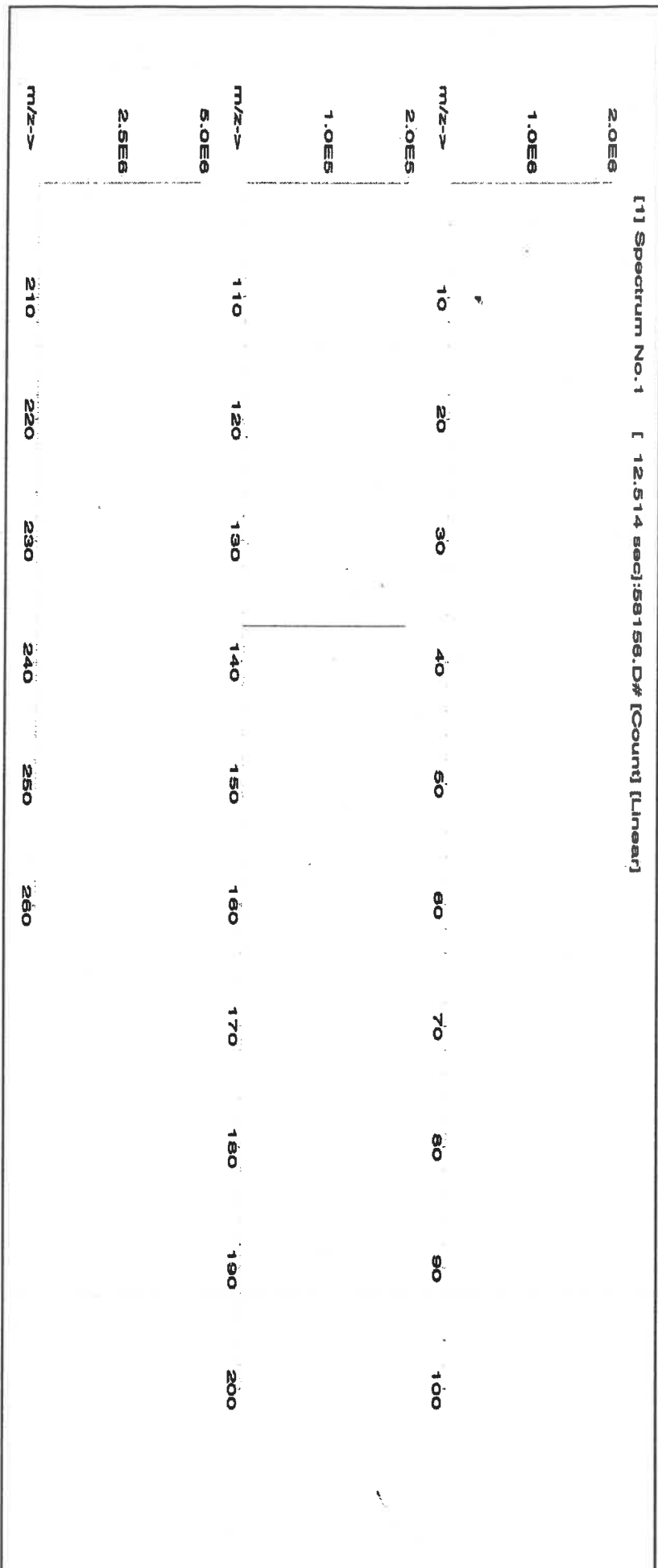
**2%** 40.0 (mL) Nitric Acid

|                          |                        |
|--------------------------|------------------------|
| <i>Giovanni Esposito</i> |                        |
| Formulated By:           | Giovanni Esposito      |
| Reviewed By:             | <i>Pedro L. Rentes</i> |
|                          | 072122                 |

**Expiration Date:** 072125  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test Number:** 6UTB  
**Weight shown below was diluted to (mL):** 2000.02  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

| SDS Information        |                  |                       |            |                        |           |                   |                   |                      |                                  |
|------------------------|------------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|
| Compound               | Lot Number       | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) |
| 1. Barium nitrate (Ba) | IN023 BA022019A1 | 1000                  | 99.899     | 0.10                   | 52.3      | 3.82417           | 3.82426           | 1000.0               | 2.0                              |
|                        |                  |                       |            |                        |           |                   |                   |                      | 10022-31-8                       |
|                        |                  |                       |            |                        |           |                   |                   |                      | 0.5 mg/m3                        |
|                        |                  |                       |            |                        |           |                   |                   |                      | or:at 355 mg/kg                  |
|                        |                  |                       |            |                        |           |                   |                   |                      | 31046                            |

[1] Spectrum No. 1 [ 12.514 sec]:58156.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

### Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.02 | Er | <0.2  | 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 | <0.02 | Os | <0.01 | 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 | <0.02 | 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 |

### Physical Characterization:

**Homogeneity:** No heterogeneity was observed in the preparation of this standard.

**Certified by:**

Ben. P. R.

- \* 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 certified (+/-) 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).



15497-15498 R203/17/23(2)

## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

58120  
031523  
Calcium (Ca)

Solvent: 21110221 Nitric Acid

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

031526  
Ambient (20 °C)  
10000  
6UTB  
5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

2% 60.0 Nitric Acid  
(mL)

Weight shown below was diluted to (mL): 3000.41

## SDS Information

Expanded

Uncertainty

(Solvent Safety Info. On Attached pg.)

NIST

LD50

SRM

Actual

Conc. (µg/mL)

Actual

Target

Assay

Purity

Nominal

Lot

RM#

Number

Conc. (µg/mL)

Purity (%)

Actual

Weight (g)

Conc. (µg/mL)

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

or-rat &gt;2000mg/kg

3109a

[1] Spectrum No.1 [ 12.514 sec]:58120.D# [Count] [Linear]

2.0E4

1.0E4

m/z--&gt;

5.0E4

2.5E4

m/z--&gt;

1.0E5

5.0E4

m/z--&gt;

260

170

180

190

200



## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.02 | 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 | <0.02 | Os | <0.01 | 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 | <0.02 | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.02 | 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 | Tl | <0.02 | Zr | <0.02 |

**(T) = Target analyte**

### Physical Characterization:

**Homogeneity:** No heterogeneity was observed in the preparation of this standard.

**Certified by:**

Ben. P. Davis

- \* 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 certified (+/-) 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).



## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

57182

061522

Lead (Pb)

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

061525

Ambient (20 °C)

10000

6UTB

Weight shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

Lot #

Solvent: 20510011 Nitric Acid

2% 40.0 Nitric Acid  
(mL)

*Giovanni Esposito*  
Formulated By: Giovanni Esposito 061522

*Pedro L. Rentas*  
Reviewed By: Pedro L. Rentas 061522

## Expanded

## SDS Information

Uncertainty (µg/mL) Actual Weight (g) Actual Conc. (µg/mL) Target Weight (g) Assay (%) Purity (%) Nominal Conc. (µg/mL) Lot Number RM#

(Solvent Safety Info. On Attached pg.)

NIST SRM

LD50

OSHA PEL (TWA)

CAS#

+/- (µg/mL)

10001.1

32.0041

32.0006

82.5

0.10

99.999

10000

IN029

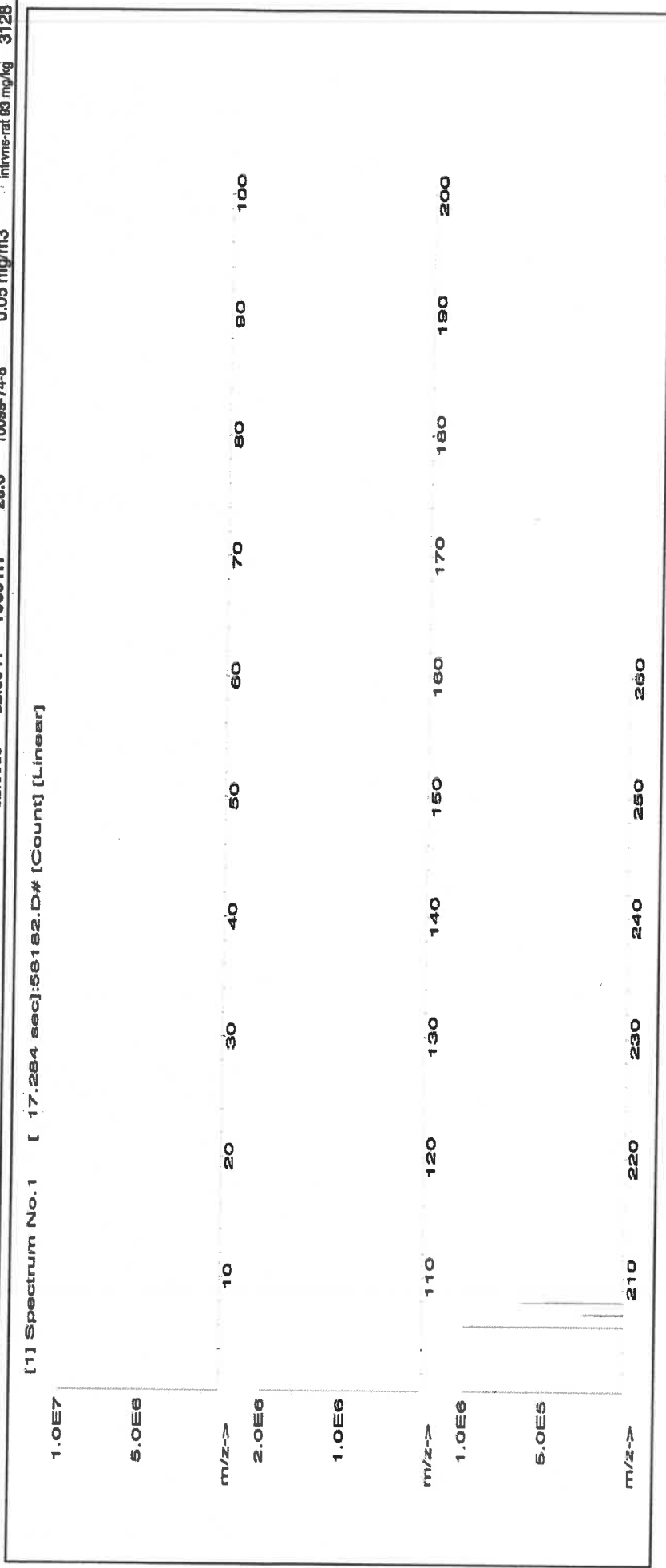
PBD12201641

10098-74-8

0.05 mg/m3

inhalation

1. Lead(II) nitrate (Pb) [1] Spectrum No. 1 [ 17.284 sec]:58182.D# [Count] [Linear] 20.0 10098-74-8 0.05 mg/m3 3128





# 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 | <0.2  | Fe | <0.02 | 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 | Pr | <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 |

## Physical Characterization:

(T)= Target analyte

Certified by:

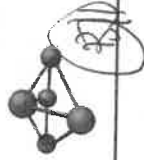
Homogeneity: No heterogeneity was observed in the preparation of this standard.

*Ben P. Sha*

- \* 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 certified (+/-) 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).



**Certified Reference Material CRM**



MS54-MS55 R:03/17/22

**CERTIFIED WEIGHT REPORT:**

**Part Number:**  
**Lot Number:**  
**Description:**

**58126**  
**092122**  
**Iron (Fe)**

**Expiration Date:**  
**Recommended Storage:**  
**Nominal Concentration (µg/mL):**  
**NIST Test Number:**

**092125**  
**Ambient (20 °C)**  
**10000**  
**6UTB**

**Weight shown below was diluted to (mL):**

**5000.1**

**5E-05 Balance Uncertainty**  
**0.12 Flask Uncertainty**

**Lot #**

**Solvent:** 20510011 Nitric Acid

**7.0%** **350.0** **Nitric Acid**  
**(mL)**

|                          |                          |
|--------------------------|--------------------------|
| <i>Giovanni Esposito</i> |                          |
| Formulated By:           | Giovanni Esposito 092122 |
| <i>Pedro L. Rentas</i>   |                          |
| Reviewed By:             | Pedro L. Rentas 092122   |

**Expanded Uncertainty**

**SDS Information**

**Actual Conc. (µg/mL)** **Actual Weight (g)** **Target Weight (g)** **Assay (%)** **Purity (%)** **Nominal Conc. (µg/mL)**

**± (µg/mL)** **CAS#** **OSHA PEL (TWA)** **LD50** **SRM**

**20.0** **10001.5** **50.0111** **100.0** **99.985** **0.10** **10000** **89.985** **0.12** **5000.1**

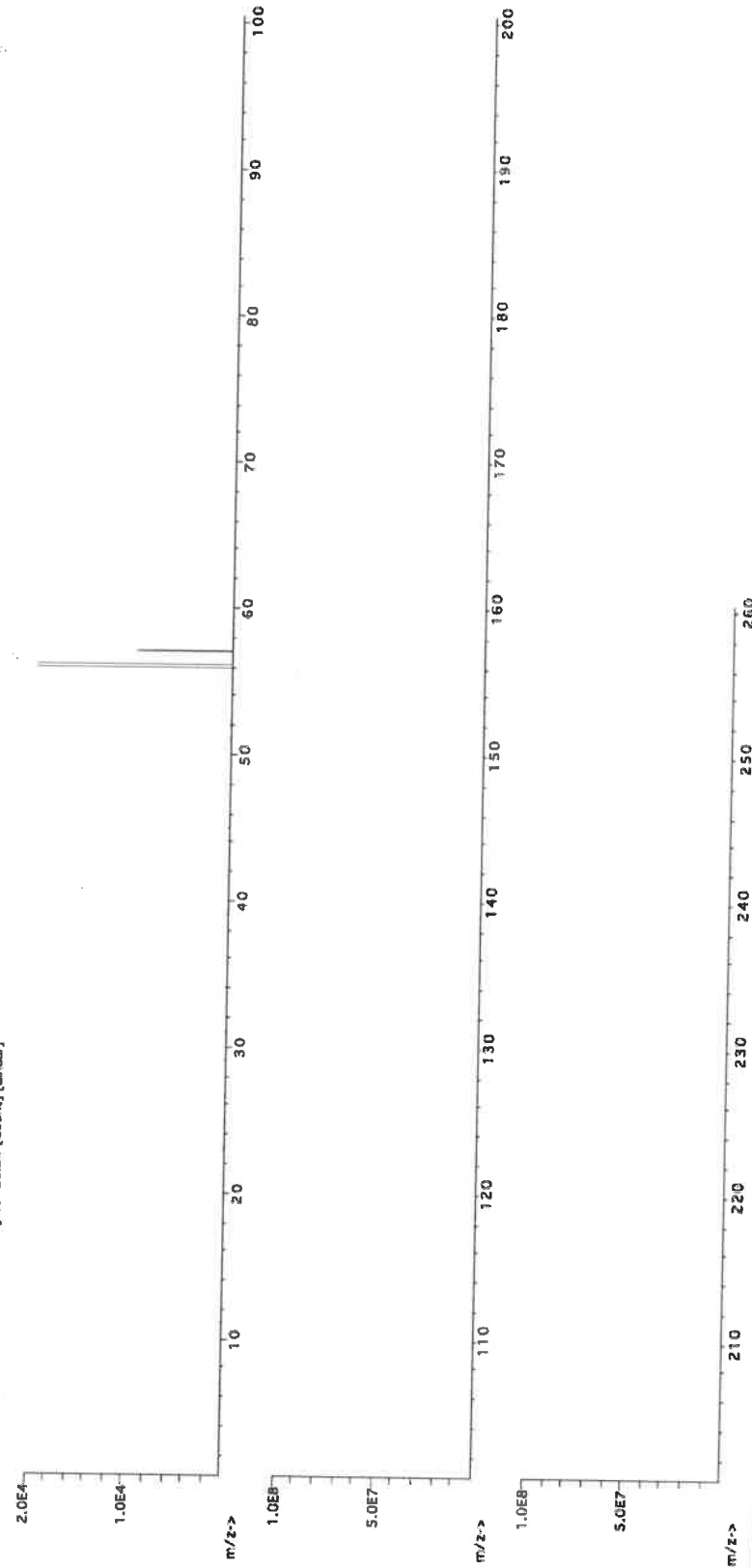
**5 mg/m3** **7439-88-6** **5** **092122**

**orl-rat 7500mg/kg 3126a**

**1. Iron (Fe)**

**IN346 2224912-500** **10000** **89.985** **0.10** **100.0** **50.0034** **50.0111** **10001.5** **20.0** **7439-88-6** **5 mg/m3** **orl-rat 7500mg/kg 3126a**

[1] Spectrum No.1 [ 30.763 sec]:58126.D# [Count] [Linear]





**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 | La | <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 | <0.01 | Mg | <0.02 | 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 | <0.10 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.05 | Ga | <0.2  | Fe | <0.2  | Hg | <0.02 | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.10 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.05 |
| 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 certified (+/-) 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).



**Certified Reference Material CRM**

**CERTIFIED WEIGHT REPORT:**

Part Number: **58119**  
Lot Number: **120822**  
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

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

2% 60.0 (mL) Nitric Acid

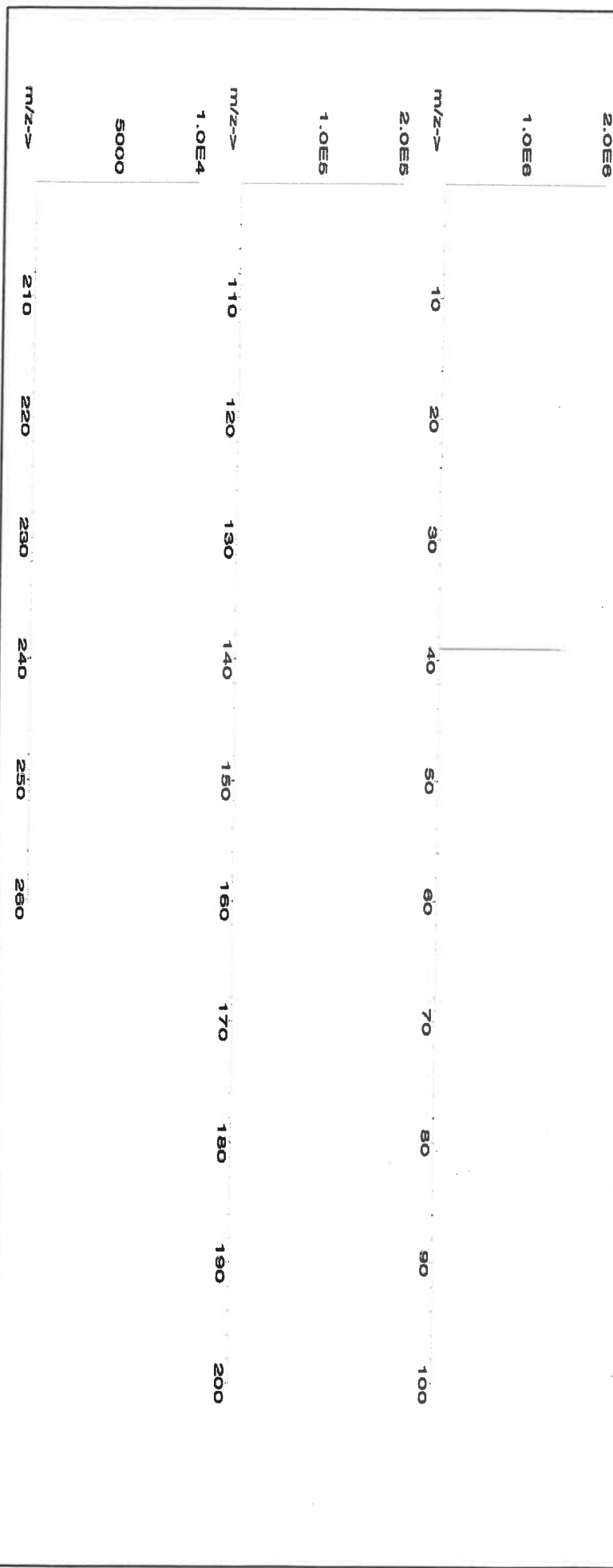
|                          |                   |
|--------------------------|-------------------|
| <i>Giovanni Esposito</i> |                   |
| Formulated By:           | Giovanni Esposito |
| Reviewed By:             | Pedro L. Rentas   |
|                          | 120822            |

**Compound**

| Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|--------|---------------|--------|-------------|-------|------------|------------|---------------|-------------|----------------------------------------|------|
| Number | Conc. (µg/mL) | (%)    | Purity (%)  | (%)   | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | (Solvent Safety Info. On Attached pg.) | SRM  |

1. Potassium nitrate (K) IN034 KD022021A1 10000 99.989 0.10 37.6 79.7990 79.8075 10001.1 20.0 7757-79-1 5 mg/m3 crtat 3015 mg/kg 3141a

[1] Spectrum No.1 [ 35.763 sec]:58119.D# [Count] [Linear]





**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 | Pt | <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  | <0.02 | 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 certified (+/-) 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).



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58024  
**Lot Number:** 060523  
**Description:** Chromium (Cr)

**Lot #** 21110221  
**Solvent:** Nitric Acid

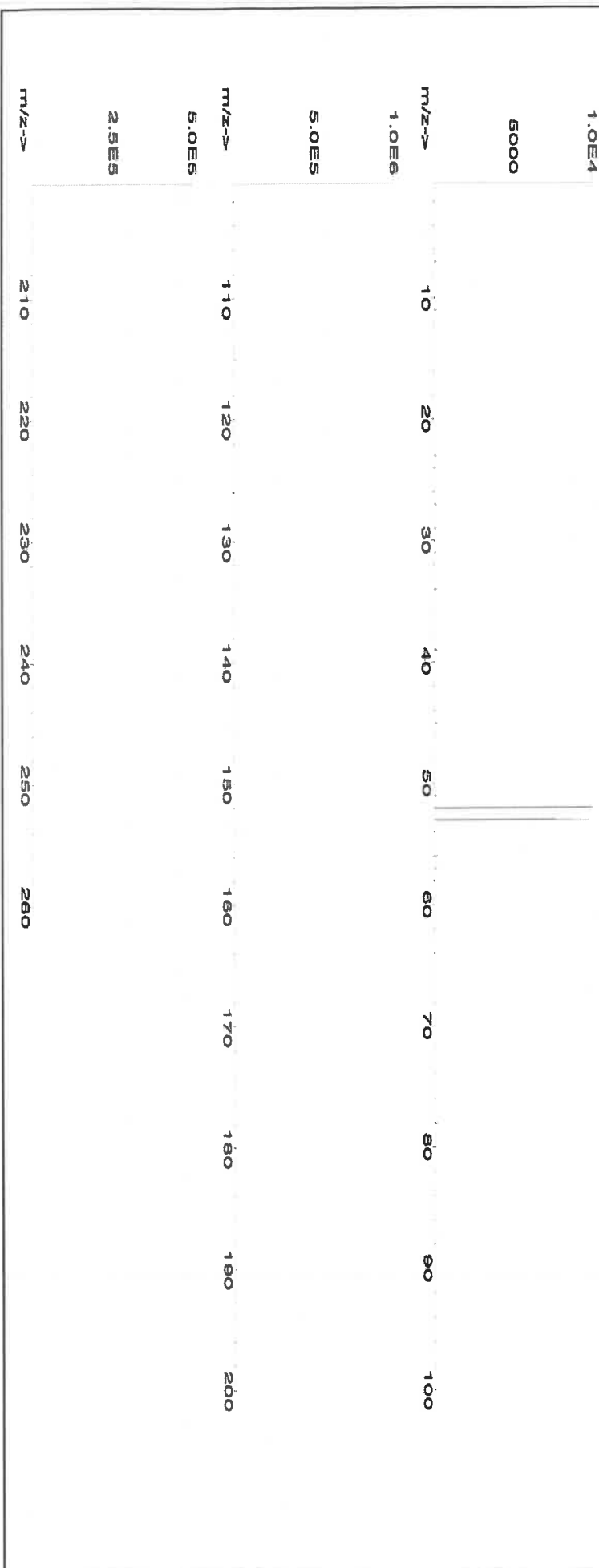
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                | 060523          |
|                |                 |
| Reviewed By:   | Pedro L. Ruelas |
|                | 060523          |

**Expiration Date:** 060526  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test Number:** 6UTB  
**Volume shown below was diluted to (mL):** 2000.02  
**5E-05** Balance Uncertainty  
**0.058** Flask Uncertainty

| Compound | Part Number | Lot Number | Dilution Factor | Initial Vol. (mL) | Uncertainty (mL) | Nominal Conc. (µg/mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | 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 or rat 3250 mg/kg 3112a

[1] Spectrum No.1 [31.393 sec]:57024.D# [Count] [Linear]





**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:**

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 certified (+/-) 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).



Certified Reference Material CRM



M5648 R: 10/23/23

CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

58025  
102623  
Manganese (Mn)

Lot # Solvent:  
24002546 Nitric Acid

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

102626  
Ambient (20 °C)  
1000  
6UTB  
5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

2.0% Nitric Acid  
60.0 (mL)

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 102623 |
| Reviewed By:   | Pedro L. Rentas | 102623 |

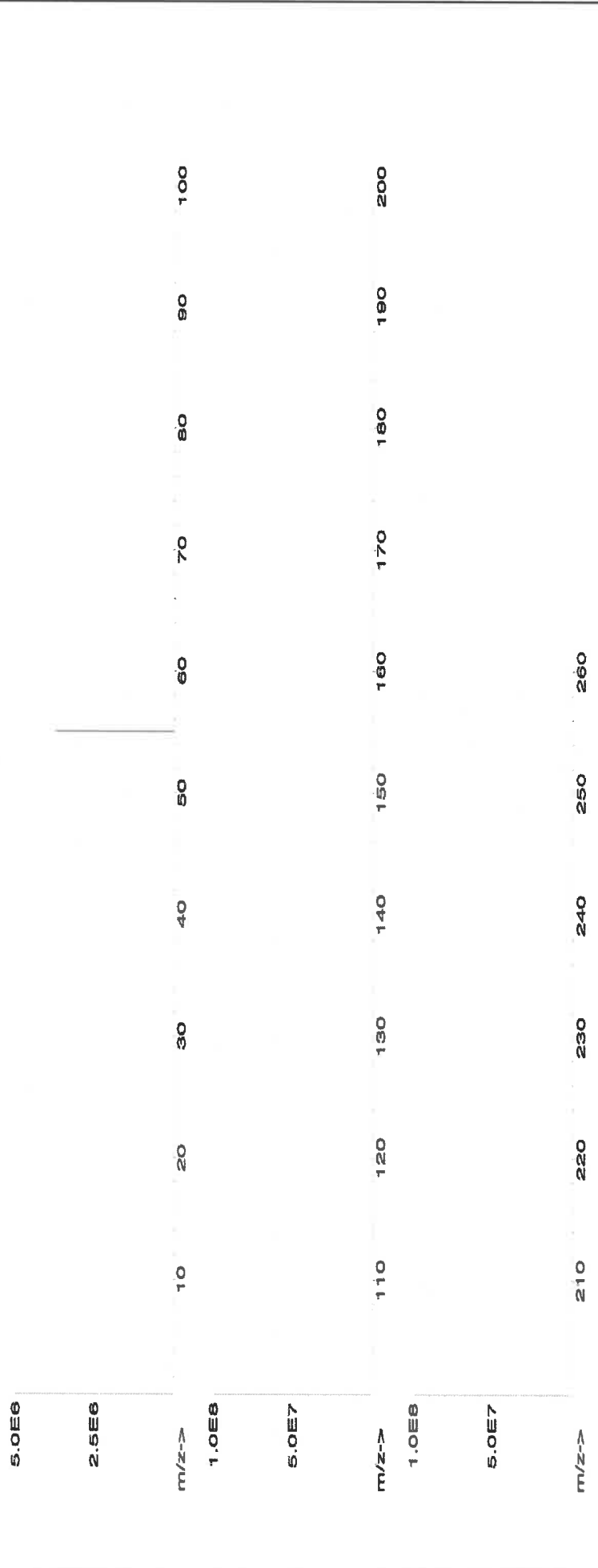
SDS Information

|                      |                                        |         |
|----------------------|----------------------------------------|---------|
| Expanded Uncertainty | (Solvent Safety Info. On Attached pg.) | NIST    |
| +/- (µg/mL)          | CAS#                                   | LD50    |
| 2.1                  | 20694-39-7                             | 5 mg/m3 |

Compound

1. Manganese(II) nitrate tetrahydrate (Mn) 58125 071123 0.1000 300.0 0.084 1000 10000.1 1000.0 2.1 20694-39-7 5 mg/m3 ori-rat >300mg/kg 3132

[1] Spectrum No.1 [ 34.243 sec]:57025.D# [Count] [Linear]





# 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 | Tc | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.02 | Os | <0.01 | Rh | <0.02 | Ag | <0.02 | Ti | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | T     | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.02 | Hg | <0.2  | P  | <0.2  | 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 | Ta | <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 balances that are calibrated with weights traceable to NIST (see above).

\* Standards are certified (+/-) 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).



**Certified Reference Material CRM**

R: 8/25/23

M5751



**CERTIFIED WEIGHT REPORT:**

Part Number:  
Lot Number:  
Description:

**58029**  
**071723**  
**Copper (Cu)**

Lot #  
21110221

Solvent:  
Nitric Acid

2.0%

40.0  
(mL)

Nitric Acid

Expiration Date:

071726

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

2000.02

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 071723 |
| Reviewed By:   | Pedro L. Ruelas | 071723 |

**Compound**

| Part Number | Lot Number | Dilution Factor | Initial Vol. (mL) | Uncertainty (mL) | Nominal Conc. (µg/mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | 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 or rat 794 mg/kg 3114

[1] Spectrum No. 1 [33.422 sec]: 58029.D# [Count] [Linear]

|        |     |     |     |     |     |     |     |     |     |     |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.0E6  | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 |
| 5.0E5  |     |     |     |     |     |     |     |     |     |     |
| m/z -> | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 |
| 5.0E7  |     |     |     |     |     |     |     |     |     |     |
| m/z -> | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
| 2.0E7  |     |     |     |     |     |     |     |     |     |     |
| m/z -> | 210 | 220 | 230 | 240 | 250 | 260 |     |     |     |     |
| 1.0E7  |     |     |     |     |     |     |     |     |     |     |

# Absolute Standards, Inc.

800-368-1131  
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## Certified Reference Material CRM



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AR-1539 Certificate Number  
<https://AbsoluteStandards.com>

### Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

#### Trace Metals Verification by ICP-MS (µg/mL)

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Bu | <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 | Ru | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Co | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Sr | <0.02 | S  | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Cu | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | Ta | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | T  |       | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 |    |       | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

### Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
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- \* 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).



M5768 M5769  
Certified Reference Material CRM  
R-113/24



**CERTIFIED WEIGHT REPORT:**

Part Number: **58112**  
Lot Number: **091823**  
Description: **Magnesium (Mg)**

Solvent: **24002546 Nitric Acid**

Lot #

Expiration Date: **091826**

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **10000**

NIST Test Number: **6UTB**

Weight shown below was diluted to (mL): **2000.02**

2% 40.0 (mL) Nitric Acid

M5768 M5769

R-113/24

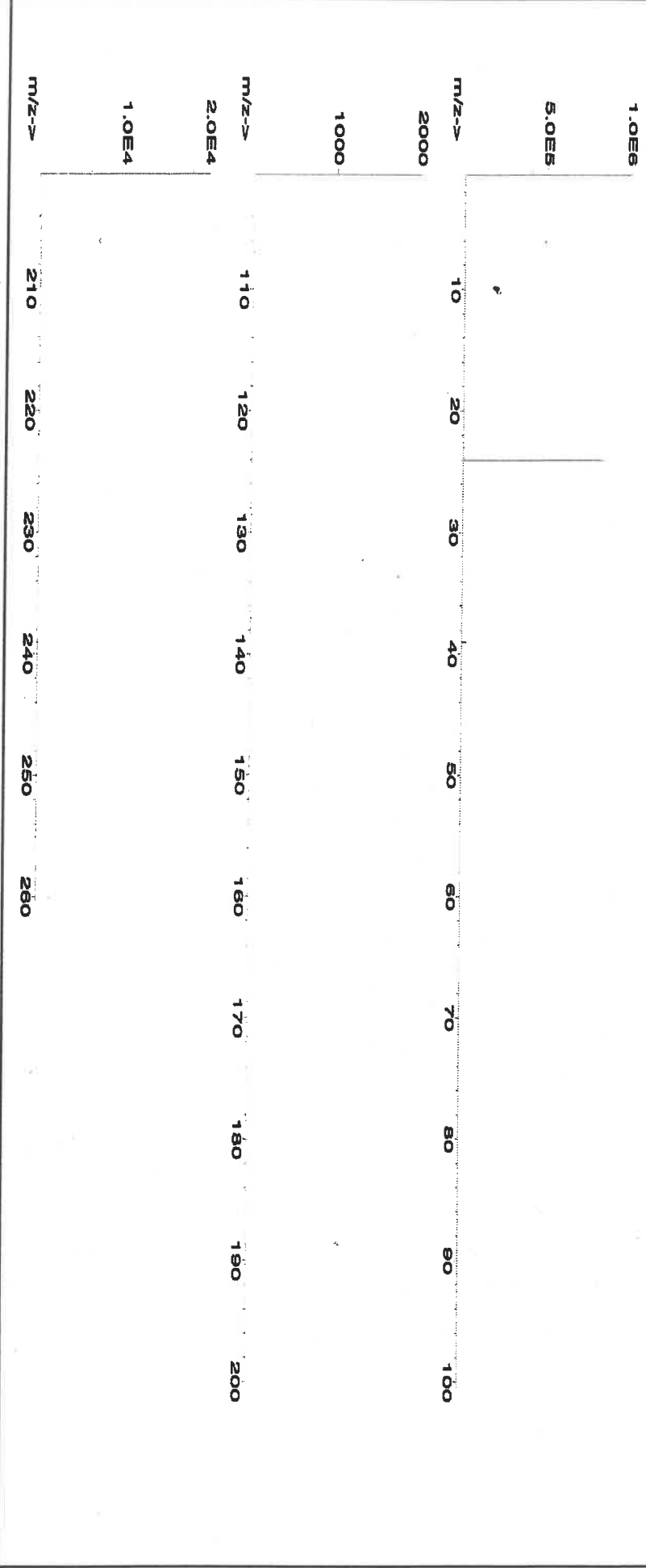
|                                      |  |        |
|--------------------------------------|--|--------|
| Formulated By: <i>Lawrence Barry</i> |  | 091823 |
| Reviewed By: <i>Pedro L. Rentas</i>  |  | 091823 |

**Compound**

| Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|--------|---------------|--------|-------------|-------|------------|------------|---------------|-------------|----------------------------------------|------|
| Number | Conc. (µg/mL) | (%)    | Purity (%)  | (%)   | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | (Solvent Safety Info. On Attached pg.) | SRM  |

1. Magnesium nitrate hexahydrate (Mg) IN030 M500222A1 10000 99.999 0.10 8.51 234.9118 234.9126 10000.0 20.0 13446-18-9 NA or-rat 5440 mg/kg 3131a

[1] Spectrum No. 1 [ 19.923 sec]:58112.D# [Count] [Linear]



**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:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M5768 M5769  
Certified Reference Material CRM  
R: 1/13/24



**CERTIFIED WEIGHT REPORT:**

Part Number: 58112  
Lot Number: 091823  
Description: Magnesium (Mg)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date: 091826  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 10000  
NIST Test Number: 6UTB  
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

2% 40.0 (mL) Nitric Acid

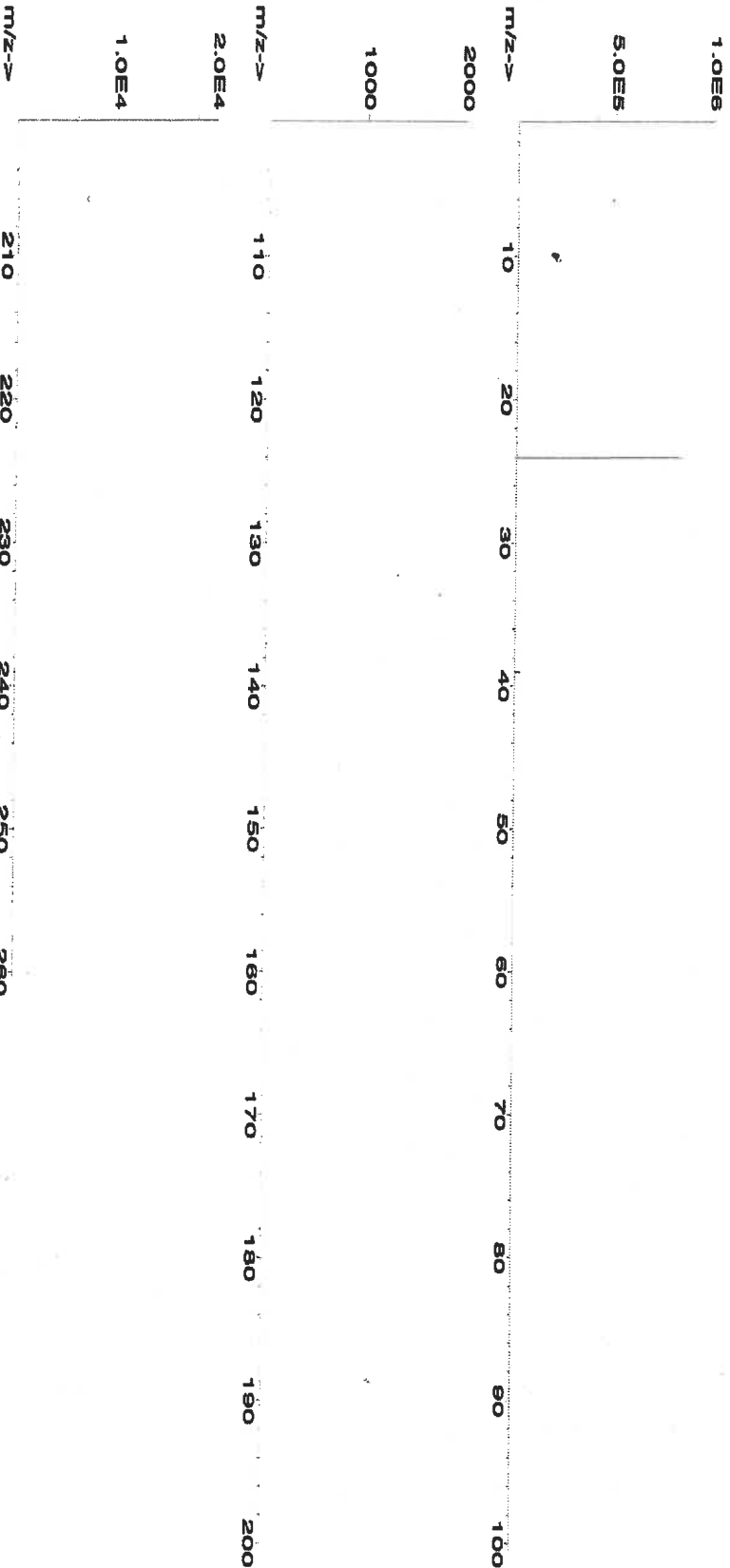
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
| 091823         |                 |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
| 091823         |                 |

**Compound**

| Lot | Nominal | Purity        | Uncertainty | Assay      | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|-----|---------|---------------|-------------|------------|------------|------------|---------------|-------------|----------------------------------------|------|
| RW# | Number  | Conc. (µg/mL) | (%)         | Purity (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | (Solvent Safety Info. On Attached pg.) | SRM  |

1. Magnesium nitrate hexahydrate (Mg) IN030 M500222A1 10000 99.999 0.10 8.51 234.9118 234.9126 10000.0 20.0 13446-18-9 NA or-rat 5440 mg/kg 3131a

[1] Spectrum No. 1 [ 19.923 sec]:58112.D# [Count] [Linear]



**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):****Trace Metals Verification by ICP-MS (µg/mL)**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | T     | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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- \* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57004  
**Lot Number:** 102523  
**Description:** Beryllium (Be)

**Lot #** 24002546  
**Solvent:** Nitric Acid

**Expiration Date:**

102526

2.0%

40.0 (mL)

Nitric Acid

**Recommended Storage:**

Ambient (20 °C)

**Nominal Concentration (µg/mL):**

1000

**NIST Test Number:**

6UTB

**Volume shown below was diluted to (mL):** 2000.02

5E-05 Balance Uncertainty

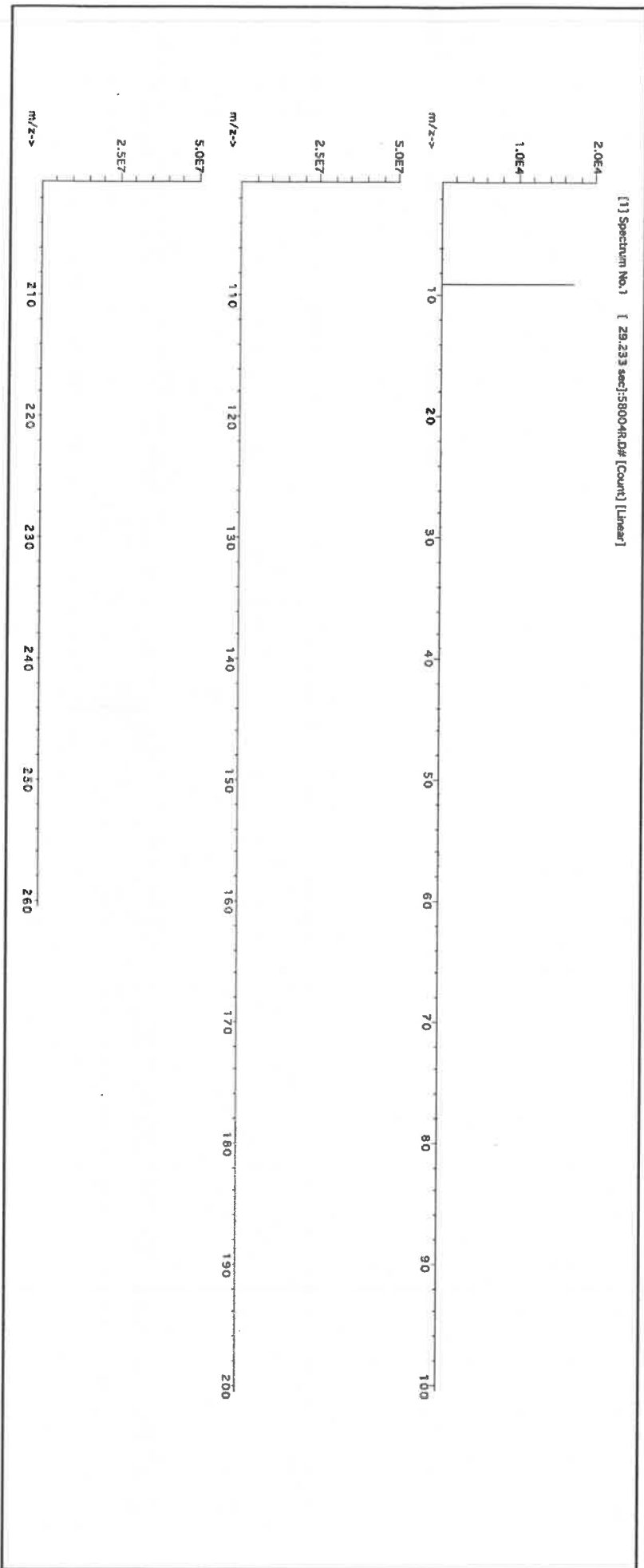
0.058 Flask Uncertainty

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 102523 |
| Reviewed By:   | Pedro L. Rentas | 102523 |

**SDS Information**

| Compound | Part Number | Lot | Dilution Factor | Initial Vol. (mL) | Uncertainty Pipette (mL) | Nominal Conc. (µg/mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | 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 | 0.2µg/m3 | intrinsc-rat 3.16mg/kg | NA |
|---------------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|------------|----------|------------------------|----|





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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 | Tc | <0.02 | U  | <0.02 |
| As | <0.02 | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Ti | <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 | Ta | <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 | Tl | <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 certified (+/-) 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).



**Certified Reference Material CRM**

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57050  
**Lot Number:** 071123  
**Description:** Tin (Sn)

**Solvents:** 21110221 Nitric Acid  
22D0562008 Hydrochloric acid

**Expiration Date:** 071126  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000

2% 10.0 Nitric Acid  
6% 30.0 Hydrochloric acid  
(mL)

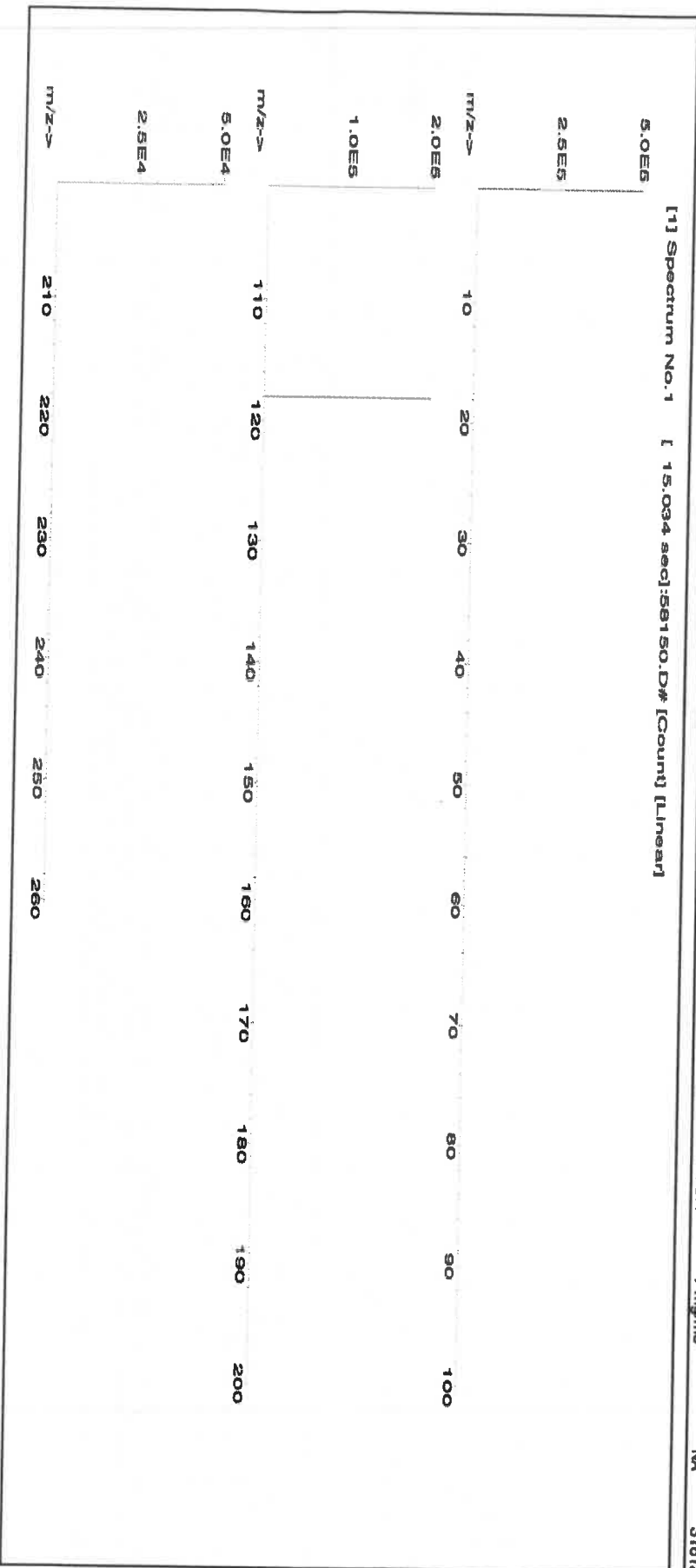
**NIST Test Number:** 6UTB  
**Weight shown below was diluted to (mL):** 499.93  
5E-05 Balance Uncertainty  
0.0058 Flask Uncertainty

|                       |                  |
|-----------------------|------------------|
| <i>[Signature]</i>    |                  |
| <b>Formulated By:</b> | Benson Chan      |
|                       | 071123           |
| <b>Reviewed By:</b>   | Pedro L. Rientas |
|                       | 071123           |

| SDS Information |        |               |     |            |     |            |            |               |     |            |            |               |     | NIST       |            |               |     |                                       |                |
|-----------------|--------|---------------|-----|------------|-----|------------|------------|---------------|-----|------------|------------|---------------|-----|------------|------------|---------------|-----|---------------------------------------|----------------|
| Compound        |        | Lot           |     | Nominal    |     | Purity     |            | Uncertainty   |     | Assay      |            | Target        |     | Actual     |            | Expanded      |     | Solvent Safety Info. On Attached pg.) |                |
| RM#             | Number | Conc. (µg/mL) | (%) | Purity (%) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) | CAS#                                  | OSHA PEL (TWA) |

1. Ammonium hexafluoroantimonate(V) (Sn) INO10 SMD042023A1 1000 99.999 0.10 44.2 1.13107 1.13286 1001.6 2.0 16919-24-7 7 mg/m3 NA 3161a

[1] Spectrum No. 1 [ 15.034 sec] :56150.D# [Count] [Linear]





**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 | Ta | <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 certified (+/-) 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: 02/09/24 115800 (54)

CERTIFIED WEIGHT REPORT:

Part Number: 57027  
Lot Number: 091923  
Description: Cobalt (Co)

Expiration Date: 091926  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 1000  
NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

Lot # 24002546  
Solvent: Nitric Acid

2.0% Nitric Acid  
40.0 (mL)

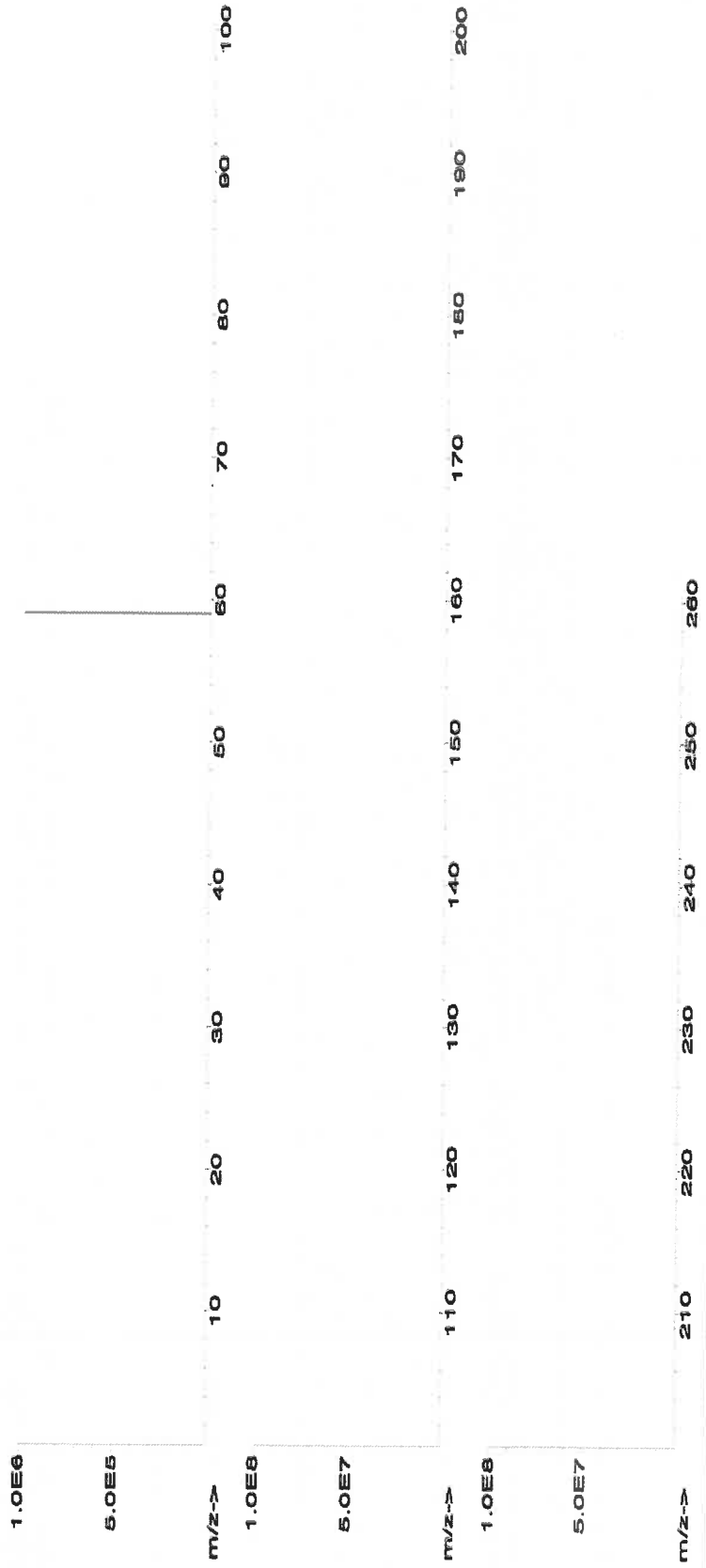
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |

SDS Information

Expanded Uncertainty +/- (µg/mL)  
(Solvent Safety Info. On Attached pg.)  
NIST SRM  
CAS# OSHA PEL (TWA) LD50

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

[1] Spectrum No.1 [ 34.243 sec]:58027.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

### Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.2  | 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 | <0.02 | Os | <0.01 | 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 | <0.02 | Hg | <0.2  | P  | <0.2  | 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:

**Homogeneity:** No heterogeneity was observed in the preparation of this standard.

**Certified by:**

Ben. F.

- \* 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 certified (+/-) 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).



**Certified Reference Material CRM**

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57033  
**Lot Number:** 111323  
**Description:** Arsenic (As)

**Lot #** 24002546  
**Solvent:** Nitric Acid

**Expiration Date:** 111326  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test Number:** 6LUTB  
**Volume shown below was diluted to (mL):** 4000.0

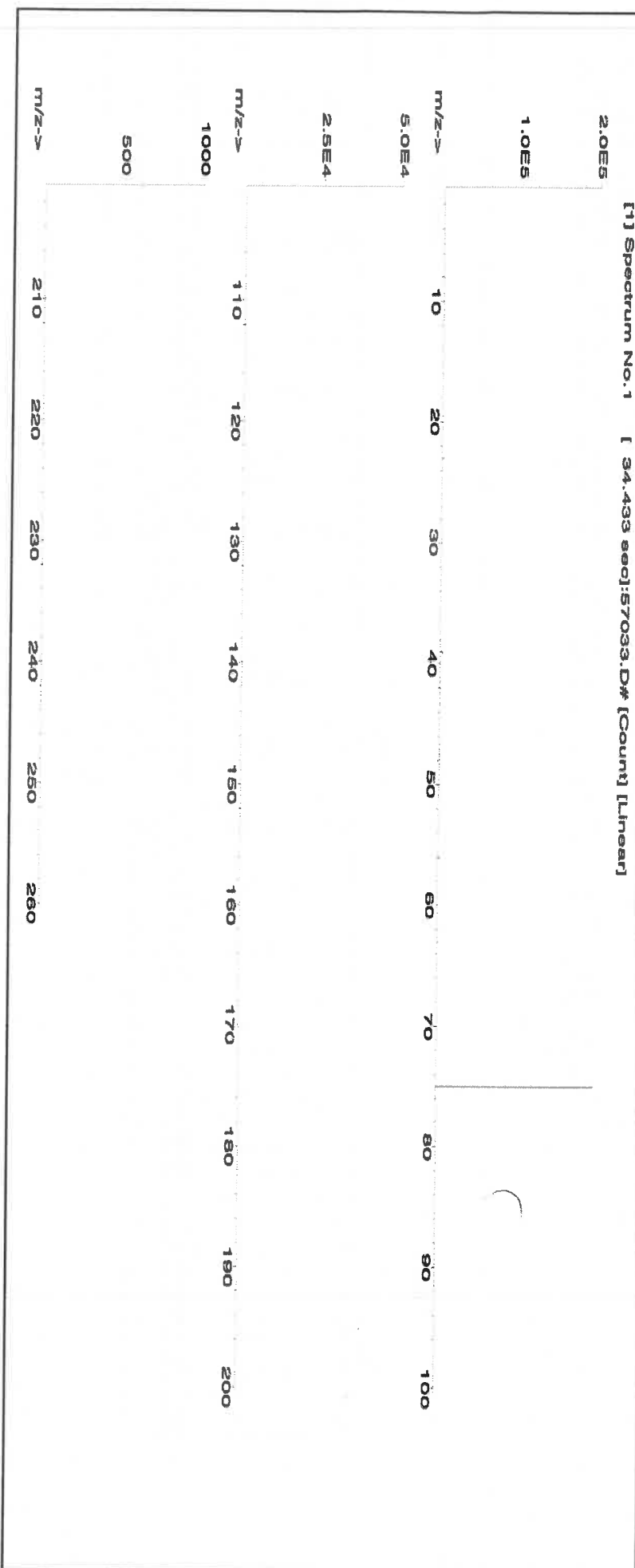
**Balance Uncertainty:** 5E-05  
**Flask Uncertainty:** 0.06

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Lawrence Barry  | 111323 |
| Reviewed By:   | Pedro L. Rendas | 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) | 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 or-lat 500 mg/kg 3103a

[1] Spectrum No.1 [ 34.433 sec]:57033.D# [Count] [Linear]





**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  | Tl <sub>2</sub> | <0.02 | Yb | <0.02 |
| Bc | <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 <sup>*</sup> | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sa              | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au              | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti              | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
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Certified Reference Material CRM



**CERTIFIED WEIGHT REPORT:**

Part Number: **57115**  
Lot Number: **041723**  
Description: **Phosphorous (P)**

Solvent: 21110221 Nitric Acid

Lot #

R102109124 M5815

Expiration Date: 041726  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 10000  
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 2000.02 0.056 Balance Uncertainty  
Flask Uncertainty

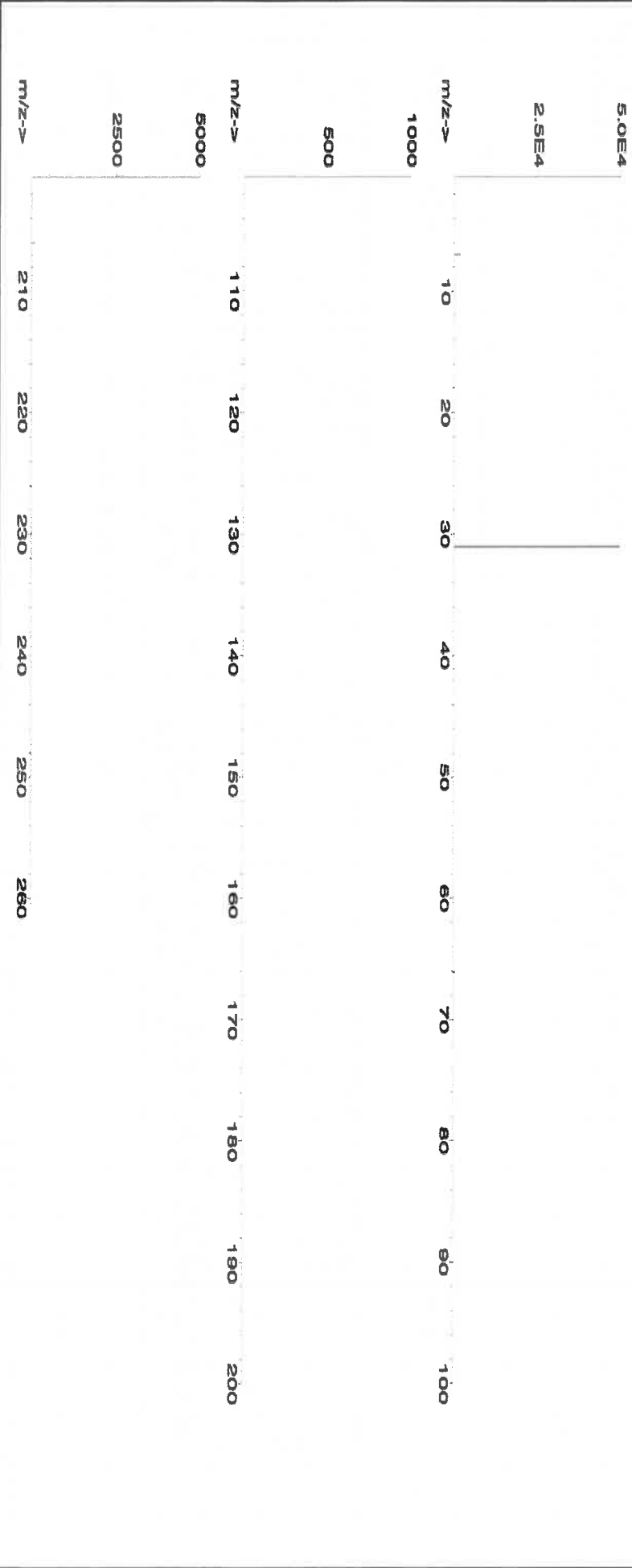
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                | 041723          |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
|                | 041723          |

**Compound**

| RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|-----|------------|-----------------------|------------|-----------------------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|-----------------------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Ammonium dihydrogen phosphate (P) IN008 P082019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 or-hal->2000mg/kg 3186

[1] Spectrum No.1 [ 12.074 sec]:58115.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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:

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 certified (+/-) 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).



**CERTIFIED WEIGHT REPORT:**

Part Number: **57116**  
Lot Number: **071123**  
Description: **Sulfur (S)**

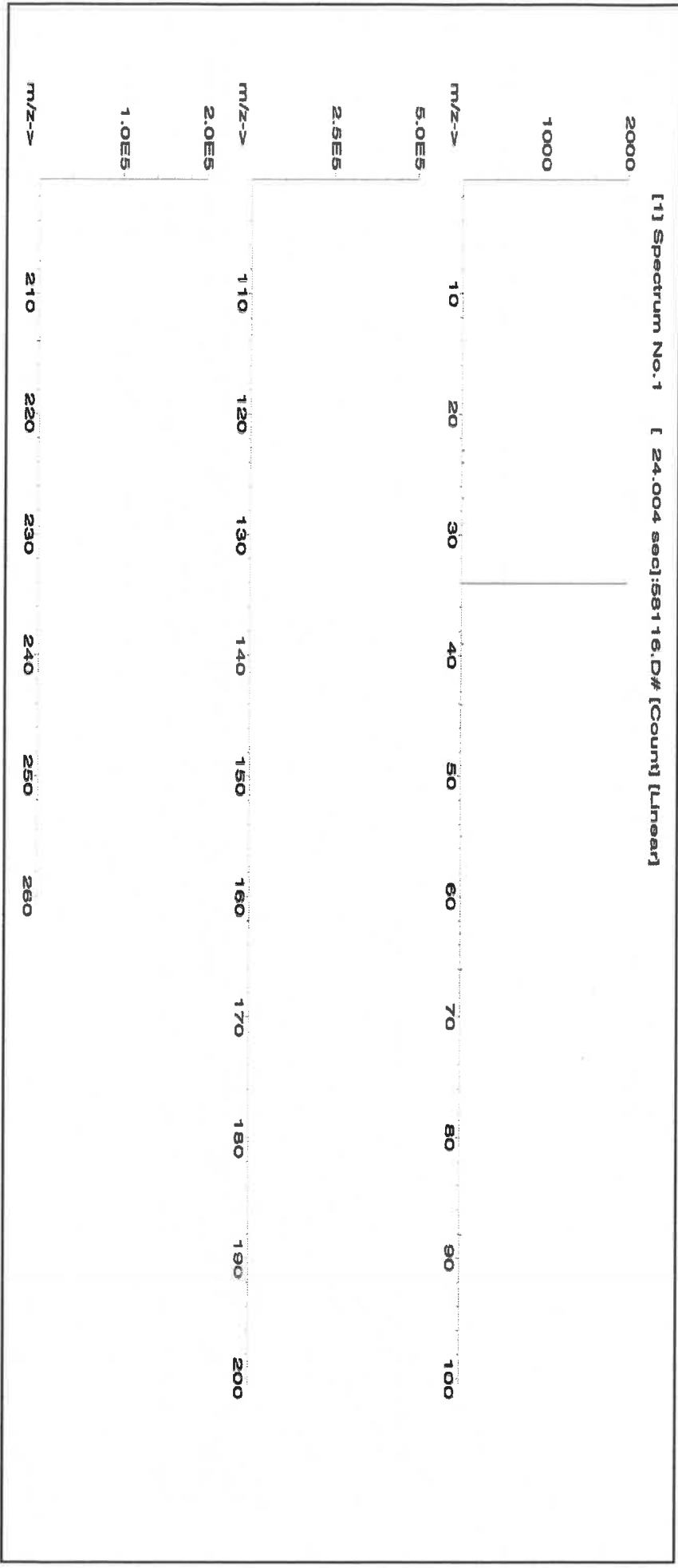
Solvent: **071123** Lot #  
ASTM Type 1 Water

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
| 071123         |                 |

Expiration Date: **071126**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test Number: **6UTB**  
Weight shown below was diluted to (mL): **1999.48**  
**5E-05** Balance Uncertainty  
**0.058** Flask Uncertainty

| SDS Information |        |               |        |             |       |            |            |               |                              |
|-----------------|--------|---------------|--------|-------------|-------|------------|------------|---------------|------------------------------|
| Compound        | Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Expanded                     |
|                 | Number | Conc. (µg/mL) | (%)    | Purity (%)  | (%)   | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL)                  |
|                 |        |               |        |             |       |            |            |               | CAS# OSHA PEL (TWA) LD50 SRM |

|                         |       |          |       |      |      |      |         |         |         |      |           |    |                |      |
|-------------------------|-------|----------|-------|------|------|------|---------|---------|---------|------|-----------|----|----------------|------|
| 1. Ammonium sulfate (S) | IN117 | SLBR725V | 10000 | 99.9 | 0.10 | 24.3 | 82.4675 | 82.4692 | 10000.1 | 20.0 | 7783-20-2 | NA | oral 4250mg/kg | 3181 |
|-------------------------|-------|----------|-------|------|------|------|---------|---------|---------|------|-----------|----|----------------|------|





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

**Trace Metals Verification by ICP-MS (µg/mL)**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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  | Tm | <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 | Sn | <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     | Ti | <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 |    |       | Zr | <0.02 |

**Physical Characterization:**

(T)= Target analyte

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 certified (+/-) 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).



**CERTIFIED WEIGHT REPORT:**

Part Number: **57014**  
Lot Number: **122023**  
Description: **Silicon (Si)**

Solvent: **24002546 Nitric Acid**

Lot #

**R: 02/09/24 M5818**

Expiration Date: **122026**

2% 40.0 (mL) Nitric Acid

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): **1999.48 0.058 Flask Uncertainty**

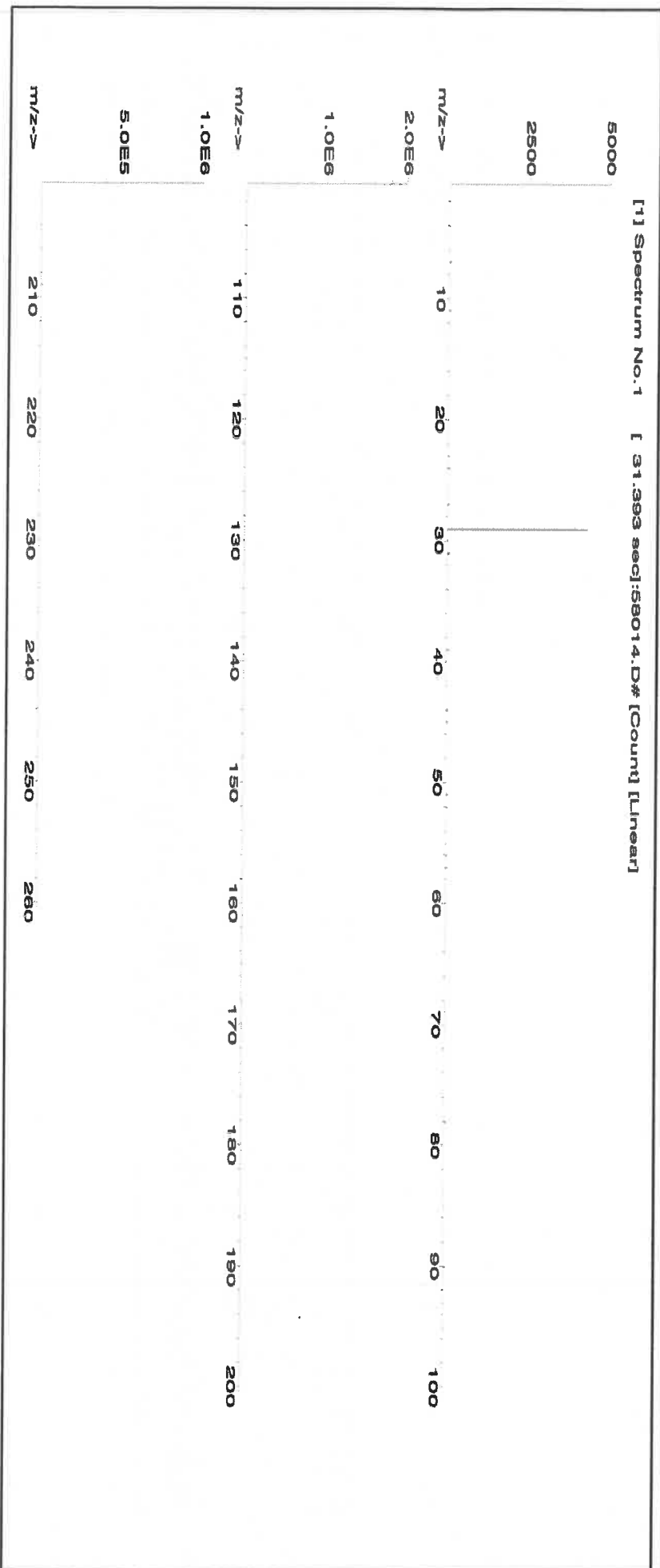
|                |                 |
|----------------|-----------------|
| Aleah O Brady  |                 |
| Formulated By: | Aleah O Brady   |
| Reviewed By:   | Pedro L. Rentas |
|                | 122023          |

**SDS Information**

| Compound | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|----------|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|----------|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Ammonium hexafluorosilicate (Si) IN009 S1D08022A1 1000 99.999 0.10 14.4 13.8854 13.8855 1000.0 2.0 18919-19-0 2.5 mg/m3 orl-mus 70 mg/kg NA

[1] Spectrum No. 1 [ 31.393 sec]:58014.D# [Count] [Linear]





**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 | Pt | <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 | Bu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Ru | <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 certified (+/-) 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).



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58030  
**Lot Number:** 111623  
**Description:** Zinc (Zn)

**Solvent:** 24002546 Nitric Acid

**2%** 60.0 (mL) Nitric Acid

**Expiration Date:** 111626  
**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 1000

**NIST Test Number:** 6UTB

**Weight shown below was diluted to (mL):** 3000.4

5E-05 Balance Uncertainty  
0.06 Flask Uncertainty

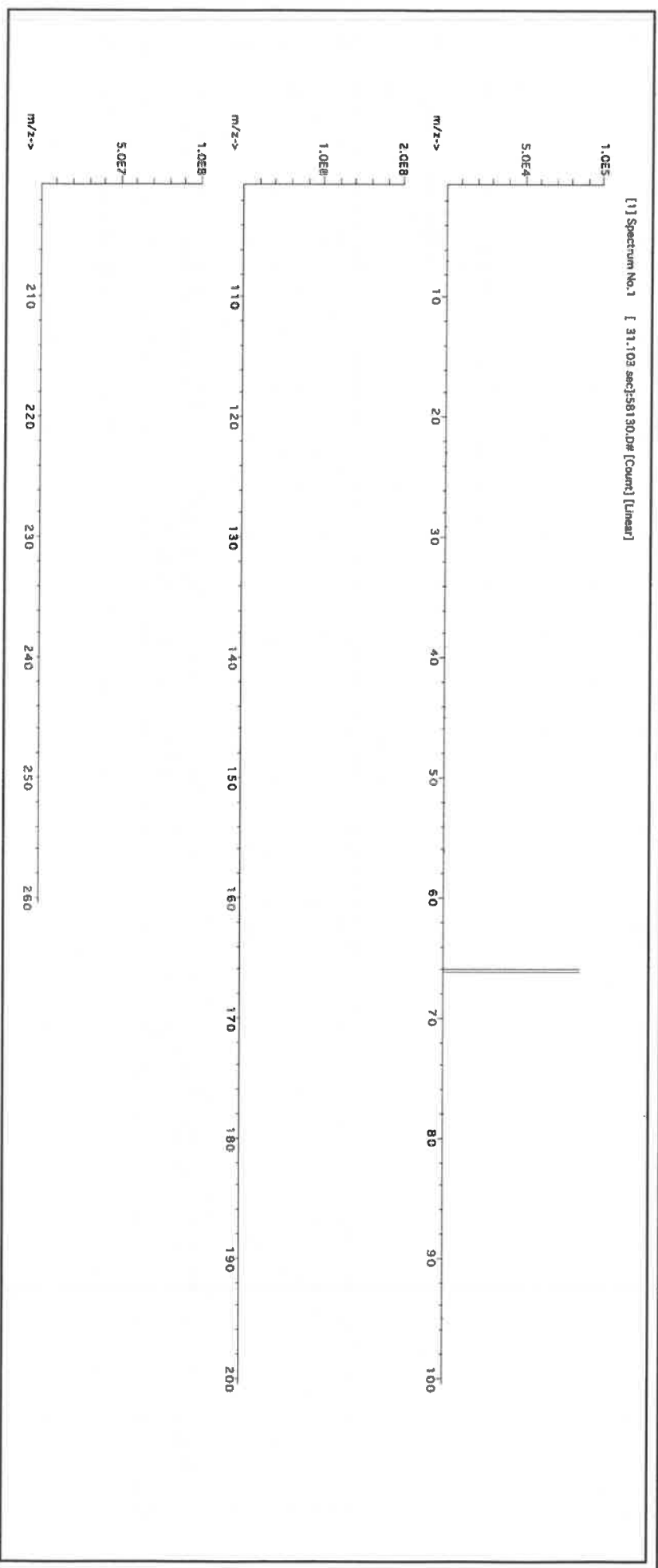
**Lot #** R: 02109124 MS819

|                |                  |        |
|----------------|------------------|--------|
| Formulated By: | Benson Chan      | 111623 |
| Reviewed By:   | Pedro L. Rientas | 111623 |

**Compound**

| RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LDSO | NIST SRM |
|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Zinc nitrate hexahydrate (Zn) IN016 ZNE03021A1 1000 99.999 0.10 24.3 12.3475 12.3502 1000.2 2.0 10196-16-6 1 mg/mL 3168 on-rat 1190mg/kg





**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 | Bu | <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 | <0.2  | 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.
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- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are certified (+/-) 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.

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www.absolutestandards.com



Certified Reference Material CRM



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

## CERTIFIED WEIGHT REPORT:

Lot #

MS961 R-611124

Part Number:

Solvent: 24002546 Nitric Acid

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

5E-05 Balance Uncertainty  
0.002 Flask Uncertainty

2% 5.0 (mL) Nitric Acid

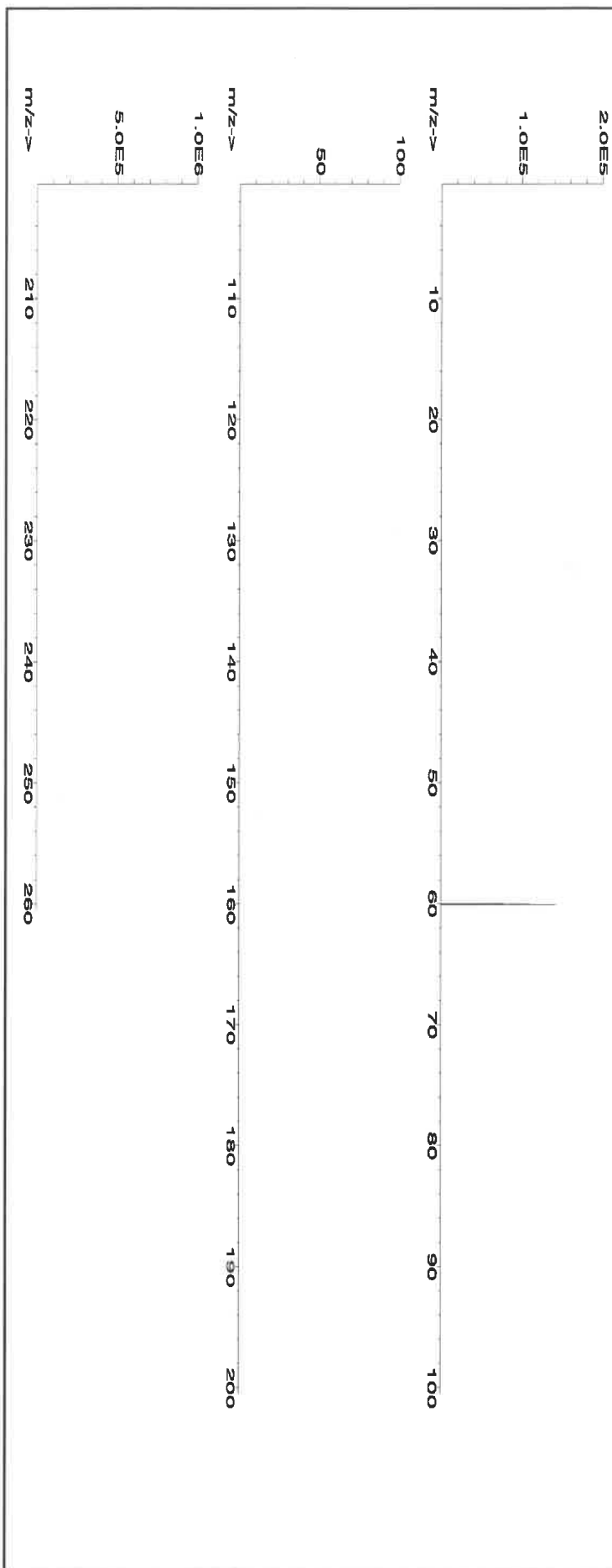
|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Brian Geddes    | 041124 |
| Reviewed By:   | Pedro L. Rentas | 041124 |

## SDS Information

| Compound | Lot | Nominal | Purity        | Uncertainty | Assay      | Target | Actual     | Actual     | Uncertainty   | (Solvent Safety Info. On Attached pg.) |      |                | NIST |
|----------|-----|---------|---------------|-------------|------------|--------|------------|------------|---------------|----------------------------------------|------|----------------|------|
|          | RM# | Number  | Conc. (µg/mL) | (%)         | Purity (%) | (%)    | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL)                            | CAS# | OSHA PEL (TWA) | LD50 |

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 or-rat 1620 mg/kg 3136

[1] Spectrum No. 1 [ 12.374 sec]:58128.D# [Count] [Linear]





**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 | T  | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Ba | <0.02 | Gd | <0.02 | Mg | <0.01 | Os | <0.02 | Rh | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Ba | <0.02 | Gd | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Bc | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | 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 | 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 | 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.
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## Certified Reference Material CRM

ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
<https://AbsoluteStandards.com>

### CERTIFIED WEIGHT REPORT:

Part Number:

57034

Lot #

24002546

Solvent:

Nitric Acid

Lot Number:

060624  
Selenium (Se)

2.0%

40.0

(mL)

Nitric Acid

(mL)

Formulated By: Benson Chan 060624

Expiration Date:

060627

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

2000.07

SE-05 Balance Uncertainty

0.100

Flask Uncertainty

### SDS Information

### Compound

Part Number Lot Number Dilution Factor

Initial Vol. (mL)

Pipette (mL)

Uncertainty

Nominal Conc. (µg/mL)

Initial Conc. (µg/mL)

Final Conc. (µg/mL)

Expanded Uncertainty

+/- (µg/mL)

(Solvent Safety Info. On Attached pg.)

CAS#

OSHA PEL (TWA)

LDSO

NIST SRM

Reviewed By:

Pedro L. Rantas

060624

1. Selenium (Se)

58134 071223

0.1000

200.0

0.084

1000

10002.5

1000.0

2.2

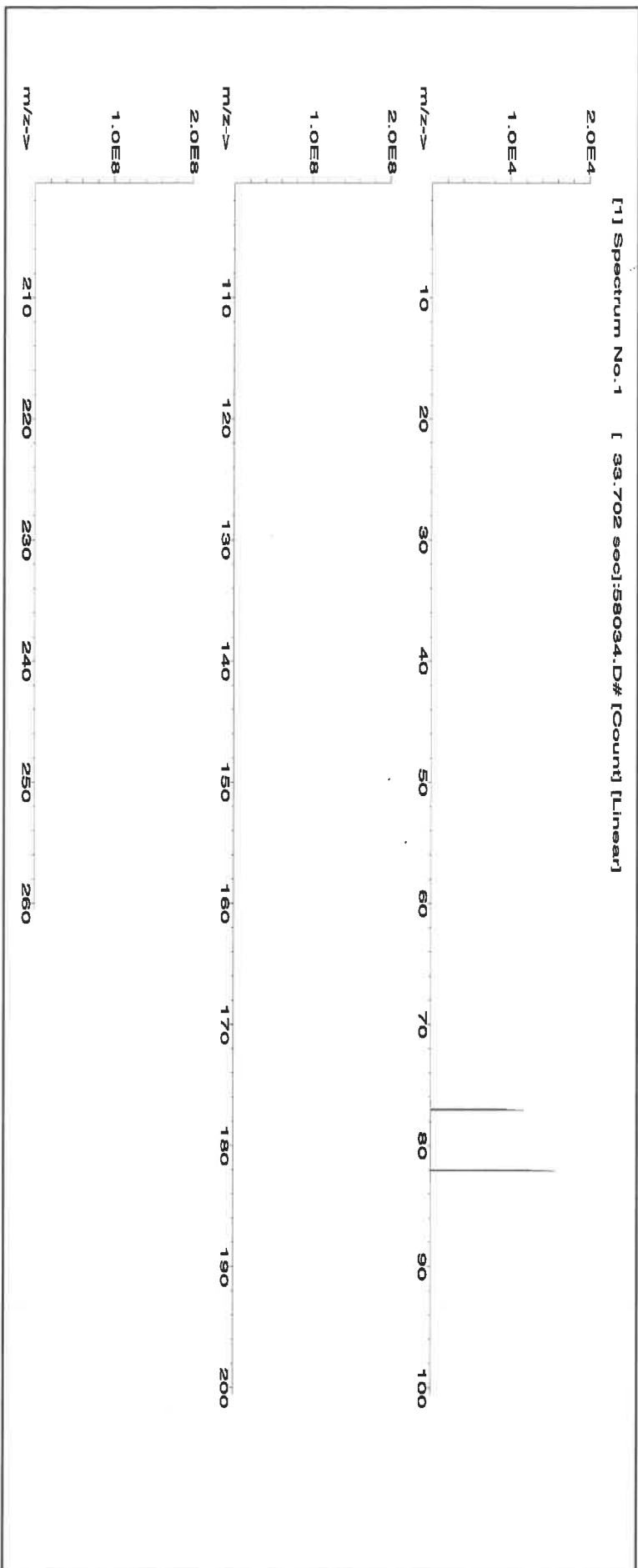
7782-49-2

0.2 mg/m3

or-tral 6700 mg/kg

3149

[1] Spectrum No.1 [33.702 sec]:58034.D# [Count] [Linear]





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 | Pt | <0.02 | Se | <0.02 | 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.
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# Certificate of Analysis

M5976, M5977

R: 02/22/24

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: 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:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

$X_i$  = 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.

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char} = [\sum(w_i^2)(u_{char i}^2)]^{1/2}$  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

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char a}$  = the errors from characterization

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

#### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

##### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

##### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

##### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

#### 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

|   |    |   |          |   |    |   |          |   |    |   |          |   |    |   |          |   |    |   |          |
|---|----|---|----------|---|----|---|----------|---|----|---|----------|---|----|---|----------|---|----|---|----------|
| M | Ag | < | 0.000590 | 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](http://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: 800.669.6798; 540.585.3030, Fax: 540.585.3012; [info@inorganicventures.com](mailto:info@inorganicventures.com); [inorganicventures.com](http://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





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 UHPA-filtered Clean Room. An UHPA-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 |
| M | 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 | < | 0.000986 |   |    |   |          |
| O | B  | < | 0.008929 | M | Ge | < | 0.002146 | M | Os | < | 0.000269 | O | Sr | < | 0.000986 |   |    |   |          |
| 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  | < | 0.006976 | M | Y  | < | 0.002146 |   |    |   |          |
| M | Dy | < | 0.000268 | O | Mn | < | 0.003267 | M | Sb | < | 0.006976 | M | Yb | < | 0.000536 |   |    |   |          |
| M | Er | < | 0.000268 | M | Mo | < | 0.000774 | O | Sc | < | 0.004900 | M | Yp | < | <        |   |    |   |          |

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

- 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](http://www.inorganicventures.com/TCT)

**Atomic Weight; Valence:** 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 forming the hydrated oxide in all dilute acids except HF. Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

**Stability:** 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)-6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)-6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

**Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution - powder reacts violently):** Oxide - high temperature history or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in P10 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 crystaline form).

**Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):**

| ICP-MS 48 amu      | Estimated D.L.         | Order | Interferences (underlined indicates severe)                       |
|--------------------|------------------------|-------|-------------------------------------------------------------------|
| ICP-OES 323.452 nm | 0.0054 / 0.00092 µg/mL | 1     | 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)] |
| ICP-OES 334.941 nm | 0.0038 / 0.00028 µg/mL | 1     | Ce, Ar, Ni                                                        |
| ICP-OES 336.121 nm | 0.0053 / 0.00034 µg/mL | 1     | W, Mo, Co Nb, Ta, Cr, U                                           |

**HAZARDOUS INFORMATION**

HF Note: This standard should not be prepared or stored in glass.

**8.0**

**HOMOGENEITY**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

- 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"

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY  
Inorganic Ventures, 300 Technology Drive, Chesapeake, VA 24073, USA; Telephone: 800.868.6786; 540.565.3030; Fax: 540.565.3012; [info@inorganicventures.com](mailto:info@inorganicventures.com)  
- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Thomas Kozlikowski  
Manager, Quality Control

*TD978L*

Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director

*Paul R. Gaines*



MS981

R:6/11/24



CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

57092  
060724  
Uranium (U)

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

060727  
Ambient (20 °C)  
1000  
6UTB

Volume shown below was diluted to (mL): 2000.07

5E-05 Balance Uncertainty  
0.100 Flask Uncertainty

Lot # Solvent:  
24002546 Nitric Acid

2.0% Nitric Acid  
40.0 (mL)

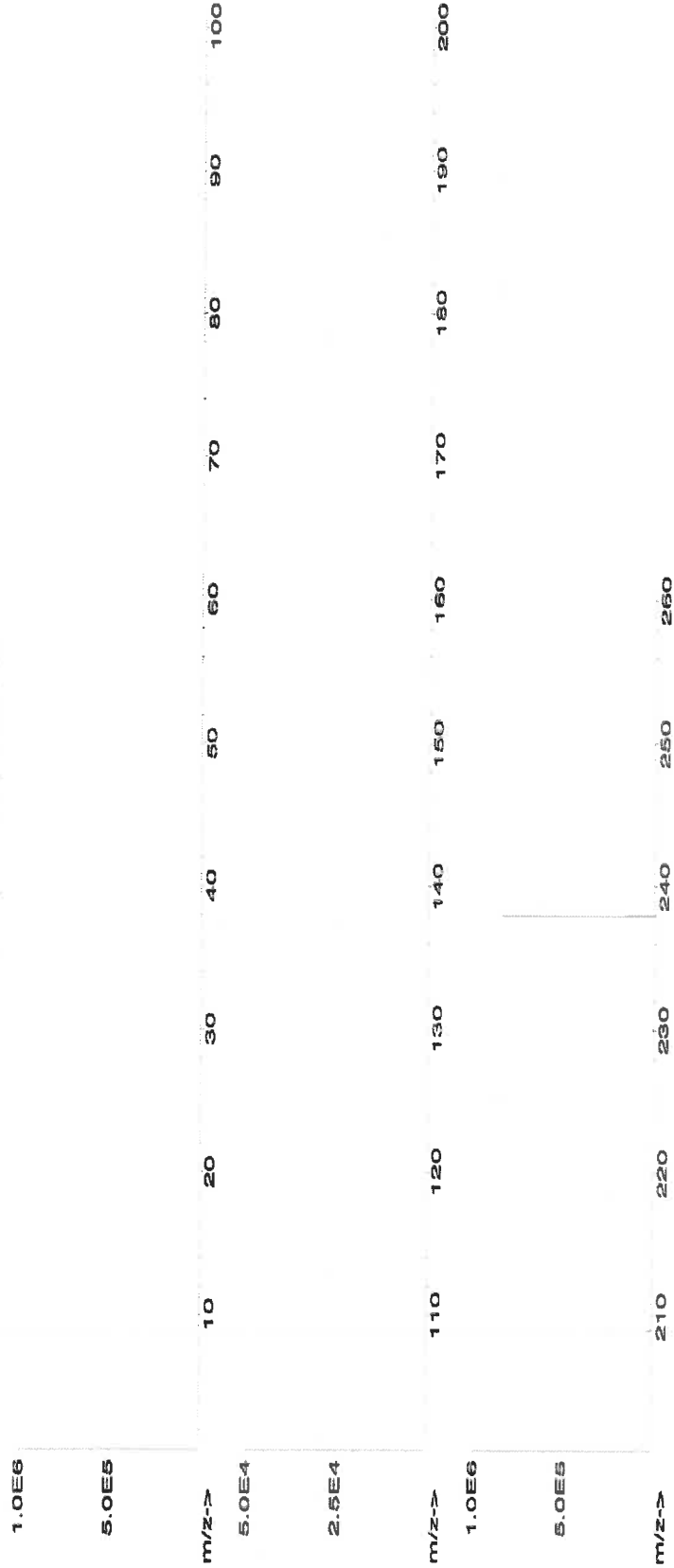
|                          |                   |
|--------------------------|-------------------|
| <i>Giovanni Esposito</i> |                   |
| Formulated By:           | Giovanni Esposito |
| <i>Pedro L. Rentas</i>   |                   |
| Reviewed By:             | Pedro L. Rentas   |

SDS Information

| 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) | (Solvent Safety Info. On Attached pg.) |                |      |
|----------|-------------|------------|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|----------------------------------------|----------------|------|
|          |             |            |                 |                   |                          |                       |                       |                     |                                  | CAS#                                   | OSHA PEL (TWA) | LD50 |

|                                   |       |        |        |       |       |      |         |        |     |            |            |                    |      |
|-----------------------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|------------|------------|--------------------|------|
| 1. Uranyl nitrate hexahydrate (U) | 58192 | 041524 | 0.1000 | 200.0 | 0.084 | 1000 | 10001.5 | 1000.0 | 2.2 | 13620-83-7 | 0.05 mg/m3 | orl-rat 1040 mg/kg | 3164 |
|-----------------------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|------------|------------|--------------------|------|

[1] Spectrum No.1 [ 23.254 sec]:57092.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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 | <0.02 | Os | <0.01 | 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 | <0.02 | Hg | <0.2  | P  | <0.2  | 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 certified (+/-) 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).



## Certified Reference Material CRM



45982

R: 6/11/24

## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:57038  
031524  
Strontium (Sr)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:031527  
Ambient (20 °C)  
1000  
6UTB  
5E-05 Balance Uncertainty  
0.100 Flask Uncertainty2% 40.0 Nitric Acid  
(mL)Formulated By: Benson Chan 031524  
Reviewed By: Pedro L. Rentas 031524

Weight shown below was diluted to (mL):

2000.07

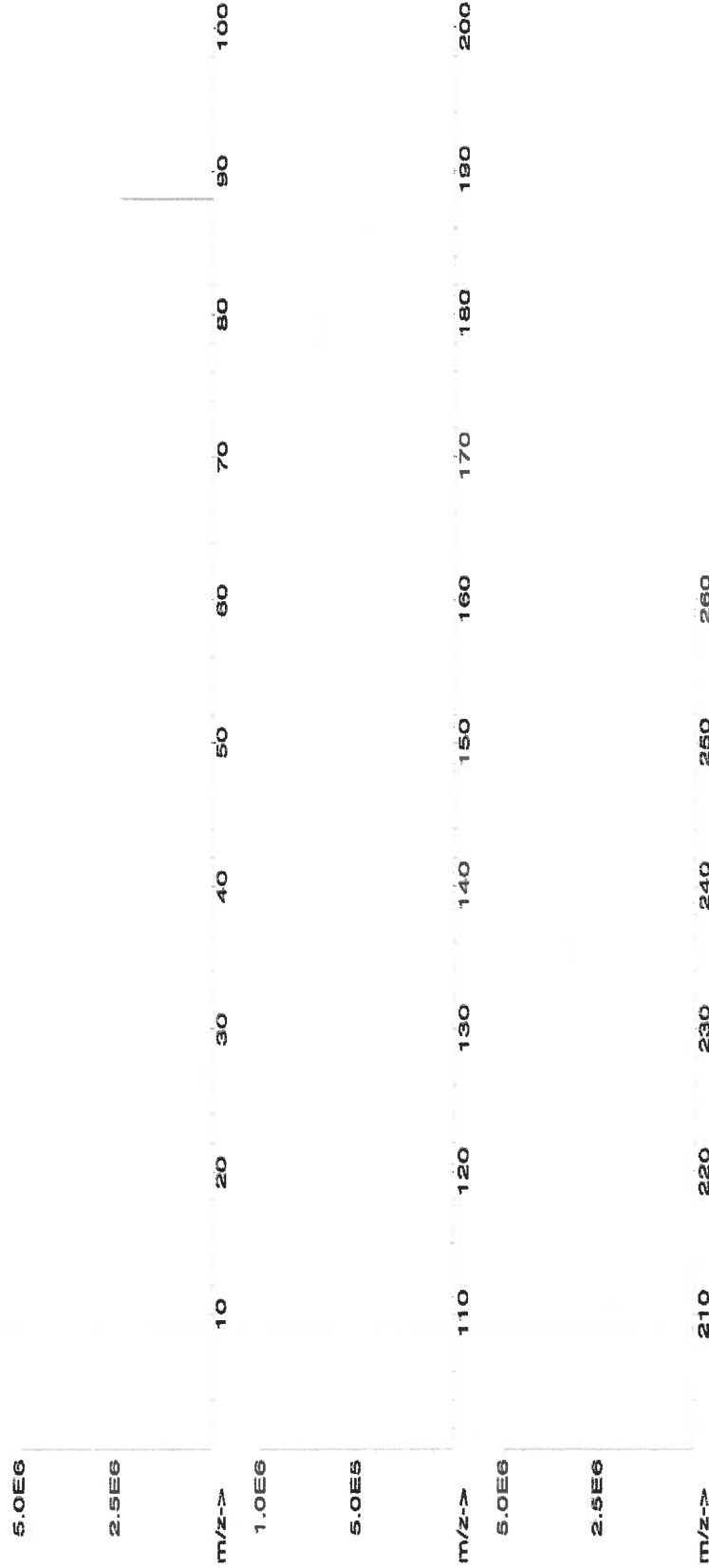
5E-05 Balance Uncertainty

0.100 Flask Uncertainty

| Compound | RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty |  |  | NIST SRM |
|----------|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------|--|--|----------|
|          |     |            |                       |            |                 |           |                   |                   |                      |                      |  |  |          |

1. Strontium nitrate (Sr) IN017 SR2022018A1 1000 89.997 0.10 41.2 4.85470 4.85502 1000.1 2.0 10042-76-9 NA orl-rat &gt;2000mg/kg 3153a

[1] Spectrum No.1 [ 14.495 sec]:58136.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

### Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.2  | 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 | <0.02 | Os | <0.01 | 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 | <0.02 | Hg | <0.2  | P  | <0.2  | 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 | <0.2  | 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:**

Ben P.

- \* 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 certified (+/-) 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 # 57040

Lot # 071423

1 of 2

Printed: 6/7/2024, 3:58:47 PM

P4495-METALS

377 of 418



## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.02 | Os | <0.01 | 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 | <0.2  | Fe | <0.02 | Hg | <0.2  | P  | <0.2  | 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 | Ta | <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     |

(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 certified (+/-) 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 # R: 010324 M6033

Part Number: 58113  
Lot Number: 011623  
Description: Aluminum (Al)

Solvent: 20510011 Nitric Acid

Expiration Date: 011626

2% 40.0 (mL) Nitric Acid

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6LUTB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.02

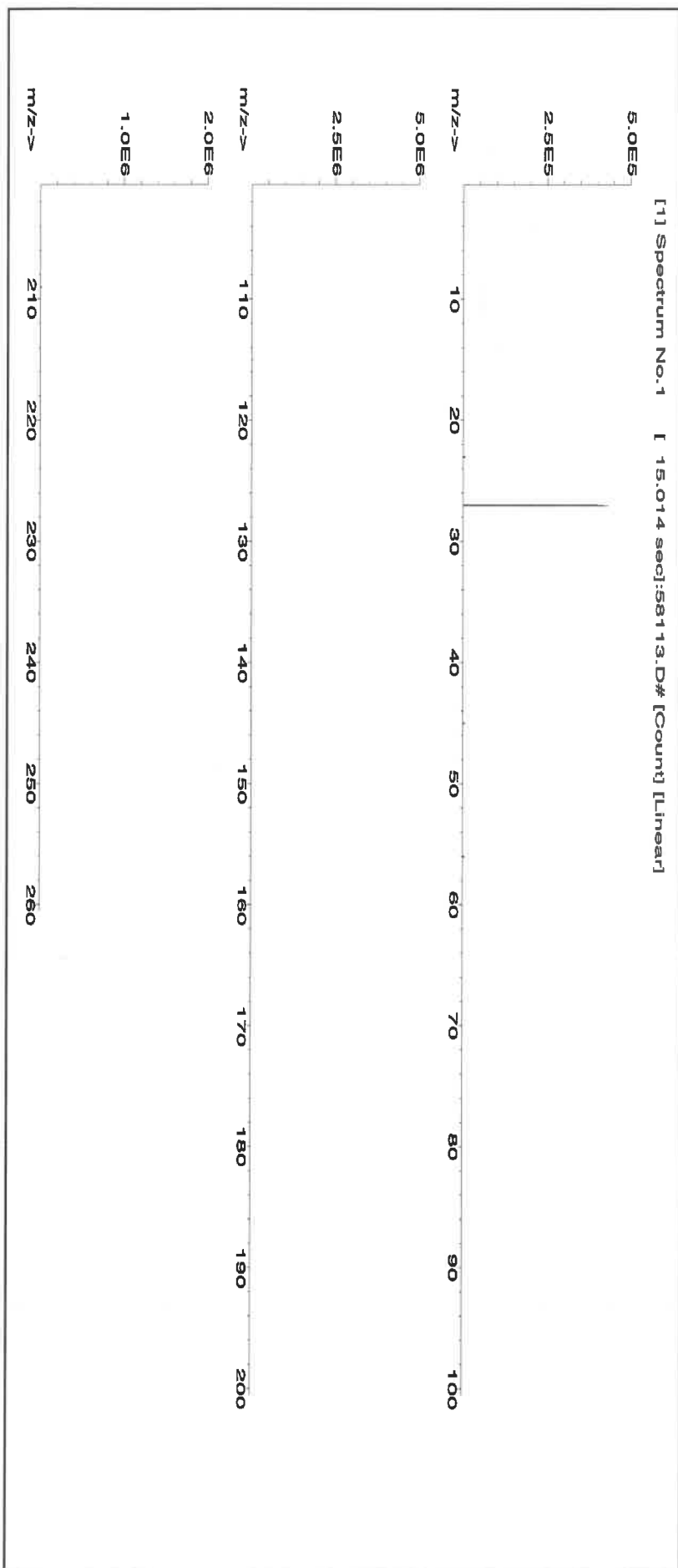
0.058 Flask Uncertainty

|                   |                   |
|-------------------|-------------------|
| Giovanni Esposito |                   |
| Formulated By:    | Giovanni Esposito |
| Reviewed By:      | Pedro L. Rentas   |
|                   | 011623            |

### SDS Information

| 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) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Aluminum nitrate nonahydrate (Al) IN022 ALUM12021A1 10000 99.999 0.10 7.30 273.9779 274.0078 10001.1 20.0 7784-27-2 2 mg/m3 or rat 3671 mg/kg 3101a



*8/19/24, M6055*

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

[info@inorganicventures.com](mailto:info@inorganicventures.com)

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".

Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: IV-STOCK-12  
Lot Number: U2-MEB734294  
Matrix: 5% (v/v) HNO<sub>3</sub>  
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,  $X_{\text{CRM/RM}}$ , where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

$X_i$  = mean of Assay Method  $i$  with standard uncertainty  $u_{\text{char } i}$

$w_i$  = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/(u_{\text{char } i})^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char}} = [\sum ((w_i)^2 (u_{\text{char } i})^2)]^{1/2}$  where  $u_{\text{char } i}$  are the errors from each characterization method

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = transport stability standard uncertainty

#### Certified Abundance:

##### IV's Certified Abundance

| Isotope      | Atom %      |
|--------------|-------------|
| Uranium 238U | 99.8 ± 0.1  |
| Uranium 235U | 0.19 ± 0.05 |

#### Characterization of CRM/RM by One Method

Certified Value,  $X_{\text{CRM/RM}}$ , where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

$X_a$  = mean of Assay Method A with

$u_{\text{char } a}$  = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char } a}$  = the errors from characterization

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

#### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

#### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

#### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

### 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

### 6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

#### 7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit [www.inorganicventures.com/TCT](http://www.inorganicventures.com/TCT)

### 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

### 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

### 10.0 QUALITY STANDARD DOCUMENTATION

#### 10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

## 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

## 10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

## 11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

### 11.1 Certification Issue Date

June 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

### Certificate Approved By:

Thomas Kozikowski  
Manager, Quality Control



### Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director



Hydrochloric Acid, 36.5–38.0%

BAKER INSTRA-ANALYZED® Reagent

For Trace Metal Analysis

avantor™



M6094  
M6095

metdig  
10/21/24

Material No.: 9530-33  
Batch No.: 24D1562005  
Manufactured Date: 2024-03-18  
Retest Date: 2029-03-17  
Revision No.: 0

## Certificate of Analysis

| Test                                      | Specification | Result      |
|-------------------------------------------|---------------|-------------|
| ACS – Assay (as HCl) (by acid-base titrn) | 36.5 – 38.0 % | 37.6 %      |
| ACS – Color (APHA)                        | ≤ 10          | 5           |
| ACS – Residue after Ignition              | ≤ 3 ppm       | < 1 ppm     |
| ACS – Specific Gravity at 60°/60°F        | 1.185 – 1.192 | 1.192       |
| ACS – Bromide (Br)                        | ≤ 0.005 %     | < 0.005 %   |
| ACS – Extractable Organic Substances      | ≤ 5 ppm       | < 1 ppm     |
| ACS – Free Chlorine (as Cl <sub>2</sub> ) | ≤ 0.5 ppm     | < 0.5 ppm   |
| Phosphate (PO <sub>4</sub> )              | ≤ 0.05 ppm    | 0.03 ppm    |
| Sulfate (SO <sub>4</sub> )                | ≤ 0.5 ppm     | < 0.3 ppm   |
| Sulfite (SO <sub>3</sub> )                | ≤ 0.8 ppm     | 0.3 ppm     |
| Ammonium (NH <sub>4</sub> )               | ≤ 3 ppm       | < 1 ppm     |
| Trace Impurities – Arsenic (As)           | ≤ 0.010 ppm   | < 0.003 ppm |
| Trace Impurities – Aluminum (Al)          | ≤ 10.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)              | ≤ 5.0 ppb     | < 3.0 ppb   |
| Trace Impurities – Barium (Ba)            | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be)         | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)           | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)              | ≤ 20.0 ppb    | 2.2 ppb     |
| Trace Impurities – Cadmium (Cd)           | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Calcium (Ca)           | ≤ 50.0 ppb    | 31.0 ppb    |
| Trace Impurities – Chromium (Cr)          | ≤ 1.0 ppb     | 0.5 ppb     |
| Trace Impurities – Cobalt (Co)            | ≤ 1.0 ppb     | 0.2 ppb     |
| Trace Impurities – Copper (Cu)            | ≤ 1.0 ppb     | < 0.1 ppb   |
| Trace Impurities – Gallium (Ga)           | ≤ 1.0 ppb     | < 0.2 ppb   |
| Trace Impurities – Germanium (Ge)         | ≤ 3.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Gold (Au)              | ≤ 4.0 ppb     | < 0.2 ppb   |
| Heavy Metals (as Pb)                      | ≤ 100 ppb     | < 50 ppb    |
| Trace Impurities – Iron (Fe)              | ≤ 15 ppb      | 3 ppb       |

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis



Material No.: 9530-33  
Batch No.: 24D1562005

| Test                                                   | Specification | Result     |
|--------------------------------------------------------|---------------|------------|
| Trace Impurities – Lead (Pb)                           | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Lithium (Li)                        | ≤ 1.0 ppb     | < 0.1 ppb  |
| Trace Impurities – Magnesium (Mg)                      | ≤ 10.0 ppb    | 2.2 ppb    |
| Trace Impurities – Manganese (Mn)                      | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Mercury (Hg)                        | ≤ 0.5 ppb     | < 0.1 ppb  |
| Trace Impurities – Molybdenum (Mo)                     | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Nickel (Ni)                         | ≤ 4.0 ppb     | 0.2 ppb    |
| Trace Impurities – Niobium (Nb)                        | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Potassium (K)                       | ≤ 9.0 ppb     | < 1.0 ppb  |
| Trace Impurities – Selenium (Se), For Information Only |               | < 1.0 ppb  |
| Trace Impurities – Silicon (Si)                        | ≤ 100.0 ppb   | < 10.0 ppb |
| Trace Impurities – Silver (Ag)                         | ≤ 1.0 ppb     | < 0.3 ppb  |
| Trace Impurities – Sodium (Na)                         | ≤ 100.0 ppb   | 2.0 ppb    |
| Trace Impurities – Strontium (Sr)                      | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Tantalum (Ta)                       | ≤ 1.0 ppb     | < 0.9 ppb  |
| Trace Impurities – Thallium (Tl)                       | ≤ 5.0 ppb     | < 2.0 ppb  |
| Trace Impurities – Tin (Sn)                            | ≤ 5.0 ppb     | < 0.4 ppb  |
| Trace Impurities – Titanium (Ti)                       | ≤ 1.0 ppb     | 0.2 ppb    |
| Trace Impurities – Vanadium (V)                        | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Zinc (Zn)                           | ≤ 5.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Zirconium (Zr)                      | ≤ 1.0 ppb     | < 0.1 ppb  |

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

 **avantor™**



Material No.: 9530-33  
Batch No.: 24D1562005

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Laboratory, Research, or Manufacturing Use  
Product Information (not specifications):  
Appearance (clear, fuming liquid)  
Meets ACS Specifications  
Storage Condition: Store below 25 °C.

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak  
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

Receive date  
9/29/24  
Met diag.

 avantor™



Material No.: 9530-33  
Batch No.: 22F0762009  
Manufactured Date: 2022-05-10  
Retest Date: 2027-05-09  
Revision No.: 0

M6109  
M6110  
M6111

## Certificate of Analysis

| Test                                      | Specification | Result      |
|-------------------------------------------|---------------|-------------|
| ACS – Assay (as HCl) (by acid–base titrn) | 36.5 – 38.0 % | 37.6 %      |
| ACS – Color (APHA)                        | ≤ 10          | 5           |
| ACS – Residue after Ignition              | ≤ 3 ppm       | < 1 ppm     |
| ACS – Specific Gravity at 60°/60°F        | 1.185 – 1.192 | 1.190       |
| ACS – Bromide (Br)                        | ≤ 0.005 %     | < 0.005 %   |
| ACS – Extractable Organic Substances      | ≤ 5 ppm       | < 1 ppm     |
| ACS – Free Chlorine (as Cl <sub>2</sub> ) | ≤ 0.5 ppm     | < 0.5 ppm   |
| Phosphate (PO <sub>4</sub> )              | ≤ 0.05 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )                | ≤ 0.5 ppm     | < 0.3 ppm   |
| Sulfite (SO <sub>3</sub> )                | ≤ 0.8 ppm     | 0.3 ppm     |
| Ammonium (NH <sub>4</sub> )               | ≤ 3 ppm       | < 1 ppm     |
| Trace Impurities – Arsenic (As)           | ≤ 0.010 ppm   | < 0.003 ppm |
| Trace Impurities – Aluminum (Al)          | ≤ 10.0 ppb    | 0.8 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    | 14.9 ppb    |
| Trace Impurities – Chromium (Cr)          | ≤ 1.0 ppb     | < 0.4 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     | 0.2 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



Material No.: 9530-33  
Batch No.: 22F0762009

| 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    | 0.8 ppb   |
| Trace Impurities – Manganese (Mn)                      | ≤ 1.0 ppb     | < 0.4 ppb |
| Trace Impurities – Mercury (Hg)                        | ≤ 0.5 ppb     | 0.1 ppb   |
| Trace Impurities – 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     | < 0.2 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   | 1.0 ppb   |
| Trace Impurities – Silver (Ag)                         | ≤ 1.0 ppb     | < 0.3 ppb |
| Trace Impurities – Sodium (Na)                         | ≤ 100.0 ppb   | 0.7 ppb   |
| Trace Impurities – Strontium (Sr)                      | ≤ 1.0 ppb     | < 0.2 ppb |
| Trace Impurities – Tantalum (Ta)                       | ≤ 1.0 ppb     | < 0.9 ppb |
| Trace Impurities – Thallium (Tl)                       | ≤ 5.0 ppb     | < 2.0 ppb |
| Trace Impurities – Tin (Sn)                            | ≤ 5.0 ppb     | < 0.8 ppb |
| Trace Impurities – Titanium (Ti)                       | ≤ 1.0 ppb     | 0.2 ppb   |
| Trace Impurities – Vanadium (V)                        | ≤ 1.0 ppb     | < 0.2 ppb |
| Trace Impurities – Zinc (Zn)                           | ≤ 5.0 ppb     | 0.8 ppb   |
| Trace Impurities – Zirconium (Zr)                      | ≤ 1.0 ppb     | < 0.1 ppb |

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

 **avantor™**

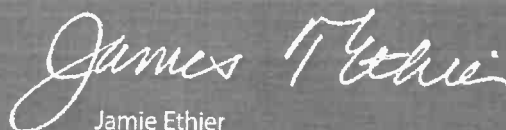


Material No.: 9530-33  
Batch No.: 22F0762009

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Laboratory, Research, or Manufacturing Use  
Product Information (not specifications):  
Appearance (clear, fuming liquid)  
Meets ACS Specifications  
Storage Condition: Store below 25 °C.

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier  
Vice President Global Quality

Nitric Acid 69%  
CMOS

avantor™



Receive:  
9/29/24  
met dig

Material No.: 9606-03  
Batch No.: 24B1362001  
Manufactured Date: 2024-01-25  
Retest Date: 2029-01-23  
Revision No.: 0

## Certificate of Analysis

| Test                              | Specification | Result      |
|-----------------------------------|---------------|-------------|
| Assay (HNO <sub>3</sub> )         | 69.0 – 70.0 % | 69.6 %      |
| 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 <sub>4</sub> )      | ≤ 0.10 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )        | ≤ 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    | < 0.2 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     | < 50 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™



Material No.: 9606-03  
Batch No.: 24B1362001

| Test                                | Specification | Result     |
|-------------------------------------|---------------|------------|
| Trace Impurities – Niobium (Nb)     | ≤ 50.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Potassium (K)    | ≤ 50 ppb      | < 10 ppb   |
| Trace Impurities – Silicon (Si)     | ≤ 50 ppb      | < 10 ppb   |
| Trace Impurities – Silver (Ag)      | ≤ 20.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Sodium (Na)      | ≤ 150.0 ppb   | < 5.0 ppb  |
| Trace Impurities – Strontium (Sr)   | ≤ 30.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Tantalum (Ta)    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Thallium (Tl)    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Tin (Sn)         | ≤ 20.0 ppb    | < 10.0 ppb |
| Trace Impurities – Titanium (Ti)    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Vanadium (V)     | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zinc (Zn)        | ≤ 20.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zirconium (Zr)   | ≤ 10.0 ppb    | < 1.0 ppb  |
| Particle Count – 0.5 µm and greater | ≤ 60 par/ml   | 3 par/ml   |
| Particle Count – 1.0 µm and greater | ≤ 10 par/ml   | 1 par/ml   |

>>> Continued on page 3 >>>



Nitric Acid 69%  
CMOS



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 <sub>3</sub> )         | 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 <sub>4</sub> )      | ≤ 0.10 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )        | ≤ 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 >>>





**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58111  
**Lot Number:** 122223  
**Description:** Sodium (Na)

**Solvent:** 24002546 Nitric Acid

**Lot #**

**2%** 60.0 Nitric Acid (mL)

**Expiration Date:** 122226

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 10000

**NIST Test Number:** 6UTB 5E-05 Balance Uncertainty

**Weight shown below was diluted to (mL):** 3000.4 0.06 Flask Uncertainty

|                       |                |
|-----------------------|----------------|
| <i>Aleah O Brady</i>  |                |
| Formulated By:        | Aleah O Brady  |
|                       | 122223         |
| <i>Pedro L Rentas</i> |                |
| Reviewed By:          | Pedro L Rentas |
|                       | 122223         |

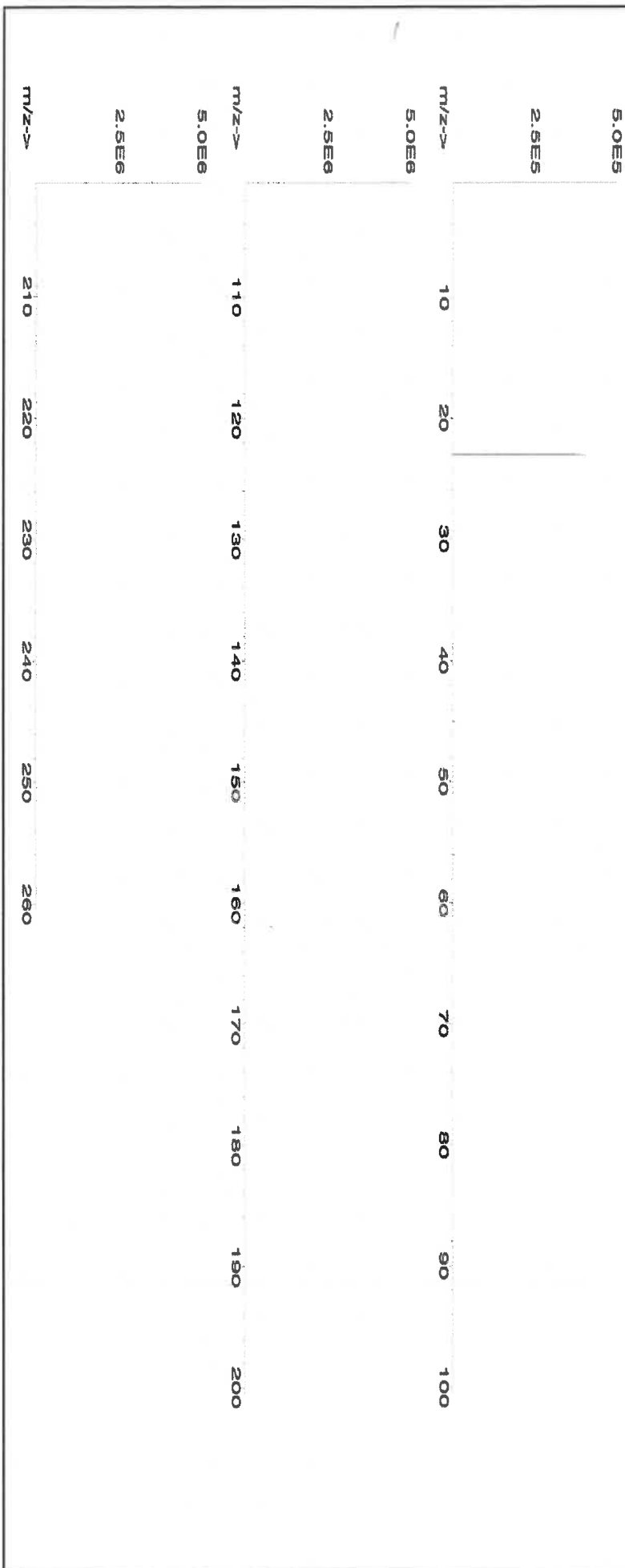
**Expanded**

**SDS Information**

| Compound | Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Uncertainty | (Solvent Safety Info. On Attached pg.) | NIST |
|----------|--------|---------------|--------|-------------|-------|------------|------------|---------------|-------------|----------------------------------------|------|
| RM#      | Number | Conc. (µg/mL) | (%)    | Purity (%)  | (%)   | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | CAS#                                   | SRM  |

1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 111.5406 111.5479 10000.7 20.0 7631-99-4 5 mg/m3 or-tat 3430 mg/kg 3152a

[1] Spectrum No.1 [ 8.935 sec]:58111.D# [Count] [Linear]





**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 | Pt | <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 | <0.02 | 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 certified (+/-) 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).

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: 6020ISS  
Lot Number: S2-MEB709511  
Matrix: 7% (v/v) HNO<sub>3</sub>  
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:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

$X_i$  = 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:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char} = [\sum(w_i^2)(u_{char i}^2)]^{1/2}$  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

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char a}$  = the errors from characterization

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

#### Certified Abundance:

##### IV's Certified Abundance

| Isotope     | Atom %     |
|-------------|------------|
| Lithium Li6 | 95.6 ± 0.3 |
| Lithium Li7 | 4.4 ± 0.1  |

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

**5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)**

N/A

**6.0 INTENDED USE**

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

**7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

**7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit [www.inorganicventures.com/TCT](http://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](http://inorganicventures.com); [info@inorganicventures.com](mailto: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](mailto: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, Interferents:** Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO<sub>3</sub>. 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<sub>3</sub>. 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<br>ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803 |      |                  |                          |                          |                             |                          |                          |
|-------------------------------------------------------------------------------------------------------------------|------|------------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| Element                                                                                                           | CRQL | Part A<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(µg/L) | Part A<br>+Part B<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(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  $\pm$  2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value  $\pm$  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](mailto: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, Interferents:** Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO<sub>3</sub>. 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<sub>3</sub>. 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<br>ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803 |      |                  |                          |                          |                             |                          |                          |
|-------------------------------------------------------------------------------------------------------------------|------|------------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| Element                                                                                                           | CRQL | Part A<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(µg/L) | Part A<br>+Part B<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(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  $\pm 2$  times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value  $\pm 15$  percent of the listed certified value.



**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT:**

Part Number:  
Lot Number:  
Description:

57051  
120523  
Antimony (Sb)

Lot #  
Solvent:

24002546  
Nitric Acid

2.0%  
60.0  
Nitric Acid  
(mL)

Expiration Date:

120526

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6U7B

Volume shown below was diluted to (mL):

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

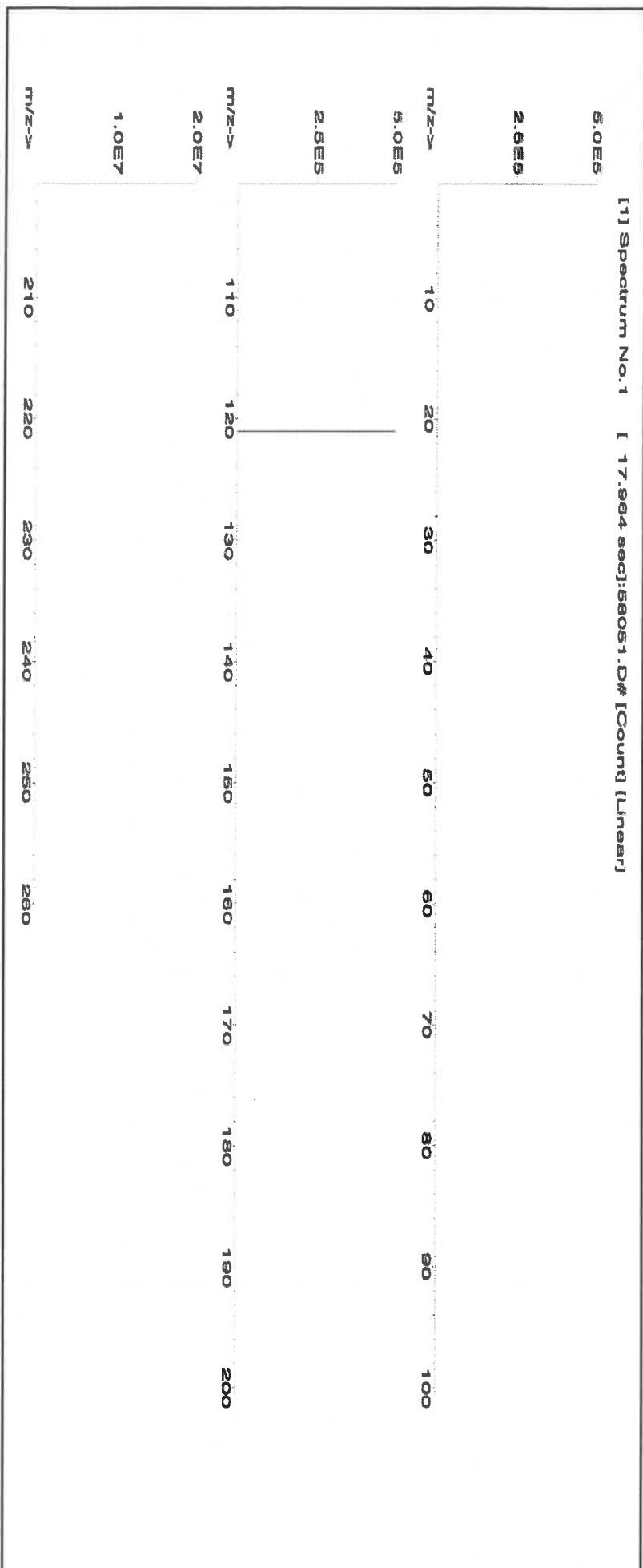
|                |                   |        |
|----------------|-------------------|--------|
| Formulated By: | Lawrence Barry    | 120523 |
| Reviewed By:   | Pedro L. Renteria | 120523 |

**SDS Information**

| 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) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|----------|-------------|------------|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|
|----------|-------------|------------|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|

|                  |       |        |        |       |       |      |         |        |     |           |           |                   |       |
|------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|-----------|-----------|-------------------|-------|
| 1. Antimony (Sb) | 58151 | 100923 | 0.1000 | 300.0 | 0.084 | 1000 | 10001.4 | 1000.0 | 2.1 | 7440-36-0 | 0.5 mg/m3 | or-rel 7000 mg/kg | 3102a |
|------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|-----------|-----------|-------------------|-------|

[1] Spectrum No.1 [ 17.964 sec]:58051.D# [Count] [Linear]





**Certified Reference Material CRM**



**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 | Pt | <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 certified (+/-) 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).



**Certified Reference Material CRM**

M6030



**CERTIFIED WEIGHT REPORT:**

Part Number: **57047**  
Lot Number: **122823**  
Description: **Silver (Ag)**

Lot #  
Solvent: 24002546 Nitric Acid

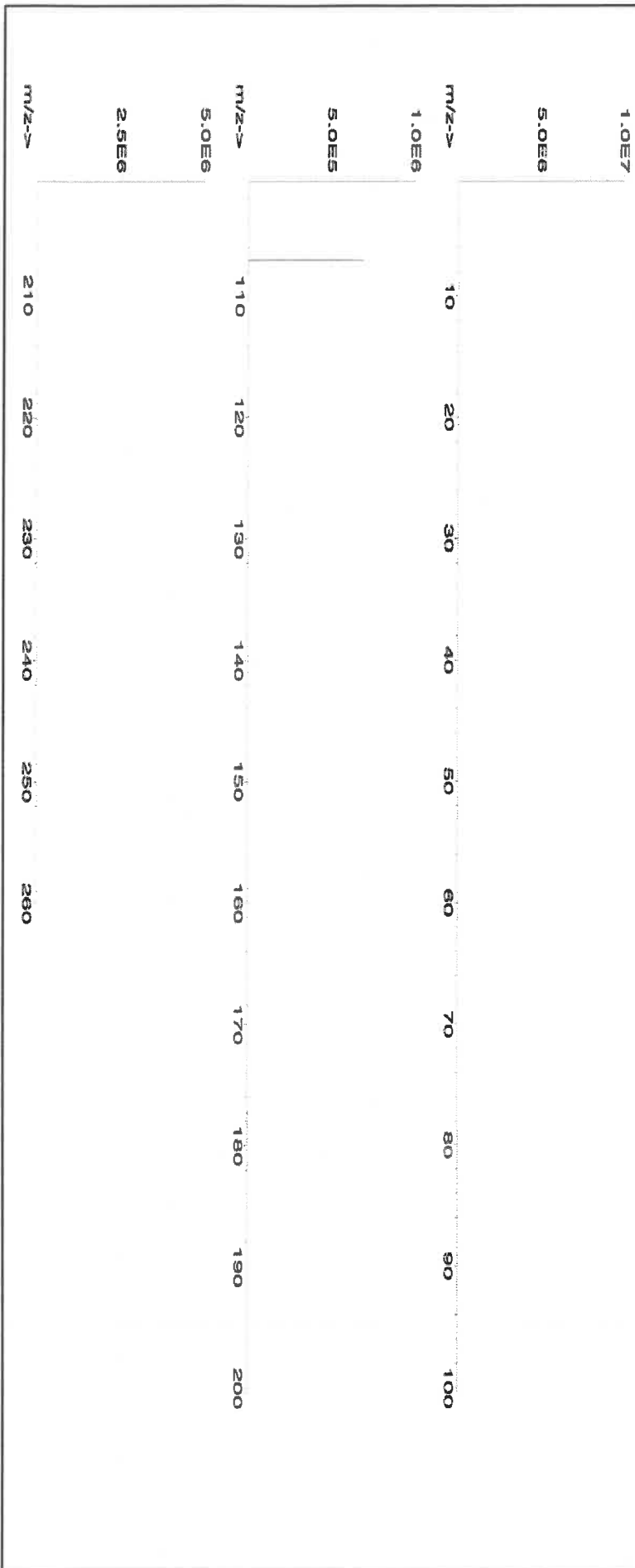
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Benson Chan     |
| Reviewed By:   | Pedro L. Rentas |
|                | 122823          |

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  
5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

| Compound | Lot |        | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty |         | CAS# | SDS Information                        |                | NIST SRM |
|----------|-----|--------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------|---------|------|----------------------------------------|----------------|----------|
|          | RM# | Number |                       |            |                 |           |                   |                   |                      | +/- (µg/mL)          | (µg/mL) |      | (Solvent Safety Info. On Attached pg.) | OSHA PEL (TWA) |          |

1. Silver nitrate (Ag) IN035 J0612AGA1 1000.0 99.999 0.10 63.7 6.27992 6.27998 1000.0 2.0 7761-88-8 10 µg/m<sup>3</sup> NA 3151

[1] Spectrum No. 1 [ 14.044 sec]:58147.D# [Count] [Linear]





**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 | Pt | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Rh | <0.02 | Ag | T     | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T)= Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are certified (+/-) 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).



## Certified Reference Material CRM

ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

R: 03/16/23 MS473 MS474 MS475 MS476

## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:56138  
082922

Strontium (Sr)

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:082925  
Ambient (20 °C)  
10000  
6UTB

Weight shown below was diluted to (mL):

1000.12

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

Solvent: 20510011 Nitric Acid

2% 20.0 Nitric Acid  
(mL)

Lot #

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Lawrence Barry  | 082922 |
| Reviewed By:   | Pedro L. Rentas | 082922 |

## SDS Information

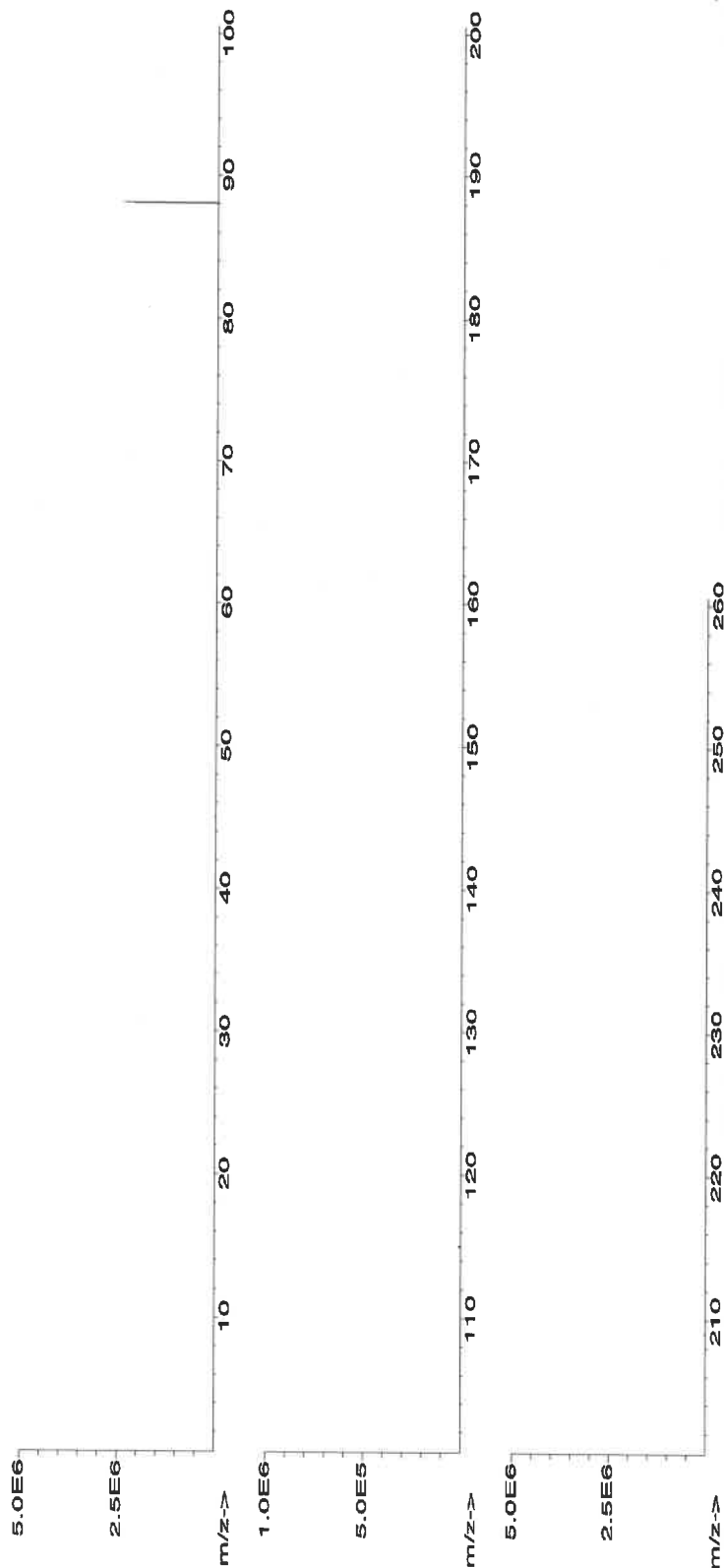
Expanded  
Uncertainty  
+/- (µg/mL)

(Solvent Safety Info. On Attached pg.)

CAS# OSHA PEL (TWA) LD50 SRM

1. Strontium nitrate (Sr) IN017 SRZ022019A1 10000 99.997 0.10 41.2 24.2756 24.2758 10000.1 20.0 10042-76-9 NA orl-rat &gt;2000mg/kg 3153a

[1] Spectrum No.1 [ 14.495 sec]:58138.D# [Count] [Linear]





### Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

### Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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 | <0.02 | 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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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**Certified Reference Material CRM**

M6023



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57081  
**Lot Number:** 062724  
**Description:** Thallium (TI)

**Solvent:** 24002546 Nitric Acid

**Lot #**

*Alieah O'Brady*  
**Formulated By:** Alieah O'Brady 062724

**Expiration Date:** 062727

**2% 40.0 (mL) Nitric Acid**

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 1000

**NIST Test Number:** 6UJB

**5E-05 Balance Uncertainty**

**Weight shown below was diluted to (mL):** 2000.1 0.10 Flask Uncertainty

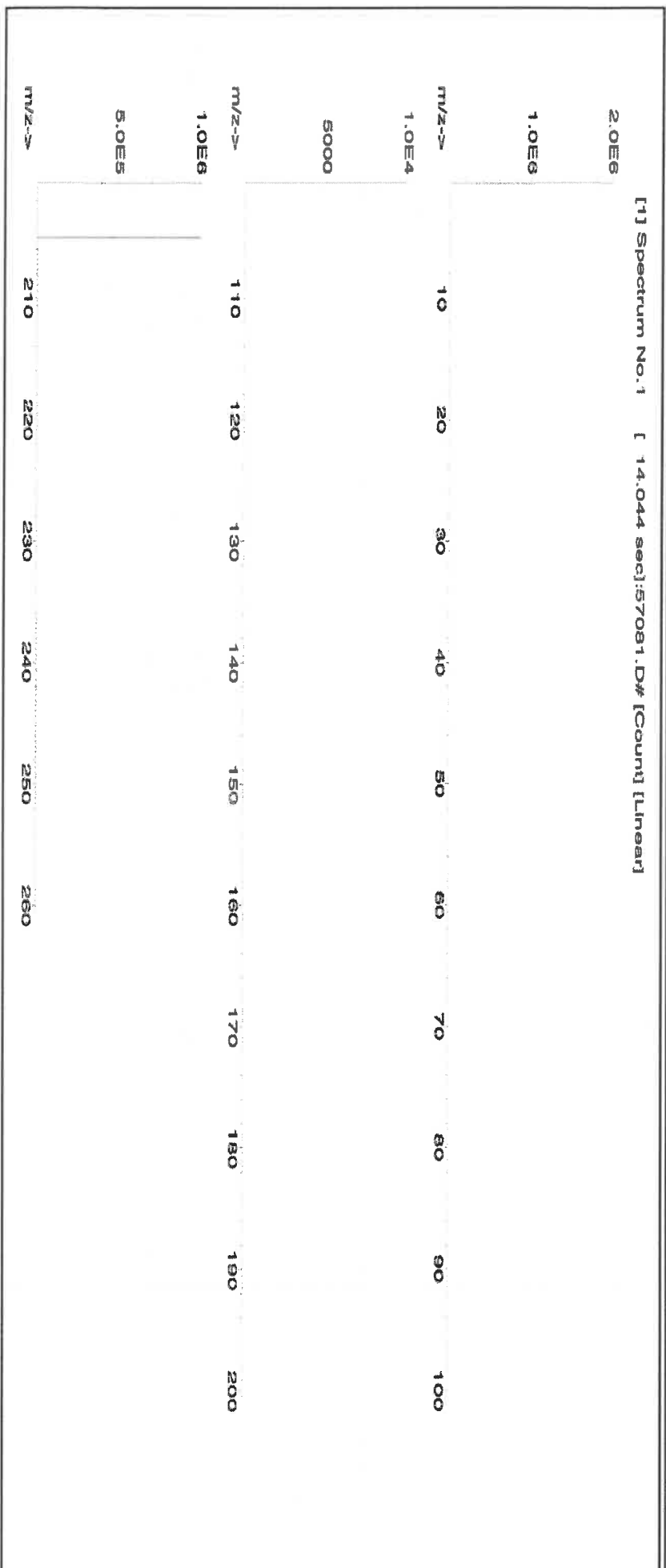
*Pedro L. Renteria*  
**Reviewed By:** Pedro L. Renterias 062724

**SDS Information**

| Compound | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|----------|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|----------|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Thallium nitrate (TI) IN037 BCCF4399 1000 99.999 0.10 77.0 2.5975 2.5977 1000.1 2.0 10102-45-1 0.1 mg/m3 or-mus 15mg/kg 3158

[1] Spectrum No.1 [ 14.044 sec]:57081.D# [Count] [Linear]





**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 | Pt | <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 | 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  | Tm | <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 | Sn | <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 | Ti | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Se | <0.02 | Ta | <0.02 |    |       | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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**Certified Reference Material CRM**

M6021



**CERTIFIED WEIGHT REPORT:**

Part Number: **57023**  
Lot Number: **062424**  
Description: **Vanadium (V)**

Lot # **24002546**  
Solvent: **Nitric Acid**

|                      |                 |
|----------------------|-----------------|
| <i>Aleah O'Brady</i> |                 |
| Formulated By:       | Aleah O'Brady   |
| Reviewed By:         | Pedro L. Rantas |
|                      | 062424          |

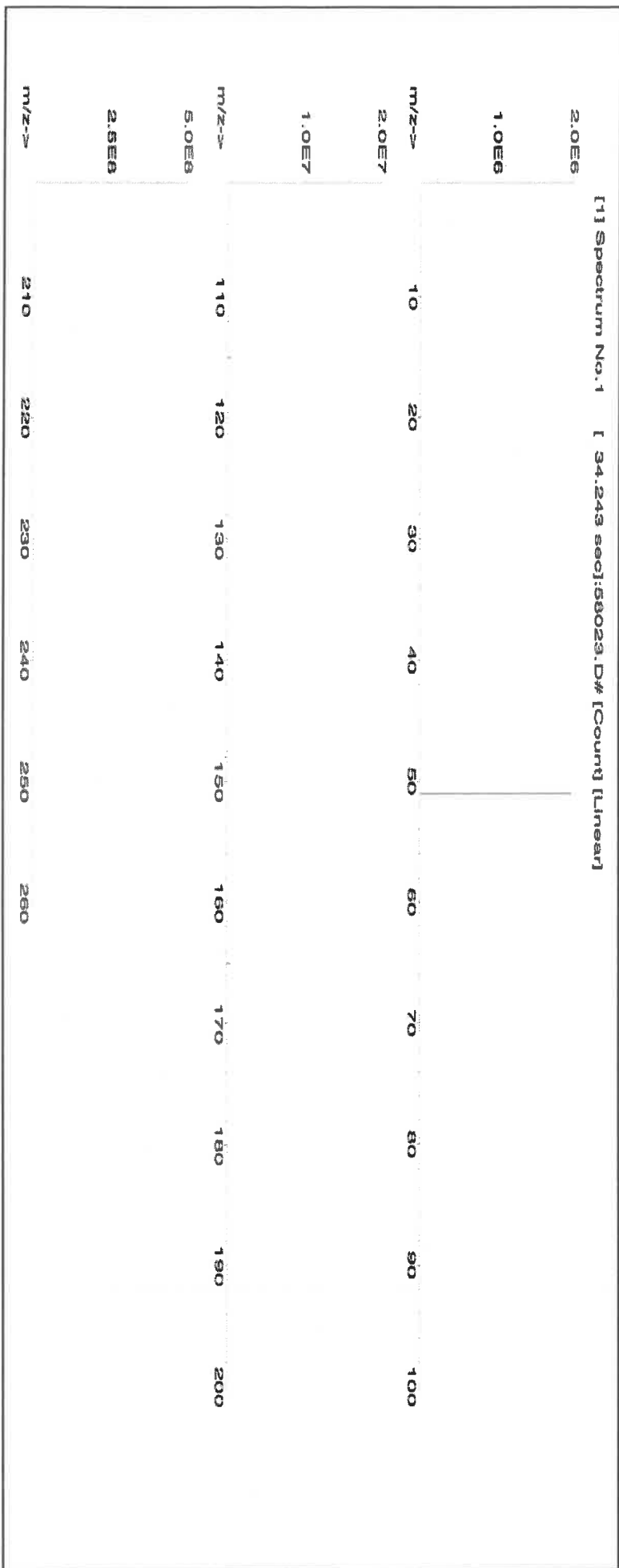
Expiration Date: **062427**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test Number: **6UTB**

Volume shown below was diluted to (mL): **2000.3**  
5E-05 Balance Uncertainty  
0.06 Flask Uncertainty

| SDS Information                                             |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| Formulated By: Aleah O'Brady                                |  |  |  |  |  |  |  |  |  |
| Reviewed By: Pedro L. Rantas                                |  |  |  |  |  |  |  |  |  |
| 062424                                                      |  |  |  |  |  |  |  |  |  |
| Expanded Uncertainty (Solvent Safety Info. On Attached pg.) |  |  |  |  |  |  |  |  |  |
| CAS# 05HA 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 3165

[1] Spectrum No.1 [ 34.243 sec]:58023.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

**Trace Metals Verification by ICP-MS ( $\mu\text{g/mL}$ )**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pt | <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 | Ru | <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 | Sr | <0.02 | S  | <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 | Ta | <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 |    | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

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Golden, CO 80403

Tel: +1-303-940-0033  
Fax: +1-303-940-0043  
info@phenova.com  
www.phenova.com

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| Date       | Order # |
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## Ship To

Alliance Tech Group - Newark  
ATTN: Sohil Jodhani  
284 Sheffield St., #1  
Mountainside, NJ 07092  
USA

| Customer PO # | Terms  | PT Acct # | Customer # | Ship Via      | F.O.B.     |
|---------------|--------|-----------|------------|---------------|------------|
| 240903-01     | Net 30 | ZCM-100   | 1500470    | FedEx 2nd Day | Golden, CO |

| Qty Ordered | Qty Shipped | Qty Backorder | Part Number      | Part Description              | Study Number | Lot Number |
|-------------|-------------|---------------|------------------|-------------------------------|--------------|------------|
| 1           | 1           | 0             | PT-MET-SOIL      | SOIL/HW Trace Metals          | HW1024       | 7098-04    |
| 1           | 1           | 0             | PT-CR6-SOIL      | SOIL/HW Hexavalent Chromium ✓ | HW1024       | 7098-05D   |
| 1           | 1           | 0             | PT-CN-SOIL       | SOIL/HW Cyanide               | HW1024       | 7098-06    |
| 1           | 1           | 0             | PT-CORR-SOIL     | SOIL/HW Corrosivity/pH ✓      | HW1024       | 7098-11    |
| 1           | 1           | 0             | PT-FP-SOIL       | SOIL/HW Flash Point           | HW1024       | 7098-10    |
| 1           | 1           | 0             | PT-AN-SOIL       | SOIL/HW Anions ✓              | HW1024       | 7098-08    |
| 1           | 1           | 0             | PT-NUT-SOIL      | SOIL/HW Nutrients ✓           | HW1024       | 7098-09B   |
| 1           | 1           | 0             | PT-SOL-SOIL      | SOIL/HW Solids                | HW1024       | 7098-31    |
| 1           | 1           | 0             | PT-NO2-SOIL      | SOIL/HW Nitrite as N          | HW1024       | 7098-71    |
| 1           | 1           | 0             | PT-GAS-SOIL      | SOIL/HW Gasoline              | HW1024       | 7098-96    |
| 1           | 1           | 0             | PT-DIES-SOIL     | SOIL/HW Diesel in Soil        | HW1024       | 7098-100   |
| 1           | 1           | 0             | PT-OGR-SOIL      | SOIL/HW Oil and Grease ✓      | HW1024       | 7098-94    |
| 1           | 1           | 0             | PT-VOA-SOIL      | SOIL/HW Volatiles             | HW1024       | 7098-12    |
| 1           | 1           | 0             | PT-BNA-SOIL      | SOIL/HW BNAs                  | HW1024       | 7098-13    |
| 1           | 1           | 0             | PT-PEST-SOIL     | SOIL/HW Pesticides            | HW1024       | 7098-14    |
| 1           | 1           | 0             | PT-CHLR-SOIL     | SOIL/HW Chlordane             | HW1024       | 7098-15    |
| 1           | 1           | 0             | PT-TXP-SOIL      | SOIL/HW Toxaphene             | HW1024       | 7098-16    |
| 1           | 1           | 0             | PT-PCB-SOIL      | SOIL/HW PCBs                  | HW1024       | 7098-17    |
| 1           | 1           | 0             | PT-PCBO-SOIL     | SOIL/HW PCBs in Oil           | HW1024       | 7098-88    |
| 1           | 1           | 0             | PT-HERB-SOIL     | SOIL/HW Herbicides            | HW1024       | 7098-18    |
| 1           | 1           | 0             | PT-PAH-SOIL      | SOIL/HW PAHs                  | HW1024       | 7098-22    |
| 1           | 1           | 0             | PT-TRIAZINE-SOIL | SOIL/HW Triazine Pesticides   | HW1024       | 7098-106   |



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| Date       | Order # |
|------------|---------|
| 10/21/2024 | 318989  |



### Ship To

Alliance Tech Group - Newark  
ATTN: Sohil Jodhani  
284 Sheffield St., #1  
Mountainside, NJ 07092  
USA

| Customer PO # |             | Terms         | PT Acct #     | Customer #        | Ship Via      | F.O.B.     |
|---------------|-------------|---------------|---------------|-------------------|---------------|------------|
| 240903-01     |             | Net 30        | ZCM-100       | 1500470           | FedEx 2nd Day | Golden, CO |
| Qty Ordered   | Qty Shipped | Qty Backorder | Part Number   | Part Description  | Study Number  | Lot Number |
| 1             | 1           | 0             | PT-NJEPH-SOIL | NJ EPH in SOIL ✓✓ | HW1024        | 7098-105   |

**Laboratory Certification**

| Certified By         | License No.      |
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|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
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| DOD ELAP (ANAB)      | L2219            |
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